REGULAR JOINT CITY COUNCIL/FIRE PROTECTION DISTRICT BOARD MEETING
AGENDA
City Hall - Council Chambers
4381 Broadway St., Suite 201, American Canyon
July 20, 2021
6:30 PM

Mayor/Chair: Leon Garcia
Vice Mayor/Vice Chair: Mark Joseph
Councilmembers/Board Members: Mariam Aboudamous, David Oro, Pierre Washington

In response to Governor's Executive Order N-29-20 and the Resolution Declaring the Existence of a Local Emergency Relating to the COVID-19 Pandemic adopted by the City of American Canyon City Council, City Council and other public meetings are currently Teleconference Meetings Only to align with local and federal guidelines and social distancing recommendations for the containment of the coronavirus. This meeting will be broadcast live to residents on Napa Valley TV at http://www.cityofamericancanyon.org and on YouTube at https://www.youtube.com/user/CityofAmericanCanyon.

You may submit public comments for any Agenda Item, Non-Agenda Item or make general public comments by one of the following methods:

Verbal via Webinar: A Zoom Webinar has been established for public participation during the meeting related to a specific agenda item, or matters not on the agenda. To give your public comment directly to the legislative body during the meeting, connect via Zoom and follow the instructions or by calling 408-638-0968. Please mute all audio devices and do not use the speakerphone to prevent echoing.

Zoom Meeting Link: **Click Here**
Webinar ID: 939 1701 0287 **Passcode:** 985003

Via email: As part of our Virtual City Hall, we have established a central link for the Public Comments of all meetings. Please use the following link to submit your comment so it can be routed to the appropriate governing body and properly recorded into the meeting record. Submit your public comment here. EMAILS WILL NOT BE READ ALOUD. Emails received will be posted online after the meeting. All comments become part of the permanent record.

The above-identified measures exceed all legal requirements for participation in public comment, including those imposed by the Ralph M. Brown Act and Executive Order N-29-20 and N-33-20. For more information, please call the City Clerk at (707) 647-5337 or email cityclerk@cityofamericancanyon.org.

AGENDA MATERIALS: City Council agenda materials are published 72 hours prior to the meeting, and are available to the public via the City's website at www.cityofamericancanyon.org.

AMERICANS WITH DISABILITIES ACT: The City Council will provide materials in appropriate alternative formats to comply with the Americans with Disabilities Act. Please send a written request to City Clerk at 4381 Broadway, Suite 201, American Canyon, CA 94503 or by email to cityclerk@cityofamericancanyon.org. Include your name, address, phone number and brief description of the requested materials, as well as your preferred alternative format or auxiliary aid, at least three calendar days before the meeting.

4:30 P.M. CLOSED SESSION

PUBLIC ADDRESS – CLOSED SESSION ITEMS

The Mayor will call the meeting to order and conduct role call. Council will immediately convene into closed session after hearing any public comment on Closed Session. At 6:30 p.m. the Council will reconvene into Open Session and then resume Closed Session at the end of the meeting to address outstanding items, if necessary.

AMERICAN CANYON FIRE PROTECTION DISTRICT CLOSED SESSION

1. Matters Relating to Public Employment – Pursuant to Government Code Section 54957
Position: Assistant Fire Chief

CITY OF AMERICAN CANYON CLOSED SESSION

2. Retention of Special Legal Counsel - Pursuant to Government Code Section 54957(b)(4).

3. Matters Relating to Public Employment Public Employee Performance Evaluations - Pursuant to Gov. Code Section 54957.
Position: Jason Holley, City Manager

6:30 P.M. OPEN SESSION - REGULAR MEETING

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

REPORT ON CLOSED SESSION/CONFIRMATION OF REPORTABLE ACTION

CITY CLERKS ANNOUNCEMENT PURSUANT TO GOVT CODE 54952.3

When the City Council sits jointly, or serially as more than one board it is required that the amount of compensation received for each board be disclosed at the meeting. Tonight, the City Council is sitting jointly as the City Council and the American Canyon Fire Protection District Board. Also, if there is a matter of consideration dealing with water outside the City limits but within the Water District Service Area, the Council will function as the former American Canyon County Water District. For sitting as the Council, a stipend of $315 monthly is received; for the Fire District Board and as the Water Board, $206.50 per meeting.

PROCLAMATIONS AND PRESENTATIONS

4. Administer the Oath of Office to Taresa Geilfuss, City Clerk

5. Proclamation - Leadership Transition of Napa County Sheriff's Office and America Canyon Police Department

6. Proclamation - Jim Cannon 18+ Years of Public Service

7. **Proclamation - Parks and Recreation Month, July 2021**

PUBLIC COMMENT - ITEMS NOT ON THE AGENDA

*This time is reserved for members of the public to address the City Council/American Canyon Fire Protection District Board on items of interest that are not on the Agenda and are within the subject matter jurisdiction of the City Council/American Canyon Fire Protection District Board. It is recommended that speakers limit their comments to 3 minutes each and it is requested that no comments be made during this period on items on the Agenda. Members of the public wishing to address the City Council/American Canyon Fire Protection District Board on items on the Agenda should comment via email prior to the start of the meeting, or to verbally comment on the item during the meeting, click the "raise your hand" button if joining by computer, or press *9 if joining by phone, when the item is called. The City Council/American Canyon Fire Protection District Board is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the City Council/American Canyon Fire Protection District Board does not respond to public comment at this time. Speakers are asked to please speak clearly, and provide their name. Any handouts for distribution to the City Council/American Canyon Fire Protection District Board must be emailed by 3:00 p.m. on meeting day.*

AGENDA CHANGES

The Mayor/Council may change the order of the Agenda or request discussion of a Consent Item. A member of the Public may request discussion of a Consent Item by completing a Speaker's Card and presenting it to the Clerk of the meeting prior to Public Comment.

MATTERS RELATING TO THE AMERICAN CANYON FIRE PROTECTION DISTRICT BOARD

CONSENT CALENDAR - ACFPD

8. **Minutes of June 29, 2021**
Recommendation: Approve Minutes of the June 29, 2021 Special Joint Meeting of the City Council and American Canyon Fire Protection District Board.

9. **District Counsel Closed Session Report**
Recommendation: Approve the City Attorney Closed Session Report of the June 29, 2021 Special Joint Meeting of the City of American Canyon City Council/American Canyon Fire Protection District Board.

10. **First Responder Fee**
Recommendation: Adopt a Resolution approving the annual cost-of-living increase to the District First Responder Fee for Emergency Medical Services.

BUSINESS – ACFPD

MATTERS RELATING TO THE AMERICAN CANYON CITY COUNCIL

CONSENT CALENDAR

11. **Minutes of June 15, 2021**
Recommendation: Approve the June 15, 2021 Minutes of the Regular Joint City Council/American Canyon Fire Protection District Board.

12. City Attorney June 15, 2021 Closed Session Report

Recommendation: Approve the City Attorney Closed Session Report of the June 15, 2021 Regular Joint City Council/American Canyon Fire Protection District Meeting.

13. Notice of Completion for the 2020 Annual Pavement Management Project (TR20-0100)

Recommendation: Adopt a Resolution amending the FY21/22 project budget for the 2020 Annual Pavement Management Project (TR20-0100),accepting the project as complete, authorizing the Public Works Director to file a Notice of Completion, and releasing Retention payment to Ghilotti Brothers Inc.

14. Vacation of Utility Easement for Circle K Project

Recommendation: Adopt a Resolution vacating 9,440 square feet, more or less, an easement for the purpose of maintaining, constructing and replacing water and sewer mains and appurtenances over, under and across a strip of land shown on the Director's Deed, DC9419, Volume 1247, Page 1, of Official Records recorded July 8, 1982, referred to herein as the "Easement" by Summary Vacation pursuant to Streets and Highways Code Section 8333 et seq.

15. City Council Chamber Audio Visual Upgrades

Recommendation: Adopt a Resolution authorizing the City Manager to execute agreements with Napa Valley Television and Definitive Networks, Inc. in an amount not to exceed $75,000, to complete City Council Chamber Audio Visual upgrades.

PUBLIC HEARINGS

16. Appeal of SDG Commerce 217 Warehouse Distribution Center Conditional Use Permit

Recommendation: Take the following actions in conjunction with the appeal of the Planning Commission approval of the SDG Commerce 217 Warehouse Distribution Center Conditional Use Permit (File Number PL21-0006):

1. Adopt a Resolution to approve the Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 Project;
2. Adopt the Mitigation Monitoring and Reporting Program;
3. Direct staff to file a Notice of Determination;
4. Uphold the Planning Commission SDG Commerce 217 warehouse distribution center Conditional Use Permit Approval; and
5. Deny the Appeal filed by the Laborers International Union of North America, Local 324 (LIUNA) (File Number PL21-0006).

17. Citywide Landscaping Lighting and Assessment District Fiscal Year 2021/2022 Annual Engineer's Report

Recommendation: Adopt a Resolution preliminarily approving the 2021/22 Annual Engineer's Report, declaring the intention to levy and collect annual assessments, and setting the Public Hearing for consideration of the American Canyon Landscaping and Lighting Assessment District assessments for Fiscal Year 2021/22 for July 20, 2021, at 6:30 p.m. in the Council Chambers.

BUSINESS

18. **Intent to Override Napa County Airport Land Use Commission Determination: Oat Hill Multi-Family Residential Project**

Recommendation: Adopt a Resolution notifying the Napa County Airport Land Use Commission and the State Division of Aeronautics of the City's intention to find that the Oat Hill Multi-Family Residential Project is consistent with the purposes of the State Aeronautics Act and to overrule the Napa County Airport Land Use Commission's determination that the Oat Hill Multi-Family Residential Project is inconsistent with the Napa County Airport Land Use Compatibility Plan.(File Numbers PL20-0022 to -27).

19. **Declaration of a Drought Emergency Stage 2 (Mandatory Compliance—Water Alert)**

Recommendation: Receive and file a report on water supply and demand in the City of American Canyon Water Service Area as of June 2021 and adopt a Resolution declaring a Drought Emergency Stage 2 (Mandatory Compliance—Water Alert) calling for a 20% reduction of water use by all customers.

MANAGEMENT AND STAFF ORAL REPORTS

20. **Update on Post-Pandemic Council Meetings**

MAYOR/COUNCIL COMMENTS, COMMITTEE REPORTS, AND FUTURE AGENDA ITEMS

The Mayor and Council may comment on matters of public concern and announce matters of public interest; no collective council action will be taken.

21. **City Council Committee Report - Mayor Leon Garcia**

Recommendation: Receive and file the City Council Committee Report as submitted by Mayor Garcia.

22. **City Council Committee Report - Vice Mayor Mark Joseph**

Recommendation: Receive and file the City Council Committee Report as submitted by Vice Mayor Joseph.

23. **City Council Committee Report - Councilmember David Oro**

Recommendation: Receive and file the City Council Committee Report as submitted by Councilmember Oro.

24. **City Council Committee Report - Councilmember Pierre Washington**

Recommendation: Receive and file the City Council Committee Report as submitted by Councilmember Washington.

ADJOURNMENT

CERTIFICATION

I, Taresa Geilfuss, City Clerk for the City of American Canyon, do hereby declare that the foregoing Agenda of the City Council/American Canyon Fire Protection District Board was posted in compliance with the Brown Act prior to the meeting date.

_____

Taresa Geilfuss, City Clerk

Oath of Office

I, **Taresa Geilfuss, City Clerk**, do solemnly swear (or affirm) that I will support and defend the Constitution of the United States and the Constitution of the State of California against all enemies, foreign and domestic; that I will bear true faith and allegiance to the Constitution of the United States and the Constitution of the State of California; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties upon which I am about to enter.

_____

Signature

Subscribed and sworn to before me this 20th day of June, 2021.

Cherri Walton **CMC, Deputy City Clerk**

Name *Title*

_____

Deputy City Clerk Signature

CITY OF AMERICAN CANYON
PROCLAMATION

In Recognition of the Law Enforcement Career and Retirement of Napa County Sheriff John Robertson

WHEREAS Sheriff Robertson started his Law Enforcement career at San Mateo Police Department in 1981. During his ten years at San Mateo Police, then "Corporal" Robertson established expertise in fields such as Hazardous Materials, Explosives, and Incident Management; and

WHEREAS, John joined Napa County in June of 1991 as a Deputy Sheriff for the Napa County Sheriff's Office; and

WHEREAS, John has spent 30 years with Napa County Sheriff's Office where he has served as a Hazardous Materials Handler and Instructor, Mounted Posse Liaison, Field Training Officer, Lake Berryessa Marine Patrol Sergeant, Investigations Bureau Supervisor, Administrative Lieutenant, Major Crimes Task Force Representative, Field Operations Division Manager and Incident Command Manager, to name a few. He promoted through the ranks from Deputy Sheriff I, Deputy Sheriff II, Corporal, Sergeant, Lieutenant, Captain, Undersheriff and Sheriff; and

WHEREAS, John's innovation is the Law Enforcement Services Agreement in the City of American Canyon. John came up with the concept of "Fixed Cost Contract", a model that serves to benefit both the municipalities, their residents, and the County. Today, John's fixed-cost Law Enforcement contract model is being used or considered by other Sheriff's in the state. John deployed the European "Hi-Lo" Siren and Evacuation Tags for utilization in emergencies; and

WHEREAS, the Napa County Sheriff's Office would like to acknowledge Sheriff Robertson's 40 years of law enforcement service. Sheriff Robertson epitomizes "Commitment to Community" through his unwavering dedication, loyalty and outstanding service to Napa County; and

NOW, THEREFORE, BE IT PROCLAIMED, that I, Leon Garcia Mayor of the City of American Canyon, and on behalf of the City Council of American Canyon, represent our entire community to honor the 40-year law enforcement career of Napa County Sheriff John Robertson. We express our deepest gratitude and highest respect for your distinguished service. We thank you for your leadership, your friendship and for helping protect and serve the residents, business owners and visitors in American Canyon and Napa County. We wish you the best in your retirement.

Dated: July 20, 2021

_____

Leon Garcia, Mayor

CITY OF AMERICAN CANYON

PROCLAMATION

HONORING JIM CANNON FOR 18+ YEARS OF DEDICATED SERVICE

WHEREAS, Jim Cannon began his career with the City of American Canyon on January 27, 2003 as a full-time Code Enforcement Officer; and

WHEREAS, Jim was responsible for improving fairness and transparency in Code Enforcement practices and policies; and

WHEREAS, over the course of his career with the City of American Canyon, Jim managed and resolved approximately 7,000 Code Enforcement cases; and

WHEREAS, Jim worked daytime, nights, and weekends; sometimes under dangerous conditions to keep American Canyon residents and businesses safe from hazards; and

WHEREAS, Jim demonstrated his dedication to public service by personally assisting with outside resources, yard clean-up, coordinating solid waste construction boxes for residents in need; and

WHEREAS, Jim always served the City at the highest levels with integrity and professionalism including; and

WHEREAS, during his career with the City, Jim obtained a CASEO Code Enforcement certification and a California Law Enforcement Telecommunications System (CLETS) certification and;

WHEREAS, the City wishes to honor Jim for his service to our City, community, and residents.

NOW, THEREFORE, THEREFORE, BE IT RESOLVED, that the City Council of the City of American Canyon hereby recognizes and thanks Jim Cannon for his loyal and generous public service to the City for 18+ years.

Dated: July 20, 2021

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Leon Garcia, Mayor

CITY OF AMERICAN CANYON
PROCLAMATION

JULY AS PARK AND RECREATION MONTH

WHEREAS, parks and recreation programs and facilities are an integral part of communities throughout this country, including the City of American Canyon, and

WHEREAS, parks and recreation programs and facilities are vitally important to establishing and maintaining the quality of life in our community, ensuring the health of all citizens, and contributing to the economic and environmental well-being of a community and region; and

WHEREAS, parks and recreation programs and facilities build healthy, active communities that aid in the prevention of chronic disease, provide therapeutic recreation services for those who are mentally or physically disabled, and also improve the mental and emotional health of all citizens; and

WHEREAS parks and recreation programs and facilities increase a community's economic prosperity through increased property values, expansion of the local tax base, increased tourism, the attraction and retention of businesses, and crime reduction; and

WHEREAS, parks and recreation areas like open spaces, wetlands, and other natural areas are fundamental to the environmental well-being of our community, improving water quality, protecting groundwater, preventing flooding, improving the quality of the air we breathe, providing vegetative buffers to development, and producing habitat for wildlife; and

WHEREAS, parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors; and

WHEREAS, the parks and recreation team pivoted in the last year to best serve the community during the pandemic facilitating many vital community resources, including weekly food distributions, monthly food deliveries, making well-being calls, and providing resources for senior residents most at-risk, offering programs and resources in unique and different ways, supporting both county and local vaccine clinics, hosting drive-thru community events to maintain community spirit and engagement and providing access to parks, trails, open spaces, fitness and aquatics opportunities for residents to maintain their physical and mental health fitness; and

WHEREAS, the City of American Canyon recognizes the benefits, sense of community, and fun derived from parks and recreation resources.

NOW, THEREFORE, BE IT PROCLAIMED that I, Leon Garcia, Mayor of the City of American Canyon, do hereby proclaim the month of July, 2021 as ***Parks and Recreation Month*** in American Canyon, and I urge all citizens to recognize and encourage the use of the parks and recreation activities in American Canyon, and share their stories about parks and recreation resources impact their lives on our social media sites.

Dated: July 20, 2021

_____

LEON GARCIA, MAYOR
CITY OF AMERICAN CANYON

SPECIAL JOINT CITY COUNCIL/AMERICAN CANYON FIRE PROTECTION DISTRICT BOARD MEETING
MINUTES
City Hall - Council Chambers
4381 Broadway, Ste. 201, American Canyon
June 29, 2021
6:30 PM

Mayor/Chair: Leon Garcia
Vice Mayor/Vice Chair: Mark Joseph
Councilmembers/Board Members: Mariam Aboudamous, David Oro, Pierre Washington

In response to Governor's Execu ve Order N-29-20 and the Resolu on Declaring the Existence of a Local Emergency Rela ng to the COVID-19 Pandemic adopted by the American Canyon Fire Protec on Board of Directors, District Board and other public mee ngs are currently Teleconference Mee ngs Only to align with local and federal guidelines and social distancing recommenda ons for the containment of the coronavirus.
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Zoom Meeting Link: Click Here
Meeting ID: 870 9586 0379 **Passcode:** 303081

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The above-iden fied measures exceed all legal requirements for par cipa on in public comment, including those imposed by the Ralph M. Brown Act and Execu ve Order N-29-20 and N-33-20. For more informa on, please call the Fire Executive Assistant at (707) 551-0653 or email mbanuelos@amcanfire.com.

AGENDA MATERIALS: Board agenda materials are published 72 hours prior to the mee ng, and are available to the public via the City of American Canyon's website at www.cityofamericancanyon.org.

AMERICANS WITH DISABILITIES ACT: The Board of Directors will provide materials in appropriate alterna ve formats to comply with the Americans with Disabili es Act. Please send a wri en request to Martha Banuelos at 911 Donaldson Way E., American Canyon, CA 94503 or by email to mbanuelos@amcanfire.com. Include your name, address, phone number and brief descrip on of the requested materials, as well as your preferred alternative format or auxiliary aid, at least three calendar days before the meeting.

5:30 P.M. CLOSED SESSION

PUBLIC ADDRESS – CLOSED SESSION ITEMS

CITY OF AMERICAN CANYON CLOSED SESSION

CALL TO ORDER: 6:56 p.m.

PLEDGE OF ALLEGIANCE:
Chair/Mayor Leon Garcia led the Pledge of Allegiance

ROLL CALL

Present: Board Members/Council Members Mariam Aboudamous, David Oro, Pierre Washington, Vice Chair/Vice Mayor Mark Joseph and Chair/Mayor Leon Garcia

Absent: None

REPORT ON CLOSED SESSION/CONFIRMATION OF REPORTABLE ACTION
William D. Ross, District Counsel, reported the Board of Directors convened into Closed Session at 5:32 p.m.; with all Board Members present. The Closed Session for the American Canyon Fire Protection District concluded at 6:49 p.m., with actions as noted below:

AMERICAN CANYON FIRE PROTECTION DISTRICT CLOSED SESSION

1 **Labor Negotiations – Pursuant to Government Code Sections 54954.5 (f); 54956.6 Negotiator: District Representative: Michael Cahill**
Chief Labor Representative: Local 1186 Designee
Action: A written report will be provided

2 **Matters Relating to Public Employment – Pursuant to Government Code Section 54957**
Position: Assistant Fire Chief
Action: A written report will be provided

3 **Conference with Legal Counsel – Anticipate Litigation**
Pursuant to Government Code Section 5495
Action: A written report will be provided

PROCLAMATIONS AND PRESENTATIONS

None

PUBLIC COMMENT

There was one written comment on non-agenda items submitted by Jason Kishineff related to cannabis. The comment will be incorporated into the meeting packet.

AGENDA CHANGES

There were no agenda changes.

MATTERS RELATING TO THE AMERICAN CANYON FIRE PROTECTION DISTRICT BOARD

CONSENT CALENDAR – ACFPD

Motion by Vice-Chair Joseph, seconded by Board Member Oro and carried unanimously to approve the District Consent Calendar.

4 Confirm the appointment of Mr. Michael Tadewald to the Fire Service Fee Board of Review.
Action: Confirmed Appointment.

5 Adopt a Resolution approving the Annual Appropriations Limit for Fiscal Year 2021-2022.
Action: Adopted Resolution 2021-08.

6 Adopt a Resolution Increasing the 1986 Fire Mitigation Fees for Fiscal Year 2021-2022.
Action: Adopted Resolution 2021-09.

7 Adopt a Resolution authorizing the execution of Amendment No. 7 for FY 2021-2022 to the Cooperative Joint Powers Dispatching Services Agreement.
Action: Adopted Resolution 2021-10.

8 Adopt a Resolution authorizing the write off of uncollectible Fire Service Fees FY 2020-2021.
Action: Adopted Resolution 2021-11.

9 Adopt a Resolution approving the annual cost-of-living increase to the District Fire Service Fee Special Tax consistent with District Ordinance 2013-01 and confirming the Fire Service Fee Assessments of $698,370.10 for Fiscal Year 2021-2022.
Action: Adopted Resolution 2021-12.

PUBLIC HEARINGS - ACFPD

10 Hold a Public Hearing and adopt a Resolution approving the Preliminary Budget Fiscal Year 2021-2022.

Chief Michael P. Cahill presented the Public Hearing item. Ken Campo shared a PowerPoint presentation and provided background information.

Action: Motion by Board Member Oro, second by Board Member Washington and carried unanimously to adopt Resolution 2021-13 and approve the Preliminary Budget for the American Canyon Fire Protection District for the Fiscal Year 2021-22.

BUSINESS – ACFPD

11 Update the American Canyon Fire Protection District Board of Directors Meeting Dates.

The Board of Directors discussed updating the meeting dates from the fifth Tuesday of every month to the fourth Tuesday of every month.

Action: Motion by Board Member Oro second by Board member Aboudamous and carried unanimously to adopt District Resolution 2021-14, amended with the dates to reflect as the fourth Tuesday of every month.

MATTERS RELATING TO THE AMERICAN CANYON CITY COUNCIL

CONSENT CALENDAR

Motion by Vice-Chair Joseph, seconded by Board Member Aboudamous and carried unanimously to approve the City of American Canyon Consent Calendar.

12 Confirm consent to two Partial Assignment Agreements Of Benefits And Burdens Of AC-1 Development Agreement by and between AC-1 and D.R. Horton BAY, Inc.

PUBLIC HEARINGS

None

BUSINESS

None

MANAGEMENT AND STAFF ORAL REPORTS

None

ADJOURNMENT

The Special Joint meeting of the City Council and American Canyon Fire Protection District adjourned at 7:53 p.m.

_____ _____

Leon Garcia, Chairman of the Board Michael P. Cahill, District Clerk

William D. Ross
David Schwarz
Kypros G. Hostetter

Law Offices of
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#25532
Los Angeles, CA 90025

File No: 199/3

June 30, 2021

VIA E-MAIL

The Honorable Leon Garcia, Chair
and Members of the Board of Directors
American Canyon Fire Protection District
911 Donaldson Way E.
American Canyon, CA 94503

Re: Report Upon Return from Closed Session; Special Joint Meeting of the City of American Canyon City Council and the American Canyon Fire Protection District Board of Directors; June 29, 2021[1]

Dear Chair Garcia and Members of the Board of Directors:

This communication sets forth reportable action, if any, of the Board of Directors ("Board") of the American Canyon Fire Protection District ("Fire District"), consistent with provisions of the Ralph M. Brown Opening Meeting Act (Government Code Section 54950, *et seq*.) resulting from the Closed Session of the June 29, 2021 Special Joint Meeting, consistent with Government Code Section 54957.1.

After convening in Open Session at 5:32 p.m. and ascertaining that there were no comments on the agendized Closed Session matters, your Board adjourned to Closed Session at 5:32 p.m. to address the matters agendized for Closed Session consideration.

There were three matters agendized for Fire District Closed Session consideration.

1. Labor Negotiations – Pursuant to Government Code Sections 54954.5(f); 54956.6
   Negotiator: District Representative: Michael Cahill
   Chief Labor Representative: Local 1186 Designee

2. Matters Relating to Public Employment – Pursuant to Government Code Section 54957

1 The American Canyon Fire Protection District ("Fire District") is a California special district and a subsidiary special district of the City of American Canyon. The Joint Special Meeting only involved Closed Session matters for the Fire District.

Position: Assistant Fire Chief

3. Conference with Legal Counsel – Anticipate Litigation
Pursuant to Government Code Section 5495

With respect to Fire District Closed Session Agenda Item No. 1., there was no reportable action under the provisions of Government Code Section 54954.5(f) and 54956.6.

With respect to Fire District Closed Session Agenda Item No. 2., there was no reportable action consistent with the provisions of Government Code Section 54957.

With respect to Fire District Closed Session Agenda Item No. 3., there was no reportable action under the common law attorney-client privilege or that provided by Government Code Section 54956.9(d)(2).

The Closed Session concluded at 6:49 p.m., with the Board convening in Open Session at 6:55 p.m. where it was indicated that a written report upon return consistent with Government Code Section 54957.1, would be prepared.

This communication should be reviewed under the Consent portion of the Agenda of your next Regular or Special Joint City Council/Fire Protection District Board Meeting.

Should you have questions concerning this Report, it may be taken off the Consent calendar when agendized in the future, or our office may be contacted in the interim.

Very truly yours,

William D. Ross

WDR:jf

cc: Michael P. Cahill, Fire District Chief
Martha Banuelos, Fire Executive Assistant/Office Administrator

TITLE
First Responder Fee

RECOMMENDATION
Adopt a Resolution approving the annual cost-of-living increase to the District First Responder Fee for Emergency Medical Services.

CONTACT
Michael P. Cahill, Fire Chief

BACKGROUND & ANALYSIS
On November 5, 2019, the Board of Directors passed and adopted Ordinance 2019-02, (Attachment 2), establishing a First Responder Fee for Emergency Medical Services. California Health and Safety Code Sections 13146.2(b), 13217(b), 13862, 13869, 13871, 13874, 13916, and 17951, together with Chapter 8, Division 1, Title 7 of the California Government Code, authorize the District to adopt a First Responder Fee and to charge and collect a fee to defray the cost of providing District services.

Ordinance 2019-02 provides for an annual cost-of-living increase for the First Responder Fee. These fees may be increased in the future by District resolution consistent with applicable law, including but not limited to annual adjustments each July 1 based on the annual change in the Consumer Price Index (CPI), (Attachment 3), Urban Wage Earners, San Francisco-Oakland-San Jose, CA region, measured as of February of each year.

Consistent with that determination, it is recommended that the First Responder Fee be increased by the cost-of-living adjustment of 1.6%. If approved, the Fire Service Fee would increase by $8.00, from $500.00 to $508

COUNCIL PRIORITY PROGRAMS AND PROJECTS

FISCAL IMPACT
When the percentage increase in the CPI is applied, the Fee will increase from $500 to $508.00.

ENVIRONMENTAL REVIEW

The approval of the proposed resolution is not subject to the California Environmental Quality Act ("CEQA") pursuant to Section 15060(c)(2) because the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment; and Section 15060(c)(3) because the activity is not a project as defined in Section 15378 of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3 because it is a governmental financing mechanism that has no potential for resulting in physical change to the environment, directly or indirectly. In addition, the resolution is not a project under CEQA Regulation Section 15061(b)(3) because it has no potential for causing a significant effect on the environment.

ATTACHMENTS:

1. Resolution 2021-15 First Responder Fee
2. Ordinance 2019-02
3. CPI Index

RESOLUTION NO. 2021-15

A RESOLUTION OF AMERICAN CANYON FIRE PROTECTION DISTRICT, A SUBSIDIARY SPECIAL DISTRICT OF THE CITY OF AMERICAN CANYON, APPROVING AN INCREASE IN FIRST RESPONDER FEES FOR FISCAL YEAR 2021-2022 BY THE CHANGE IN THE CONSUMER PRICE INDEX OF 1.6%

WHEREAS, on November 5, 2019, the Board of Directors passed and adopted Ordinance 2019-02, establishing a First Responder Fee for Emergency Medical Services; and

WHEREAS, California Health and Safety Code Sections 13146.2(b), 13217(b), 13862, 13869, 13871, 13874, 13916, and 17951, together with Chapter 8, Division 1, Title 7 of the California Government Code, authorize the District to adopt a First Responder Fee and to charge and collect a fee to defray the cost of providing District services; and

WHEREAS, the Ordinance 2019-02 provides for an annual cost-of-living increase for the First Responder Fee. These fees may be increased in the future by District resolution consistent with applicable law, including but not limited to annual adjustments each July 1 based on the annual change in the Consumer Price Index (CPI) Urban Wage Earners, San Francisco-Oakland-San Jose, CA region, measured as of February of each year. The 2021 CPI change was 1.6 percent.

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the American Canyon Fire Protection District approves the foregoing 1.6 percent increase the First Responder Fee effective as of July 1, 2021.

PASSED, APPROVED and **ADOPTED** at the American Canyon Fire Protection District Board meeting held on 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Leon Garcia
Chairman, Board of Directors

ATTEST:

_____
Michael P. Cahill
District Clerk

APPROVED AS TO FORM:

_____.
William D. Ross
District Counsel
American Canyon Fire Protection District

ORDINANCE NO. 2019-02

AN ORDINANCE OF THE AMERICAN CANYON FIRE PROTECTION DISTRICT ESTABLISHING A FIRST RESPONDER FEE FOR EMERGENCY MEDICAL SERVICES

WHEREAS, the costs of providing fire protection and life safety services as authorized by provisions of the Fire Protection District Law of 1987 (Health & Safety Code Section 13800 *et seq.*, the "Act") continues to increase; and; and

WHEREAS, California Health and Safety Code Sections 13146.2(b), 13217(b), 13862, 13869, 13871, 13874, 13916, and 17951, together with Chapter 8, Division 1, Title 7 of the California Government Code, authorize the District to adopt a First Responder Fee and to charge and collect a fee to defray the cost of providing District services; and

WHEREAS, the District has determined that, in order to adequately provide fire-related and emergency medical services to the general public, the District desires to adopt a new fee which is attached hereto as Exhibit 1 and incorporated herein by this reference; and

WHEREAS, the First Responder Fee set forth does not exceed the actual or estimated cost of the provision of the public services to which they relate; and

NOW THEREFORE THE BOARD OF DIRECTORS OF THE AMERICAN CANYON FIRE PROTECTION DISTRICT DOES ORDAIN TO ESTABLISH A FIRST RESPONDER FEE FOR EMERGENCY MEDICAL SERVICES AS FOLLOWS:

1.0 Authorization and Purpose:

This ordinance is adopted pursuant to Health and Safety Code Section 13916 et seq., a portion of the Act. The purpose of the ordinance is to recover District costs of providing emergency medical services, including but not limited to first responder services for individual assessments that result in ambulance transport and individual assessments that do not result in ambulance transport. This ordinance shall be interpreted in a manner consistent with the Act and applicable law. The fees imposed by this ordinance are for the purpose of recovering the cost of certain District operating expenses, including but not limited to employee wage rate and benefits, medical supplies, and the contracting of services with specialized firms or individuals, which are reasonably related to the actual and on-going expenses incurred by the District for the services and expenses described in this Section.

2.0 Emergency Medical Services Fees:

The Board of Directors hereby approves and adopts the First Responder Fee in the initial amount of $500.00 per response.

3.0 Applicability:

This ordinance sets forth the fees and the amount to be charged by the District, as permitted by Health and Safety Code Section 13916. As authorized by Health and Safety Code Section 13918, public agencies that are not covered by a mutual aid agreement shall be charged the authorized fee, unless waived by the District pursuant to ordinance Section 3. By adopting this ordinance, the District is enacting user fees to defray costs associated with emergency medical services and described within as a First Responder Assessment.

4.0 Waiver of Fees:

As permitted by Health and Safety Code Section 13919, the District Board may waive charges/fees established by this ordinance and may delegate its authority to the Fire Chief or his/her designee to determine that charges/fees would not be in the public interest, as in cases where there are reciprocal services provided by other public agencies, employee welfare, or personal hardship.

5.0 Specified Fee:

Unless waived pursuant to ordinance Section 3, every public agency and/or party involved shall pay a specified fee pursuant to this ordinance. The fee for services shall be set by the District Board and shall not exceed the reasonable amount necessary to recover the costs of providing the specified service as allowed by law. The specified fee for service may be modified pursuant to Health and Safety Code Section 13917.

6.0 No Waiver of Other Means of Cost Recovery:

This ordinance does not preclude the District from pursuing any additional means of cost recovery, including, but not limited to, actions pursuant to Health and Safety Code Section 13009 (for negligent actions which cause the use of services or facilities of the District) and actions against parties whose willful, grossly negligent, or criminal conduct causes the use of District services or facilities.

7.0 Fee Modification:

These fees may be increased in the future by District resolution consistent with applicable law, including but not limited to annual adjustments each July 1 based on the annual change in the Consumer Price Index (CPI) Urban Wage Earners, San Francisco-Oakland-San Jose, CA region, measured as of February of each year.

8.0 Severability:

If any section, subsection, subdivision, paragraph, sentence, clause, phrase or word in this ordinance is for any reason held to be unconstitutional or otherwise invalid, such holding shall not affect the validity of the remaining provisions of this ordinance. The Board hereby declares that it would have passed each section, subsection, subdivision paragraph, sentence, clause, phrase or word of this ordinance regardless of the unconstitutionality or invalidity of any other section, subsection, subdivision\paragraph, sentence, clause, phrase or word herein

9.0 Effective Date

This Ordinance shall take effect and be in full force 30 days after its final passage and adoption.

THE FOREGOING ORDINANCE WAS DULY PASSED AND ADOPTED BY THE BOARD OF DIRECTORS OF THE AMERICAN CANYON FIRE PROTECTION DISTRICT AT A REGULAR MEETING THEREOF, HELD ON THE 5th DAY OF NOVEMBER, 2019, BY THE FOLLOWING VOTE:

AYES: Chairman Garcia, Vice-Chair Aboudamous, Board Members Joseph, Leary and Oro

NOES: None

ABSENT: None

President, Board of Directors

Leon Garcia

Leon Garcia

ATTEST:

Glen E. Weeks, District Clerk

APPROVED AS TO FORM

William D. Ross, District Counsel

CPI (CPI-U)
12-Month Percent Change

Series Id: CUURS49BSA0,CUUSS49BSA0
Not Seasonally Adjusted
Series Title: Urban Wage Earners, San Francisco-Oakland-San Jose CA,
Area: San Francisco-Oakland-San Jose, CA
Item: All items
Base Period: 1982-84=100
Years: 2020 to 2021

Year	Feb
2020	2.9
2021	1.6

CITY OF AMERICAN CANYON

REGULAR JOINT CITY COUNCIL/FIRE PROTECTION DISTRICT BOARD MEETING

ACTION MINUTES

June 15, 2021

Consistent with the California Governor' s Executive Order N- 29- 20 promoting social distancing, there will be no physical or in person meeting location available to the public. Instead, the meeting will be conducted by teleconference. The meeting will be accessible for all members of the public to attend and give public comment via the City's website, YouTube, and Cable TV Channel 28.

CALL TO ORDER

Meeting was called to order at 6:45 p.m.

PLEDGE OF ALLEGIANCE

Mayor Garcia led the Pledge of Allegiance.

ROLL CALL

Present: Councilmembers/Board Members: Mariam Aboudamous, David Oro, Pierre Washington; Vice Mayor/Vice Chair Mark Joseph; Mayor/Chair Leon Garcia

Absent: None

REPORT ON CLOSED SESSION/CONFIRMATION OF REPORTABLE ACTION

PROCLAMATIONS AND PRESENTATIONS

6. Proclamation – Memorial Day, 2021

Action: Mayor Garcia announced the Proclamation in observance of Memorial Day, 2021.

7. Proclamation- Juneteenth National Independence Day

Action: Mayor Garcia announced the Proclamation in observance of Juneteenth National Independence Day.

8. Proclamation – Johnny Ortega

Action: Mayor Garcia announced the Proclamation recognizing Johnny Ortega in appreciation of his faithful service to the City of American Canyon.

9. Proclamation – Justin Hole

Action: Mayor Garcia announced the Proclamation with additional comments from Karina Servente and ACMS students Isabella Aranda and Laura Totty.

PUBLIC COMMENTS – ITEMS NOT ON THE AGENDA

Written and verbal comments received from: Jason Kishineff and Julian Moore.

AGENDA CHANGES

There were no Agenda Changes.

MATTERS RELATING TO THE AMERICAN CANYON FIRE PROTECTION DISTRICT BOARD

CONSENT CALENDAR – ACFPD

There are no Consent Calendar - ACFPD items.

BUSINESS – ACFPD

There are no Business - ACFPD Items.

MATTERS RELATING TO THE AMERICAN CANYON CITY COUNCIL

CONSENT CALENDAR

Action: Motion to approve the Consent Calendar made by Councilmember Oro, seconded by Councilmember Washington, and approved by roll call vote.

10. Minutes of June 1, 2021

Action: Approved the Minutes of the June 1, 2021 Regular Joint Meeting of the City Council/American Canyon Fire Protection District Board.

11. City Attorney Closed Session Report

Action: Approved the City Attorney Closed Session Report of the June 1, 2021 Regular Joint City Council/American Canyon Fire Protection District Meeting.

12. Annual Communications Services Agreement

Action: Adopted Resolution 2021-38 approving Amendment No. 2 Agreement 2021-76 to Agreement No. 2019-A120 with Tripepi Smith in the amount of $20,000 per year for a total contract amount not to exceed $210,000 and extending the term of the Agreement until June 30, 2024 for Strategic Communication, Graphic Design, and Marketing Support Services.

13. Fiscal Year 2021/20322 Appropriations Limit

Action: Adopted Resolution 2021-39 establishing the appropriations limit for fiscal year 2021-22 as follows: City of American Canyon Appropriations Limit: $20,796,037.

14. Fiscal Year 2021/2022 Salary Schedule

Action: Adopted Resolution 2021-40 approving the Fiscal Year 2021/2022 Salary Schedule.

15. Citywide Landscaping and Lighting Assessment District Fiscal Year 2021-2022 Annual Engineer's Report

Action: Adopted Resolution 2021-41 preliminarily approving the 2021/22 Annual Engineer's Report, declaring the intention to levy and collect annual assessments, and sending the Public Hearing for consideration of the American Canyon Landscaping and Lighting Assessment District assessments for Fiscal Year 2021/22 for July 20, 2021, at 6:30 p.m. in the Council Chambers.

16. Purchase of Chemicals for Water Treatment and Waste Water Treatment Plants

Action: Adopted Resolution 2021-42authorizing the purchase of chemicals for the Water Treatment Plant in the amount of $250,000 and Waste Water Treatment Plant in the amount of $45,000 for FY 2021/22.

17. CalPERS Cost Sharing Agreement Side Letter Agreements

Action: Adopted Resolution 2021-44 authorizing the City Manager to execute Side letter Agreement #8 Agreement 2021-77 with Teamsters Local 315-General Unit and Side Letter Agreement #7 Agreement 2021-78 with the Teamsters Local 315-Mid-Management Unit related to CalPERS cost-sharing for Fiscal Year 2021/2022, and; Adopted Resolution 2021-45 relating to CalPERS retirement cost-sharing under Government Code Section 20516 by Unrepresented Management and Confidential Employees for Fiscal Year 2021/2022.

18. Annual Janitorial Services Agreement

Action: Adopted Resolution 2021-46 authorizing the City Manager to sign an Agreement 2021-79 with Quali Serv Janitorial for janitorial services during the period of July 1, 2021 to June 30, 2024 for an amount not to exceed $435,000.00 with an op on to extend for two (2) additional years.

19. NVUSD Public Improvement Agreement

Action: Adopted Resolution 2021-47 increasing a Reimbursement Agreement 2021-80 with the Napa Valley Unified School District for work associated with the new Napa Junction on Elementary School from $146,218 to a not to exceed amount of $246,218 and authorizing the use of Fund 212 (Gas Tax) in the amount of $246,218 for work associated with the Reimbursement Agreement.

PUBLIC HEARINGS

There were no Public Hearing items.

BUSINESS

20. Update and possible direction regarding the "West Side Connector"

City Manager Jason Holley introduced the item and Community Development Director Brent Cooper presented a PowerPoint Presentation on the General Plan 2040 Update Circulation Element Advisory Committee and implementation of the current Circulation Element Policy 1.18 as it pertains to the West Side Connector.

Written and verbal comments received from: Chris James, Heidi Zipay, James Carney, Jason Kishineff, Jeff Correll, Karen Fritz, Laura Lovgren, Luke Laakso, Mandy Phoung Laakso, Mark Apuyan, Rachael Apuyan, Rover Scalcione, Sharon Robinson, Tricia Atanacio, Joy Malinowski, Kevin Krase, Michael Baker, Nicola Areshenko, Teresa A. Abeyta Teri Yan, Terry England, Jamie Porter, Sindy Biederman Jim Potter , Erik Altman, Stephan Brook, Hugh Marquez, Andrea Maniscalco, Arianna Schulze, Megan Dameron, Patrick Band, TA, Gina G., Beth Marcus, Carlotta Sainato, Annal Fam, Joy Malinowski.

Action: Motion to direct staff to study "Alternative No. 3" as the "West Side Connector" in circulation Element in conjunction with the ongoing Comprehensive General Plan Updated by Vice Mayor Joseph, seconded by Councilmember Washington, and approved by roll call vote.

MANAGEMENT AND STAFF ORAL REPORTS

Public Works Director Erica Ahmann Smithies reported that Pacific Gas & Electric is working to repair a gas leak.

Community Development Director Brent Cooper announced the June 23, 2021 Special Joint City Council/Planning Commission meeting.

Parks and Recreation Director Creighton Wright gave an update on the 4th of July event and upcoming City events.

City Manager Holley spoke about a scheduled meeting with Council to discuss ideas related to zoom or in person meetings.

MAYOR/COUNCIL COMMENTS, COMMITTEE REPORTS, AND FUTURE AGENDA ITEMS

21. City Council Committee Report - Mayor Garcia
Action: Council received the City Council Committee Report as submitted by Mayor Leon Garcia.

22. City Council Committee Report - Vice Mayor Joseph
Action: Council received the City Council Committee Report as submitted by Vice Mayor Mark Joseph.

23. City Council Committee Report – Councilmember Washington

Action: Council received the City Council Committee Report as submitted by Councilmember Pierre Washington.

Future Agenda Items: Councilmember Mariam Aboudamous request that staff provide an update on water fountains at city owned parks**,** traffic on Silver Oak and the process of submitting written public comments.

ADJOURNMENT

The regular Joint Meeting of the City Council/American Canyon Fire Protection District Board adjourned at 10:29 p.m.

Respectfully Submitted,

_____

Cherri Walton, CMC, Acting City Clerk

William D. Ross
David Schwarz
Kypros G. Hostetter

Law Offices of
William D. Ross
400 Lambert Avenue
Palo Alto, California 94306
Telephone: (650) 843-8080
Facsimile: (650) 843-8093

Los Angeles Office:

11420 Santa Monica Blvd
#25532
Los Angeles, CA 90025

File Nos: 199/6 & 199/3

July 13, 2021

VIA E-MAIL

The Honorable Leon Garcia, Mayor
and Members of the City Council
City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503

Re: Report Upon Return from Closed Session; Virtual Joint Meeting of the American Canyon City Council and the American Canyon Fire Protection District Board of Directors; June 15, 2021[1]

Dear Mayor Garcia and Members of the City Council:

This communication sets forth reportable action, if any, of the City Council ("Council") of the City of American Canyon ("City"), consistent with provisions of the Ralph M. Brown Opening Meeting Act (Government Code Section 54950, *et seq*.) resulting from the Closed Session of the Virtual June 15, 2021 Regular Council Meeting, consistent with Government Code Section 54957.1.

After convening in Open Session at 4:02 p.m. and ascertaining that there were no public comments on the agendized Closed Session matters, your Council adjourned to Closed Session at 4:03 p.m. to address the matters agendized for Closed Session consideration. The City items were considered first.

There were two matters agendized for City Closed Session consideration.

1. Conference Real Property Negotiators – Authorized Pursuant to Government Code Section 54956.8

[1] The American Canyon Fire Protection District ("Fire District") is a California special district and a subsidiary special district of the City of American Canyon.

Property:

APN	ADDRESS
057-090-065-000	5750 S KELLY RD
057-090-066-000	N/A
057-120-014-000	165 WATSON LN
057-120-015-000	193 WATSON LN
057-120-017-000	N/A
057-120-028-000	225 WATSON LN
057-120-034-000	157 WATSON LN
057-120-036-000	4000 PAOLI LOOP RD
057-120-041-000	205 WATSON LN
057-120-045-000	254 WATSON LN
057-120-047-000	4400 PAOLI LOOP RD
057-120-048-000	265 WATSON LN
057-120-049-000	245 WATSON LN
057-120-050-000	N/A
057-120-051-000	260 WATSON LN
057-180-014-000	210 WATSON LN
057-180-015-000	220 WATSON LN

Agency negotiator(s): City Manager Jason B. Holley &
City Attorney William D. Ross
Under negotiation: Terms of property acquisition

2. Matters Relating to Public Employment: Public Employee Performance Evaluations (pursuant to Gov. Code section 54957)
Positions: Jason Holley, City Manager

With respect to City Agenda Item No. 1., there was no reportable action consistent with the provisions of Government Code Section 54956.8.

With respect to City Agenda Item No. 2., during which the City Attorney was not present, there was no reportable action under the provisions of Government Code Section 54957.

There were three matters agendized for Fire District Closed Session consideration which began at 6:00 p.m.

1. Labor Negotiations – Pursuant to Government Code Sections 54954.5(f); 54956.6
Negotiator: District Representative: Michael Cahill
Chief Labor Representative: Local 1186 Designee

2. Matters Relating to Public Employment – Pursuant to Government Code Section 54957
Position: Assistant Fire Chief

3. Conference with Legal Counsel – Anticipate Litigation
Pursuant to Government Code Section 54956.9(d)(1)
One Matter

With respect to Fire District Agenda Item No. 1., there was no reportable action under the provision of Government Code Sections 54954.5(f) and 54956.6.

With respect to Fire District Agenda Item No. 2., there was no consideration of that matter.

With respect to Fire District Agenda Item No. 3, there was no reportable action under the common law attorney-client privilege and that provided by Government Code Section 54956.9(d)(1).

The Fire District portion of the Closed Session concluded at 6:33 p.m.

The Closed Session concluded at 6:33 p.m. The Council/Board conveyed in Open Session at 6:40 p.m., where it was indicated that a written report upon return consistent with Government Code Section 54957.1, would be prepared.

This communication should be reviewed under the Consent portion of the Agenda of your next Regular or Special Joint City Council/Fire Protection District Board Meeting.

Should you have questions concerning this Report, it may be taken off the Consent calendar when agendized in the future, or our office may be contacted in the interim.

Very truly yours,

William D. Ross
City Attorney

WDR/as

cc: Jason B. Holley, City Manager
Maria Ojeda, Assistant City Manager
Geilfuss, Taresa, City Clerk
Cherri Walton, Deputy City Clerk
Michael P. Cahill, Fire Chief
Martha Banuelos, Fire Executive Assistant

TITLE

Notice of Completion for the 2020 Annual Pavement Management Project (TR20-0100)

RECOMMENDATION

Adopt a Resolution amending the FY21/22 project budget for the 2020 Annual Pavement Management Project (TR20-0100),accepting the project as complete, authorizing the Public Works Director to file a Notice of Completion, and releasing Retention payment to Ghilotti Brothers Inc.

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director/City Engineer; Ron Ranada, P.E., Senior Civil Engineer

BACKGROUND & ANALYSIS

The 2020 Annual Pavement Management Project (TR20-0100) (Project) consisted of a full reconstruction of the existing pavement structure of James Road, from West American Canyon Road to Donaldson Way. This section of the City's street network has been identified for reconstruction based on its Pavement Condition Index (PCI) as identified in prior Pavement Management Program Reports (most recently in 2020), and has been prioritized for the specified work based on the current adopted Measure T 5-year Expenditure Plan (Resolution 2020-19). As part of the Project, the street facility improvements incorporated new sidewalks as well as Class III bicycle lanes, thereby benefiting pedestrians and bicyclists.

Consistent with the 2016 Utility Master Plans and based on more detailed evaluation of the City's existing utility infrastructure within the Project's limits, the Project's scope of work also included the installation of new and upgraded water mains, and service laterals, and minor point repairs on the sanitary sewer system.

The City solicited competitive bids for the Project and opened bids on October 20, 2020. Ghilotti Brothers Inc. (GBI) was determined to be the lowest responsible and responsive bidder, with a bid of $1,333,945.75. That same day, the City Council authorized the award of the construction contract with a not to exceed Project budget of $2,180,000 (Resolution No. 2020-95). The Project budget included the appropriation of funds from Water Operations and Wastewater Operations in the amount of $480,000 for the utility work.

GBI has completed the contract work, including CCO Nos. 1 through 5, to the satisfaction of the Public Works Director, at a final contract cost of $1,569,092.91. Staff recommends City Council amend the FY21/22 Project budget for the 2020 Annual Pavement Management Project (TR20-0100) accept the Project as complete, authorize the Public Work Director to file a Notice of Completion (Attachment 2), and release retention.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Per Resolution No. 2021-37, the FY21/22 total project budget was adopted in the amount of $2,180,000.

The total construction contract amount, including all CCOs, is $1,569,092.91.

	Total
Original Construction Contract	$1,333,945.75
Change Order 1-5	$235,147.25
Total Construction Contract	**$1,569,092.91**

The estimated total project expenditure including the construction contract, engineering and inspection services, landscape and construction materials, and miscellaneous expenses is $1,725,922.65.

	Total
Construction Contract (Ghilotti Brothers, Inc.)	$1,569,092.91
Engineering & Inspection Services	$145,747.50
Landscape & Construction Materials	$10,357.29
Miscellaneous (Postage & Advertisement)	$724.95
Total Estimated Project Expenditure	**$1,725,922.65**

Due to unanticipated work and additional effort related to the water and sanitary sewer work, staff recommends a budget transfer as follows:

Budget Line Item	Name	Amount
510-85-450-48310	Transfer Cap Projs Fund-Gen Gov	$65,446.73
540-85-450-48310	Transfer Cap Projs Fund-Gen Gov	$37,221.93
350-85-450-46110	**Capital Outlay**	**$102,668.66**

Furthermore, staff recommends the overall project budget be amended as follows:

Source	Approved Budget	Proposed Budget
Fund 211, Measure T	$1,200,000	$1,143,253.99
Fund 212, Gas Tax	$275,000	$0
Fund 213, Road Maintenance Rehab. Account	$225,000	$0
Fund 510, Water Operations	$450,000	$515,446.73
Fund 540, Wastewater Operations	$30,000	$67,221.93
Total	**$2,180,000**	**$1,725,922.65**

ENVIRONMENTAL REVIEW

Not Applicable.

ATTACHMENTS:

1. Resolution - Notice of Completion Annual Pavement Management Project
2. Notice of Completion - 2020 Annual Pavement Management Project

RESOLUTION NO. 2021-_____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON AMENDING THE FY21/22 PROJECT BUDGET FOR THE 2020 ANNUAL PAVEMENT MANAGEMENT PROJECT (TR20-0100), ACCEPTING THE PROJECT AS COMPLETE, AUTHORIZING THE PUBLIC WORKS DIRECTOR TO FILE A NOTICE OF COMPLETION, AND RELEASING RETENTION PAYMENT TO GHILOTTI BROTHERS INC.

WHEREAS, on October 20, 2020, the City Council authorized the award of a construction contract to the lowest responsible and responsive bidder in an amount not to exceed the Project Budget for the 2020 Annual Pavement Management Project (TR20-0100) (Project); and

WHEREAS, Ghilotti Brothers, Inc. (GBI), determined to be the lowest responsible and responsive bidder with a bid amount of $1,333,945.75, was awarded the construction contract; and

WHEREAS, all contracted work, including Contract Change Orders 1 through 5, have been completed at a total cost of $1,569,092.91; and

WHEREAS, total project expenditures, including the construction contract, engineering and inspection services, landscape and construction materials, and miscellaneous expenses, is estimated at $1,725,922.65; and

WHEREAS, appropriation of additional funds is needed for unanticipated work related to the water and sanitary sewer work on the Project; and

WHEREAS, Ghilotti Brothers Inc. completed all of the contracted work to the satisfaction of the Public Works Director.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby approves the FY21/22 budget transfers to the Project as follows; and

Budget Line Item	Name	Amount
510-85-450-48310	Transfer Cap Projs Fund-Gen Gov	$65,446.73
540-85-450-48310	Transfer Cap Projs Fund-Gen Gov	$37,221.93
350-85-450-46110	**Capital Outlay**	**$102,668.66**

BE IT FURTHER RESOLVED that the City Council of the City of American Canyon hereby amends the overall budget for the 2020 Annual Pavement Management Project (TR20-0100) as follows; and

Source	Approved Budget	Proposed Budget
Fund 211, Measure T	$1,200,000	$1,143,253.99
Fund 212, Gas Tax	$275,000	$0
Fund 213, Road Maintenance Rehab. Account	$225,000	$0

Fund 510, Water Operations	$450,000	$515,446.73
Fund 540, Wastewater Operations	$30,000	$67,221.93
Total	**$2,180,000**	**$1,725,922.65**

BE IT FURTHER RESOLVED that the City Council of the City of American Canyon hereby accepts the 2020 Annual Pavement Management Project (TR20-0100) work as complete, authorizes the Public Works Director to file a Notice of Completion and approves the release of a Retention payment to Ghilotti Brothers Inc.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

_____
William D. Ross, City Attorney

RECORDING REQUESTED BY:
City of American Canyon
4381 Broadway, Ste. 201
American Canyon, CA 94503

WHEN RECORDED RETURN TO:
City of American Canyon
4381 Broadway, Ste. 201
American Canyon, CA 94503

Exempt from recording fee pursuant to Government Code Section 27383

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN:

1. That the interest or estate stated in Paragraph 3 herein in the real property herein described is owned by:

   City of American Canyon
   4381 Broadway, Ste. 201
   American Canyon, CA 94503

2. That the full name and address of the owner of said interest or estate, if there is only one owner, and that the full names and addresses of all the co-owners who own said interest or estate as tenants in common, as joint tenants, or otherwise, if there is more than one owner, are set forth in the preceding paragraph.

3. That the nature of the original contract, if any, for said work of improvement was:

   2020 Annual Pavement Management Project (TR20-0100)

4. That on the 20th day of July, 2021 a work of improvement on the real property herein described was completed.

5. That the name of the original contractor for said work of improvement was:

   Ghilotti Brothers Inc.
   525 Jacoby Street
   San Rafael, CA 94901

6. That the name and address of the transferor is:

   Ghilotti Brothers Inc.
   525 Jacoby Street
   San Rafael, CA 94901

7. That the real property referred to herein is situated in the County of Napa, State of California, at the following locations within the City of American Canyon, California.

   James Road – West American Canyon Road to Donaldson Way

By: CITY OF AMERICAN CANYON

_____ _____
Erica Ahmann Smithies, P.E. Date
Public Works Director/City Engineer

TITLE

Vacation of Utility Easement for Circle K Project

RECOMMENDATION

Adopt a Resolution vacating 9,440 square feet, more or less, an easement for the purpose of maintaining, constructing and replacing water and sewer mains and appurtenances over, under and across a strip of land shown on the Director's Deed, DC9419, Volume 1247, Page 1, of Official Records recorded July 8, 1982, referred to herein as the "Easement" by Summary Vacation pursuant to Streets and Highways Code Section 8333 et seq.

CONTACT

Erica Ahmann Smithies, PE, Public Works Director/City Engineer

BACKGROUND & ANALYSIS

The Easement was originally dedicated to American Canyon County Water District County in July 8, 1982 for the purpose of maintaining, constructing and replacing water and sewer mains and appurtenances (Attachment 2).

On October 22, 2020, the American Canyon Planning Commission approved a Conditional Use Permit (CUP) for a new 8-pump gas station and 5,187 square-foot convenience store on a 2.25-acre site at 112 Lombard Road (PC Resolution 2020-09), APNs 058-081-007, 058-081-003 and 058-081-013. The said easement is shown on the Site Plan (Attachment 3).

In 2006, the City finished the construction of Phase 2 Highway 29 Corridor 14-inch Water Pipe Replacement Project. This project constructed a new 14-inch water main along Lombard Road connecting to existing water main along Napa Junction Road. As a result, the old water main within the Easement was no longer in use and was abandoned (Attachment 4).

Section 8333(c) of the Streets and Highway Code provides a procedure for the City to vacate unneeded and unused public easement in a simple perfunctory manner; the procedure is known as a "Summary Vacation". Because the facts of the situation support the required findings, staff recommends the Council adopt a Resolution vacating the unused easement by way of Summary Vacation (Attachment 5).

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Economic Development and Vitality: "Attract and expand diverse business and employment opportunities."

FISCAL IMPACT

There is no fiscal impact associated with the proposed action.

ENVIRONMENTAL REVIEW

An environmental review for the Project was previously completed pursuant to the California Environmental Quality Act (CEQA). The vacating of public easement is not a project as defined in Section 15378(a) of the CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000*et seq*.).

ATTACHMENTS:

1. Resolution -Circle K Vacation of Easement
2. Exhibit A - Director's Deed
3. Exhibit B - Circle K Site Plan
4. Exhibit C - 14-inch main along Lombard
5. Exhibit D - Easement Legal Description

RESOLUTION NO. 2021-_____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON AUTHORIZING THE CITY MANAGER TO SUMMARILY VACATE THE 9,440 SQUARE FEET WATER AND SEWER EASEMENT AS DESCRIBED IN THE DIRECTOR'S DEED, DC9419, FILED IN VOLUME 1247, PAGE 1 OF NAPA COUNTY OFFICIAL RECORDS.

WHEREAS, on October 22, 2020, the City Council of the City of American Canyon approved a Conditional Use Permit for the Circle K project; and

WHEREAS, the Conditional Use Permit authorized the development of the 2.25-acre site at 112 Lombard Road, APNs 058-081-007, 058-081-003 and 058-320-013; and

WHEREAS, in 2006, the City finished the construction of Phase 2 Highway 29 Corridor 14-inch Water Pipe Replacement Project. This project constructed a new 14-inch water main along Lombard Road connecting to existing water main along Napa Junction Road. As a result, the old water main within the Easement was no longer in use and was abandoned; and

WHEREAS, Section 8333(c) et seq. of the Streets and Highway Code provides a procedure for the City to vacate unneeded and unused public easement in a simple perfunctory manner, known as summary vacation; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby authorizes the City Manager to summarily vacate the 9,440 square feet water and sewer easement as described in the Director's Deed, DC9419, filed in Volume 1247, Page 1 of Napa County Official Records.

PASSED, APPROVED and **ADOPTED** at a regular meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST:

_____
Leon Garcia, Mayor

APPROVED AS TO FORM:

_____
Taresa Geilfuss, City Clerk

_____
William D. Ross, City Attorney

NAPA COUNTY

Return to:
American Canyon Co. Water Distr.
3751 Broadway St.
Vallejo, Ca. 94590

VOL 1247 PAGE 1
RECORDED IN OFFICIAL RECORDS
OF NAPA COUNTY CALIF.
JUL 8 1982
AT 4:10 P.M.
ELEANOR E. KIMBROUGH
COUNTY RECORDER
No fee

SPACE ABOVE THIS LINE FOR RECORDER'S USE

DOCUMENTARY STAMP TAX: $0.00

DIRECTOR'S DEED
(EASEMENT)

DISTRICT	COUNTY	ROUTE	POST MILE	NUMBER
04	Nap	29	2.3	DE-000016-01-02

MAY 1982 09

The STATE OF CALIFORNIA, acting by and through its Director of Transportation, does hereby grant to

AMERICAN CANYON COUNTY WATER DISTRICT

all that real property in the,

County of Napa, State of California, described as:

AN EASEMENT for the purpose of maintaining, constructing and replacing water and sewer mains and appurtenances over, under and across a strip of land, 25.00 feet wide, being more particularly described as follows:

COMMENCING at the southwesterly corner of that parcel of land granted to the State of California, recorded January 4, 1945, in Volume 219, Page 47, Official Records of Napa County; thence along the westerly line and its northerly prolongation of said State parcel N. 7°20'55" W., 360.88 feet to the general southeasterly line of Parcel 1 of that Relinquishment recorded October 5, 1979, in Volume 1142, Page 53, Official Records of Napa County; thence along last said line from a tangent that bears N. 34°07'13" E., along a curve to the left with a radius of 531.00 feet, through an angle of 4°15'22", an arc length of 39.44 feet; thence S. 7°20'55" E., 395.13 feet to the southerly line of said State parcel; thence along last said line

MAIL TAX
STATEMENTS TO:
AMERICAN CANYON COUNTY WATER DISTRICT
3751 Broadway
Vallejo CA 94589

DC9419

DOCUMENTARY TRANSFER TAX $ 0.00
☒ COMPUTED ON FULL VALUE OF PROPERTY CONVEYED, OR
☐ COMPUTED ON FULL VALUE LESS LIENS & ENCUMBRANCES REMAINING THEREON AT TIME OF SALE.
Signature of declarant or agent determining tax—firm name
CITY OF ☒ Unincorporated

FORM DRW-353 (REV. 7-76)

N. 88°49'25" W., 25.28 feet to the point of commencement.

CONTAINING 9440 square feet, more or less.

There shall be no abutter's rights of access appurtenant to the above-described real property in and to the adjacent State freeway.

The bearings and distances used in the above description are on the California Coordinate System, Zone 2. Multiply the above distances by 0.9999660 to obtain ground level distances.

NAPA COUNTY

Subject to special assessments if any, restrictions, reservations, and easements of record. VOL 1247 PAGE 3

This conveyance is executed pursuant to the authority vested in the Director of Transportation by law and, in particular, by the Streets and Highways Code.

WITNESS my hand and the seal of the Department of Transportation of the State of California, this 3rd day of June, 1982.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ADRIANA GIANTURCO
Director of Transportation

By ROBERT O. WATKINS
Deputy Director and Attorney in Fact

APPROVED AS TO FORM AND PROCEDURE

ATTORNEY
DEPARTMENT OF TRANSPORTATION

STATE OF CALIFORNIA
COUNTY OF SACRAMENTO } ss.

On this 3rd day of June, in the year 1982, before me, Marjorie Egloff, a Notary Public in and for the State of California, residing therein, duly commissioned and sworn, personally appeared ROBERT O. WATKINS known to me to be the person whose name is subscribed to the within instrument as the Attorney in Fact of ADRIANA GIANTURCO, Director of Transportation of the State of California, and known to me to be the person who executed the within instrument on behalf of the State of California, and he acknowledged to me that he subscribed the name of ADRIANA GIANTURCO as Director of Transportation, and his own name as Attorney in Fact, and that the State of California executed the same.

WITNESS my hand and official seal.

OFFICIAL SEAL
MARJORIE EGLOFF
NOTARY PUBLIC-CALIFORNIA
Principal Office in Sacramento County
My Commission Expires Mar. 19, 1985

Marjorie Egloff
Notary Public

TRANSPORTATION

THIS IS TO CERTIFY That the California Highway Commission has authorized the Director of Transportation to execute the foregoing deed at its meeting regularly called and held on the 28th day of May, 1982, in the City of San Francisco

Dated this 2nd day of June, 1982.

Richard A. Donaldson

RICHARD A. DONALDSON
Assistant Secretary
California Transportation Commission

NAPA COUNTY

VOL 1247 PAGE 4

CERTIFICATE OF ACCEPTANCE OF INTEREST
IN OR EASEMENT UPON REAL PROPERTY
CONVEYED TO THE AMERICAN CANYON COUNTY
WATER DISTRICT

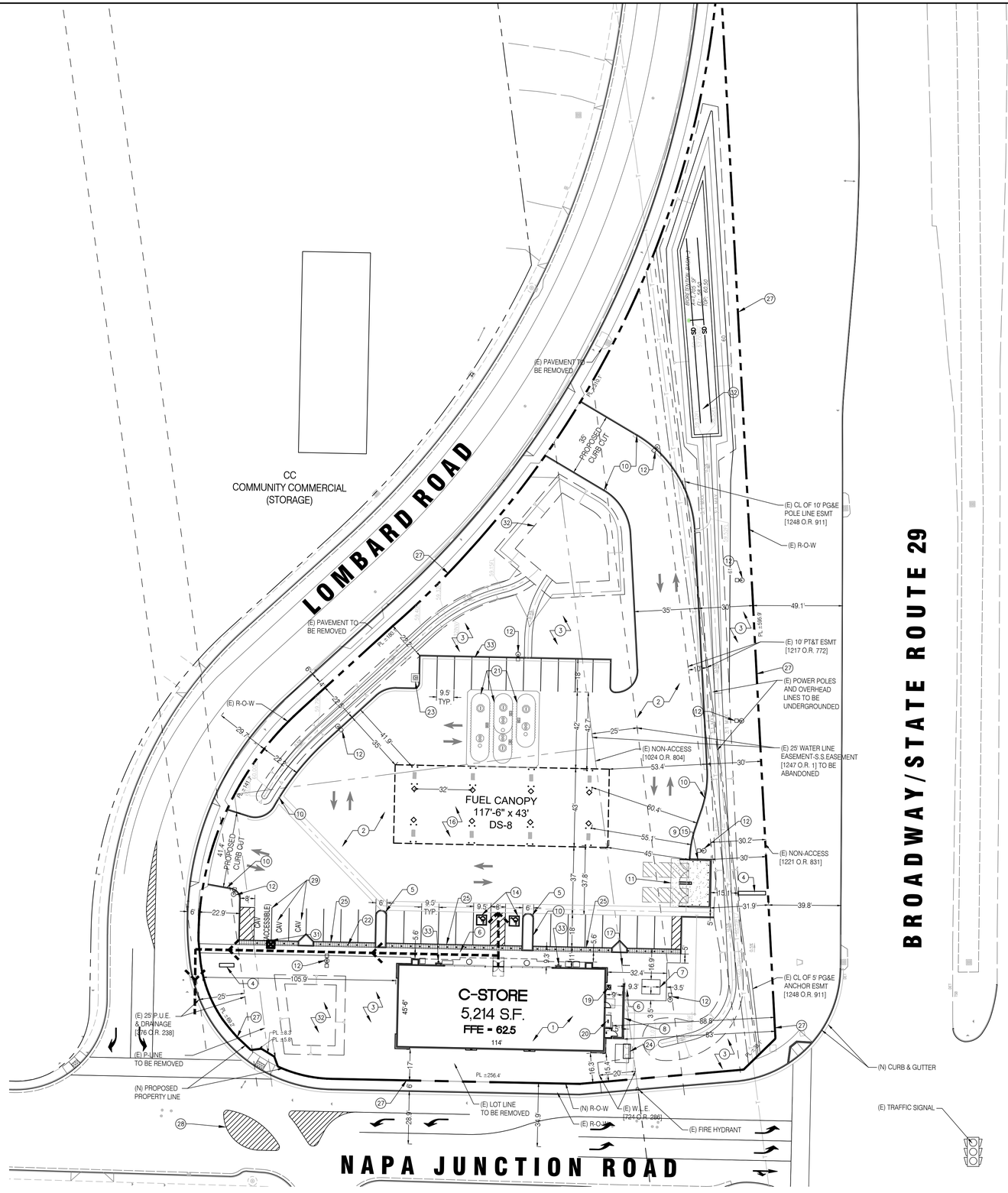
Pursuant to the provisions of Section 27281 of the Government Code of the State of California, the Secretary of the AMERICAN CANYON COUNTY WATER DISTRICT hereby certifies that the interest in real property conveyed by the instrument dated the 3rd day of June, 1982 from STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION to the AMERICAN CANYON COUNTY WATER DISTRICT is hereby accepted by order of the Board of Directors of the AMERICAN CANYON COUNTY WATER DISTRICT on the 6th day of July, 1982 and the grantee consents to recordation thereof by its duly authorized officer.

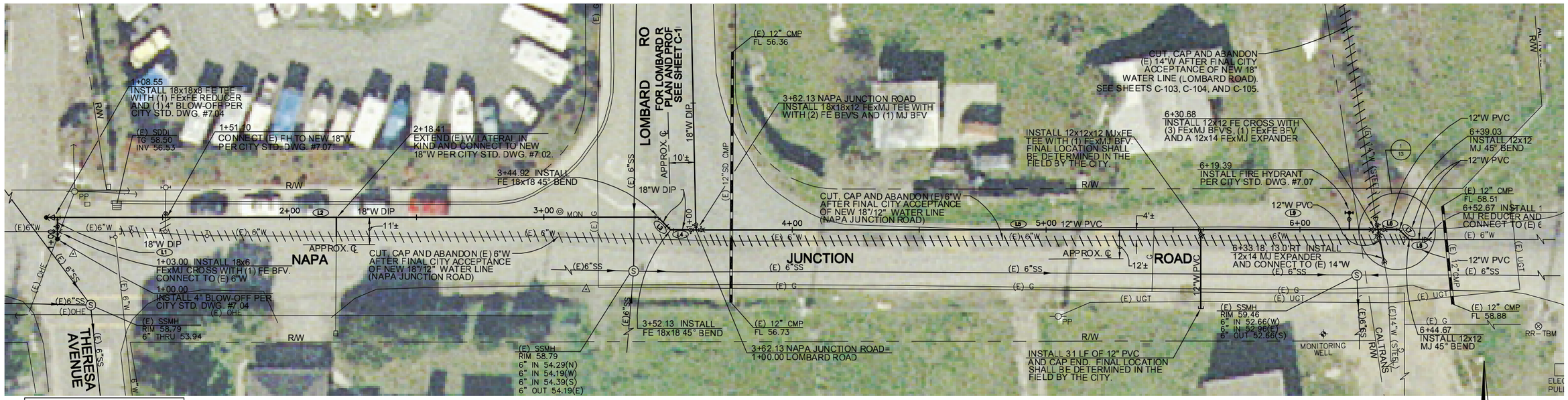
Dated this 7th day of July, 1982.

Secretary of AMERICAN CANYON
COUNTY WATER DISTRICT

(SEAL)

END OF DOCUMENT


LOMBARD ROAD
BROADWAY/STATE ROUTE 29
NAPA JUNCTION ROAD
CC
COMMUNITY COMMERCIAL
(STORAGE)
(E) PAVEMENT TO BE REMOVED
(E) PAVEMENT TO BE REMOVED
35' PROPOSED CURB CUT
41.4' PROPOSED CURB CUT
FUEL CANOPY
117'-6" x 43'
DS-8
C-STORE
5,214 S.F.
FFE = 62.5
114'
(E) R-O-W
(E) CL OF 10' PG&E POLE LINE ESMT [1248 O.R. 911]
(E) 10' PT&T ESMT [1217 O.R. 772]
(E) POWER POLES AND OVERHEAD LINES TO BE UNDERGROUNDED
(E) 25' WATER LINE EASEMENT-S.S.EASEMENT [1247 O.R. 1] TO BE ABANDONED
(E) NON-ACCESS [1024 O.R. 804]
(E) NON-ACCESS [1221 O.R. 831]
(E) CL OF 5' PG&E ANCHOR ESMT [1248 O.R. 911]
(E) 25' P.U.E. & DRAINAGE [276 O.R. 238]
(E) P.LINE TO BE REMOVED
(N) PROPOSED PROPERTY LINE
(E) LOT LINE TO BE REMOVED
(N) R-O-W
(E) W.L.E. [724 O.R. 286]
(E) R-O-W
(E) FIRE HYDRANT
(N) CURB & GUTTER
(E) TRAFFIC SIGNAL
PAVEMENT SLOPE TO PLANTER
PL 256.9'
PL 256.9'
PL 256.9'

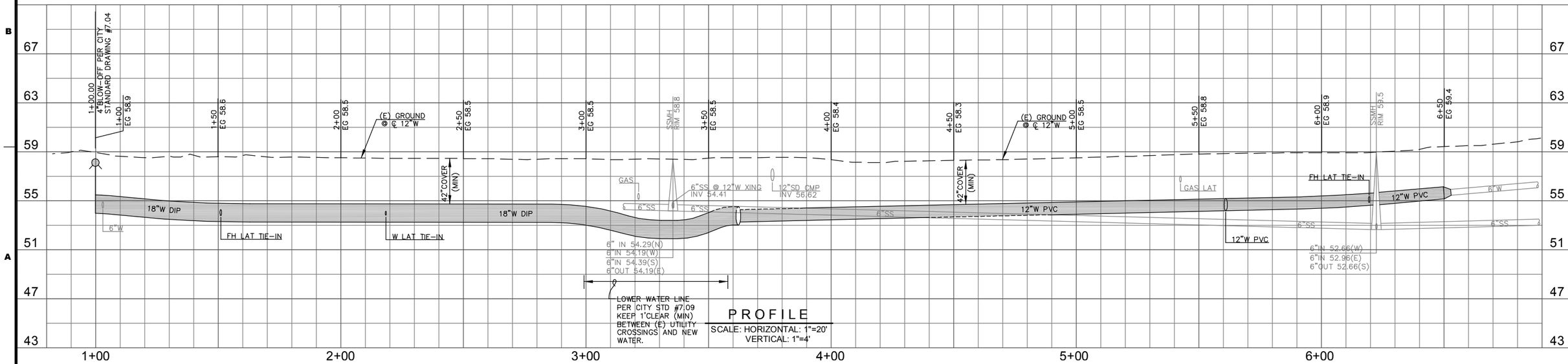


LINE TABLE		
NUMBER	DIRECTION	LENGTH
L1	N01°12'49"E	8.55'
L2	N88°47'11"E	236.37'
L3	N88°47'11"E	7.22'
L4	N88°47'11"E	10.00'
L5	N88°47'11"E	268.55'

LINE TABLE		
NUMBER	DIRECTION	LENGTH
L6	N88°47'11"E	8.35'
L7	S43°52'11"E	5.64'
L8	S88°52'11"E	8.00'
L9	S10°15'03"E	8.00'

PLAN
SCALE: 1"=20'

1"=20' 20' 0' 20' 40'



PROFILE
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

MARK	DATE	DESCRIPTION	BY	APPR.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM M. SILVA
No. C 058235
Exp. 6/30/06
CIVIL
STATE OF CALIFORNIA

DSGN	DDD
DRWN	RJF
CHKD	
SCALE	SHOWN

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

WINZLER & KELLY CONSULTING ENGINEERS
495 TESCONI CIRCLE, SANTA ROSA, CA 95401
PH (707) 523-1010 ♦ FAX (707) 527-8679
WWW.W-AND-K.COM

CITY OF AMERICAN CANYON
HIGHWAY 29 CORRIDOR 14-INCH WATER PIPE REPLACEMENT PROJECT
PHASE 1.1 & 1.2
NAPA JUNCTION ROAD
PLAN & PROFILE STA 1+00 to TIE-IN

PROJECT NO. 04253604
DRAWING NO. C-101
SHT 5 OF 13

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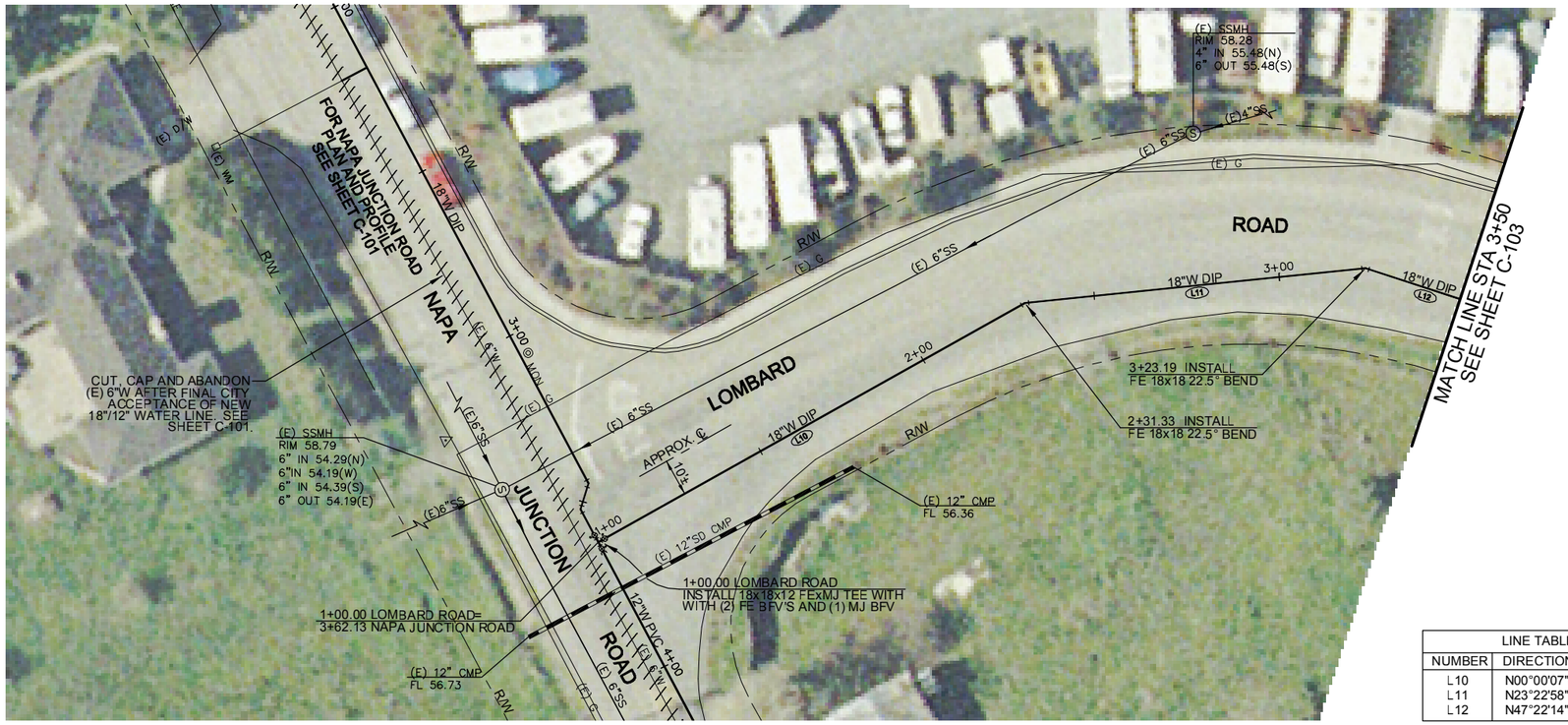
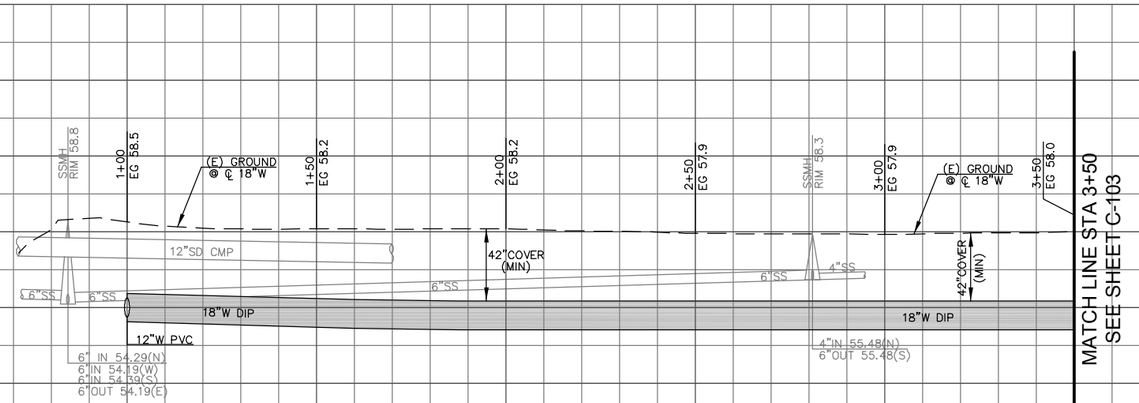


PLAN
SCALE: 1"=20'

LINE TABLE		
NUMBER	DIRECTION	LENGTH
L10	N00°00'07"E	128.58'
L11	N23°22'58"E	91.86'
L12	N47°22'14"E	112.27'

1"=20' 20' 0' 20' 40'



PROFILE
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

MARK	DATE	DESCRIPTION	BY	APPR.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM M. SILVA
No. C 058235
Exp. 6/30/06
CIVIL
STATE OF CALIFORNIA

DSGN	DDD
DRWN	RjF
CHKD	
SCALE	SHOWN

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WINZLER & KELLY
CONSULTING ENGINEERS
495 TESCONI CIRCLE, SANTA ROSA, CA 95401
PH (707) 523-1010 ♦ FAX (707) 527-8679
WWW.W-AND-K.COM

CITY OF AMERICAN CANYON
HIGHWAY 29 CORRIDOR 14-INCH WATER PIPE REPLACEMENT PROJECT
PHASE 1.1 & 1.2
LOMBARD ROAD
PLAN & PROFILE STA 1+00 to STA 3+50

PROJECT NO. 04253604
DRAWING NO. C-102
SHT 6 OF 13

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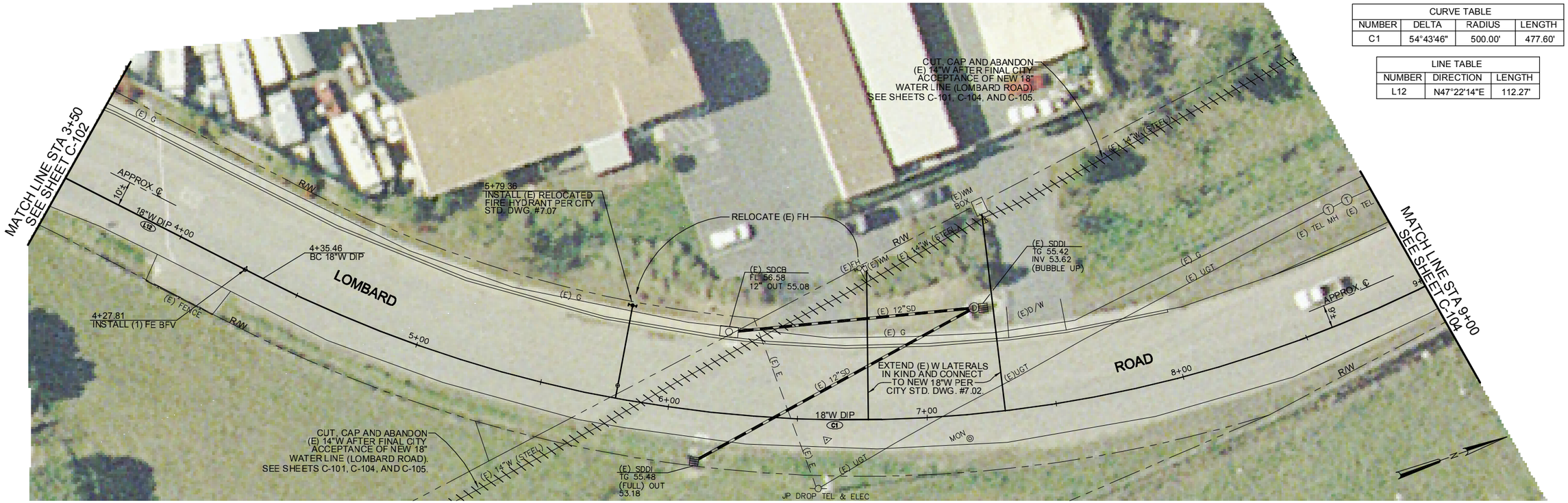
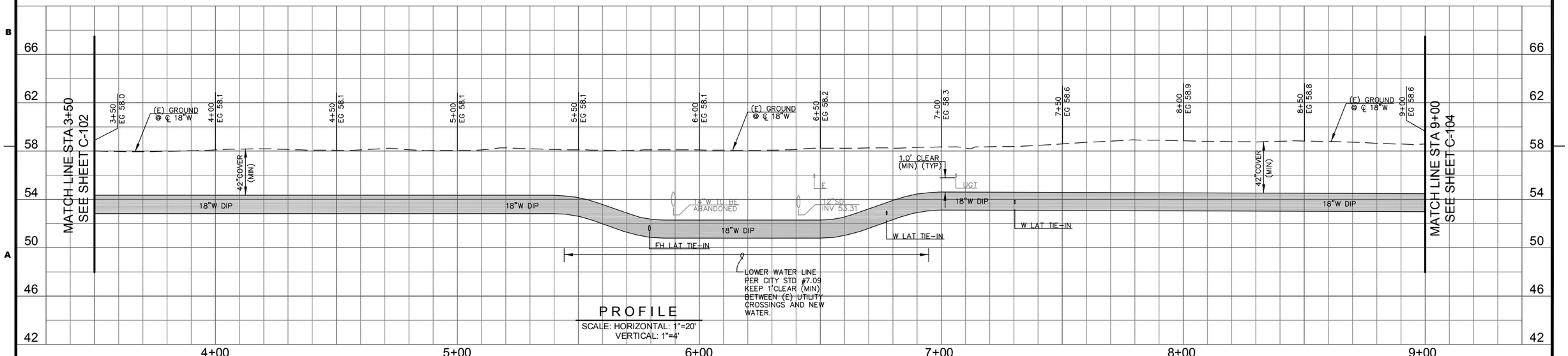
CURVE TABLE			
NUMBER	DELTA	RADIUS	LENGTH
C1	54°43'46"	500.00'	477.60'

LINE TABLE		
NUMBER	DIRECTION	LENGTH
L12	N47°22'14"E	112.27'



PLAN
SCALE: 1"=20'

1"=20' 20' 0' 20' 40'



PROFILE
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

100% SUBMITTAL
NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION	BY	APPR.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM M. SILVA
No. C 058235
Exp. 6/30/06
CIVIL
STATE OF CALIFORNIA

DSGN	DDD
DRWN	RjF
CHKD	
SCALE	SHOWN

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

WINZLER & KELLY
CONSULTING ENGINEERS
495 TESCONI CIRCLE, SANTA ROSA, CA 95401
PH (707) 523-1010 ♦ FAX (707) 527-8679
WWW.W-AND-K.COM

CITY OF AMERICAN CANYON

HIGHWAY 29 CORRIDOR 14-INCH WATER PIPE REPLACEMENT PROJECT

PHASE 1.1 & 1.2

LOMBARD ROAD

PLAN & PROFILE STA 3+50 to STA 9+00

PROJECT NO. 04253604

DRAWING NO. C-103

SHT 7 OF 13

4 J:\04253604\CAD\Phase 1\04253604C103.dwg Jul 15, 2005 - 12:52pm

EXHIBIT "A"
LEGAL DESCRIPTION
FOR: VACATION OF EASEMENT

All that certain real property situate in the City of American Canyon, County of Napa, State of California, and being more particularly described as follows:

ALL of that 25.00-foot easement for the purpose of maintaining, constructing and replacing water and sewer mains dedicated to American Canyon Water District as described in that certain document entitled "Director's Deed" recorded July 08, 1982 in Volume 1247, Page 1 of Official Records of Napa County.

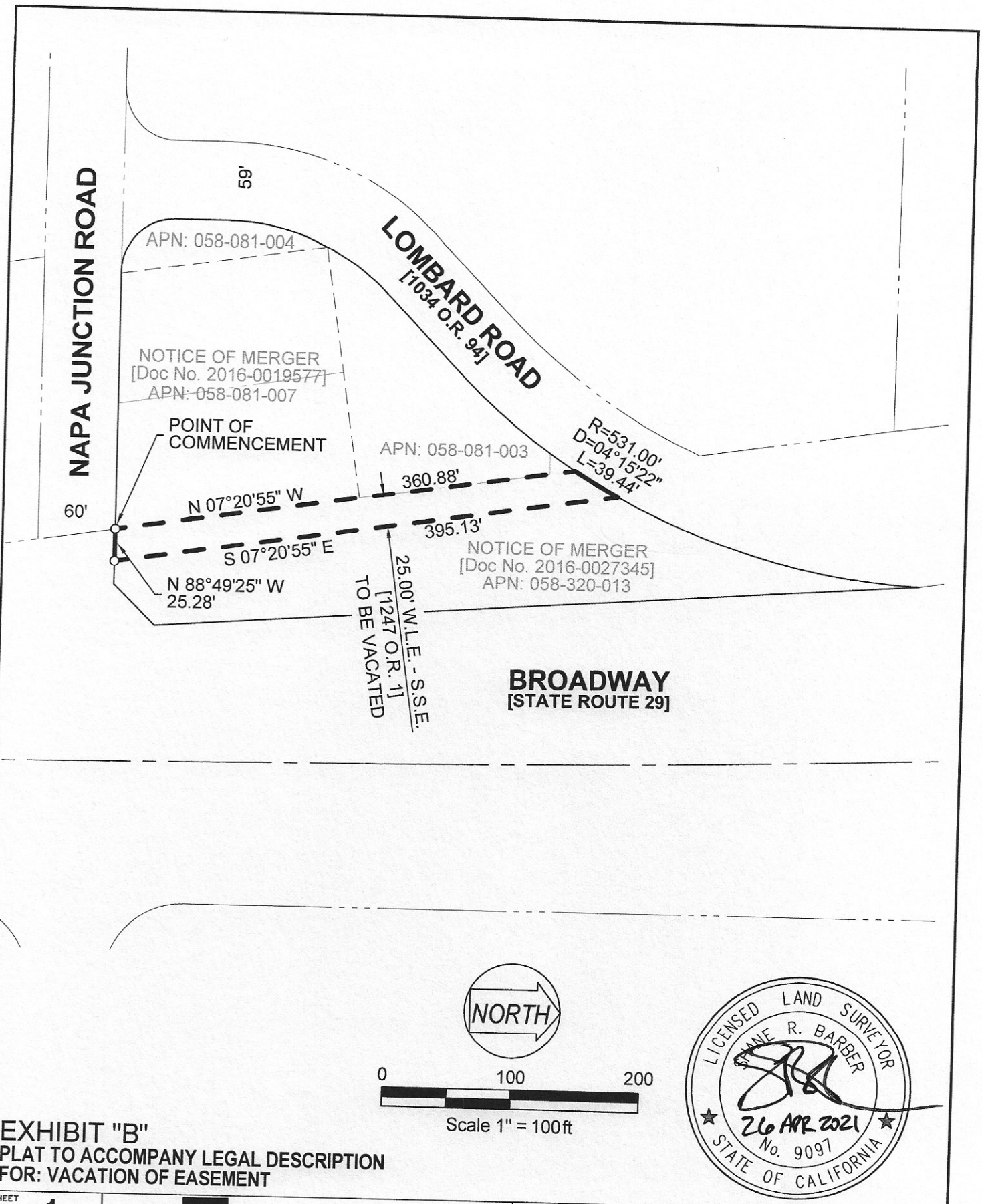
As shown on **"EXHIBIT B"** attached hereto and by this reference made a part hereof.

Legal Description was prepared by Barber Surveying, Inc. for ams associates.

Date 26 Apr 2021

Shane R. Barber LS 9097





LICENSED LAND SURVEYOR
SHANE R. BARBER
26 APR 2021
No. 9097
STATE OF CALIFORNIA

EXHIBIT "B"
PLAT TO ACCOMPANY LEGAL DESCRIPTION
FOR: VACATION OF EASEMENT

SHEET	PROJECT
1 OF 1	17-2368

ams associates, inc.
PLANNING ENGINEERING SURVEYING TRANSPORTATION
801 YGNACIO VALLEY RD, SUITE 220
WALNUT CREEK, CA 94596

		REV #	BY	DATE	DESCRIPTION
DATE:	APR. 2021	△			
SCALE:	1" = 100'	△			
DESIGNED:	SB	△			
DRAWN:	SB	△			
CHECKED:	AS	△			
PROJ. MGR:	AS	△			

FILE PATH: USER: Shane Barber B:\2017\17_093\DWG\SURVEY\PLATS\WLE\C-PLAT-WLE.dwg APRIL 26, 2021 11:49 AM

TITLE

City Council Chamber Audio Visual Upgrades

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to execute agreements with Napa Valley Television and Definitive Networks, Inc. in an amount not to exceed $75,000, to complete City Council Chamber Audio Visual upgrades.

CONTACT

Maria Ojeda, Assistant City Manager

BACKGROUND & ANALYSIS

In 2019, City Council Chamber upgrades were partially completed as Phase I of the City Council Chamber upgrade project. Phase I included upgrades to the audio visual room which transmits signals to televise and broadcast live meetings on Channel 28, YouTube and via the city's website (Granicus). In the wake of COVID-19, the Phase II upgrades were postponed. Now, as municipal organizations across the State of California pivot to hybrid or in-person city council meetings, there is a need to complete Phase II of the City Council Chamber upgrades. This phase will provide updated technology including cameras to transmit a improved quality picture across all broadcast mediums, peripherals to facilitate Zoom attendees during an in-person meeting, updated cabling and connections to facilitate new technology, new viewing screens and microphone upgrades. The estimated cost of Phase II is $75,000.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The estimated cost of $75,000 will be funded through an increase in appropriations in the Information Technology Internal Service Fund (approximately $60,000) and the City Manager's operating budget in the General Fund (approximately $15,000). Costs for equipment will be budgeted in the Information Technology Internal Service Fund and costs for professional services will be budgeted in the City Manager's operating budget within the General Fund. The appropriations increases will be in accounts 653-20-220-42160 Professional Services (approximately

$60,000) and 100-10-120-42160 Professional Services (approximately $15,000).

ENVIRONMENTAL REVIEW

Not Applicable.

ATTACHMENTS:

1. Resolution - Napa Television and DNI

RESOLUTION NO. 2021-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON AUTHORIZING THE CITY MANAGER TO EXECUTE AGREEMENTS WITH NAPA VALLEY TELEVISION AND DEFINITIVE NETWORKS INC, IN AN AMOUNT NOT TO EXCEED $75,000 TO COMPLETE CITY COUNCIL CHAMBER UPGRADES

WHEREAS, Phase I of the City Council Chamber upgrades began and was completed in 2019 and included upgrades to the audio-visual room; and

WHEREAS, Phase II of the City Council Chamber upgrades is necessary to transmit improved quality through multiple broadcast mediums; and

WHEREAS, Phase II of the City Council Chamber upgrades will include new cameras, screens, cabling, software and other peripherals to enable and transmit with the latest technology; and

WHEREAS, the estimated cost for professional services and equipment is $75,000 and will be funded through an increase in appropriations in the Information Technology Internal Service Fund (653-20-220-42160) and the City Manager's operating budget in the General Fund (100-10-120-42160); and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby authorizes the City Manager to execute contracts with Napa Valley Television and Definitive Networks, Inc. to complete the City Council Chamber upgrades for a total amount not to exceed $75,000.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

TITLE

Appeal of SDG Commerce 217 Warehouse Distribution Center Conditional Use Permit

RECOMMENDATION

Take the following actions in conjunction with the appeal of the Planning Commission approval of the SDG Commerce 217 Warehouse Distribution Center Conditional Use Permit (File Number PL21-0006):

1. Adopt a Resolution to approve the Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 Project;
2. Adopt the Mitigation Monitoring and Reporting Program;
3. Direct staff to file a Notice of Determination;
4. Uphold the Planning Commission SDG Commerce 217 warehouse distribution center Conditional Use Permit Approval; and
5. Deny the Appeal filed by the Laborers International Union of North America, Local 324 (LIUNA) (File Number PL21-0006).

CONTACT

William He, AICP, Associate Planner

BACKGROUND & ANALYSIS

In March 2020, the Stravinski Development Group (SDG) submitted a Conditional Use Permit application for a new warehouse and distribution center at 1075 Commerce Court, APN 058-030-065, File Number PL20-0008. The project consists of a 217,294 square foot single story wine storage and distribution center with 134 parking spaces, 21 trucking docks, approximately 1.43 acres of landscaping. The building height is proposed to be 35 feet and setback 30 feet from Commerce Court. The site also contains a 0.48-acre bio retention pond capable of storing 85,000 cubic feet of stormwater. A Project Location map is included (Attachment 2). A copy of the site plan is included (Attachment 3). A representative example of the building elevation is included (Attachment 4).

The project was evaluated consistent with the California Environmental Quality Act (CEQA) and a Mitigated Negative Declaration (MND) was prepared. The MND included mitigation measures that result in the project causing no significant environmental impacts. The MND was sent to the State Clearinghouse and circulated for a 30-day public review from December 18, 2020 to January 18,

2021. A copy of the 30-day Notice of Intent to Adopt a Mitigated Negative Declaration is included (Attachment 5).

On January 19, 2021, the City received a comment letter from the Laborers International Union of North America, Local 324 (LIUNA). The comment letter suggested the project may cause significant adverse environmental impacts and an Environmental Impact Report (EIR) should be prepared. To provide time to respond to the comment letter, the scheduled Planning Commission hearing was continued from January 25, 2021 to February 25, 2021.

The CEQA consultant, Richard Grassetti and Associates, revised the Transportation section and clarified the Biology, Air Quality, and Greenhouse Gas methodologies. The clarifications provides substantial evidence to confirm the Project does not result in any new or substantially increased environmental impacts and no substantive MND revisions are necessary. A copy of the LIUNA letter with responses to comments is included (Attachment 6).

On February 25, 2021, the Planning Commission conducted a public hearing for the SDG Commerce 217 project. A copy of the Planning Commission staff report is included (Attachment 7). Earlier that day, the City received a letter from the LIUNA. The letter repeated a request to prepare an EIR. A copy of the February 25, 2021 LIUNA letter is included (Attachment 8).

During the Planning Commission meeting, the City's and Applicant's legal counsel provided oral testimony that confirmed the LIUNA letter did not raise any new issues or new substantial evidence that required additional CEQA review. Following public testimony, the Planning Commission unanimously approved the Project. Planning Commission Resolution 2021-02 approving the MND is included (Attachment 9). A copy of Planning Commission Resolution 2021-03 approving the Conditional Use Permit is included (Attachment 10).

On March 5, 2021, the LIUNA filed an appeal of the Planning Commission's approval. The appeal requests the City Council rescind the project approval and require a new MND or EIR. A copy of the March 5, 2021 LIUNA letter is included (Attachment 11).

To respond to the appeal, staff and the applicant agreed the MND will be recirculated for a new 30-day public review period from April 1, 2021 to May 3, 2021. A copy of the recirculated 30-day Notice of Intent to Adopt a Mitigated Negative Declaration is included (Attachment 12).

During the recirculated 30-day review period, the law firm Adams Broadwell requested a further 30-day public review period extension. The Adams Broadwell letter is included (Attachment 13). The public review period extension request was granted with a new June 3, 2021 public review period ending date. A copy of the email granting the extension request is included (Attachment 14).

During the public review period, the City received three (3) comment letters: two from LIUNA represented by the Lozeau Drury law firm, and one (1) from the International Brotherhood of

Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail, and Transportation Workers Local Union 104, and the District Council of Ironworkers represented by Adams Broadwell Joseph & Cardozo, Attorneys at law.

The City's Environmental consultant evaluated the comment letters and provided greater clarification to the MND, but concluded that no new issues or substantial evidence was presented that would require a new or recirculated environmental document. The public comment letters and responses are included (Attachment 15). The updated MND and Mitigation Measures Reporting Program (MMRP) are included (Attachment 16).

As discussed in the response to the recirculated MND comment letters, the extended MND recirculation period did not identify any new significant issues or substantial evidence that the Project was evaluated inconsistent with the requirements of CEQA. Thus, there is no new information that would justify rescinding the February 25, 2021 Planning Commission project approval.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Economic Development and Vitality: "Attract and expand diverse business and employment opportunities."

FISCAL IMPACT

There is no specific fiscal impact associated with considering an appeal of a Planning Commission decision.

ALTERNATIVES

Should the Council desire to take action other than the staff recommendation, staff requests specific direction/feedback in order to bring back an item that responds to this direction at a subsequent meeting.

ENVIRONMENTAL REVIEW

The City of American Canyon recirculated the SDG 217 Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA) from April 3, 2021 to June 3, 2021 (State Clearinghouse Number: 2020120302). The basis for the recirculated Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures will reduce the impacts to less than significant are part of project conditions. The updated MND and Mitigation Measures Reporting Program (MMRP) are included (Attachment 16).

ATTACHMENTS:

1. Resolution - Mitigated Negative Declaration SDG 217

2. Location Map
3. SDG 217 Site Plan
4. Representative Building Elevation
5. MND Notice of Intent
6. LIUNA Letter 01-19-21.pdf
7. PC Staff Report 02-25-21
8. LIUNA Letter 02-25-21
9. PC Resolution Approving the MND
10. PC Resolution Approving CUP
11. LIUNA Appeal
12. Recirculated 30 Day MND Notice
13. Adams Broadwell Extension Request for MND SDG Commerce 217 Distribution Center Project
14. Email Agreement to Recirculation Extension
15. Recirculated MND Letters and Responses
16. Exhibit A - Recirculated MND

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, CALIFORNIA; 1) ADOPTING THE RECIRCULATED INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE SDG COMMERCE 217 PROJECT (STATE CLEARINGHOUSE NUMBER: 2020120302) CONSISTING OF A CONDITIONAL USE PERMIT FOR A 217,294-SQUARE FOOT SINGLE STORY 35-FOOT TALL WAREHOUSE ON A 10.39-ACRE SITE AT 1075 COMMERCE COURT; 2) ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM; 3) DIRECTING STAFF TO FILE A NOTICE OF DETERMINATION, 4) UPHOLDING THE PLANNING COMMISSION APPROVAL OF THE SDG COMMERCE 217 CONDITIONAL USE PERMIT; AND 5) DENYING THE APPEAL FILED BY THE LABORERS INTERNATIONAL UNION OF NORTH AMERICA, LOCAL 324 (LIUNA) ; FILE NUMBER PL21-0006

WHEREAS, a Conditional Use Permit application (PL20-0008) was filed by Stravinski Development Group, LLC for a new 217,294 square-foot single story 35-foot tall wine warehouse on a 10.39-acre site with parking, truck and trailer loading spaces, drive aisles, landscaping, and a stormwater detention pond at 1075 Commerce Court, APN 058-030-065; and

WHEREAS, the City of American Canyon determined that the project was subject to the California Environmental Quality Act (CEQA) and prepared an Initial Study pursuant to CEQA evaluating the potential environmental effects of the project; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA"), a Mitigated Negative Declaration ("MND"), that includes a "Mitigation and Monitoring Reporting Plan ("MMRP") was prepared for the Project and circulated for 30 days starting December 18, 2020 (State Clearinghouse Number: 2020120302); and

WHEREAS, the MND examined the Project at the project level to allow for construction; and

WHEREAS, a Notice of Intent ("NOI") to adopt a Mitigated Negative Declaration ("MND") was posted at the County Clerk in accordance with the CEQA requirements on December 18, 2020; and

WHEREAS, a Notice of Completion ("NOC") was delivered to the State Clearinghouse in accordance with the CEQA requirements on December 16, 2020 with instructions to begin the review period on December 18, 2020; and

WHEREAS, an NOI to adopt an MND was published in The Vallejo Times-Herald in accordance with the CEQA requirements on December 17, 2020 and the same noticing was mailed to property owners within 300-foot radius of the site; and

WHEREAS, the City of American Canyon Planning Commission adopted Resolution 2021-02 for the SDG 217 Mitigated Negative Declaration (MND) and the Conditional Use Permit Resolution 2021-03 at a duly-noticed public hearing on February 25, 2021; and

WHEREAS, on March 5, 2021, the Laborers International Union of North America, Local 324 (LIUNA) filed an appeal to the Planning Commission's approval; and

WHEREAS, the MND was recirculated for a new 30-day public review period from April 1, 2021 to May 3, 2021; and

WHEREAS, the law firm Adams Broadwell requested a further 30-day public review period extension which was granted with a new June 3, 2021; and

WHEREAS, during the extended and recirculated public review period, the City received three comment letters: two (2) from LIUNA represented by the Lozeau Drury law firm, and one (1) from the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail, and Transportation Workers Local Union 104, and the District Council of Ironworkers represented by Adams Broadwell Joseph & Cardozo, Attorneys at law; and

WHEREAS, the City's Environmental consultant evaluated the comment letters and provided greater clarification to the MND, but concluded that no new issues or substantial evidence was presented that would require a new or recirculated environmental document and provided responses to comments; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon City Council on July 20, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal; and

WHEREAS, the City Council has considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT RESOLVED that the American Canyon City Council, based upon the record**,** finds as follows:

1. The foregoing recitals are true and correct.

2. The American Canyon City Council has independently reviewed, analyzed, and considered the Mitigated Negative Declaration, (incorporated herein as Exhibit A); the Mitigation Monitoring Plan (incorporated herein as Exhibit B); and the whole record before it (including, the initial study and comments received) and, based on the foregoing, the American Canyon City Council hereby finds that all environmental impacts of the Project with mitigation measures are below a level of significance and there is no substantial evidence supporting a fair argument that the Project will have a significant effect on the environment.

3. The American Canyon City Council finds the Mitigated Negative Declaration and Mitigation Monitoring Plan has been completed in compliance with CEQA and consistent the State of California Guidelines for the Implementation of the California Environmental Quality Act.

4. The American Canyon City Council finds that the Mitigated Negative Declaration represents the independent judgment and analysis of American Canyon as lead agency for the Project.

5. The American Canyon City Council further finds that the Mitigated Negative Declaration is adequate to serve as the required CEQA environmental documentation for the Project, and hereby:

   1) adopts the SDG Commerce 217 Project Initial Study and Mitigated Negative Declaration, attached hereto as Exhibit A and incorporated herein;

   2) adopts the Mitigation and Monitoring Program for the Project, attached hereto as Exhibit B and incorporated herein; and

   3) directs staff to file a Notice of Determination for the Project consistent with the CEQA Guidelines.

6. The Community Development Director is the custodian of the records of the proceedings on which this decision is based. The records are located at 4381 Broadway, Suite 201, American Canyon, CA 94503.

7. The American Canyon City Council directs staff to file a notice of determination with the County of Napa within five working days of the adoption of this Resolution.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City of American Canyon City Council does hereby uphold the Planning Commission approval of the SDG Commerce 217 Conditional Use Permit (Resolution 2021-03) and denies the Appeal filed by the Laborers International Union of North America, Local 324 (LIUNA).

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:	Council Members Oro, Washington, Vice Mayor Joseph, and Mayor Garcia
NOES:	None
ABSTAIN:	None
ABSENT:	Council Member Aboudamous

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

EXHIBITS:

A. Initial Study and Mitigated Negative Declaration and Mitigation and Monitoring Program

ATTACHMENT 2 – VICINITY MAP



ATTACHMENT 3

SDG 217 Warehouse Site Plan



SDG Commerce 217, LLC
413 W. Yosemite Ave, Suite 105
Madera, CA 93637
(559) 674-0906

SDG COMMERCE 217 DISTRIBUTION CENTER

AMERICAN CANYON, CA

Ward Architects, Inc.
2948 Devita Drive
Napa, CA 94558
(707) 320-4030

ATTACHMENT 4

Representative Building Elevation – SDG 330 Warehouse



SDG Commerce 217, LLC
413 W. Yosemite Ave, Suite 105
Madera, CA 93637
(559) 674-0906

SDG COMMERCE 217 DISTRIBUTION CENTER
AMERICAN CANYON, CA

Ward Architects, Inc.
2948 Devita Drive
Napa, CA 94558
(707) 320-4030

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

30 DAY NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration for the following described project in accordance with the California Environmental Quality Act (CEQA). The 30-day public comment period starts on December 18, 2020, and ends on January 18, 2021.

NOTICE IS FURTHER HEREBY GIVEN that the Planning Commission will hold a public hearing on **Thursday, January 28, 2021** at **6:30 p.m.**, at **4381 Broadway, Suite 201, American Canyon, CA 94503** (in the Council Chambers of the American Canyon City Hall), to consider the Initial Study Checklist and Mitigated Negative Declaration and the following applications:

Project Title:	SDG Commerce 217 Distribution Center
Project Number:	PL20-0008
Project Applicant:	SDG Commerce 217, LLC
Project Location:	West side of the Commerce Boulevard extension north of Eucalyptus Drive.
Assessor Parcel(s):	058-030-065
Project Description:	Conditional Use Permit for a new 217,294 square foot wine warehouse distribution center with parking and landscaping. The site is located in the Recreation (REC) zoning district.

The basis for proposing a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

Copies of all documents that relate to the above-described project and proposed MND and Initial Study Checklist may be examined on the City's website at: https://bit.ly/3gAjtEs.

Comments on the MND, sent in writing, must be received by 5:00 p.m. on January 19, 2021, at the following address:

William He, AICP, Associate Planner
City of American Canyon Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Oral or written comments may be provided to the Planning Commissioners at their meeting. All interested persons are invited to attend the meeting and be heard on this matter.

Public meetings/events sponsored or conducted by the City of American Canyon are held in accessible sites. Requests for accommodations may be made by calling (707) 647-4577 (voice) or 711 for the California Relay Service or by e-mailing the ADA Coordinator, Cherri Walton, at cwalton@cityofamericancanyon.org at least 72 hours in advance of the event. Copies of documents distributed at the meeting are available in alternative formats upon request.

Cherri Walton, CMC, Interim City Clerk

Mailed Date: December 18, 2020
Publication Date: December 17, 2020

LOZEAU DRURY LLP
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F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
michael@lozeaudrury.com

Via Email

January 19, 2021

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration

Dear Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project").

After reviewing the MND prepared for the Project along with our experts, we believe there is a fair argument that the Project may have significant adverse environmental impacts and that an environmental impact report ("EIR") should therefore be prepared pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000, et seq.

LIUNA submits herewith the expert comments of wildlife ecologist Dr. Shawn Smallwood. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit A. LIUNA also submits herewith comments on the Project's air and greenhouse gas emissions from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comments and the resumes of their consultants are attached hereto as Exhibit B.

PROJECT DESCRIPTION

The Project proposes to issue a conditional use permit to construct and operate a 217,294 square foot wine distribution center on a 10.39-acre parcel in close proximity to the Napa River and an area identified by the Audubon Society as an "Important Bird Area." In addition to the 10.39 acre building site, the Project also involves excavation and operation of a borrow area

covering most of the adjacent 10.17 acre parcel immediately to the south of the building site. The proposed building would be bordered by 134 parking stalls on the north edge of the building parcel and 21 truck docking bays on the north side of the proposed building. The building would be heavily insulated and refrigerated. Grading and filling will occur throughout the Project site as well as most of the adjacent borrow area parcel. During construction, about 17,000 cubic yards of stockpiled soil will be transported and another 21,000 cubic yards of soil will be excavated from the adjacent site. Construction of the project would be done in a single phase lasting approximately 9.5 months. Types of heavy diesel equipment to be used to construct the facility will include a self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. Operation of the Project is estimated to generate a total of 367 daily project trips and, prior to mitigation, increase the daily vehicle miles travelled ("VMT") in the area by 2,355 VMT. The closest residence is about 500 feet from the Project's borrow area.

LEGAL STANDARDS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["*CBE v. SCAQMD*"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens,* 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors,* 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (Pub. Resources Code, § 21080(d); see also *Pocket Protectors,* 124 Cal.App.4th at 927.) In limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs., § 15371 ["CEQA Guidelines"]), only if there is not even a "fair

argument" that the project will have a significant environmental effect. (Pub. Resources Code, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Public Resources Code §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a *reasonable possibility* of a significant effect on the environment. (Pub. Resources Code, §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors,* 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in

original].)

As a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; see also CEQA Guidelines, § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.) In *Pocket Protectors*, the court explained how expert opinion is considered. The Court limited agencies and courts to weighing the admissibility of the evidence. (*Pocket Protectors,* 124 Cal.App.4th at 935.) In the context of reviewing a negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." (*Id*.) Where a disagreement arises regarding the validity of a negative declaration, the courts require an EIR. As the Court explained, "[i]t is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." (*Id*.)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines, § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ["*Save Our Peninsula*"].)

A threshold of significance may be useful to determine whether an environmental impact normally should be considered significant. (CEQA Guidelines, § 15064.7(a).) "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (*CBE v. California Resources* Agency, 103 Cal.App.4th at 111.)

"A threshold of significance is not conclusive, however, and does not relieve a public agency of the duty to consider the evidence under the fair argument standard." (*Mejia v. City of*

Los Angeles (2005) 130 Cal.App.4th 322, 342; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109; *CBE v. California Resources Agency*, 103 Cal.App.4th at 110-114; CEQA Guidelines, § 15064(b).) A public agency cannot, as the City does here, apply a threshold of significance or regulatory standard "in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect." (*CBE v. California Resources Agency*, 103 Cal.App.4th at 114.)

ANALYSIS

I. There is a Fair Argument That the Project May Have Significant Traffic and GHG Impacts Because the Purported Mitigation Measure for VMT is Not Supported by Substantial Evidence and Defies Common Sense.

The MND's analysis of the Project's VMT impacts is not based on substantial evidence because it relies upon entirely unrealistic assumptions about the distance a bike commuter would ride to and from work. The MND would have one believe that by constructing a 300 feet long Tier 1 bike lane down the street from the Project, 32 commuters would no longer drive an average of 34.6 miles to and from work, but would instead ***bike 34.6 miles*** to and from work. (MND, Appendix, GHD Draft Technical Memorandum, p. 6 (Nov. 19, 2020) ("VMT Memo").

The MND identifies a threshold of significance for assessing a Project's VMT-related impacts of requiring a 15 percent reduction in VMT for the Project "compared with current regional VMT generation for similar uses." (MND, p. 91.) Relying on an analysis conducted by GHD, the MND identifies that the "[c]ountywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT." (*Id*.) Based on these numbers, the MND states that the "average daily project trip length has been calculated to be 17.3 miles, with a total daily 2,355 VMT." (*Id*.) The MND identifies a baseline threshold of 1,354 VMT as the VMT level that is 15 percent less than the County's average VMT. (VMT Memo, p. 4.). Thus, in order to be consistent with the 15 percent reduction from the average VMT threshold, the MND states that the Project must reduce its estimated VMT of 2,355 by 1,001 VMT. (*Id*.)

①

GHD then recommends a single measure purporting to achieve this dramatic reduction in the Project's estimated VMT. GHD and the MND state that extending by a mere 300 feet the Class I bike path on Commerce Court, which currently runs past the existing SDG Commerce 330 warehouse, to connect to the northern driveway of the elementary school under construction would reduce the Project's VMT by 1,119 VMT. (*Id*., p. 6.) GHD's rationale for this assertion is based, in part, on an estimate of the number of new bike commuters that would be added to the City's bike network by the addition of the 300-foot connector lane. GHD estimates the new lane would entice 32 new bike commuters. (*Id*., p. 18.) GHD then claims that these 32 new bike commuters would take the place of 32 car commuters who otherwise would each have driven 34.6 miles to and from work. (*Id*.)

Assuming GHD's estimate of 32 new commuters biking to work as a result of constructing the 300-feet bike lane is correct, the car trip lengths that GHD claims those users' bike trips would replace are preposterous. There is no evidence that the new bike commuters

who would be enticed onto their bikes by the new 300-feet of bike lane would include any car commuter who currently travels 17.3 miles to and from their work. The 17.3 mile figure applied by GHD has nothing to do with the average length of bike commuter trips. Instead, that number is the average trip length for commuters traveling by ***automobile*** calculated for the project area. (*Id*., p. 4.)

The average length of a bike commuter trip is much lower than the average length of a commute by car. The California Air Resources Board ("CARB") has published a quantification methodology to estimate VMT reductions associated with bike facilities. (CARB, Quantification Methodology (Nov. 1, 2019) (attached as Exhibit C).) Equation 22 of that guidance provides a formula for estimating "VMT Reductions for Bicycle Facility or Walkway." (Id., p. 18.) GHD completely ignores this guidance in its analysis. Putting that aside, CARB's factors include its expert determination of the average bike trip length to be used in a VMT reduction calculation. CARB pins the "[a]verage length of auto trip replaced" at "1.5 miles for cycling." (*Id*. *See also* ITS Report, p. 5. *See id.*, p. 7 ("The trip length factor, L, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data") (attached as Exhibit D).)

① (cont.)

Even assuming GHD's overly simplistic equation is otherwise correct, applying CARB's 1.5 mile average of auto trip replaced by a bike trip dramatically reduces the MND's inflated VMT reduction claim. Based on a realistic trip length for bicycles that would use the 300-feet lane, and according to GHD's truncated equation, the new 300-feet bike lane would only reduce VMT by 97.5 VMT (65 daily commute trips by new bike commuters x 1.5 bicycle trip length). Thus, GHD's claim that the 300-foot length of bike lane would miraculously remove 1,119 VMTs from Commerce Court is entirely without basis in evidence or common sense. Instead, that modest bike facility would only remove about 97.5 VMT, leaving the Project over 900 VMT short of the 15 percent reduction from the County average necessary to eliminate the Project's significant transportation impacts. As a result, the MND is inconsistent with the CEQA Guidelines, 14 Cal.Admin Code § 15064.3 which requires that "[a]ny assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project." Moreover, there is a fair argument that the Project may have significant transportation impacts requiring the preparation of a full EIR.

II. An EIR is Required because the Project will have Significant Impacts on Biological Resources.

A. THE MND Fails to Adequately Analyze Impacts to Biological Resources Because It Relies Upon an Incomplete Baseline and the Project May Have Adverse Impacts on Numerous Sensitive Species Currently Using the Site or Adjacent Areas.

②

On January 23, 2019 and January 5, 2021, Dr. Shawn Smallwood visited the site. (Smallwood Comments, p. 1.) His first-hand observations of wildlife at the site as well as his review of reliable bird sightings reported on eBird demonstrate that the MND relies upon a

truncated list of species present at the site and fails to address impacts on numerous sensitive species that currently use the site. Dr. Smallwood's observations and expert comments are substantial evidence that the Project may have significant biological impacts, including adverse impacts on bald eagles, northern harriers, peregrine falcons, Cooper's hawks, red-tailed hawks, great horned owls, Swainson's hawks, burrowing owls, Nuttall's woodpecker, and other bird species. (*Id*., p. 2.)

During his brief visit on January 23, 2019, Dr. Smallwood observed a bald eagle flying over and hunting the site and identified a northern harrier and Cooper's hawk foraging on the project site. (Smallwood Comments, pp. 2, 5.) He also observed numerous other bird species. (*Id*., pp. 2-9.) Many species were not just passing by the site but actively engaged in using the habitat available there. (*Id*., p. 2.) For example, Dr. Smallwood observed many species spending considerable time at the site and displaying courtship or territorial behaviors indicative of breeding. (*Id*.) Such species included red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. (*Id*.) He also observed a great-horned owl perched immediately adjacent to the site. (*Id*.)

Dr. Smallwood also has gathered information regarding numerous bird sightings in and around the site that are posted on a web-based service called eBird. (Smallwood Comments, pp. 13-16.) Dr. Smallwood's experience with this service indicates that it is reliable source of bird sighting information, being based on the observations of reputable birders. (*See id*., p. 16.) He also points out the limitations of the MND only relying upon the California Natural Diversity Data Base ("CNDDB") to document the potential presence of wildlife species at and around the Project site. (*Id*., pp. 11, 16.) Numerous additional sensitive species are identified near the site that are not addressed in the biological report or the MND, including the endangered Willow flycatcher and species of concern including the Oak titmouse, Loggerhead shrike, tricolored blackbirds and many others. (*Id*., pp. 13-15.)

② (cont.)

As a result of the omission of numerous sensitive species using the site and evidence of even more additional species in the immediate vicinity of the site, the MND's evaluation of the project's biological impacts is not supported by substantial evidence. Dr. Smallwood's observations and expert comment is substantial evidence of a fair argument that the project may have an adverse impact on bald eagles, various hawks, and other species currently utilizing the site for courtship, foraging habitat and for movement.

The MND does mention a number of species, including Swainson's hawks and burrowing owls. However, the biological report fails to disclose information that these species have been observed much closer to the project site than is indicated in the MND or the biological report. (Smallwood Comments, p. 16.) For example, the MND indicates that Swainson's hawks and burrowing owls are, respectively, 2.5 and 2.6 miles away from the project site. However, Dr. Smallwood identifies sightings of these two species within 0.2 miles of the site. As he states, this indicates a high likelihood that these species are using this open foraging area as well.

The MND is particularly unreliable regarding its treatment of another species of special concern, the Northern harrier. As Dr. Smallwood explains:

> Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

(Smallwood Comments, p. 16.)

Regarding impacts to burrowing owls, the MND improperly downplays potential impacts by claiming that, although the site contains many ground squirrel burrows that are frequently relied upon by burrowing owls, their significance is downplayed because Monk & Associates claims they are of "recent origin." (Smallwood Comments, p. 12.) Dr. Smallwood, relying on his own studies of burrowing owls, refutes the relevance of the age of ground squirrel burrows to their likely use by burrowing owls. (*Id*.)

Likewise, the MND relies on a claim that because the site was cleared of eucalyptus trees in 2012, that somehow that activity over eight years ago continues to affect the site's use by wildlife. The MND asserts that "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat." (MND, p. 33.) Dr. Smallwood discusses the scientific problems with this assertion, concluding that "[t]he [MND] misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today." (Smallwood Comments, p. 12.)

2 (cont.)

Dr. Smallwood notes the likely presence of bats utilizing the site for foraging and movement. (Smallwood Comments, p. 16.) The MND claims that the Project will not impact bats because the Project site "contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." (MND. p. 34.) However, as Dr. Smallwood points out, "Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground." (Smallwood Comments, p. 16.)

Dr. Smallwood notes that the MND and accompanying biological report fail to provide the information necessary to corroborate the level of effort and adequacy of the reconnaissance level survey done by the City's consultant. As Dr. Smallwood explains:

> Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

(Smallwood Comments, p. 10.) This exacerbates the absence of substantial evidence to justify the MND's wildlife baseline.

Dr. Smallwood also debunks the MND's effort to bolster the cursory biological

assessment with a so-called peer review. As Dr. Smallwood notes, no description of the peer-review nor any responses to review comments is provided in the MND and the date of the peer review appears inconsistent with the date of Monk & Associates site visit. (Smallwood Comments, p. 10.)

② (cont.)

The evidence of nearby sightings of numerous sensitive species and the flaws in the MND and accompanying biological report identified by Dr. Smallwood support a fair argument that the Project may have adverse impacts on their foraging and movement. For this reason and those discussed above, an EIR must be prepared to address impacts to these many sensitive bird and bat species.

B. The Project will have a Significant Impact on Wildlife Movement and Habitat Fragmentation.

The MND fails to adequately analyze the Project's impact on wildlife movement. Instead, the MND improperly dismisses the Project's potential to impact wildlife movement by claiming there needs to be a "corridor" on the site to effect wildlife movement, that other nearby areas are better movement areas, or otherwise asserting without evidence that this particular large warehouse would not disrupt wildlife movement. As Dr. Smallwood states:

③

> The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others.

(Smallwood Comments, p. 20.) Dr. Smallwood's direct observations and expert opinion are substantial evidence of a fair argument that the Project may have adverse impacts on wildlife movement at the site and in the vicinity.

C. The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

④

The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders. (Smallwood Comments, p. 20-21.) Regardless of whether these species live on site, these and other special status species must cross roadways that will experience increased traffic volume as a result of the Project. (*Id.*)

As Dr. Smallwood explains, "[i]ncreased use of existing roads will increase wildlife

fatalities…." (*Id*., p. 20.)

> The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23January 2019I saw two road-killed striped skunks on American Canyon Drive, and on 15 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road–a road likely to be used by trucks and cars servicing the project. California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the [MND] is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (Ambystoma californiense), and American badgers (Taxidea taxus) that, regardless of whether they live on the site, mustcross roadways that will experience increased traffic volume caused by this project.

④ (cont.)

(*Id*.) Given the fair argument of a threat to wildlife posed by existing traffic and additional traffic from the Project, as discussed by Dr. Smallwood, an EIR is necessary to evaluate the direct and cumulative impacts of the Project's vehicle collisions with wildlife.

D. The MND Fails to Analyze the Project's Impacts from the use of Pest Control Measures.

The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse. As a wine storage distribution facility, there will likely be steps taken to abate pests. There are many businesses that provide services for controlling stored products pests, perching birds, and rodents and other mammal pests within and around distribution warehouses. (Smallwood, p. 21.) These businesses advertise exclusion strategies and fumigation for stored products pests, glue boards for rodents, and other measures including anticoagulant poisons and acute toxicants. "[T]he use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging." (*Id*.) "[P]est control involving toxicants can result in the spread of toxicants beyond the project site." (*Id*.)

⑤

An EIR is needed to analyze the potential impacts of animal damage control associated with the proposed Project. Anticipated animal control strategies at the Project should be detailed, and impacts mitigated.

E. The Project will have Cumulative Impacts on Biological Resources.

⑥

Dr. Smallwood concludes that the Project will have a significant cumulative impact on biological resources. (Smallwood Comments, p. 22.) An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well.

III. The IS Utilized Unsubstantiated Input and Output Parameters to Estimate Project Emissions.

A. The MND fails to explain how the City Calculated the Project's Average Daily Construction Emissions of ROGs and NOx.

The MND and Appendix B fail to provide sufficient information for a reviewer to understand and corroborate how the average daily emissions during construction were derived. As SWAPE explains, it is entirely unclear where the emissions estimates reported in the MND come from, because the estimates do not match those provided in any of the CalEEMod output files. (SWAPE Comments, pp. 2-3.) The MND provides the Project's emissions estimates in pounds per day. (MND, p. 22.) This indicates that the estimates should have come from either the winter or summer output file. (SWAPE Comments, pp. 2-3.) However, reviewing both the summer and winter output files and the emissions estimates, SWAPE's review could not match either. Insufficient details are provided in the MND either to inform the reader of the full extent of the air pollution and impacts that will result from the Project or how the insignificant determination was calculated and derived. The MND does not disclose a valid average daily emission calculation. For this reason, there is a fair argument that the Project may have significant air quality impacts.

⑦

B. The MND Used Improper Modeling Inputs, Including for Water Use for Parking and Solid Waste Generation.

Review of the Project's CalEEMod output files also demonstrates that the Project Applicant fails to adequately support substantial reductions in several air quality modelling inputs. In particular, the input for water use rate is decreased by almost 100 percent from the default value of 50,248,312.50 gallons per year ("gpy") to a mere 768 gpy. (SWAPE Comments, p. 8.) However, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gpd or 249,295 gpy. Thus, the model underestimates the Project's total yearly water demand by approximately 239,186 gpy.

⑧

SWAPE also points out the lack of justification for the reduction in modeling inputs for solid waste generation by the Project. It is not explained how the Project would have dramatically lower solid waste rates than other typical projects. (SWAPE Comments, pp. 7-8.) Likewise, further corroboration that there would not be any weekend trips occurring at the facility or the lack of any potential for natural gas use by the Project should be further corroborated and explained in the MND. (*Id*., pp. 5-7.) Lastly, the modelling relies on surface watering and limited vehicle speeds among other BMPs identified by BAAQMD. However, nothing in the MND sets forth these measures as mandatory BMPs or conditions of the Project. (*Id*., pp. 9-11; MND, p. 23.) Because of the uncertainty resulting from inadequate justifications or miscalculation of annual water use, the MND's reliance on the CalEEMod analysis is not supported by substantial evidence that eliminates a fair argument that the Project may have significant air quality impacts.

IV. SWAPE's CalEEMod Modeling Run Indicates a Fair Argument That the Project May Have a Significant Air Quality Impact.

(9) SWAPE reran the CalEEMod run for the Project adjusting for the deficiencies in the inputs that it identified. (SWAPE Comments, p. 11.) The resulting model result indicates that the Project may exceed the BAAQGM daily emission threshold of 54 lbs/day. This is substantial evidence of a fair argument that the Project may have a significant air quality impact.

V. The IS Inadequately Evaluates Emissions of Diesel Particulate Matter.

(10) Diesel particulate matter ("DPM") is a known human carcinogen. The MND attempts to piggy-back on a health risk assessment performed for the nearby SDG Commerce 330 warehouse. (MND, p. 26.) This effort to borrow the HRA performed for that other project is problematic for a number of reasons.

A. The HRA Fails to Account for the Fact That the Nearest Sensitive Receptor to the Project's Emissions is Located Only 500 Feet From the Soil Borrow Site.

(11) Although the MND notes that there is "one residence about 1,000 feet east of the site (on the Couch property)," this is referring to the site of the proposed warehouse building. (MND, p. 74.) In fact, the closest receptor is only 500-feet from the borrow pit portion of the Project. (*Id*., p. 77 (Table Noise-4).) For the SDG Commerce 330 project, the sensitive receptor distance was about 900 feet. Because the closest receptor to the Project's affected area is only 500 feet, a new health risk assessment specific to the Project must be prepared. (SWAPE Comments, pp. 12-14.) Based on the current MND, there remains a fair argument that the Project may have a significant health risk impact on the nearest sensitive receptor.

B. SWAPE's Analysis Provides Substantial Evidence of a Fair Argument that the Project may have Significant Health Risk Impacts from its Emissions of Toxic Air Contaminants.

Based on the limited information provided by the MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD
(12) recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to adults, infants, children and nearby residents over the course of a 30-year residential lifetime of, respectively, 11 in one million, 86 in one million, 73 in one million, and 180 in one million, all in excess of BAAQMD's threshold. (SWAPE Comment, pp. 14-18.) Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

VI. There is a Fair Argument That the Project May Have Significant GHG Impacts.

SWAPE also reviewed the MND's discussion of the Project's potential GHG impacts. In addition to the deficiencies in the air modelling discussed above, a number of glaring problems with the analysis demonstrates that a fair argument remains that the Project may have significant GHG impacts.

A. The MND's Reliance on the 1,100 MT CO2e Per Year Threshold is Only Designed to Achieve the GHG Reductions Required by 2020 and is Insufficient to Align the Project With the State's 2030 GHG Reduction Targets.

As the BAAQMD states in its 2017 CEQA guidelines, BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. (BAAQMD CEQA Guidelines, p. D-16 (available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.) The threshold referenced in the MND is a bright-line threshold of 1,100 MT CO2e. (*Id.*, p. D-21. *See* SWAPE Comments, pp. 19-20.) That threshold was only intended to ensure compliance with AB 32's reduction goals required by 2020. (*Id.*) The 2020 GHG reduction goals sought to reduce business as usual GHG emissions to 1990 levels. In 2018, the Air Resources Board established the subsequent GHG reduction goal to reduce 1990 levels by another 40 percent by 2030. (California's 2017 Climate Change Scoping Plan, Executive Summary (Nov. 2017) (available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017_es.pdf).) That is the current goal with which the Project must ensure consistency order to claim no fair argument of a potential GHG impact. (13)

As SWAPE points out, the Association of Environmental Professionals ("AEP") has derived a threshold of significance that is consistent with achieving the 2030 GHG reduction goals for projects coming online after 2020. AEP and SWAPE identify a "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO2 equivalents per service population per year ("MT CO2e/SP/year") as a threshold of significance necessary for any specific project to be consistent with the 2030 reduction goals. As AEP states:

> Once the state has a full plan for 2030 (which is expected in 2017), and then a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target. A more conservative approach would be to apply a 2030 threshold based on SB 32 for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update.

(*Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016, p. 40 (available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf).)

Applying the Project's estimate that it will create 50 new jobs, SWAPE calculates the

2030 Land Use Efficiency Threshold for the project to be 11.80 MT CO2e/SP/year - well in excess of the calculated significance threshold of 2.6 MT CO2e/SP/year. (SWAPE Comments, pp. 20-21.) Based on this substantial evidence, there is a fair argument that the Project may have significant GHG impacts. (13) (cont.)

B. The Project's Failure to Reduce its Expected VMT and Its Levels of VMT Per Capita are Evidence of a Fair Argument That the Project May Have Significant GHG Emission Impacts.

In addition to failing to reduce its VMT by fifteen percent of the Project area average, as discussed above, the MND also is inconsistent with CARB's 2017 Scoping Plan's guidance on evaluating GHG impacts using a Project's VMT per capita calculations. CARB has provided County- and State-based VMT per capita baseline calculations and the necessary per capita reductions necessary to be consistent with the Scoping Plan's GHG reduction targets. (SWAPE Comments, p. 22, n. 44.) SWAPE has applied that guideline to calculate the Project's VMT per capita. (*Id.,* p. 22 & Attachment C.) Using the tables provided by CARB, SWAPE calculates that VMT per capita within Napa County must be reduced to 19.37 in order to be consistent with the 2030 GHG reduction target. (*Id*., p. 22.) SWAPE calculates the Project's daily VMT per capita to be 33.21, well in excess of the VMT per capita levels necessary to meet the State reduction goals for 2030. (*id*., p. 22.) As a result, the MND is incorrect in asserting that the Project is consistent with the 2017 Scoping Plan and AB 32. SWAPE's analysis is substantial evidence of a fair argument that the Project may have significant GHG emission impacts. (14)

CONCLUSION

For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. LIUNA reserves the right to supplement these comments in advance of and during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). Thank you for your attention to these comments. (15)

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Brent Cooper, Community Development Coordinator
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

14 January 2020

RE: SDG Commerce 217 Warehouse

Dear Mr. Cooper,

I write to comment on the biological resources study (Monk & Associates 2020) and Initial Study ("IS") (City of American Canyon 2020) prepared for the proposed SDG Commerce 217 Warehouse project at 1075 Commerce Court, which I understand would be 217,294 square feet of new distribution warehousing on 10.39 acres (11.23 acres according to 'For Sale' sign on property).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-five years, including at many proposed project sites. My CV is attached.

SITE VISIT

I visited the proposed project site on 5 January 2021 for 62 minutes starting at 08:23 hours. Prior to the construction of SDG Commerce 330, I had also visited the site on 23 January 2019 from 06:15 hours to 10:50 hours. Both times I walked along Commerce Way, the first time in cool, sunny weather and the second time in fog. During my first visit I detected 41 species of vertebrate wildlife within 155 minutes, and during my second visit I detected 9 species within 65 minutes (Table 1). I also walked a portion of the Napa River and Bay Trails south and west of the site for 125 minutes in 2021 and for an unrecorded time in 2019. At and near the site I detected 61 species of vertebrate wildlife between my two visits. Add my observations to those of Monk & Associates (2020), and the list grows to 86 vertebrate species of wildlife seen at or near the site

over only a few surveys in the last two years. The project area is rich in wildlife. Had I stayed longer, or had I visited during additional times of year and times of day, I would have seen many more species of wildlife. Given the abundance of roost sites amongst the surrounding eucalyptus groves, I expect multiple species of bats are present. An EIR needs to be prepared to address potential project impacts on wildlife.

In 2019, I saw a juvenile bald eagle fly over the project site (Photos 1 and 2). Bald eagles are protected by the Bald and Golden Eagle Protection Act and the California Endangered Species Act. In 2021, I saw a peregrine falcon just west of the project site, but it was too fast for me to photograph it. I saw a northern harrier (Photo 3) and Cooper's hawk (Photo 4) on the project site, both species of which have been assigned special-status in addition to the 'birds of prey' statute. I saw American kestrels (Photos 5 and 6), Anna's hummingbirds (Photo 7 and 8), pied-billed grebes (Photo 9), mourning doves (Photo 10), a house wren (Photo 11), golden-crowned sparrows (Photo 12), white-crowned sparrows (Photos 13 and 14), Say's phoebe (Photo 15), red-winged blackbirds (Photo 16), fox sparrows (Photo 17), and song sparrows (Photo 18).

Some animals flew over, including Canada geese, mallards, Herring gulls, ring-billed gulls, and swallows. Most, however, spent considerable time on and around the site. Some species displayed courtship or territorial behaviors indicative of breeding, including red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. In 2019, a juvenile bald eagle hunted the site by carefully using the Eucalyptus trees for cover, but numerous small birds raised a ruckus, alerting of the eagle's approach. Also foraging on site were the northern harrier and Cooper's hawk in 2019. In 2019, two American kestrels harassed a perched great-horned owl, who hooted for about 10 minutes after the kestrels relented.

PROJECT DESCRIPTION

The Napa River and Bay Trails wrap around the project from the south to the west. The site is next to an Audubon Society-designated Important Bird Area.

BASELINE ASSESSMENT

Project Description: The IS (page 6) did not reveal the nearness of Clark Ranch and Napa River and Bay Trails as surrounding land uses, instead attempting to cast the 300-foot distance as a mitigating buffer (*See, e.g.* IS, p. 34). Clark Ranch has been dedicated as open space. The Napa River and Bay Trails not only provide public access to wildlife viewing, but is also designated by Audubon Society as one of its Important Bird Areas ("IBA"). An EIR is needed to address project impacts on the IBA, Napa River and Bay Trails, and Clark Ranch.

Table 1. Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse. The offsite visit was made during my 2021 survey, and includes a walk along Napa River and Bay Trails just south and west of the project site.

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Canada goose	*Branta canadensis*		2019		
Mallard	*Anas platyrhynchos*		2019		
Northern shoveler	*Anas clypeata*				Yes
American coot	*Fulica americana*				Yes
Pied-billed grebe	*Podilymbus podiceps*				Yes
Black-necked stilt	*Himantopus mexicanus*				Yes
American avocet	*Recurvirostra americanus*				Yes
Long-billed dowitcher	*Limnodromus scolopaceus*				Yes
Least sandpiper	*Caladris minutilla*				Yes
California quail	*Callipepla californica*		2019		
Turkey vulture	*Cathartes aura*	FGC 3503.5			Yes
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, CE, CFP	2019		
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5	2019		
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5	2019	2021	Yes
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5			Yes
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	2019		Yes
American kestrel	*Falco sparverius*	FGC 3503.5.5	2019		Yes
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5			Yes
Herring gull	*Larus argentatus*		2019		Yes
Ring-billed gull	*Larus delawarensis*		2019		Yes
Mourning dove	*Zenaida macroura*		2019		Yes
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	2019		
Great-horned owl	*Bubo virginianus*	CDFW 3503.5	2019		
Black-chinned hummingbird	*Archilochus alexandri*		2019		
Anna's hummingbird	*Calypte anna*		2019	2021	Yes
Northern flicker	*Colaptes auratus*		2019	2021	Yes
Nuttall's woodpecker	*Picoides nuttallii*	BCC	2019		Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Say's phoebe	*Sayornis saya*		2019		Yes
Black phoebe	*Sayornis nigricans*		2019		Yes
Hutton's vireo	*Vireo huttoni*		2019		
Barn swallow	*Hirundo rustica*		2019		
Northern rough-winged swallow	*Stelgidopteryx serripennis*		2019		
Bushtit	*Psatriparus minimus*		2019	2021	
House wren	*Troglodytes aedon*		2019		
Marsh wren	*Cistothorus palustris*				Yes
California scrub-jay	*Aphelocoma californica*		2019		
Common raven	*Corvus corax*		2019		Yes
American crow	*Corvus brachyrhynchos*		2019	2021	
Western bluebird	*Sialia mexicana*		2019		
Northern mockingbird	*Mimus polyglottos*		2019		Yes
European starling	*Sturnus vulgaris*	Non-native	2019	2021	Yes
Yellow-rumped warbler	*Setophaga coronata*		2019	2021	Yes
California towhee	*Pipilo crissalis*		2019		Yes
Song sparrow	*Melospiza melodia*				Yes
Lincoln's sparrow	*Melospiza lincolnii*				Yes
White-crowned sparrow	*Zonotrichia leucophrys*		2019		Yes
Golden-crowned sparrow	*Zonotrichia atricapilla*		2019		Yes
Fox sparrow	*Passerella iliaca*				Yes
Dark-eyed junco	*Junco hyemalis*		2019	2021	Yes
Western meadowlark	*Sturnella neglecta*		2019		
Red-winged blackbird	*Agelaius phoeniceus*		2019		Yes
Brown-headed cowbird	*Molothrus ater*				Yes
Brewer's blackbird	*Euphagus cyanocephalus*		2019		Yes
American goldfinch	*Carduelis tristis*		2019		
Lesser goldfinch	*Carduelis psaltria*				Yes
House finch	*Carpodacus mexicanus*		2019		Yes
Sierran treefrog	*Pseudacris sierra*		2019		Yes
Botta's pocket gopher	*Thomomys bottae*				Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
California ground squirrel	*Otospermophilus beecheyi*				Yes
Raccoon	*Procyon lotor*			2021	

[1] Listed as BGEPA = federal Bald and Golden Eagle Protection Act, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), SSC3 = California Species of Special Concern priority level 3, TWL = Taxa to Watch List (Shuford and Gardali 2008).





Photos 1 and 2. A bald eagle flew along the eucalyptus trees surrounding the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area this winter.





Photos 3 and 4. Cooper's hawk (left) and northern harrier (right) fly over the project site, 23 January 2019.





Photos 5 and 6. American kestrel perches on a Eucalyptus branch on southern boundary of proposed project site, 23 January 2019 (left) and on a pole just south of the project site on 5 January 2021 (right).





Photos 7 and 8, right. Anna's hummingbird perched next to the site of the proposed project on a foggy day, 5 January 2021.





Photos 9 and 10. Pied-billed grebe (left) and mourning dove (right) next to the site of the proposed project, 5 January 2021.



Photo 11, left. House wren next to the site of the proposed project, 23 January 2019.



Photo 12, right. Golden-crowned sparrow next to the site of the proposed project, 5 January 2021.

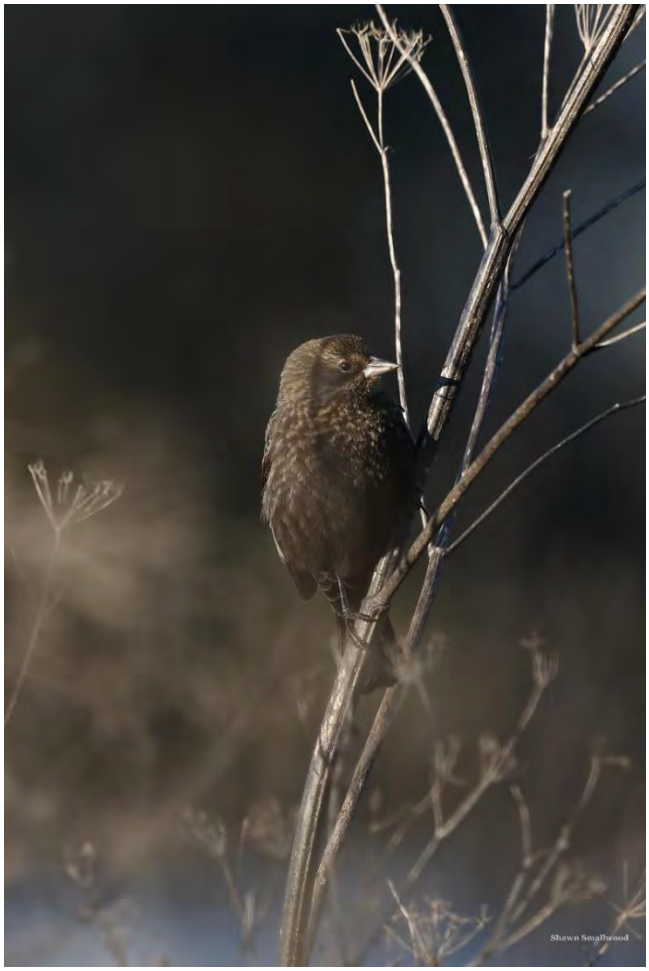




Photos 13 and 14. Male and female white-crowned sparrows next to the site of the proposed project, 5 January 2021.

Photos 15 and 16. Say's phoebe (left), triumphant after driving out a black phoebe, and red-winged blackbird (right) at the project site, 23 January 2019.









Photos 17 and 18. Fox sparrow (left) and song sparrow (right) next to the site of the proposed project, 5 January 2021.

Reconnaissance surveys: Monk & Associates (2020) performed surveys on the site on 19 and 27 December 2019. However, Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

Peer review: The IS (page 29) assures that Monk & Associates (2020) was peer reviewed. However, the date of the site visit in support of the peer review was 10 August 2018, which was prior to the Monk & Associates surveys of 2019. and prior to their 2020 report. If the date was correct for the peer-review site visit, then it is unclear what was peer-reviewed.

In claiming Monk & Associates (2020) was peer reviewed, the IS misapplies a process routinely used by scientists to improve their work. The purpose of peer review is to (1) improve the reporting of scientific research results, and (2) contribute to an editor's decision over whether to accept or reject a manuscript, or to require minor or major revisions before making the decision to accept or reject. The conclusions of peer reviewers are not necessarily right while the authors' conclusions are wrong. Peer review comments contribute to the scientific process by adding additional perspectives that the authors can use to improve their product, despite whether the product was rejected by the institution administering the peer review. Peer reviews also assess manuscripts according to scientific standards and to written guidelines maintained by the organization to which the manuscript was submitted. Peer review comments are supposed to be constructive. The important point here is that a "peer review" provided by Vollmar Natural Lands Consulting would have contributed nothing to Monk & Associates (2020) unless it resulted in constructive revisions to the report. Perhaps improvements were made to the report, but the reader cannot tell because the IS provides no report of the peer-review nor any responses to review comments.

To qualify as independent peer review, the administrator of the peer review as well as the reviewers themselves must not benefit financially or professionally from the outcome of the review. There must not be any hint of bias for a review to be considered independent. Another qualification is that the reviewers must be the authors' peers, meaning that reviewers possess sufficient experience performing research on the same or similar topic area as the authors, and that the reviewers understand the theoretical foundation of the topic at hand and the research challenges faced by the authors. In my experience, targeted reviews are prone to bias because the paid reviewer understands the desired outcome; it is in the reviewer's financial interest to review the client's work product favorably if the reviewer is to acquire repeat business. City of American Canyon needs to explain its relationship with Vollmar Natural Lands Consulting and between Vollmar Natural Lands Consulting and Monk & Associates.

Determinations of occurrence likelihoods: Monk & Associates (2020) mostly relied on California Natural Diversity Data Base (CNDDB) records to assess the likelihood of occurrence of special-status wildlife species whose geographic range maps

overlap the project site. Whereas consulting CNDDB is fine for confirming presence of a species, it is inappropriate for determining absence and hence narrowing a list of potentially occurring species. CNDDB is voluntary and not based on scientific sampling or equal access to properties. The limitations of CNDDB are well-known, and they are summarized in a warning presented by CDFW on the CNDDB web site (https://www.wildlife.ca.gov/Data/CNDDB/About): "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers*..." Therefore, the foundation of many conclusions in the is consists partly of a misapplication of CNDDB and needs to be replaced by a sound methodology in an EIR.

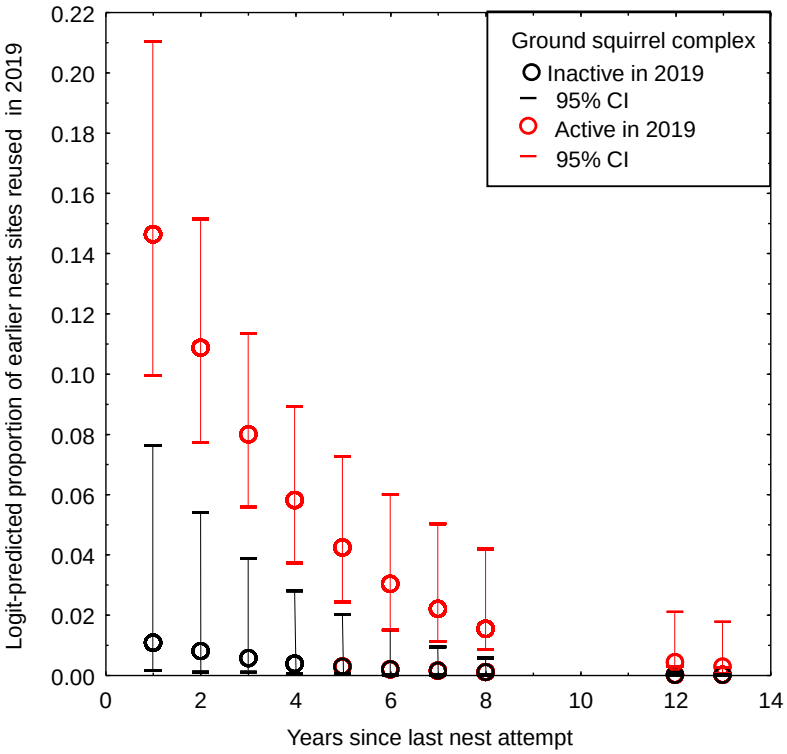
Consulting eBird reveals many sightings of special-status species near the project site (Table 2), many of which Monk & Associates (2020) conclude are less likely to occur at the site due to distant nearest-CNDDB records. My review of eBird and iNaturalist reveals 66 special-status species of vertebrate wildlife likely to rely on the site at one time or another, 15 of which have been confirmed at or near the site during surveys performed by Monk & Associates (2020) and myself (Table 2). The IS, on the other hand, identifies only 3 such species as unlikely to occur at the site, including northern harrier which I saw on site, and Swainson's hawk and burrowing owl which have both been reported nearby in eBird. The IS falls grossly short of a comprehensive and accurate assessment of occurrence likelihoods of special-status species.

The inadequacy of IS's assessment of species occurrences stems mostly from two fallacious arguments: (1) that the site is unsuitable for nesting, and (2) the site was previously disturbed by the removal of a eucalyptus grove. The first fallacy is that habitat can be divided distinctly by functionality. Specific to this project, the IS distinguishes nesting habitat as the only type of habitat to be concerned about. But no animals can breed without finding sufficient forage, cover and stopover opportunities; no species can breed without surviving both the breeding and nonbreeding seasons. There is no clear distinction between types of habitat, as every portion of an animal's habitat is critical to its survival and its productivity.

The second fallacy is that some previous disturbance – the removal of a eucalyptus grove in this case – diminishes or destroys habitat of a species today. CEQA reviews are supposed to be based on existing conditions, rather than to some past event that a project proponent can claim without evidence to have prevented the site from ever again being used by a species. This CEQA standard noted, I must add that the scientific literature is full of examples of wildlife populating places that have been severely disturbed, such as the slopes of Mount St. Helens following the 1980 eruption, and wildlife reinhabiting the forests surrounding Ukraine's Chernobyl Nuclear Plant since its meltdown and massive radioactive release. Multiple scientific journals focus on habitat restoration, which involves deliberate, major disturbances to generate new complexes of

vegetation intended to benefit wildlife. The IS misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today. The IS (page 32) further misleads that only ground squirrel burrows of ancient origin are useful to burrowing owls. Specifically, the IS claims burrowing owls are unlikely because "...ground squirrel burrows are few and of recent origin (Monk & Associates 2020)." The IS cites no evidence in support of this notion. It is also inconsistent with my research experience. For example, in a revisit to nearly 800 burrowing owl nest sites I had mapped over 9 years in the Altamont Pass Wind Resource Area, I found reuse of the nest sites in 2019 to have been much greater within actively used ground squirrel burrows previously used more recently (Figure 1). Further misleading is the IS's argument that "Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys." This is misleading because negative findings cannot be supported in the absence of detection surveys such as those recommended by CDFW (2012). It does not matter that Monk & Associates found no evidence of burrowing owls because they did not perform the appropriate detection surveys.

Figure 1. Proportion of revisited burrows that were either actively or inactively used by ground squirrels and where burrowing owls attempted re-nesting in 2019 declined quickly with years since the previous nest attempt.



The IS (page 33) claims that the loss of foraging habitat of northern harrier is "not considered substantial." However, the IS provides no evidence in support this conclusion. By what measure is the loss of foraging habitat judged substantial? Further, this conclusion neglects the possibility that the site is used by northern harrier for nesting as well as foraging. I saw a northern harrier fly over the site – the same site where the IS also says northern harriers would be unlikely to occur. The IS's analysis of potential impacts to northern harrier is flawed.

Table 2. Species reported on eBird (https://eBird.org) or iNaturalist on or near the proposed project site, where those in bold font were also seen on or near the site by myself or Monk & Associates (2020).

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Western pond turtle	*Actinemys marmorata*	SSC	None	Nearby
Pallid bat	*Antrozous pallidus*	SSC, WBWG H		Nearby
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG H		Nearby
Western red bat	*Lasiurus blossevillii*	SSC, WBWG H		In region
Fringed myotis	*Myotis thysanodes*	SSC, WBWG H		In region
Yuma myotis	*Myotis yumanensis*	SSC, WBWG LM		In region
Long-eared myotis	*Myotis evotis*	WBWG M		In region
Small-footed myotis	*Myotis cililabrum*	WBWG M		In region
American badger	*Taxidea taxus*	SSC		In region
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	TWL		Nearby
Redhead	*Aythya americana*	SSC2		Very close
American white pelican	*Pelecanus erythrorhynchos*	SSC1		Very close
Double-crested cormorant	*Phalacrocorax auritus*	TWL		Very close
White-faced ibis	*Plegadis chihi*	TWL		Very close
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC3		Very close
Marbled godwit	*Limosa fedua*	BCC		Very close
Snowy plover	*Charadrius alexandrinus*	SSC3		Very close
Long-billed curlew	*Numenius americanus*	BCC, TWL		Very close
Whimbrel	*Numenius phaeopus*	BCC		Very close
California gull	*Larus californicus*	TWL		Very close
Caspian tern	*Hydroprogne caspia*	TWL		Very close
Black tern	*Chlidonias niger*	SSC2		Nearby
California least tern	*Sterna antillarum browni*	FE, CE		Very close
Turkey vulture	*Cathartes aura*	FGC 3503.5		Very close
Osprey	*Pandion haliaetus*	TWL, FGC 3503.5		Very close
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE		Very close
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP		Very close

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5		Very close
Rough-legged hawk	*Buteo regalis*	FGC 3503.5		Nearby
Ferruginous hawk	*Buteo regalis*	TWL, FGC 3503.5	None	Very close
Swainson's hawk	*Buteo swainsoni*	BCC, CT, FGC 3503.5	Unlikely	Very close
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5		Very close
Sharp-shinned hawk	*Accipiter striatus*	TWL, FGC 3503.5		Very close
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5		Very close
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	Unlikely	Very close
White-tailed kite	*Elanus leucurus*	CFP, TWL		Very close
American kestrel	*Falco sparverius*	FGC 3503.5		Very close
Merlin	*Falco columbarius*	TWL, FGC 3503.5		Very close
Prairie falcon	*Falco mexicanus*	TWL, FGC 3503.5		Very close
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5	None	Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2	Unlikely	Nearby
Great-horned owl	*Bubo virginianus*	FGC 3503.5		Very close
Long-eared owl	*Asio otus*	SSC3, FGC 3503.5		Nearby
Short-eared owl	*Asio flammeus*	SSC3, FGC 3503.5		Nearby
Barn owl	*Tyto alba*	FGC 3503.5,		Very close
Western screech-owl	*Megascops kennicotti*	FGC 3503.5		Nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
Lewis's woodpecker	*Melanerpes lewis*	BCC		Nearby
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Vaux's swift	*Chaetura vauxi*	SCC2		Very close
Willow flycatcher	*Empidonax traillii extimus*	FE, CE		Very close
Olive-sided flycatcher	*Contopus cooperi*	SSC2		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2		Very close
Horned lark	*Eremophila alpestris*	TWL		Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		Nearby
Purple martin	*Progne subis*	SSC2		Nearby

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Yellow warbler	*Setophaga petechia*	SSC2		Very close
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3	None	Very close
Savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2		Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	None	Very close
Summer tanager	*Piranga rubra*	SSC1		Very close
Tricolored blackbird	*Agelaius tricolor*	CT	None	Very close
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close

[1] Listed as FT & FE = federal threatened and endangered, BGEPA = Bald and Golden Eagle Protection Act, BCC = U.S. Fish and Wildlife Service Bird species of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CT & CE = California threatened and endangered, CFP = California Fully Protected (FGC Code 3511), FGC 3503.5 = California Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008), WBWG = Western Bat Working Group with low, medium and high conservation priorities.

The IS (page 34) is also wrong in its conclusion of no impact to bats. The argument is that the site "...contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground.

By relying solely on CNDDB for determining occurrence likelihoods, the IS overlooks occurrences reported in other data bases. For example, whereas nearest CNDDB records have Swainson's hawks and burrowing owls 2.5 and 2.6 miles away from the project site, eBird records show these species much closer. According to eBird, a Swainson's hawk was seen only 0.2 miles from the project site. Given the space used by Swainson's hawks, there should be no doubt that a Swainson's hawk 0.2 miles away would have also used the project site. Burrowing owls were seen by multiple observers only 0.2 miles from the project site. One of the observers is a good bird observer with whom I have worked for many years; his observation was as trustworthy.

Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

Additional special-status species neglected by Monk & Associates include peregrine falcon and loggerhead shrike, both of which have been reported multiple times on eBird as having been seen near the project site. I saw a peregrine falcon right next to the site. And there are multiple others in addition to these species. I assert that Monk & Associates (2020) inadequately assessed potential project impacts to wildlife. Relying on CNDDB was inappropriate and inadequate. And after making multiple site visits, the number of wildlife species detected by Monk & Associates numbered only 25, whereas mine numbered more than twice as many.

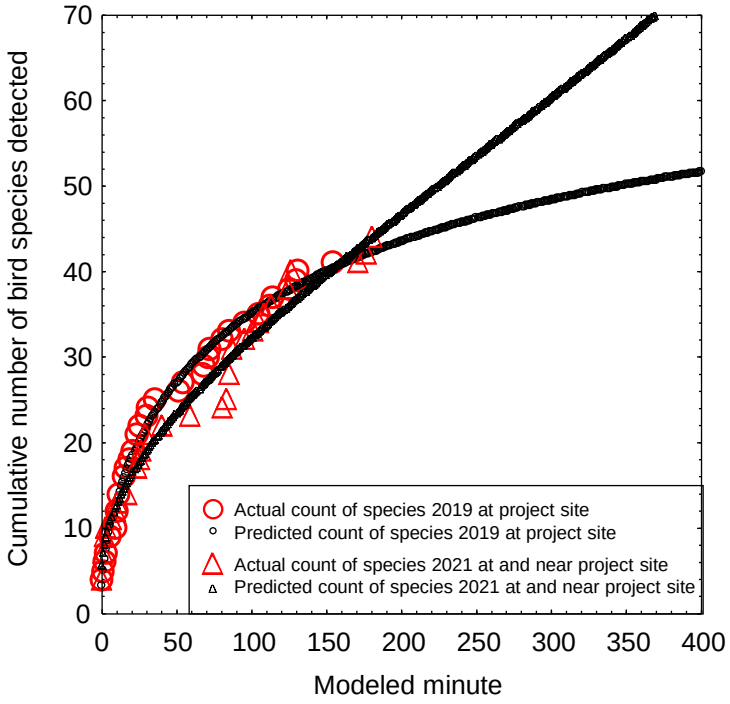
That the environmental setting has yet to be accurately characterized is further supported by known trends in species detections with survey effort. Figure 2 shows my counts of species detected at the site with time into each of my two surveys – it simply shows the cumulative number of species detected with increasing survey time. Just as I have seen for many other survey efforts, nonlinear regression models fit the data very well, explaining 97% of the variation in the data in 2021 and nearly 100% of the variation in the data in 2019, and for both surveys they showed progress towards the inevitable asymptotes of the nonlinear prediction curve where the same survey methods will eventually detect no more species. I note that the 2019 count of species was specific to the project site, whereas my 2021 count of species included areas around the project site. One model shows that had I continued doing what I was doing on 23 January 2019, I would have eventually detected about 55 species of terrestrial vertebrate wildlife on the project site, or more than double the number detected by Monk & Associates (2020). The other model shows that had I continued doing what I was doing on 5 January 2021, I would eventually have detected hundreds of terrestrial vertebrate

wildlife in the project area, confirming the wisdom of Audubon Society's designation of an IBA there.

Figure 2. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scan on 23 January 2019 and 5 January 2021. Note that the relationships would differ if the surveys were based on another method, another time of day, or during another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.

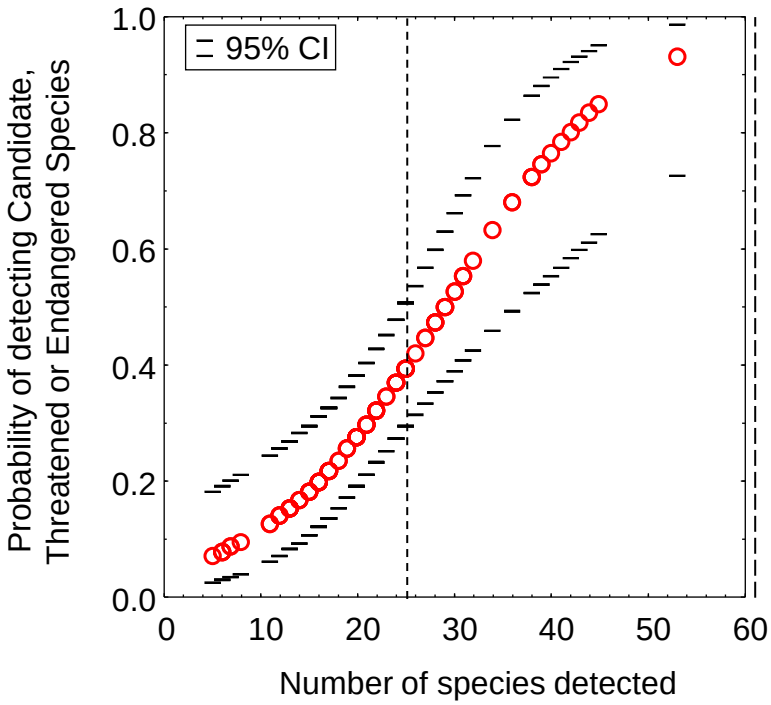
$$Y_{2019} = \frac{1}{0.012704 + 0.287312 \times 0.235363^{log_{10}(X+1)}}$$ r^2 = 1.00, loss = 39.9

$$Y_{2021} = \frac{1}{-0.023262 + 0.2019 \times 0.519485^{log_{10}(X+1)}}$$ r^2 = 0.97, loss = 97.6



The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by the fact that special-status species tend to be rarer than common species. Special-status species also tend to be more cryptic, fossorial, or active during nocturnal periods when general biological surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of increasing number of vertebrate wildlife species detected (Figure 3). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As demonstrated in Figure 2, the number of species detected is a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected. The survey effort committed to the project site by City of American Canyon carried a 40% chance of detecting a listed species, whereas the effort committed by myself carried a nearly 100% chance of detecting a listed species. In fact, I detected 2 listed species, one on site and one just offsite, so my model prediction was accurate. Monk & Associates beat the odds by detecting white-tailed kite – a California Fully Protected species. Had we surveyed longer or using different methods, we would have detected more listed species. A fair argument can be made for the need to prepare an EIR to more comprehensive and more carefully analyze baseline conditions and potential project impacts to wildlife.

Figure 3. Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 106 site visits throughout California. The vertical short-dashed line represents the number of species detected by Monk & Associates (2020), whereas the vertical short-dashed line depicts the number I detected between two site visits.



Habitat Loss

A recent study documented a 29% decline in overall bird abundance across North America over the last 48 years – a decline driven by multiple factors including habitat loss and habitat fragmentation (Rosenberg et al. 2019). Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity. For example, studies in grassland/wetland/woodland complexes documented total bird nesting densities of 32.8 nests per acre (Young 1948) and 35.8 nests per acre (Yahner 1982), averaged at 34.3 nests per acre. Assuming the project site in the absence of wetlands immediately on site, would support a third of the total nesting density measured by Young (1948) and Yahner (1982), a density of 11.4 nests per acre multiplied against the project's take of 11.23 acres would predict the loss of 128 bird nest sites. After 100 years and further assuming an average bird generation time of 5 years, and assuming an average 2.9 chicks fledged per nest (Young 1948), the lost capacity of both breeders and annual fledgling production would total 42,240 {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years per generation)}. These predicted losses would be substantial, and would qualify as significant impacts that have yet to be addressed by City of American Canyon. A fair argument can be made for the need to prepare an EIR to analyze the impacts of habitat destruction.

Habitat fragmentation, which is the reduction of connectivity of remaining habitat patches on a landscape, can further diminish the productive capacity of a site

(Smallwood 2015). Habitat fragmentation is one of the cumulative effects of this project that needs to be analyzed in an EIR.

Wildlife Movement

The IS accurately defines the concept of a wildlife corridor as a connector between already-fragmented habitat patches (see Smallwood 2015), but then inaccurately asserts that significant impacts to wildlife movement in a region can only happen with the interference of an existing wildlife corridor. One problem with this assertion is that a finding of significance would first require that habitat in the project area had already been fragmented and then a corridor constructed to reduce the effects of fragmentation. The assertion precludes a finding of significance where habitat has not been fragmented and no corridor constructed. The IS asserts a false CEQA standard for determining whether a project would interfere with wildlife movement in the region.

The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The existence of a wildlife corridor is unnecessary for a project to interfere with wildlife movement in the region.

The IS (page 35) also speculates that the site's history of disturbance in the form of tree removal somehow precludes any possible project interference with wildlife movement. This speculation, however, is vulnerable to abuse, because it could be extended to any earlier site condition when terrestrial wildlife might not have been able to move across it, such as when it might have been under the sea. The site's use for movement by wildlife needs to be analyzed based on conditions existing at the time of the environmental review, consistent with CEQA's standard.

The IS (page 35) further speculates that wildlife movement in the region is prevented by "...continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south." Paint ball facilities do not prevent wildlife movement. I have recorded many wildlife observations at a paint ball facility near where I live, and have noticed no effect on bird activity. Northern harriers, white-tailed kites, American kestrels, Swanson's hawks, and many other species perch on site, using it for foraging, territory patrol and stopover habitat. The IS cites no evidence that paintball facilities interfere with wildlife movement or would do so on adjacent properties.

The IS (page 35) speculates even further by claiming, "The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife..." But without evidence that a eucalyptus grove is more valuable to wildlife movement, this claim is nothing more than

convenient speculation. I can agree that the marsh would be more valuable for wetland-adapted species, but not for all species.

The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others. A fair argument can be made for the need to prepare an EIR to analyze the project's impacts on wildlife movement in the region.

Traffic Impacts on Wildlife

According to City of American Canyon (2020:88), the project would generate 367 daily vehicle trips. No analysis is provided in the IS of this traffic's impacts to wildlife in the area. The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23 January 2019 I saw two road-killed striped skunks on American Canyon Drive, and on 5 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road – a road likely to be used by trucks and cars servicing the project. California red-legged frogs (*Rana draytonii*), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the IS is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*) that, regardless of whether they live on the site, must cross roadways that will experience increased traffic volume caused by this project.

Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

In a recent study of traffic-caused wildlife mortality, investigators found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches along a 2.5 mile stretch of Vasco Road in Contra Costa County, California (Mendelsohn et al. 2009). Using carcass detection trials performed on land immediately adjacent to the traffic mortality study (Brown et al. 2016) to adjust the found fatalities for the proportion of fatalities not found due to scavenger removal and searcher error, the

estimated traffic-caused fatalities was 12,187. This fatality estimate translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads to and from the project site would similarly result in intense local impacts on wildlife.

Wildlife roadkill is not randomly distributed, so can be predicted. Causal factors include types of roadway, human population density, and temperature (Chen and Wu 2014), as well as time of day and adjacency and extent of vegetation cover (Chen and Wu 2014, Bartonička et al. 2018), and intersections with streams and riparian vegetation (Bartonička et al. 2018). For example, species of mammalian Carnivora are killed by vehicle traffic within 0.1 miles of stream crossings >40 times other than expected (K. S. Smallwood, 1989-2018 unpublished data). These factors also point the way toward mitigation measures, which should be formulated in an EIR.

Pest Control and Target and Non-target Mortality

As I understand it, the proposed project would store and distribute wine. The Initial Study did not mention the likelihood that pest control would be needed to protect stored products. Because multiple businesses advertise their services on the internet for controlling stored products pests, perching birds, and rodent and other mammal pests within and around warehousing and food processing buildings (e.g., https://www.catseyepest.com/pest-control/ commercial-pest-control/warehouse-and-distribution-facilities, http://advancedipm .com /commercial/ commercial-pest-management-for-warehouses-and-distribution-centers/, https://www.terminix.com/blog/commercial/how-pests-impact-warehouses/, I assume pest control would be necessary. These types of businesses advertise exclusion strategies, as well as fumigation for stored products pests, glue boards for rodents, and 'other measures.' Having a background in animal damage control, I am familiar with 'other methods,' including the use of anticoagulant poisons and acute toxicants such as strychnine. In my experience, the use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging (also see Gabriel et al. 2012). In other words, pest control involving toxicants can result in the spread of toxicants beyond the project site.

I reviewed the scientific literature on animal damage control associated with distribution warehousing. Little to no serious scientific attention has been directed toward animal damage control in these settings. That businesses are advertising their animal damage control services in these settings indicates either an awareness or an assumption that damage from wildlife is an issue. It is important, therefore, that an EIR be prepared to address the potential impacts of animal damage control associated with this proposed project. Industry practices related to animal damage control should be detailed, as well as anticipated practices at this project. Potential impacts caused by these practices need to be assessed, and suitable mitigation measures formulated along with assurances that they will be implemented.

Cumulative Impacts

City of American Canyon (2019:97) concludes the project will result in no cumulative impacts because only one other new project is planned. The cumulative impacts analysis is flawed by considering only the single new project, and none of those under construction or already built. Had City of American Canyon listed all projects -- past, present and reasonably foreseeable projects -- then the need for a serious cumulative effects analysis would emerge as obvious. City of American Canyon has sprawled across nearly all of the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west, leaving a fragmented mosaic of fields and woodlots as stop-over habitat for use by birds and bats. The project would also obviously be seen as adding more traffic extending the project's and the region's impacts far beyond their respective footprints.

When it comes to wildlife, cumulative effects can often be interpreted as effects on the numerical capacity (Smallwood 2015), breeding success, genetic diversity, or other population performance metrics expressed at the regional scale. In the case of migrating birds, the project's cumulative effects could be measured as numerical reductions of breeding birds at far-off breeding sites, as migrating adults and next-year's recruits lose access to stop-over habitat. These effects could be predicted and measured. If birds were to lose all stop-over habitat across City of American Canyon, then the numerical capacity of migration might decline for multiple species. Unfortunately, little is known about stop-over habitat requirements, such as how often migrants lose their lives for lack of stop-over habitat. Nevertheless, crude assessments are possible and imperative.

An EIR needs to be prepared to appropriately analyze the project's contribution to cumulative impacts. It also needs to present mitigation measures to minimize impacts, or to compensate for cumulative impacts. An EIR should assess the combined impacts of all projects, including this one. An EIR is needed to formulate appropriate mitigation for cumulative traffic-caused wildlife mortality.

MITIGATION MEASURES

MM BIO-1 I concur that preconstruction surveys are needed for burrowing owls. However, a preconstruction survey cannot serve as a surrogate for detection surveys. Preconstruction surveys have a specific purpose, which is take-avoidance salvage of readily detectable individuals in immediate jeopardy of harm just prior to construction. The purposes of detection surveys are to detect the species if it is present, to support determinations of absence, and to inform the CEQA review, preconstruction surveys about where the species is likely to be found on the project site, and the formulation of mitigation. To be consistent with the CDFW (2012) guidelines on burrowing owl mitigation, detection surveys are needed for burrowing owls and they need to be performed according to the guidelines. After the detection surveys are completed, then an impacts analysis is needed, and so is the formulation of mitigation measures, which might include compensatory mitigation. Based on the outcome of

detection surveys, an EIR should be prepared to adequately address impacts and mitigation related to burrowing owls.

MM BIO-2 I concur that preconstruction surveys are needed for Swainson's hawks. However, detection surveys are also needed. It is already established on eBird that Swainson's hawks are in the area and that at minimum the project would remove foraging habitat. This impact needs to be analyzed in an EIR and mitigated.

MM BIO-3 I concur that preconstruction surveys are needed for nesting raptors. However, detection surveys are needed first. Preconstruction surveys are intended to buffer or salvage nests immediately threatened by the tractor blade, but they do not inform of how many nests will be taken. The magnitude of the impact must be known or estimated in order to formulate appropriate minimization and compensatory mitigation. Detection surveys are needed to inform an EIR, which is needed to analyze potential impacts to nesting raptors.

MM BIO-4 I concur that preconstruction surveys are needed for nesting passerine birds. However, detection surveys are needed first. The same issues apply here as those I raised in MM BIO-1 through MM BIO-3. I will add that additional bird species might nest on the project site other than raptors and passerines. Killdeer might nest there, in addition to others. Detection surveys are needed for nests of all species protected by both the California and federal Migratory Bird Treaty Acts.

Additional Comments on Mitigation

The IS provides no mitigation for adverse impacts on regional movement of wildlife, nor for cumulative impacts on wildlife or even for direct impacts. At a minimum, an EIR needs to include substantial compensatory mitigation in response to the project's impacts on habitat loss and wildlife movement, including impacts to birds using the site as stop-over or staging during migration.

Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding of research to identify fatality patterns and effective impact reduction measures.

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by the increased trip generation of cars and trucks. Many animals need treatment caused by collision injuries and an increasing number appear to be injured by the turbulence of passing trucks.

Mitigation measures are also needed for management of vertebrate pests on the project site. The project site is adjacent to Clark Ranch and to Napa River and Bay Trails, so any pest control on site needs to be prevented from spilling over into designated open spaces.

The IS (page 11) says, "The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation..." I suggest the building, if constructed, should include PV solar panels to the extent the roof can sustain. The project would use electrical energy, which if not generated on site will likely come from renewable energy sources. Utility-scale renewable energy is known to kill many members of many species of birds and bats. Onsite generation would kill many fewer birds and bats, if any (no fatalities have been documented to date as a result of collisions with rooftop solar).

Thank you for your attention,



_____
Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 665 professional publications, including:
- 88 peer reviewed publications
- 24 in non-reviewed proceedings
- 551 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Peer Reviewed Publications

Smallwood, K. S. 2020. USA wind energy-caused bat fatalities increase with shorter fatality search intervals. Diversity 12(98); doi:10.3390/d12030098.

Smallwood, K. S., D. A. Bell, and S. Standish. 2020. Dogs detect larger wind energy impacts on bats and birds. Journal of Wildlife Management 84:852-864. DOI: 10.1002/jwmg.21863.

Smallwood, K. S., and D. A. Bell. 2020. Relating bat passage rates to wind turbine fatalities. Diversity 12(84); doi:10.3390/d12020084.

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Smallwood, K. S. and M. L. Morrison. 2018. Nest-site selection in a high-density colony of burrowing owls. Journal of Raptor Research 52:454-470.

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Mete, A., N. Stephenson, K. Rogers, M. G. Hawkins, M. Sadar, D. Guzman, D. A. Bell, J. Shipman, A. Wells, K. S. Smallwood, and J. Foley. 2014. Emergence of Knemidocoptic mange in wild Golden Eagles (Aquila chrysaetos) in California. Emerging Infectious Diseases 20(10):1716-1718.

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- Mesa Wind Project EA, Desert Hot Springs (2020; 31);
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- Sakioka Farms EIR tiering, Oxnard (2020; 14);
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- Haun and Holland Mixed Use Center MND, Menifee (2020; 23);
- First Industrial Logistics Center II, Moreno Valley IS/MND (2020; 23);
- GLP Store Warehouse Project Staff Report (2020; 15);
- Replies on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 29);
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- Sand Hill Supplemental EIR, Altamont Pass (2019; 17);
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- Summit Ridge Wind Farm Request for Amendment 4, Oregon (2019; 46);
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- Pinnacle Pacific Heights Design Review, San Diego (2019; 19);
- Pinnacle Park & C Design Review, San Diego (2019; 19);
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- Santana West Project EIR Addendum, San Jose (2019; 18);
- The Ranch at Eastvale EIR Addendum, Riverside County (2020; 19);
- Hageman Warehouse IS/MND, Bakersfield (2019; 13);
- Oakley Logistics Center EIR, Antioch (2019; 22);
- 27 South First Street IS, San Jose (2019; 23);
- 2nd replies on Times Mirror Square Project EIR, Los Angeles (2020; 11);
- Replies on Times Mirror Square Project EIR, Los Angeles (2020; 13);
- Times Mirror Square Project EIR, Los Angeles (2019; 18);
- East Monte Vista & Aviator General Plan Amend EIR Addendum, Vacaville (2019; 22);
- Hillcrest LRDP EIR, La Jolla (2019; 36);
- 555 Portola Road CUP, Portola Valley (2019; 11);
- Johnson Drive Economic Development Zone SEIR, Pleasanton (2019; 27);
- 1750 Broadway Project CEQA Exemption, Oakland (2019; 19);
- Mor Furniture Project MND, Murietta Hot Springs (2019; 27);
- Harbor View Project EIR, Redwood City (2019; 26);
- Visalia Logistics Center (2019; 13);
- Cordelia Industrial Buildings MND (2019; 14);
- Scheu Distribution Center IS/ND, Rancho Cucamonga (2019; 13);
- Mills Park Center Staff Report, San Bruno (2019; 22);
- Site visit to Desert Highway Farms IS/MND, Imperial County (2019; 9);
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- ExxonMobil Interim Trucking for Santa Ynez Unit Restart SEIR, Santa Barbara (2019; 9);
- Olympic Holdings Inland Center Warehouse Project MND, Rancho Cucamonga (2019; 14);
- Replies to responses on Lawrence Equipment Industrial Warehouse, Banning (2019; 19);
- PARS Global Storage MND, Murietta (2019; 13);
- Slover Warehouse EIR Addendum, Fontana (2019; 16);
- Seefried Warehouse Project IS/MND, Lathrop (2019; 19)
- World Logistics Center Site Visit, Moreno Valley (2019; 19);
- Merced Landfill Gas-To-Energy Project IS/MND (2019; 12);
- West Village Expansion FEIR, UC Davis (2019; 11);
- Site visit, Doheny Ocean Desalination EIR, Dana Point (2019; 11);
- Replies to responses on Avalon West Valley Expansion EIR, San Jose (2019; 10);
- Avalon West Valley Expansion EIR, San Jose (2019; 22);
- Sunroad – Otay 50 EIR Addendum, San Diego (2019; 26);

- Del Rey Pointe Residential Project IS/MND, Los Angeles (2019; 34);
- 1 AMD Redevelopment EIR, Sunnyvale (2019; 22);
- Lawrence Equipment Industrial Warehouse IS/MND, Banning (2019; 14);
- SDG Commerce 330 Warehouse IS, American Canyon (2019; 21);
- PAMA Business Center IS/MND, Moreno Valley (2019; 23);
- Cupertino Village Hotel IS (2019; 24);
- Lake House IS/ND, Lodi (2019; 33);
- Campo Wind Project DEIS, San Diego County (DEIS, (2019; 14);
- Stirling Warehouse MND site visit, Victorville (2019; 7);
- Green Valley II Mixed-Use Project EIR, Fairfield (2019; 36);
- We Be Jammin rezone MND, Fresno (2019; 14);
- Gray Whale Cove Pedestrian Crossing IS/ND, Pacifica (2019; 7);
- Visalia Logistics Center & DDG 697V Staff Report (2019; 9);
- Mather South Community Masterplan Project EIR (2019; 35);
- Del Hombre Apartments EIR, Walnut Creek (2019; 23);
- Otay Ranch Planning Area 12 EIR Addendum, Chula Vista (2019; 21);
- The Retreat at Sacramento IS/MND (2019; 26);
- Site visit to Sunroad – Centrum 6 EIR Addendum, San Diego (2019; 9);
- Sunroad – Centrum 6 EIR Addendum, San Diego (2018; 22);
- North First and Brokaw Corporate Campus Buildings EIR Addendum, San Jose (2018; 30);
- South Lake Solar IS, Fresno County (2018; 18);
- Galloo Island Wind Project Application, New York (not submitted) (2018; 44);
- Doheny Ocean Desalination EIR, Dana Point (2018; 15);
- Stirling Warehouse MND, Victorville (2018; 18);
- LDK Warehouse MND, Vacaville (2018; 30);
- Gateway Crossings FEIR, Santa Clara (2018; 23);
- South Hayward Development IS/MND (2018; 9);
- CBU Specific Plan Amendment, Riverside (2018; 27);
- 2nd replies to responses on Dove Hill Road Assisted Living Project MND (2018; 11);
- Replies to responses on Dove Hill Road Assisted Living Project MND (2018; 7);
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- Pyramid Asphalt BLM Finding of No Significance, Imperial County (2018; 22);
- Amáre Apartments IS/MND, Martinez (2018; 15);
- Petaluma Hill Road Cannabis MND, Santa Rosa (2018; 21);
- 2nd comments on Zeiss Innovation Center IS/MND, Dublin (2018: 12);
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- City of Hope Campus Plan EIR, Duarte (2018; 21);
- Palo Verde Center IS/MND, Blythe (2018; 14);
- Logisticenter at Vacaville MND (2018; 24);
- IKEA Retail Center SEIR, Dublin (2018; 17);
- Merge 56 EIR, San Diego (2018; 15);
- Natomas Crossroads Quad B Office Project P18-014 EIR, Sacramento (2018; 12);
- 2900 Harbor Bay Parkway Staff Report, Alameda (2018; 30);

- At Dublin EIR, Dublin (2018; 25);
- Fresno Industrial Rezone Amendment Application No. 3807 IS (2018; 10);
- Nova Business Park IS/MND, Napa (2018; 18);
- Updated Collision Risk Model Priors for Estimating Eagle Fatalities, USFWS (2018; 57);
- 750 Marlborough Avenue Warehouse MND, Riverside (2018; 14);
- Replies to responses on San Bernardino Logistics Center IS (2018; 12);
- San Bernardino Logistics Center IS (2018; 19);
- CUP2017-16, Costco IS/MND, Clovis (2018; 11);
- Desert Land Ventures Specific Plan EIR, Desert Hot Springs (2018; 18);
- Ventura Hilton IS/MND (2018; 30);
- North of California Street Master Plan Project IS, Mountain View (2018: 11);
- Tamarind Warehouse MND, Fontana (2018; 16);
- Lathrop Gateway Business Park EIR Addendum (2018; 23);
- Centerpointe Commerce Center IS, Moreno Valley (2019; 18);
- Amazon Warehouse Notice of Exemption, Bakersfield (2018; 13);
- CenterPoint Building 3 project Staff Report, Manteca (2018; 23);
- Cessna & Aviator Warehouse IS/MND, Vacaville (2018; 24);
- Napa Airport Corporate Center EIR, American Canyon (2018, 15);
- 800 Opal Warehouse Initial Study, Mentone, San Bernardino County (2018; 18);
- 2695 W. Winton Ave Industrial Project IS, Hayward (2018; 22);
- Trinity Cannabis Cultivation and Manufacturing Facility DEIR, Calexico (2018; 15);
- Shoe Palace Expansion IS/MND, Morgan Hill (2018; 21);
- Newark Warehouse at Morton Salt Plant Staff Report (2018; 15);
- Northlake Specific Plan FEIR "Peer Review", Los Angeles County (2018; 9);
- Replies to responses on Northlake Specific Plan SEIR, Los Angeles County (2018; 13);
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- Bogle Wind Turbine DEIR, east Yolo County (2017; 48);
- Ferrante Apartments IS/MND, Los Angeles (2017; 14);
- The Villages of Lakeview EIR, Riverside (2017; 28);
- Data Needed for Assessing Trail Management Impacts on Northern Spotted Owl, Marin County (2017; 5);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4);
- Pyramid Asphalt IS, Imperial County (Declaration) (2017; 5);
- San Gorgonio Crossings EIR, Riverside County (2017; 22);
- Replies to responses on Jupiter Project IS and MND, Apple Valley (2017; 12);
- Proposed World Logistics Center Mitigation Measures, Moreno Valley (2017, 2019; 12);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12);
- PG&E Company Bay Area Operations and Maintenance HCP (2017; 45);
- Central SoMa Plan DEIR (2017; 14);
- Suggested mitigation for trail impacts on northern spotted owl, Marin County (2016; 5);
- Colony Commerce Center Specific Plan DEIR, Ontario (2016; 16);
- Fairway Trails Improvements MND, Marin County (2016; 13);
- Review of Avian-Solar Science Plan (2016; 28);
- Replies on Pyramid Asphalt IS, Imperial County (2016; 5);

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- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14);
- Santa Anita Warehouse MND, Rancho Cucamonga (2016; 12);
- CapRock Distribution Center III DEIR, Rialto (2016: 12);
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- City of Palmdale Oasis Medical Village Project IS/MND (2016; 7);
- Comments on proposed rule for incidental eagle take, USFWS (2016, 49);
- Replies on Grapevine Specific and Community Plan FEIR, Kern County (2016; 25);
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- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study, San Bernardino (2016; 6);
- Tri-City Industrial Complex Initial Study, San Bernardino (2016; 5);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02, Beaumont (2016; 12);
- Kimball Business Park DEIR (2016; 10);
- Jupiter Project IS and MND, Apple Valley, San Bernardino County (2016; 9);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18);
- Palo Verde Mesa Solar Project EIR, Blythe (2016; 27);
- Reply on Fairview Wind Project Natural Heritage Assessment, Ontario, Canada (2016; 14);
- Fairview Wind Project Natural Heritage Assessment, Ontario, Canada (2016; 41);
- Reply on Amherst Island Wind Farm Natural Heritage Assessment, Ontario (2015, 38);
- Amherst Island Wind Farm Natural Heritage Assessment, Ontario (2015, 31);
- Second Reply on White Pines Wind Farm, Ontario (2015, 6);
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- Willow Springs Solar Photovoltaic Project DEIR, Rosamond (2015; 28);
- Sierra Lakes Commerce Center Project DEIR, Fontana (2015, 9);
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- West Valley Logistics Center Specific Plan DEIR, Fontana (2015, 10);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10);
- World Logistic Center Specific Plan FEIR, Moreno Valley (2015, 12);
- Elkhorn Valley Wind Power Project Impacts, Oregon (2015; 143);
- Bay Delta Conservation Plan EIR/EIS, Sacramento (2014, 21);
- Addison Wind Energy Project DEIR, Mojave (2014, 32);
- Replies on the Addison Wind Energy Project DEIR, Mojave (2014, 15);
- Addison and Rising Tree Wind Energy Project FEIR, Mojave (2014, 12);
- Palen Solar Electric Generating System FSA (CEC), Blythe (2014, 20);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9);
- Seven Mile Hill and Glenrock/Rolling Hills impacts + Addendum, Wyoming (2014; 105);
- Rising Tree Wind Energy Project DEIR, Mojave (2014, 32);
- Replies on the Rising Tree Wind Energy Project DEIR, Mojave (2014, 15);
- Soitec Solar Development Project PEIR, Boulevard, San Diego County (2014, 18);

- Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3);
- Alta East Wind Energy Project FEIS, Tehachapi Pass (2013, 23);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16);
- Clearwater and Yakima Solar Projects DEIR, Kern County (2013, 9);
- West Antelope Solar Energy Project IS/MND, Antelope Valley (2013, 18);
- Cuyama Solar Project DEIR, Carrizo Plain (2014, 19);
- Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49);
- Kingbird Solar Photovoltaic Project EIR, Kern County (2013, 19);
- Lucerne Valley Solar Project IS/MND, San Bernardino County (2013, 12);
- Tule Wind project FEIR/FEIS (Declaration) (2013; 31);
- Sunlight Partners LANDPRO Solar Project MND (2013; 11);
- Declaration in opposition to BLM fracking (2013; 5);
- Blythe Energy Project (solar) CEC Staff Assessment (2013;16);
- Rosamond Solar Project EIR Addendum, Kern County (2013; 13);
- Pioneer Green Solar Project EIR, Bakersfield (2013; 13);
- Replies on Soccer Center Solar Project MND (2013; 6);
- Soccer Center Solar Project MND, Lancaster (2013; 10);
- Plainview Solar Works MND, Lancaster (2013; 10);
- Alamo Solar Project MND, Mojave Desert (2013; 15);
- Replies on Imperial Valley Solar Company 2 Project (2013; 10);
- Imperial Valley Solar Company 2 Project (2013; 13);
- FRV Orion Solar Project DEIR, Kern County (PP12232) (2013; 9);
- Casa Diablo IV Geothermal Development Project (2013; 6);
- Reply on Casa Diablo IV Geothermal Development Project (2013; 8);
- Alta East Wind Project FEIS, Tehachapi Pass (2013; 23);
- Metropolitan Air Park DEIR, City of San Diego (2013;);
- Davidon Homes Tentative Subdivision Rezoning Project DEIR, Petaluma (2013; 9);
- Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10);
- Campo Verde Solar project FEIR, Imperial Valley (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8);
- North Steens Transmission Line FEIS, Oregon (Declaration) (2012; 62);
- Summer Solar and Springtime Solar Projects Ism Lancaster (2012; 8);
- J&J Ranch, 24 Adobe Lane Environmental Review, Orinda (2012; 14);
- Replies on Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 8);
- Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 9);
- Desert Harvest Solar Project EIS, near Joshua Tree (2012; 15);
- Solar Gen 2 Array Project DEIR, El Centro (2012; 16);
- Ocotillo Sol Project EIS, Imperial Valley (2012; 4);
- Beacon Photovoltaic Project DEIR, Kern County (2012; 5);
- Butte Water District 2012 Water Transfer Program IS/MND (2012; 11);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16);
- City of Elk Grove Sphere of Influence EIR (2011; 28);
- Sutter Landing Park Solar Photovoltaic Project MND, Sacramento (2011; 9);

- Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4);
- Ivanpah Solar Electric Generating System (ISEGS) (Declaration) (2011; 9);
- Draft Eagle Conservation Plan Guidance, USFWS (2011; 13);
- Niles Canyon Safety Improvement Project EIR/EA (2011; 16);
- Route 84 Safety Improvement Project (Declaration) (2011; 7);
- Rebuttal on Whistling Ridge Wind Energy Power DEIS, Skamania County, (2010; 6);
- Whistling Ridge Wind Energy Power DEIS, Skamania County, Washington (2010; 41);
- Klickitat County's Decisions on Windy Flats West Wind Energy Project (2010; 17);
- St. John's Church Project DEIR, Orinda (2010; 14);
- Results Radio Zone File #2009-001 IS/MND, Conaway site, Davis (2010; 20);
- Rio del Oro Specific Plan Project FEIR, Rancho Cordova (2010;12);
- Results Radio Zone File #2009-001, Mace Blvd site, Davis (2009; 10);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Second Declaration) (2008; 17);
- Draft 1A Summary Report to CAISO (2008; 10);
- Hilton Manor Project Categorical Exemption, County of Placer (2009; 9);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142);
- Delta Shores Project EIR, south Sacramento (2009; 11 + addendum 2);
- Declaration in Support of Care's Petition to Modify D.07-09-040 (2008; 3);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Declaration) (2008; 16);
- Colusa Generating Station, California Energy Commission PSA (2007; 24);
- Rio del Oro Specific Plan Project Recirculated DEIR, Mather (2008: 66);
- Replies on Regional University Specific Plan EIR, Roseville (2008; 20);
- Regional University Specific Plan EIR, Roseville (2008: 33);
- Clark Precast, LLC's "Sugarland" project, ND, Woodland (2008: 15);
- Cape Wind Project DEIS, Nantucket (2008; 157);
- Yuba Highlands Specific Plan EIR, Spenceville, Yuba County (2006; 37);
- Replies to responses on North Table Mountain MND, Butte County (2006; 5);
- North Table Mountain MND, Butte County (2006; 15);
- Windy Point Wind Farm EIS (2006; 14 and Powerpoint slide replies);
- Shiloh I Wind Power Project EIR, Rio Vista (2005; 18);

- Buena Vista Wind Energy Project NOP, Byron (2004; 15);
- Callahan Estates Subdivision ND, Winters (2004; 11);
- Winters Highlands Subdivision IS/ND (2004; 9);
- Winters Highlands Subdivision IS/ND (2004; 13);
- Creekside Highlands Project, Tract 7270 ND (2004; 21);
- Petition to California Fish and Game Commission to list Burrowing Owl (2003; 10);
- Altamont Pass Wind Resource Area CUP renewals, Alameda County (2003; 41);
- UC Davis Long Range Development Plan: Neighborhood Master Plan (2003; 23);
- Anderson Marketplace Draft Environmental Impact Report (2003; 18);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003; 6);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002; 23);
- Replies on East Altamont Energy Center evidentiary hearing (2002; 9);
- Revised Draft Environmental Impact Report, The Promenade (2002; 7);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002; 3);
- UC Merced -- Declaration (2002; 5);
- Replies on Atwood Ranch Unit III Subdivision FEIR (2003; 22);
- Atwood Ranch Unit III Subdivision EIR (2002; 19);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002; 20);
- Silver Bend Apartments IS/MND, Placer County (2002; 13);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001; 26);
- Colusa County Power Plant IS, Maxwell (2001; 6);
- Dog Park at Catlin Park, Folsom, California (2001; 5);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000; 10);
- Metcalf Energy Center, California Energy Commission FSA (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000; 4);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9).
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Sunset Skyranch Airport Use Permit IS/MND (1999);
- Ballona West Bluffs Project Environmental Impact Report (1999; oral presentation);
- Draft Recovery Plan for Giant Garter Snake (Fed. Reg. 64(176): 49497-49498) (1999; 8);
- Draft Recovery Plan for Arroyo Southwestern Toad (1998);
- Pacific Lumber Co. (Headwaters) HCP & EIR, Fortuna (1998; 28);
- Natomas Basin HCP Permit Amendment, Sacramento (1998);
- San Diego Multi-Species Conservation Program FEIS/FEIR (1997; 10);

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8);
- Covell Village PEIR, Davis (2005; 19);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping (2003; 7.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Dog detections of bat and bird fatalities at wind farms in the Altamont Pass Wind Resource Area. East Bay Regional Park District 2019 Stewardship Seminar, Oakland, California, 13 November 2019.

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat

Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh,

Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19,

2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.

Journal	Journal
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Santa Monica, CA 90405

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(310) 795-2335
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January 19, 2021

Michael R. Lozeau
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Subject: Comments on SDG Commerce 217 Distribution Center Project (SCH No. 2020120302)

Dear Mr. Lozeau,

We have reviewed the December 2020 Draft Initial Study/Mitigated Negative Declaration ("IS/MND") for the SDG Commerce 217 Distribution Center Project ("Project") located in the City of American Canyon ("City"). The Project proposes to construct a 217,294-SF wine distribution center, including 4,350-SF of office space, as well as 134 vehicle and 21 truck dock parking spaces, on the 10.39-acre site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Incorrect Analysis of Construction Emissions

The Bay Area Air Quality Management District ("BAAQMD") provides significance thresholds to evaluate air pollutant emissions in the form of pounds per day ("lbs/day") and tons per year ("tons/year"). CalEEMod provides three types of output files – winter, summer, and annual. Specifically, the CalEEMod User's Guide states:

> "CalEEMod provides a simple platform to calculate both construction emissions and operational emissions from a land use project. It can calculate both the *daily* maximum and *annual* average for criteria pollutants as well as annual greenhouse gas (GHG) emissions" (emphasis added).[1]

While the annual output files provide *annual* emissions in tons/year, both the winter and summer output files provide *daily* emissions estimates in lbs/day. As such, the IS/MND should have relied upon the emissions estimates provided by the Project's summer and winter output files in order to determine the significance of the Project's air quality impact. However, review of the IS/MND and CalEEMod output files, provided in Appendix B-3 to the IS/MND, demonstrates that the emissions estimates purported by the IS/MND are inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files.

Specifically, the IS/MND estimates that the Project would result in construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 13.6-, 24.6-, 1.0-, 0.9-, and 19.5-lbs/day, respectively (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, review of the "SDG Commerce 217 Wine Storage Project" winter output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.64-, 40.55-, 2.05-, 1.88-, and 22.64-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 72).

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1.

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6355	40.5472	22.6449	0.0540	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6355**	**40.5472**	**22.6449**	**0.0540**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

Similarly, review of the "SDG Commerce 217 Wine Storage Project" summer output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.63-, 40.54-, 2.05-, 1.88-, and 22.55-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 46).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As you can see in the excerpts above, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. This is incorrect, as CEQA requires disclosure of the full extent of a project's impacts prior to mitigation in order to accurately disclose the severity of an impact. By relying on incorrect and underestimated emissions estimates, the IS/MND's air quality analysis is incorrect, and the subsequent less-than-significant air quality impact conclusion should not be relied upon.

Failure to Identify Significant Air Quality Impact

The IS/MND concludes that the Project would not result in a significant impact due to mitigated construction-related ROG emissions (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, as previously discussed, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. As a result, in order to correctly evaluate the Project's estimated daily emissions based on the BAAQMD threshold in lbs/day, we reviewed the IS/MND's winter CalEEMod output file, which estimates *daily* ROG emissions of approximately 156 lbs/day (see excerpt below) (Appendix B-3, pp. 72).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As the above excerpt demonstrates, the *daily* construction-related ROG emissions estimate provided by the "SDG Commerce 217 Wine Storage Project" winter output file clearly exceeds the BAAQMD threshold of 54 lbs/day, contrary to what is stated in the IS/MND. Thus, the IS/MND's conclusion that the Project's construction-related ROG emissions would result in a less-than-significant air quality impact is incorrect. An EIR should be prepared to adequately evaluate and mitigate the Project's significant construction-related ROG emissions.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 22).[2] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project

[2] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[4]

When reviewing the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reductions to Saturday and Sunday Trip Rates

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default Saturday and Sunday operational vehicle trip rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00

As you can see in the excerpt above, the model assumes the Project's Saturday and Sunday operational vehicle trip rate would be zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Monday Thru Friday Operations" (Appendix B-3, pp. 14, 44, 70). However, the IS/MND fails to mention or substantiate the claim that the Project will only be operational Monday through Friday. Furthermore, the Air Quality Calculations ("AQ Calculations"), provided as Appendix B-2 to the IS/MND, state:

> "It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours *a day* during the peak season" (emphasis added) (Appendix B-2, pp. 10).

As the excerpt above demonstrates, the AQ Calculations fail to specify that Project operations will only occur on weekdays. As such, we cannot verify the revised Saturday and Sunday trip rates. These unsubstantiated reductions present an issue, as CalEEMod uses vehicle trip rates to calculate the

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.
[4] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.
[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

Project's emissions associated with operational motor vehicle emissions.[6] By including unsubstantiated reductions to the Project's Saturday and Sunday operational vehicle trip rates, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Energy Use Values

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default energy use values (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00

As you can see in the excerpt above, the lighting energy electricity ("LightingElect"), the non-Title 24 electricity energy intensity ("NT24E"), the non-Title 24 natural gas energy intensity ("NT24NG"), and the Title 24 natural gas energy intensity ("T24NG") values were each reduced to 0 kilowatt hours per land use size per year ("KWhr/size/year"). Furthermore, the Title 24 electricity energy intensity ("T24E") was increased to 3 KWhr/size/year. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[7] According to the User Entered Comments and Non-Default Data table, the justification provided for these changes is: "Energy use scaled down from SDG Commerce 330 Project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the AQ Calculations state:

> "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.
>
> CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices" (pp. 11).

However, these justifications are insufficient. The AQ Calculations cannot claim that "[t]he SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings" without providing sufficient calculations or an adequate source. Similarly, the AQ Calculations cannot simply state that natural gas usage was adjusted to zero without providing an adequate source or additional information. According to the CalEEMod User's Guide:

[6] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 28.
[7] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[8]

Here, however, the IS/MND fails to provide *substantial evidence* for the revised energy use values, and as a result, the changes are unsubstantiated.

These unsubstantiated reductions present an issue, as CalEEMod uses the energy use values to calculate the Project's emissions associated with building electricity and non-hearth natural gas usage.[9] By including unsubstantiated changes to the Project's energy use values, the model may underestimate the Project's energy-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Solid Waste Generation Rate

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes a manual reduction to the Project's default solid generation rate (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00

As you can see in the excerpt above, the solid waste generation rate is decreased by approximately 99%, from the default value of 204.25- to 2.00-tons per year ("tons/year"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "minimal solid waste generated" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon" (p. 100).

However, these justifications are insufficient for two reasons. First, while the IS/MND indicates that "[t]he warehouses project would produce small quantities solid waste," the IS/MND fails to provide an estimate of how much solid waste the warehouses would produce (p. 100). Second, the IS/MND fails to mention or provide a source for the 99% reduction to the solid waste generation rate. As such, we cannot verify the revised solid waste generation rate.

This unsubstantiated reduction presents an issue, as CalEEMod uses the solid waste generation rates to calculate the Project's operation greenhouse gas ("GHG") emissions associated with the disposal of solid

[8] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.
[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43
[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

waste into landfills.[11] Thus, by including an unsubstantiated reduction to the Project's solid waste generation rate, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Indoor Water Use Rate

Review of the CalEEMod output files demonstrates the "SDG Commerce 217 Wine Storage Project" model includes manual changes to the default indoor and outdoor water use rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

As you can see in the excerpt above, the indoor water use rate was decreased by nearly 100%, from the default value of 50,248,312.50- to 768-gallons per year ("gpy"), while the outdoor water use rate was increased by 9,341 gpy. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Water use scaled down from SDG Commerce 330 project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "[T]he proposed project is estimated to have an average potable *water daily demand of 142 gallons/day (gpd)*, and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. *In addition, it will use about 541 gpd of recycled water*" (emphasis added) (p. 100).

As the above excerpt demonstrates, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gallons per day ("gpd"),[13] or 249,295 gpy.[14] Thus, the model underestimates the Project's total daily water demand by approximately 239,186 gpy.[15] As a result, the indoor and outdoor water use rates inputted into the model are underestimated and inconsistent with the information provided by the IS/MND.

This underestimation presents an issue, as CalEEMod uses the water use rates to calculate the Project's GHG emissions associated with the supply and treatment of water.[16] Thus, by including underestimated

[11] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 46.
[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[13] Calculated by: (142 gallons per day) + (541 recycled gallons per day) = 683 total gpd.
[14] Calculated by: (683 gallons per day) * (365 days) = 249,295 gallons per year.
[15] (249,295 gallons per year) – (768 indoor gallons per year) – (9,341 outdoor gallons per year) = 239,186 gallons per year.
[16] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 44-45.

indoor and outdoor water use rates, the model underestimates the Project's operational emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes the following construction-related mitigation measures: "Water Exposed Area" and "Reduce Vehicle Speed on Unpaved Roads" (see excerpt below) (Appendix B-3, pp. 21, 51, 77).

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Furthermore, the model includes a 15 miles per hour ("MPH") vehicle speed (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[17] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "BAAQMD basic fugitive dust measures" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
> - All haul trucks transporting soil, sand, or other loose material off site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
> - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
> - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
> - A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency

[17] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

contact information shall also be visible to ensure compliance with applicable regulations…

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***" (p. 23).

However, these justifications are insufficient for three reasons.

First, simply because the IS/MND states the Project would implement the BAAQMD's best management practices ("BMPs") does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[18]

As you can see in the excerpt above, mitigation measures "are not part of the original project design" and are intended to go "above-and-beyond" existing regulatory requirements. As such, the inclusion of these measures, based on the Project's compliance with the BAAQMD's BMPs, is unsubstantiated.

Second, regarding these BMPs, BAAQMD guidance states:

> "For fugitive dust emissions, staff *recommends* following the current best management practices approach which has been a pragmatic and effective approach to the control of fugitive dust emissions" (emphasis added).[19]

As you can see in the excerpt above, while these BMPs are recommended, they are not explicitly required by the BAAQMD. As a result, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site.

Third, AEP guidance states:

> "While not 'mitigation', a good practice is *to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP)*. Often the

[18] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.
[19] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-47.

MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, *it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact*" (emphasis added).[20]

As you can see in the excerpts above, *project design features are not mitigation measures and may be eliminated from the Project's design*. Thus, as the above-mentioned construction-related mitigation measures are not *formally* included as mitigation measures, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the above-mentioned construction-related mitigation measures is incorrect, and the model should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to determine the construction-related and operational emissions associated with the Project, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/MND. In our updated model, we omitted the unsubstantiated changes to the Saturday and Sunday operational vehicle trip rates, energy use values, and solid waste generation rates; corrected the indoor and outdoor water use rates; and excluded the unsubstantiated construction-related mitigation measures. Our updated analysis demonstrates that the NO_x emissions associated with Project construction exceed the 54-lbs/day threshold set by the BAAQMD, as referenced by Appendix B to the IS/MND (see table below) (Appendix B-1, pp. 7).

Construction Model	**NO_X**
SWAPE	61.54
IS/MND	40.55
% Increase	52%
BAAQMD Regional Threshold (lbs/day)	**54**
Threshold Exceeded?	***Yes***

As you can see in the excerpt above, when modeled correctly, the Project's construction-related NO_x emissions increase by approximately 52% and exceed the BAAQMD significance threshold. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/MND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

[20] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the proposed Project would result in a less-than-significant health risk impact, without conducting a quantified construction or operational health risk assessment ("HRA") (p. 26). Specifically, the IS/MND states:

> "Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD" (p. 26).

Furthermore, the IS/MND states:

> "A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation" (p. 26).

Finally, the IS/MND concludes:

> "The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***" (p. 26).

However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the IS/MND's claim that health risk impacts would be less than significant, because construction activities would be located approximately 1,500 feet from the nearest school, is incorrect. According to BAAQMD guidelines, "BAAQMD recommends that all receptors located within a 1,000 foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks or hazards from the proposed new source."[21] Here, the IS/MND states that there is "one residence about 1,000 feet east of the site" (p. 26). Moreover, further review of IS/MND demonstrates that the Project's borrow pit and stockpile hauling area is only 500 feet from the nearest residence (see excerpt below) (p. 77, Table Noise-4).

[21] "Assessing and Mitigating Local Community Risk and Hazard Impacts." BAAQMD, May 2011, *available at:* https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx, p. 5-7.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

As you can see in the excerpt above, the nearest sensitive receptor is only 500 feet from the Project. As such, pursuant to BAAQMD guidelines, the IS/MND should have prepared a quantified HRA evaluating the potential health risk impacts posed to nearby sensitive receptors.

Second, the IS/MND makes the qualitative claims that an HRA prepared for the SDG 330 project, which is "a larger project generating more vehicle trips than the proposed project," found a less-than-significant health risk impact, and "TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site" (p. 26). However, these qualitative claims are insufficient in justifying the omission of a construction and operational HRA. Simply because an HRA was prepared for a completely different project that found less-than-significant health risk impacts, does not guarantee that the health risk impacts posed by the proposed Project would be less than significant. Rather, construction of the Project will produce emissions of diesel particulate matter ("DPM"), a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 9.5 months (IS/MND, p. 12). Furthermore, the IS/MND indicates that Project operation would generate 367 daily weekday vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 45). As such, without making a reasonable effort to connect the Project's construction-related and operational TAC emissions and the potential health risks posed to nearby receptors, the IS/MND should not conclude that the Project's TAC emissions would be less than significant.

Third, by failing to prepare a construction HRA, the Project is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California. OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015.[22] This guidance document describes the types of projects that warrant the preparation of an HRA. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[23] As the Project's proposed 9.5-month construction duration vastly exceeds the 2-month requirement set forth by OEHHA, it is clear that the

[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html.
[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18.

Project meets the threshold requiring a quantified HRA under OEHHA guidance. Thus, we recommend that health risk impacts from Project construction be evaluated in an EIR, per OEHHA guidelines, in order to determine the nature and extent of the Project's health risk impacts.

Fourth, by failing to prepare an operational HRA, the Project is inconsistent with the most recent guidance published by OEHHA. Specifically, the OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[24] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent state health risk policies, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Fifth, by claiming that the Project would result in a less-than-significant health risk impact without conducting a quantified construction or operational HRA, the IS/MND fails to compare the Project's estimated excess cancer risk to the BAAQMD's specific numeric threshold of 10 in one million, as referenced by the IS/MND (p. 26).[25] Thus, the IS/MND cannot conclude that Project construction and operation would result in a less-than-significant health risk impact without quantifying the resulting cancer risk to compare to the proper threshold. As a result, the IS/MND's less-than-significant health risk impact conclusion should not be relied upon.

Screening-Level Analysis Demonstrates Significant Impacts

In an effort to demonstrate the potential health risk impacts posed by Project construction and operation to nearby, existing sensitive receptors utilizing site-specific emissions estimates, we prepared a screening-level HRA. The results of our assessment, as described below, demonstrate that the proposed Project may result in a significant impact not previously identified or addressed by the IS/MND.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the

[24] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

[25] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

[26] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

OEHHA[27] and the California Air Pollution Control Officers Associated ("CAPCOA")[28] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's incorrect and unsubstantiated air model. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The CalEEMod output files indicate that construction activities will generate 204 pounds of DPM over the 291-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{204\ lbs}{291\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00368\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.000368 grams per second ("g/s"). Subtracting the 291-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 29.2 years, approximately. The CalEEMod output files indicate that operational activities will generate 188 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{188\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00270\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00270 g/s. Construction and operational activity was simulated as a 10.39-acre rectangular area source in AERSCREEN with dimensions of 296 by 142 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

[27] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[28] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[29] According to the IS/MND, the nearest sensitive receptor is a single-family residence located approximately 500 feet, or approximately 152 meters, from the Project site (p. 77). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 3.827 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.3827 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 2.812 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2812 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule utilized in the IS/MND's CalEEMod model, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 0.55 years of the infantile stage of life (0 – 2 years). The annualized averaged concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remaining 1.45 years of the infantile stage of life, the entire child stage of life (2 – 16 years), and the entire adult stage of life (16 – 30 years).

Consistent with OEHHA, as recommended by SCAQMD, BAAQMD, and SJVAPCD guidance, and referenced by the IS/MND, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[30, 31, 32, 33] According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA,

[29] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: https://www3.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 4-36.

[30] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[31] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[32] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[33] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

we used the 95th percentile breathing rates for infants.[34] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[35] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Closest Exposed Individual at an Existing Residential Receptor

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.3827	361	4.4E-07	10	4.4E-06
3rd Trimester Duration	***0.25***			***4.4E-07***	***3rd Trimester Exposure***	***4.4E-06***
Construction	0.55	0.3827	1090	2.9E-06	10	2.9E-05
Operation	1.45	0.2812	1090	5.7E-06	10	5.7E-05
Infant Exposure Duration	***2.00***			***8.6E-06***	***Infant Exposure***	***8.6E-05***
Operation	14.00	0.2812	572	2.4E-05	3	7.3E-05
Child Exposure Duration	***14.00***			***2.4E-05***	***Child Exposure***	***7.3E-05***
Operation	14.00	0.2812	261	1.1E-05	1	1.1E-05
Adult Exposure Duration	***14.00***			***1.1E-05***	***Adult Exposure***	***1.1E-05***
Lifetime Exposure Duration	**30.00**			**4.5E-05**	**Lifetime Exposure**	**1.8E-04**

* We, along with CARB and BAAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project operation, utilizing age sensitivity factors, are approximately 11, 73, 86, and 4.4 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 180 in one million. The infant, child, adult, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and reflects recommendations from the air district. Results without age sensitivity factors are presented in the table

[34] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[35] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 11, 24, 8.6, and 0.44 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), without age sensitivity factors, is approximately 45 in one million. The adult, child, and lifetime cancer risk, without age sensitivity factors, exceeds the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. While we recommend the use of age sensitivity factors, health risk impacts exceed the BAAQMD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [36] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare an EIR with an HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 590 metric tons of CO_2 equivalents per year ("MT CO_2e/year"), which would not exceed the BAAQMD threshold of 1,100 MT CO_2e/year (see excerpt below) (p. 52, Table GHG-1).

[36] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

Furthermore, the IS/MND states:

> "The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's Climate Change Scoping Plan and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant impact***" (p. 52).

As you can see in the excerpt above, the IS/MND relies upon qualitative analyses of the Project's consistency with the SB 32 and CARB's 2017 *Scoping Plan* to determine the significance of the Project's GHG impact (p. 52). However, the IS/MND'S GHG analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

(1) The IS/MND's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The IS/MND's GHG analysis relies upon an outdated threshold;
(3) The IS/MND fails to identify a potentially significant GHG impact; and
(4) The IS/MND fails to demonstrate that the Project would be consistent with CARB's *Scoping Plan*.

(1) Incorrect and Unsubstantiated Quantitative GHG Analysis

As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). However, the IS/MND's quantitative GHG analysis should not be relied upon, as it relies upon an unsubstantiated air model. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several of the values inputted into the model are not consistent with information disclosed in the IS/MND and associated documents. As a result, the model underestimates the Project's GHG emissions, and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

(2) Incorrect Reliance on an Outdated Threshold

As discussed above, the IS/MND relies upon the BAAQMD's bright-line threshold of 1,100 MT CO_2e/year. However, this threshold is outdated and inapplicable to the proposed Project, as it was developed for the air district's planned reductions for 2020, based on AB 32.[37] Thus, this threshold only applies to projects that will become operational by the year 2020. Given that it is January 2021, and the Project has not yet been approved, the Project will not become operational until *after the year 2020*. As such, the BAAQMD's 2020 bright-line threshold of 1,100 MT CO_2e/year is inapplicable to the proposed Project. Rather, we recommend that the Project apply the AEP "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO_2 equivalents per service population per year ("MT CO_2e/SP/year").[38] In support of this threshold for projects with a horizon year beyond 2020, AEP guidance states:

> "Once the state has a full plan for 2030 (which is expected in 2017), and then *a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target*. A more conservative approach would be to apply a 2030 threshold *based on SB 32* for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update" (emphasis added).[39]

As the California Air Resources Board ("CARB") adopted *California's 2017 Climate Change Scoping Plan* in November of 2017, the proposed Project "should be evaluated based on a threshold using the 2030 target," according to the relevant guidance referenced above. As such, we recommend that an EIR be prepared, including an updated air model and comparing the Project's estimated GHG emissions to the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year.

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[37] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-20 – D-22.

[38] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

[39] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

(3) Failure to Identify a Potentially Significant GHG Impact

The IS/MND's incorrect and unsubstantiated air model indicates a potentially significant GHG impact, when applying the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year. As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). Furthermore, according to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[40] The IS/MND estimates that the Project would employ approximately 50 people (p. 82). As the Project does not contain any residential land uses, we estimate a service population of 50 people.[41] Dividing the Project's GHG emissions, as estimated by the IS/MND, by a service population of 50 people, we find that the Project would emit approximately 11.80 MT CO_2e/SP/year (see table below).[42]

IS/MND Service Population Efficiency	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**590**
Service Population	50
Service Population Efficiency	**11.80**
Threshold	2.6
Exceed?	***Yes***

As demonstrated above, when we compare the Project's service population efficiency value to the AEP "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the IS/MND. Therefore, an EIR should be prepared and recirculated for the Project, and mitigation should be implemented where necessary.

(4) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the IS/MND relies upon the Project's consistency with CARB's 2017 *Scoping Plan* to determine Project GHG significance (p. 52). However, this is incorrect, as the IS/MND fails to consider performance-based measures proposed by CARB.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[43] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation

[40] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[41] Calculated: 50 employees + 0 residents = 50 people.
[42] Calculated: (590 MT CO_2e/year) / (50 service population) = (11.80 MT CO_2e/SP/year).
[43] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[44] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2022 (Project operational year), and 2030 (target years under SB 32) (see table below and Attachment B).

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

The below table compares the 2017 *Scoping Plan* daily VMT per capita values against the daily VMT per capita values for the Project based on the IS/MND's modeling (see table below and Attachment C).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**Project**
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

As shown above, the IS/MND's modeling shows that the Project exceeds the CARB 2017 *Scoping Plan* projections for 2010, 2022, and 2030. Because the exceeds the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the Project conflicts with the CARB 2017 *Scoping Plan* and SB 375. As such, the IS/MND's claim that the proposed Project would not conflict with the CARB 2017

[44] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

Scoping Plan is incorrect and unsubstantiated. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less than significant GHG impacts.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project's air quality, health risk, and GHG emissions may result in significant impacts and should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*.[45] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[46]
Measures – Energy
Building Energy Use
Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code)
Install Programmable Thermostat Timers
Obtain Third-party HVAC Commissioning and Verification of Energy Savings
Install Energy Efficient Appliances
Install Energy Efficient Boilers
Lighting
Install Higher Efficacy Public Street and Area Lighting
Limit Outdoor Lighting Requirements
Replace Traffic Lights with LED Traffic Lights
Alternative Energy Generation
Establish Onsite Renewable or Carbon-Neutral Energy Systems
Establish Onsite Renewable Energy System – Solar Power
Establish Onsite Renewable Energy System – Wind Power
Utilize a Combined Heat and Power System
Establish Methane Recovery in Landfills
Establish Methane Recovery in Wastewater Treatment Plants
Measures – Transportation
Land Use/Location
Increase Density
Increase Location Efficiency

[45] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[46] "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

Increase Diversity of Urban and Suburban Developments (Mixed Use)
Increase Destination Accessibility
Increase Transit Accessibility
Integrate Affordable and Below Market Rate Housing
Orient Project Toward Non-Auto Corridor
Locate Project near Bike Path/Bike Lane
Neighborhood/Site Enhancements
Provide Pedestrian Network Improvements, such as: • Compact, mixed-use communities • Interconnected street network • Narrower roadways and shorter block lengths • Sidewalks • Accessibility to transit and transit shelters • Traffic calming measures and street trees • Parks and public spaces • Minimize pedestrian barriers
Provide Traffic Calming Measures, such as: • Marked crosswalks • Count-down signal timers • Curb extensions • Speed tables • Raised crosswalks • Raised intersections • Median islands • Tight corner radii • Roundabouts or mini-circles • On-street parking • Planter strips with trees • Chicanes/chokers
Implement a Neighborhood Electric Vehicle (NEV) Network.
Create Urban Non-Motorized Zones
Incorporate Bike Lane Street Design (on-site)
Provide Bike Parking in Non-Residential Projects
Provide Bike Parking with Multi-Unit Residential Projects
Provide Electric Vehicle Parking
Dedicate Land for Bike Trails
Parking Policy/Pricing
Limit Parking Supply through: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements

• Provision of shared parking
Unbundle Parking Costs from Property Cost
Implement Market Price Public Parking (On-Street)
Require Residential Area Parking Permits
Commute Trip Reduction Programs
Implement Commute Trip Reduction (CTR) Program – Voluntary • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) • New employee orientation of trip reduction and alternative mode options • Event promotions and publications • Flexible work schedule for employees • Transit subsidies • Parking cash-out or priced parking • Shuttles • Emergency ride home
Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring • Established performance standards (e.g. trip reduction requirements) • Required implementation • Regular monitoring and reporting
Provide Ride-Sharing Programs • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement.
Implement Subsidized or Discounted Transit Program
Provide Ent of Trip Facilities, including: • Showers • Secure bicycle lockers • Changing spaces
Encourage Telecommuting and Alternative Work Schedules, such as: • Staggered starting times • Flexible schedules • Compressed work weeks
Implement Commute Trip Reduction Marketing, such as: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications

Implement Preferential Parking Permit Program
Implement Car-Sharing Program
Implement School Pool Program
Provide Employer-Sponsored Vanpool/Shuttle
Implement Bike-Sharing Programs
Implement School Bus Program
Price Workplace Parking, such as: • Explicitly charging for parking for its employees; • Implementing above market rate pricing; • Validating parking only for invited guests; • Not providing employee parking and transportation allowances; and • Educating employees about available alternatives.
Implement Employee Parking "Cash-Out"
Transit System Improvements
Transit System Improvements, including: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.
Implement Transit Access Improvements, such as: • Sidewalk/crosswalk safety enhancements • Bus shelter improvements
Expand Transit Network
Increase Transit Service Frequency/Speed
Provide Bike Parking Near Transit
Provide Local Shuttles
Road Pricing/Management
Implement Area or Cordon Pricing
Improve Traffic Flow, such as: • Signalization improvements to reduce delay; • Incident management to increase response time to breakdowns and collisions; • Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and

• Speed management to reduce high free-flow speeds.
Required Project Contributions to Transportation Infrastructure Improvement Projects
Install Park-and-Ride Lots
Vehicles
Electrify Loading Docs and/or Require Idling-Reduction Systems
Utilize Alternative Fueled Vehicles, such as: • Biodiesel (B20) • Liquefied Natural Gas (LNG) • Compressed Natural Gas (CNG)
Utilize Electric or Hybrid Vehicles
Measures – Water
Water Supply
Use Reclaimed Water
Use Gray Water
Use Locally Sourced Water Supply
Water Use
Install Low-Flow Water Fixtures
Adopt a Water Conservation strategy
Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as: • Reducing lawn sizes; • Planting vegetation with minimal water needs, such as native species; • Choosing vegetation appropriate for the climate of the project site; • Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.
Use Water-Efficient Landscape Irrigation Systems (“Smart” irrigation control systems)
Reduce Turf in Landscapes and Lawns
Plant Native or Drought-Resistant Trees and Vegetation
Measures – Area Landscaping
Landscaping Equipment
Prohibit Gas Powered Landscape Equipment
Implement Lawnmower Exchange Program
Electric Yard Equipment Compatibility
Measures – Solid Waste
Solid Waste
Institute Recycling and Composting Services
Recycle Demolished Construction Material

Measures – Vegetation
Vegetation
Urban Tree Planting
Create New Vegetated Open Space
Measures – Construction
Construction
Use Alternative Fuels for Construction Equipment
Urban Tree Planting
Use Electric and Hybrid Construction Equipment
Limit Construction Equipment Idling Beyond Regulation Requirements
Institute a Heavy-Duty Off-Road Vehicle Plan, including: • Construction vehicle inventory tracking system; • Requiring hour meters on equipment; • Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and • Daily logging of the operating hours of the equipment.
Implement a Construction Vehicle Inventory Tracking System
Measures – Miscellaneous
Miscellaneous
Establish a Carbon Sequestration Project, such as: • Geologic sequestration or carbon capture and storage techniques, in which CO_2 from point sources is captured and injected underground; • Terrestrial sequestration in which ecosystems are established or preserved to serve as CO_2 sinks; • Novel techniques involving advanced chemical or biological pathways; or • Technologies yet to be discovered.
Establish Off-Site Mitigation
Use Local and Sustainable Building Materials
Require best Management Practices in Agriculture and Animal Operations
Require Environmentally Responsible Purchasing, such as: • Purchasing products with sustainable packaging; • Purchasing post-consumer recycled copier paper, paper towels, and stationary; • Purchasing and stocking communal kitchens with reusable dishes and utensils; • Choosing sustainable cleaning supplies; • Leasing equipment from manufacturers who will recycle the components at their end of life; • Choosing ENERGY STAR appliances and Water Sense-certified water fixtures; • Choosing electronic appliances with built in sleep-mode timers; • Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and • Choosing locally-made and distributed products.
Implement an Innovative Strategy for GHG Mitigation

Measures – General Plans
General Plans
Fund Incentives for Energy Efficiency, such as: • Retrofitting or designing new buildings, parking lots, streets, and public areas with energy-efficient lighting; • Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances; • Retrofitting or purchasing new low-emissions equipment; • Purchasing electric or hybrid vehicles; • Investing in renewable energy systems
Establish a Local Farmer's Market
Establish Community Gardens
Plant Urban Shade Trees
Implement Strategies to Reduce Urban Heat-Island Effect, such as: • Planting urban shade trees; • Installing reflective roofs; and • Using light-colored or high-albedo pavements and surfaces.

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project from NEDC's *Diesel Emission Controls in Construction Projects.*[47] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

NEDC's *Diesel Emission Controls in Construction Projects*[48]
Measures – Diesel Emission Control Technology
a. Diesel Onroad Vehicles All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
b. Diesel Generators All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
c. Diesel Nonroad Construction Equipment i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site

[47] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

[48] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines 50hp and greater and by a minimum of 20% for engines less than 50hp.
d. Upon confirming that the diesel vehicle, construction equipment, or generator has either an engine meeting Tier 4 non road emission standards or emission control technology, as specified above, installed and functioning, the developer will issue a compliance sticker. All diesel vehicles, construction equipment, and generators on site shall display the compliance sticker in a visible, external location as designated by the developer.
e. Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[49] approved by the original engine manufacturer with sulfur content of 15 ppm or less.
Measures – Idling Requirements
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized and shall not exceed the time allowed under state and local laws.
Measures – Additional Diesel Requirements
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
Reporting

[49] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes: i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number. ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level. iii. The Certification Statement signed and printed on the contractor's letterhead.
b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date. ii. Any problems with the equipment or emission controls. iii. Certified copies of fuel deliveries for the time period that identify: 1. Source of supply 2. Quantity of fuel 3. Quality of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include an updated health risk and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachments A-C:	SWAPE GHG and VMT Calculations
Attachment D:	SWAPE Project CalEEMod Modeling
Attachment E:	SWAPE Project AERSCREEN Modeling
Attachment F:	Paul Rosenfeld CV
Attachment G:	Matt Hagemann CV

GHG CALCULATIONS: IS/MND Modeling

Line (L)	Value	Unit
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
1	765,788	Project Total VMT (CalEEMod Annual Output, Tbl. 4.2 Trip Summary)
2	79.15%	Passenger and Light-Duty VMT Fleet Mix (CalEEMod Annual Output, Tbl. 4.4 Fleet Mix)
3	606,115	VMT from Passenger & Light-Duty Vehicles [Calc: (L1*L2)]
4	1,661	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L3/365)]
5	50.00	Service Population [0 residents + 50 long-term jobs]
6	33.21	Daily VMT Per Capita [(Calc: L4/L5)]

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**Project**
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

SDG Commerce 217 Wine Storage Project

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2378	2.4411	1.8763	4.5000e-003	0.3263	0.0945	0.4208	0.1396	0.0882	0.2278	0.0000	405.0842	405.0842	0.0669	0.0000	406.7570
2022	1.1831	0.1227	0.1686	2.8000e-004	3.0200e-003	6.3100e-003	9.3300e-003	8.0000e-004	5.8600e-003	6.6600e-003	0.0000	24.3706	24.3706	6.6600e-003	0.0000	24.5372
Maximum	**1.1831**	**2.4411**	**1.8763**	**4.5000e-003**	**0.3263**	**0.0945**	**0.4208**	**0.1396**	**0.0882**	**0.2278**	**0.0000**	**405.0842**	**405.0842**	**0.0669**	**0.0000**	**406.7570**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2378	2.4411	1.8763	4.5000e-003	0.3263	0.0945	0.4208	0.1396	0.0882	0.2278	0.0000	405.0840	405.0840	0.0669	0.0000	406.7568
2022	1.1831	0.1227	0.1686	2.8000e-004	3.0200e-003	6.3100e-003	9.3300e-003	8.0000e-004	5.8600e-003	6.6600e-003	0.0000	24.3706	24.3706	6.6600e-003	0.0000	24.5371
Maximum	**1.1831**	**2.4411**	**1.8763**	**4.5000e-003**	**0.3263**	**0.0945**	**0.4208**	**0.1396**	**0.0882**	**0.2278**	**0.0000**	**405.0840**	**405.0840**	**0.0669**	**0.0000**	**406.7568**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	1.1555	1.1555
2	6-1-2021	8-31-2021	0.8846	0.8846
3	9-1-2021	11-30-2021	0.6373	0.6373
5	3-1-2022	5-31-2022	1.3057	1.3057
		Highest	1.3057	1.3057

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	325.4885	325.4885	0.0290	6.6300e-003	328.1894
Mobile	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Offroad	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Waste						0.0000	0.0000		0.0000	0.0000	41.4609	0.0000	41.4609	2.4503	0.0000	102.7176
Water						0.0000	0.0000		0.0000	0.0000	0.0761	0.1751	0.2512	7.8400e-003	1.9000e-004	0.5032
Total	**1.2388**	**2.0945**	**2.8911**	**6.9700e-003**	**0.3988**	**0.0988**	**0.4976**	**0.1071**	**0.0912**	**0.1983**	**41.5370**	**936.5438**	**978.0809**	**2.5607**	**6.8200e-003**	**1,044.1313**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	325.4885	325.4885	0.0290	6.6300e-003	328.1894
Mobile	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Offroad	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Waste						0.0000	0.0000		0.0000	0.0000	41.4609	0.0000	41.4609	2.4503	0.0000	102.7176
Water						0.0000	0.0000		0.0000	0.0000	0.0761	0.1751	0.2512	7.8400e-003	1.9000e-004	0.5032
Total	**1.2388**	**2.0945**	**2.8911**	**6.9700e-003**	**0.3988**	**0.0988**	**0.4976**	**0.1071**	**0.0912**	**0.1983**	**41.5370**	**936.5438**	**978.0809**	**2.5607**	**6.8200e-003**	**1,044.1313**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0994**	**0.0102**	**0.1096**	**0.0506**	**9.4000e-003**	**0.0600**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0994**	**0.0102**	**0.1096**	**0.0506**	**9.4000e-003**	**0.0600**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5940	45.5940	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.1185**	**0.0203**	**0.1388**	**0.0595**	**0.0187**	**0.0782**	**0.0000**	**45.5940**	**45.5940**	**0.0148**	**0.0000**	**45.9626**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5939	45.5939	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.1185**	**0.0203**	**0.1388**	**0.0595**	**0.0187**	**0.0782**	**0.0000**	**45.5939**	**45.5939**	**0.0148**	**0.0000**	**45.9626**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.1662**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.1662**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Unmitigated	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	281.5411	281.5411	0.0282	5.8200e-003	283.9808
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	281.5411	281.5411	0.0282	5.8200e-003	283.9808
NaturalGas Mitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
NaturalGas Unmitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	823544	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**43.9475**	**43.9475**	**8.4000e-004**	**8.1000e-004**	**44.2086**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	823544	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**43.9475**	**43.9475**	**8.4000e-004**	**8.1000e-004**	**44.2086**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	2.11862e+006	278.6866	0.0279	5.7700e-003	281.1016
Total		**281.5411**	**0.0282**	**5.8300e-003**	**283.9808**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	2.11862e+006	278.6866	0.0279	5.7700e-003	281.1016
Total		**281.5411**	**0.0282**	**5.8300e-003**	**283.9808**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Unmitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2512	7.8400e-003	1.9000e-004	0.5032
Unmitigated	0.2512	7.8400e-003	1.9000e-004	0.5032

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.239954 / 0.009341	0.2512	7.8400e-003	1.9000e-004	0.5032
Total		**0.2512**	**7.8400e-003**	**1.9000e-004**	**0.5032**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.239954 / 0.009341	0.2512	7.8400e-003	1.9000e-004	0.5032
Total		**0.2512**	**7.8400e-003**	**1.9000e-004**	**0.5032**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.4609	2.4503	0.0000	102.7176
Unmitigated	41.4609	2.4503	0.0000	102.7176

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	204.25	41.4609	2.4503	0.0000	102.7176
Total		**41.4609**	**2.4503**	**0.0000**	**102.7176**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	204.25	41.4609	2.4503	0.0000	102.7176
Total		**41.4609**	**2.4503**	**0.0000**	**102.7176**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Total	**0.1484**	**1.3782**	**1.5074**	**2.0000e-003**		**0.0913**	**0.0913**		**0.0840**	**0.0840**	**0.0000**	**175.4516**	**175.4516**	**0.0567**	**0.0000**	**176.8702**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.2515	61.8015	40.3160	0.1004	20.0170	2.1495	22.0624	10.1646	1.9977	12.0464	0.0000	9,996.8945	9,996.8945	1.8722	0.0000	10,043.7005
2022	155.6070	11.1543	14.9681	0.0239	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,319.9089	2,319.9089	0.7167	0.0000	2,337.8264
Maximum	**155.6070**	**61.8015**	**40.3160**	**0.1004**	**20.0170**	**2.1495**	**22.0624**	**10.1646**	**1.9977**	**12.0464**	**0.0000**	**9,996.8945**	**9,996.8945**	**1.8722**	**0.0000**	**10,043.7005**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.2515	61.8015	40.3160	0.1004	20.0170	2.1495	22.0624	10.1646	1.9977	12.0464	0.0000	9,996.8945	9,996.8945	1.8722	0.0000	10,043.7005
2022	155.6070	11.1543	14.9681	0.0239	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,319.9089	2,319.9089	0.7167	0.0000	2,337.8264
Maximum	**155.6070**	**61.8015**	**40.3160**	**0.1004**	**20.0170**	**2.1495**	**22.0624**	**10.1646**	**1.9977**	**12.0464**	**0.0000**	**9,996.8945**	**9,996.8945**	**1.8722**	**0.0000**	**10,043.7005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1994**	**14.4225**	**19.5197**	**0.0441**	**2.2804**	**0.7435**	**3.0238**	**0.6102**	**0.6858**	**1.2960**		**4,528.4091**	**4,528.4091**	**0.5892**	**4.8700e-003**	**4,544.5887**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1994**	**14.4225**	**19.5197**	**0.0441**	**2.2804**	**0.7435**	**3.0238**	**0.6102**	**0.6858**	**1.2960**		**4,528.4091**	**4,528.4091**	**0.5892**	**4.8700e-003**	**4,544.5887**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Unmitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
NaturalGas Unmitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2256.29	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.25629	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**1.1417**	**10.6017**	**11.5952**	**0.0154**		**0.7023**	**0.7023**		**0.6461**	**0.6461**		**1,487.7099**	**1,487.7099**	**0.4812**		**1,499.7387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.3254	61.5419	41.0487	0.0974	20.0170	2.1521	22.0624	10.1646	2.0002	12.0464	0.0000	9,676.6805	9,676.6805	1.9073	0.0000	9,724.3627
2022	155.6125	11.1623	14.9532	0.0238	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,311.4860	2,311.4860	0.7166	0.0000	2,329.3999
Maximum	**155.6125**	**61.5419**	**41.0487**	**0.0974**	**20.0170**	**2.1521**	**22.0624**	**10.1646**	**2.0002**	**12.0464**	**0.0000**	**9,676.6805**	**9,676.6805**	**1.9073**	**0.0000**	**9,724.3627**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.3254	61.5419	41.0487	0.0974	20.0170	2.1521	22.0624	10.1646	2.0002	12.0464	0.0000	9,676.6805	9,676.6805	1.9073	0.0000	9,724.3627
2022	155.6125	11.1623	14.9532	0.0238	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,311.4860	2,311.4860	0.7166	0.0000	2,329.3999
Maximum	**155.6125**	**61.5419**	**41.0487**	**0.0974**	**20.0170**	**2.1521**	**22.0624**	**10.1646**	**2.0002**	**12.0464**	**0.0000**	**9,676.6805**	**9,676.6805**	**1.9073**	**0.0000**	**9,724.3627**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1124**	**14.6198**	**19.6422**	**0.0425**	**2.2804**	**0.7437**	**3.0240**	**0.6102**	**0.6860**	**1.2962**		**4,368.1759**	**4,368.1759**	**0.5919**	**4.8700e-003**	**4,384.4239**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1124**	**14.6198**	**19.6422**	**0.0425**	**2.2804**	**0.7437**	**3.0240**	**0.6102**	**0.6860**	**1.2962**		**4,368.1759**	**4,368.1759**	**0.5919**	**4.8700e-003**	**4,384.4239**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

SDG Commerce 217 Wine Storage Project - Napa County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Unmitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
NaturalGas Unmitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2256.29	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.25629	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**1.1417**	**10.6017**	**11.5952**	**0.0154**		**0.7023**	**0.7023**		**0.6461**	**0.6461**		**1,487.7099**	**1,487.7099**	**0.4812**		**1,499.7387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Start date and time 01/12/21 12:34:14

AERSCREEN 16216

SDG Commerce 217 Construction

SDG Commerce 217 Construction

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.368E-02 g/s	0.292E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	296.00 meters	971.13 feet
Area Source Width:	142.00 meters	465.88 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	20359	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters

 Dominant Surface Profile: Urban
 Dominant Climate Type:    Average Moisture

 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON




 AERSCREEN output file:
 2021.01.12_SDGCommerce217_Construction.out



 *** AERSCREEN Run is Ready to Begin




 No terrain used, AERMAP will not be run
**************************************************

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/12/21 12:35:31
 ****************************************


  Running AERMOD
 Processing Winter


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
```

```
**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *******************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 ****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

FLOWSECTOR   ended 01/12/21 12:35:46


REFINE       started 01/12/21 12:35:46


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


REFINE       ended 01/12/21 12:35:48


 *********************************************

 AERSCREEN Finished Successfully

 But with Warnings

 Check log file for details

 *********************************************


 Ending date and time  01/12/21 12:35:50
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.28843E+01         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30847E+01        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32687E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34322E+01        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35779E+01       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37104E+01       125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38271E+01       150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.38304E+01       151.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31267E+01       175.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24599E+01       200.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20819E+01       225.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18360E+01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16503E+01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14940E+01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13625E+01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12489E+01       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.11506E+01       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10646E+01       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98884E+00       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92250E+00       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86262E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80956E+00       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76136E+00       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71849E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67922E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64332E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61090E+00       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58103E+00       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55355E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52843E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50513E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48341E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46317E+00       775.00      0.00   0.0        Winter       0-360   10011001
```

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44445E+00       800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42709E+00       825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41094E+00       850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39586E+00       875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38151E+00       900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36795E+00       925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35525E+00       950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34332E+00       975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33210E+00      1000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32153E+00      1025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31157E+00      1050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30208E+00      1075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29301E+00      1100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28442E+00      1125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27628E+00      1150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26854E+00      1175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

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   0.26115E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25408E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24735E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24094E+00      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23481E+00      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22896E+00      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22337E+00      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21796E+00      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21277E+00      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20779E+00      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20301E+00      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19843E+00      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19403E+00      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18980E+00      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18573E+00      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18181E+00      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17804E+00      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.17440E+00      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17090E+00      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16750E+00      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16421E+00      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16102E+00      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15795E+00      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15498E+00      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15210E+00      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14932E+00      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14661E+00      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14397E+00      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14142E+00      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13894E+00      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13654E+00      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13421E+00      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13195E+00      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12975E+00      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12762E+00      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12556E+00      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12355E+00      2100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12160E+00      2125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11969E+00      2150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11784E+00      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11603E+00      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11428E+00      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11257E+00      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11090E+00      2275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10929E+00      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10771E+00      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10617E+00      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10467E+00      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10320E+00      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10178E+00      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.10038E+00      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99022E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97694E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96397E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95130E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93884E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92667E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91477E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91544E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90375E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89231E-01      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88113E-01      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87018E-01      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85947E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84898E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83872E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82866E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.81882E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80917E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79972E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79046E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78139E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.77249E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76377E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75521E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74682E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73860E-01      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73052E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72260E-01      3150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71483E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70720E-01      3200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69970E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69235E-01      3250.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68513E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67804E-01      3300.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67107E-01      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66423E-01      3350.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65751E-01      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65090E-01      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64441E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63803E-01      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63176E-01      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62559E-01      3500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61953E-01      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61357E-01      3550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60771E-01      3575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60194E-01      3600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59627E-01      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59069E-01      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58520E-01      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

```
   0.57980E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57448E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56925E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56410E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55903E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55404E-01      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54912E-01      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54428E-01      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53951E-01      3900.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53482E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53019E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52564E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52115E-01      4000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51673E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51237E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50807E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50384E-01      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.49967E-01      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49556E-01      4150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49150E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48751E-01      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48356E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47968E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47585E-01      4275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47206E-01      4300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46834E-01      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46466E-01      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46103E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45745E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45392E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45044E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44700E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44361E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44026E-01      4525.00      0.00   5.0        Winter       0-360   10011001
```

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43695E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43369E-01      4575.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43047E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42729E-01      4625.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42415E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42105E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41800E-01      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41497E-01      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41199E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40904E-01      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40613E-01      4800.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40326E-01      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40151E-01      4850.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.40006E-01      4875.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39863E-01      4900.00      0.00   5.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39721E-01      4925.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

```
   0.39580E-01      4950.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39441E-01      4975.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39302E-01      5000.00      0.00   5.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

Start date and time 01/08/21 14:23:57

AERSCREEN 16216

SDG Commerce

SDG Commerce

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	----------	----------
Emission Rate:	0.270E-02 g/s	0.215E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	296.00 meters	971.13 feet
Area Source Width:	142.00 meters	465.88 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	20359	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters

 Dominant Surface Profile: Urban
 Dominant Climate Type:    Average Moisture

 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON




 AERSCREEN output file:
 2021.01.08_SDG_Operation.out



 *** AERSCREEN Run is Ready to Begin




 No terrain used, AERMAP will not be run
**************************************************

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/08/21 14:24:56
 ******************************************


  Running AERMOD
 Processing Winter


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
```

```
**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *******************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 ****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

FLOWSECTOR   ended 01/08/21 14:25:16


REFINE       started 01/08/21 14:25:16


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


REFINE       ended 01/08/21 14:25:18


 ********************************************

 AERSCREEN Finished Successfully

 But with Warnings

 Check log file for details

 ********************************************


 Ending date and time  01/08/21 14:25:20
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.21194E+01         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22666E+01        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24018E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25219E+01        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26290E+01       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27264E+01       125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28121E+01       150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.28145E+01       151.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22975E+01       175.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18075E+01       200.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15297E+01       225.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13490E+01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12126E+01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10978E+01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10012E+01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91770E+00       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.84543E+00       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78221E+00       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72658E+00       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67784E+00       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63383E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59484E+00       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55943E+00       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52793E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49907E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47270E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44888E+00       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42693E+00       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40674E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38828E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37116E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35520E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34033E+00       775.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32657E+00       800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31382E+00       825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30195E+00       850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29087E+00       875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28032E+00       900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27036E+00       925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26103E+00       950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25226E+00       975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24402E+00      1000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23626E+00      1025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22893E+00      1050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22196E+00      1075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21530E+00      1100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20899E+00      1125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20300E+00      1150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19732E+00      1175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.19189E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18669E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18175E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17704E+00      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17254E+00      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16824E+00      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16413E+00      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16015E+00      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15634E+00      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15268E+00      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14917E+00      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14580E+00      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14257E+00      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13946E+00      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13647E+00      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13359E+00      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13082E+00      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.12815E+00      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12557E+00      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12308E+00      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12066E+00      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11832E+00      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11606E+00      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11388E+00      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11176E+00      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10972E+00      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10773E+00      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10579E+00      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10391E+00      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10209E+00      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10033E+00      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98613E-01      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96951E-01      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95339E-01      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93773E-01      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92259E-01      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90784E-01      2100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89347E-01      2125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87948E-01      2150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86585E-01      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85258E-01      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83967E-01      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82713E-01      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81491E-01      2275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80301E-01      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79141E-01      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78010E-01      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76908E-01      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75832E-01      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74783E-01      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

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   0.73759E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72759E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71783E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70830E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69899E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68984E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68090E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67216E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67264E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66405E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65565E-01      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64743E-01      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63939E-01      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63152E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62382E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61627E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60889E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.60165E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59457E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58762E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58082E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57415E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56761E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56120E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55491E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54875E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54270E-01      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53677E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53095E-01      3150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52524E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51963E-01      3200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51413E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50873E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50342E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49821E-01      3300.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49309E-01      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48806E-01      3350.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48312E-01      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47827E-01      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47350E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46881E-01      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46420E-01      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45967E-01      3500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45522E-01      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45084E-01      3550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44653E-01      3575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44229E-01      3600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43813E-01      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43403E-01      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42999E-01      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.42602E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42212E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41827E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41449E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41076E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40709E-01      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40348E-01      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39993E-01      3875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39642E-01      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39297E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38957E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38623E-01      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38293E-01      4000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37968E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37648E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37332E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37021E-01      4100.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.36715E-01      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36412E-01      4149.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36115E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35821E-01      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35531E-01      4225.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35246E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34964E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34686E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34412E-01      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34142E-01      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33876E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33613E-01      4400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33353E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33097E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32845E-01      4475.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32595E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32349E-01      4525.00      0.00  10.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32107E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31867E-01      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31630E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31397E-01      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31166E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30938E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30714E-01      4700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30491E-01      4725.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30272E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30056E-01      4775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29842E-01      4800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29631E-01      4825.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29502E-01      4850.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29396E-01      4875.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29290E-01      4900.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29186E-01      4924.99      0.00  15.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

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   0.29083E-01      4950.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.28980E-01      4975.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.28878E-01      5000.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
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Principal Environmental Chemist

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Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

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Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

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Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

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Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

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Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association.* Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The Southern District of Illinois
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 3:19-cv-00302-SMY-GCS
Rosenfeld Deposition. 2-19-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

EXHIBIT C

California Air Resources Board

Quantification Methodology

Strategic Growth Council
Affordable Housing and Sustainable Communities Program

California Climate Investments

November 1, 2019

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List of Acronyms and Abbreviations

Acronym	Term
AHSC	Affordable Housing and Sustainable Communities
CARB	California Air Resources Board
CMAQ	Congestion Mitigation and Air Quality
Diesel PM_{10}	diesel particulate matter with a diameter less than 10 micrometers
DC	direct current
g	grams
gal	gallons
GGRF	Greenhouse Gas Reduction Fund
GHG	greenhouse gas
ICP	Integrated Connectivity Project Area
kg	kilograms
kWh	kilowatt hours
lbs	pounds
$MTCO_2e$	metric tons of carbon dioxide equivalent
NO_x	nitrous oxide
$PM_{2.5}$	particulate matter with a diameter less than 2.5 micrometers
PV	photovoltaic
RIPA	Rural Innovation Project Area
ROG	reactive organic gas
scf	standard cubic feet
SGC	Strategic Growth Council
TOD	Transit Oriented Development Project Area
VMT	vehicle miles traveled

Section A. Introduction

California Climate Investments is a statewide initiative that puts billions of Cap-and-Trade dollars to work facilitating GHG emission reductions; strengthening the economy; improving public health and the environment; and providing benefits to residents of disadvantaged communities, low-income communities, and low-income households, collectively referred to as "priority populations." Where applicable and to the extent feasible, California Climate Investments must maximize economic, environmental, and public health co-benefits to the State.

CARB is responsible for providing guidance on estimating the GHG emission reductions and co-benefits from projects receiving monies from the GGRF. This guidance includes quantification methodologies, co-benefit assessment methodologies, and benefit calculator tools. CARB develops these methodologies and tools based on the project components eligible for funding by each administering agency, as reflected in the program expenditure records available at: www.arb.ca.gov/cci-expenditurerecords.

For the SGC AHSC Program, CARB and SGC developed this AHSC Quantification Methodology to provide guidance for estimating the GHG emission reductions and selected co-benefits of each proposed project type. This methodology uses calculations to estimate GHG emission reductions from avoided passenger VMT as a result of land use, housing, and transportation strategies to support infill, compact, and affordable housing development projects, in addition to GHG emission reductions from solar PV electricity generation.

The AHSC Benefits Calculator Tool automates methods described in this document, provides a link to a step-by-step user guide with a project example, and outlines documentation requirements. Applicants will estimate and SGC will report the total project GHG emission reductions and co-benefits estimated using the AHSC Benefits Calculator Tool, as well as the total project GHG emission reductions per dollar of GGRF funds requested. The AHSC Benefits Calculator Tool is available for download at: www.arb.ca.gov/cci-resources.

Using many of the same inputs required to estimate GHG emission reductions, the AHSC Benefits Calculator Tool estimates the following co-benefits and key variables from AHSC projects:

- Passenger VMT reductions (miles);
- Net density (dwelling units per acre);
- Renewable energy generation (kWh);
- Local and remote ROG emission reductions (lbs);
- Local and remote NO_x emission reductions (lbs);
- Local and remote $PM_{2.5}$ emission reductions (lbs);
- Local diesel PM_{10} emission reductions (lbs);

- Fossil fuel use reductions (gallons);
- Travel cost savings ($); and
- Energy and fuel cost savings ($).

Additional co benefits for which CARB assessment methodologies were not incorporated into the Benefits Calculator Tool may also be applicable to the project. Applicants should consult the AHSC Guidelines[1], solicitation materials, and agreements to ensure they meet AHSC requirements. All CARB co-benefit assessment methodologies are available at: www.arb.ca.gov/cci-cobenefits.

Methodology Development

CARB and SGC developed this Quantification Methodology consistent with the guiding principles of California Climate Investments, including ensuring transparency and accountability.[2] CARB developed this AHSC Quantification Methodology to be used to estimate the outcomes of proposed projects, inform project selection, and track results of funded projects. The implementing principles ensure that the methodology would:

- Apply at the project level;
- Provide uniform methods to be applied statewide and be accessible by all applicants;
- Use existing and proven tools and methods, where available and appropriate;
- Use project-level data, where available and appropriate; and
- Result in GHG emission reduction estimates that are conservative and supported by empirical literature.

CARB assessed peer-reviewed literature and tools and consulted with experts, as needed, to determine methods appropriate for the AHSC project types. CARB also consulted with SGC to determine the project-level inputs available. The methods were developed to provide estimates that are as accurate as possible with data readily available at the project level. CARB released the Draft AHSC Quantification Methodology and Draft AHSC Benefits Calculator Tool for public comment in August 2019. This Final AHSC Quantification Methodology and accompanying AHSC Benefits Calculator Tool have been updated to address public comments, where appropriate, and for consistency with updates to the AHSC Guidelines.

The "Methods to Find the Cost-effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee Projects and Congestion Mitigation and Air Quality Improvement Projects" were the basis for developing the GHG emission reduction estimates for transit and connectivity project features.[3] The CMAQ

[1] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html
[2] California Air Resources Board. www.arb.ca.gov/cci-fundingguidelines
[3] California Air Resources Board and California Department of Transportation. *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee*

Methods are equations for evaluating the cost-effectiveness of certain types of transportation projects, such as bicycle paths, vanpools, and new bus services. CARB and the California Department of Transportation developed the CMAQ Methods, which are used statewide by transportation agencies to assess criteria and toxic pollutant emission reductions from transportation projects competing for State motor vehicle fee and federal CMAQ funding. All of the CMAQ Methods equations and assumptions needed for this quantification method are included in this document, and some assumptions have been modified as necessary. Therefore, the equations presented in this Quantification Methodology are referred to as Transit and Connectivity Methods. The CMAQ Methods Guide is available at: www.arb.ca.gov/planning/tsaq/eval/eval.htm.

To develop VMT reduction estimates for projects that include affordable housing developments, the AHSC Benefits Calculator Tool uses information from the California Statewide Travel Demand Model,[4] metropolitan planning organizations,[5] the Institute of Transportation Engineers Trip Generation Manual[6] and Parking Generation Manual,[7] and the California Air Pollution Control Officers Association "Quantifying Greenhouse Gas Mitigation Measures" report[8] and California Emissions Estimator Model®.[9] The AHSC Benefits Calculator Tool adapts a methodology from this model for ease of use and alignment with the specific requirements of the AHSC Program.

In addition, the University of California, Berkeley, in collaboration with CARB, developed assessment methodologies for a variety of co-benefits such as providing cost savings, lessening the impacts and effects of climate change, and strengthening community engagement. Co-benefit assessment methodologies are posted at: www.arb.ca.gov/cci-cobenefits.

The AHSC Quantification Methodology and AHSC Benefits Calculator Tool are applicable only to AHSC project types and should not be used to estimate GHG

Projects and Congestion Mitigation and Air Quality Improvement Projects. May 2005. www.arb.ca.gov/planning/tsaq/eval/eval.htm.

[4] California Department of Transportation. *California Statewide Travel Demand Model.* 2016. https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling

[5] The Association of Monterey Bay Area Governments, Butte County Association of Governments, Metropolitan Transportation Commission, Sacramento Area Council of Governments, San Luis Obispo Council of Governments, and Southern California Association of Governments provided trip length data for this AHSC Quantification Methodology.

[6] Institute of Transportation Engineers. *Trip Generation Manual, 10th Edition.* 2017. https://www.ite.org/technical-resources/topics/trip-and-parking-generation/trip-generation-10th-edition-formats/

[7] Institute of Transportation Engineers. *Parking Generation Manual, 4th Edition.* 2010. https://www.ite.org/technical-resources/topics/trip-and-parking-generation/

[8] California Air Pollution Control Officers Association. *Quantifying Greenhouse Gas Mitigation Measures.* 2010. www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[9] California Air Pollution Control Officers Association. *California Emissions Estimator Model, version 2016.3.2.* 2017. www.caleemod.com.

emission reductions or co-benefits for any projects which do not meet AHSC Program requirements.

Tools

The AHSC Benefits Calculator Tool relies on project-specific outputs from the National Renewable Energy Laboratory PVWatts® Calculator, a web-based tool that estimates the electricity production of grid-connected roof- or ground-mounted solar PV systems. PVWatts calculates estimated values for the proposed system's monthly and annual electricity production. For projects that include solar PV systems, the AHSC Benefits Calculator Tool relies on estimates of solar PV electricity generation from PVWatts. PVWatts is publicly available to anyone with internet access, free of charge, and subject to regular updates to incorporate new information. The tool can be accessed at: http://pvwatts.nrel.gov/.

In addition to PVWatts, the AHSC Benefits Calculator Tool relies on CARB-developed emission factors. CARB has established a single repository for emission factors used in CARB benefits calculator tools, referred to as the California Climate Investments Quantification Methodology Emission Factor Database, available at: http://www.arb.ca.gov/cci-resources. The Emission Factor Database Documentation explains how emission factors used in CARB benefits calculator tools are developed and updated.

Applicants must use the AHSC Benefits Calculator Tool to estimate the GHG emission reductions and co-benefits of the proposed project. The AHSC Benefits Calculator Tool and User Guide can be downloaded from: http://www.arb.ca.gov/cci-resources.

Updates

CARB staff periodically review each quantification methodology to evaluate its effectiveness and update methodologies to make them more robust, user-friendly, and appropriate to the projects being quantified. CARB updated the AHSC Quantification Methodology and AHSC Benefits Calculator Tool from the previous versions[10] to enhance the analysis and provide additional clarity, including the following additions:

- Equations to estimate avoided VMT from affordable housing developments;
- Home-based trip length information from metropolitan planning organizations and the California Statewide Travel Demand Model;

[10] California Air Resources Board. November 2018. https://ww2.arb.ca.gov/our-work/programs/california-climate-investments/cci-archived-quantification-materials

- Trip generation rates from 10th Edition Institute of Transportation Engineers Trip Generation Manual, including "Senior Adult Housing (Attached)" trip rates for age-restricted housing rather than "Retirement Community" trip rates;
- Compound degradation for solar PV electricity generation estimates;
- Calculations of criteria and toxic air pollutant emission reductions from transit and active transportation components past 2050;
- Passenger auto and transit vehicle emission factors derived from EMFAC2017;
- Updated default trip lengths for transit and active transportation components;
- Equations to estimate GHG emission reductions and co-benefits from electric bike share;
- Updated costs for energy, fuel, and transportation;
- Descriptions of additional data sources used; and
- An expanded project example and additional guidance to clarify frequently asked questions.

Section B. Methods

The following section provides details on the methods supporting emission reductions in the AHSC Benefits Calculator Tool.

Project Components

SGC developed five categories of eligible costs that meet the objectives of the AHSC Program.[11] For quantification purposes, CARB defined project components within those eligible costs for which there are methods to quantify GHG emission reductions.

Other project features may be eligible for funding under the AHSC Program; however, each project requesting GGRF funding must include at least one of the project components listed in Table 1 below.

Table 1. Project Components by Eligible Cost

Eligible Cost	Project Component
Affordable Housing Development; Housing-related Infrastructure	Construction or substantial rehabilitation of affordable housing, including mixed-use development, and related infrastructure
	Grid-connected solar PV system
Sustainable Transportation Infrastructure; Transportation-related Amenities	New bicycle facility (Class I bike path, Class II bike lane, or Class IV separated bikeway)
	New walkway
	New bike share equipment[12]
	New or expanded transit service (bus, cable car, ferry, heavy rail, light rail, streetcar, shuttle, trolley bus, or vanpool)
	Capital improvement that encourages mode shift
Program	Transit passes for residents
	New bike share operations[12]

[11] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html

[12] Bike share infrastructure and fleets are eligible Sustainable Transportation Infrastructure costs according to the AHSC Guidelines, while bike share operations are eligible Active Transportation Program costs. Quantification of the benefits of new bike share infrastructure, fleets, or operations is equivalent regardless of the funding type requested.

General Approach

This section describes the methods used in the AHSC Benefits Calculator Tool to estimate GHG emission reductions and air pollutant emission co-benefits by project component. These methods account for emission reductions from avoided passenger VMT and the generation of solar PV electricity.

In general, the GHG and air pollutant emission reductions are estimated in the AHSC Benefits Calculator Tool using the quantification approaches by project component outlined in Table 2 below.

Table 2. General Approach to Quantification by Project Component

Project Component	Emission Reductions Estimated
Affordable housing development or residential transit subsidy	Emissions from avoided passenger VMT
Solar PV electricity generation	Emissions from avoided grid electricity production
New bicycle facility, walkway, or bike share	Emissions from displaced autos (less emissions from electric bikes, if applicable)
New or expanded transit service	Emissions from displaced autos less emissions from new service vehicle
Capital improvements	Emissions from displaced autos

A. Affordable Housing Developments and Residential Transit Subsidies

The emission reductions from affordable housing developments and residential transit subsidies are calculated as the emission reductions from avoided passenger VMT compared to a baseline scenario lacking VMT reduction measures. Equations 1 through 4 are used to estimate unmitigated VMT for the baseline scenario.[13]

Equation 1: Average Daily Trips per Dwelling Unit

$$Average\ Daily\ Trips = \frac{(Weekday\ Trips * 5) + Saturday\ Trips + Sunday\ Trips}{7\ days}$$

Where,			Units
Average Daily Trips	=	Average daily trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit-day
Weekday Trips	=	Average weekday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit
Saturday Trips	=	Average Saturday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit
Sunday Trips	=	Average Sunday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit

[13] Equations 1 through 4 use a methodology and trip type and link percentages described in Appendices A and D of the *User's Guide for CalEEMod Version 2016.3.2*.
http://www.aqmd.gov/caleemod/user's-guide
Trip rates are derived from the *Trip Generation Manual, 10th Edition*.
https://www.ite.org/technical-resources/topics/trip-and-parking-generation/trip-generation-10th-edition-formats/
Trip lengths not provided by metropolitan planning organizations are calculated for multi-county regions from the California Statewide Travel Demand Model.
https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling

Equation 2: Primary Trip Length

$$Primary\ Trip\ Length = (H\text{-}W\ Length * H\text{-}W\ Share) + (H\text{-}S\ Length * H\text{-}S\ Share) + (H\text{-}O\ Length * H\text{-}O\ Share)$$

Where,			Units
Primary Trip Length	=	County-specific average length of urban or rural primary home-based trip	miles
H-W Length	=	County-specific average length of urban or rural trip between home and work	miles
H-W Share	=	Statewide default percentage of primary home-based trips which are between home and work (42.3%)	%
H-S Length	=	County-specific average length of urban or rural trip between home and shopping	miles
H-S Share	=	Statewide default percentage of primary home-based trips which are between home and shopping (19.6%)	%
H-O Length	=	County-specific average length of urban or rural trip between home and locations other than work or shopping	miles
H-O Share	=	Statewide default percentage of primary home-based trips which are between home and other locations (38.1%)	%

Equation 3: Overall Trip Length

$$Overall\ Trip\ Length = (Primary\ Trip\ Length * Primary\ Share) + (Primary\ Trip\ Length * 25\% * Diverted\ Share) + (0.1\ miles * Pass\text{-}by\ Share)$$

Where,			Units
Overall Trip Length	=	County-specific average length of urban or rural overall home-based trip	miles
Primary Trip Length	=	County-specific average length of urban or rural primary home-based trip, from Equation 2	miles
Primary Share	=	Statewide average percentage of home-based trips which are primary (86%)	%
Diverted Share	=	Statewide average percentage of home-based trips which are diverted (11%)	%
Pass-by Share	=	Statewide average percentage of home-based trips which are pass-by (3%)	%

Equation 4: Annual Unmitigated VMT

$$Annual\ Unmitigated\ VMT = Average\ Daily\ Trips * Overall\ Trip\ Length * Total\ Units * 365\ days$$

Where,			Units
Annual Unmitigated VMT	=	Annual VMT by residents of housing development without VMT mitigation measures	miles/year
Average Daily Trips	=	Average daily trip rate per dwelling unit for applicable dwelling type, from Equation 1	trips/ dwelling unit*day
Overall Trip Length	=	County-specific average length of urban or rural overall home-based trip, from Equation 3	miles
Total Units	=	Number of dwelling units in affordable housing development	dwelling units

Equations 5 through 17 are used to calculate the expected percent reductions in passenger VMT resulting from the characteristics of the affordable housing development.[14]

Equation 5: VMT Reductions from Increased Density

$$Density\ VMT\ Reductions = \left(\frac{Density - Required\ Density}{Required\ Density}\right) * 7\%$$

Where,			Units
Density VMT Reductions	=	VMT reductions associated with increased net density over required baseline, capped at 30%	%
Density	=	Net density of affordable housing development	dwelling units/acre
Required Density	=	Required baseline net density per Project Area Type, defined by the AHSC Guidelines (see Table 3)	dwelling units/acre

[14] Equations 5 through 17 use methodologies and elasticities described in the *Quantifying Greenhouse Gas Mitigation Measures* report.
www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Table 3. Minimum Net Density by Project Area Type

Project Area Type	Minimum Net Density (dwelling units per acre)[15]
TOD	30
ICP	20
RIPA	15

Equations 6 and 7 are applicable to mixed-use developments only.

Equation 6: Land Use Index

$$Land\ Use\ Index = -\left[\frac{4 * (0.01 * \ln 0.01) + \left(\left(\frac{RS}{RS+MS}\right) * \ln\left(\frac{RS}{RS+MS}\right)\right) + \left(\left(\frac{MS}{RS+MS}\right) * \ln\left(\frac{MS}{RS+MS}\right)\right)}{\ln 6}\right]$$

Where,			Units
Land Use Index	=	Measure of diversity of land use in mixed-use development	unitless
RS	=	Space for residential uses in mixed-use development	square feet
MS	=	Publically accessible space for commercial or social services uses in mixed-use development	square feet

Equation 7: VMT Reductions from Increased Land Use Diversity

$$Diversity\ VMT\ Reductions = \left(\frac{Land\ Use\ Index - 0.15}{0.15}\right) * 9\%$$

Where,			Units
Diversity VMT Reductions	=	VMT reductions associated with increased land use diversity over baseline, capped at 30%, with increase in land use diversity capped at 500%	%
Land Use Index	=	Measure of diversity of land use in mixed-use development, from Equation 6	unitless

[15] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html

Equation 8: VMT Reductions from Increased Destination Accessibility

$$Accessibility\ VMT\ Reductions = \left(\frac{12\ miles - Distance}{12\ miles}\right) * 20\%$$

Where,		Units
Accessibility VMT Reductions	= VMT reductions associated with increased destination accessibility, capped at 20%	%
Distance	= Distance from affordable housing development to nearest central business district	miles

Equation 9: VMT Reductions from Integration of Affordable Housing

$$Affordability\ VMT\ Reductions = \left(\frac{Affordable\ Units}{Total\ Units}\right) * 4\%$$

Where,		Units
Affordability VMT Reductions	= VMT reductions associated with integration of affordable dwelling units into housing development, capped at 4%	%
Affordable Units	= Number of affordable dwelling units in affordable housing development	dwelling units
Total Units	= Number of dwelling units in affordable housing development	dwelling units

Equation 10: Total VMT Reductions from Land Use Measures

$$Land\ Use\ VMT\ Reductions = 1 - (1 - Density\ VMT\ Reductions) * (1 - Diversity\ VMT\ Reductions) * (1 - Accessibility\ VMT\ Reductions) * (1 - Affordability\ VMT\ Reductions)$$

Where,		Units
Land Use VMT Reductions	= VMT reductions associated with all land use measures, capped according to Project Area Type (see Table 4)	%
Density VMT Reductions	= VMT reductions associated with increased density over required baseline, capped at 35%, from Equation 5	%
Diversity VMT Reductions	= VMT reductions associated with increased land use diversity over baseline, capped at 30%, from Equation 7	%
Accessibility VMT Reductions	= VMT reductions associated with increased destination accessibility, capped at 20%, from Equation 8	%
Affordability VMT Reductions	= VMT reductions associated with integration of affordable dwelling units into housing development, capped at 4%, from Equation 9	%

Table 4. Maximum VMT Reductions by Project Area Type[16]

Project Area Type	Land Use Measures	Land Use, Parking, and Traffic Calming Measures	Total
TOD	65%	70%	75%
ICP	30%	35%	40%
RIPA	5%	10%	15%

Equation 11: VMT Reductions from Limited Parking Supply

$$Parking\ Supply\ VMT\ Reductions = \left(\frac{Total\ Units * Parking\ Rate - Parking\ Spaces}{Total\ Units * Parking\ Rate}\right) * 50\%$$

Where,			Units
Parking Supply VMT Reductions	=	VMT reductions associated with limited residential parking supply, capped at 12.5%	%
Total Units	=	Number of dwelling units in affordable housing development	dwelling units
Parking Rate	=	Average peak parking demand per dwelling unit for applicable dwelling type	vehicles/ unit
Parking Spaces	=	Number of residential parking spaces in affordable housing development	parking spaces

Equation 12: VMT Reductions from Unbundled Parking Cost

$$Unbundled\ Parking\ VMT\ Reductions = Unbundled\ Cost * \left(\frac{12\ months}{\$4{,}000}\right) * 0.4 * 85\%$$

Where,			Units
Unbundled Parking VMT Reductions	=	VMT reductions associated with unbundled residential parking cost, capped at 20%	%
Unbundled Cost	=	Monthly unbundled cost for on-site residential parking	$/month

[16] VMT reduction caps are aligned with the "urban" location type from the *Quantifying Greenhouse Gas Mitigation Measures* report for TOD, "compact infill" for ICP, and "suburban" for RIPA. www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Equation 13: VMT Reductions from Increased On-street Parking Price

$$Street\ Parking\ VMT\ Reductions = Street\ Cost * 0.11$$

Where,			Units
Street Parking VMT Reductions	=	VMT reductions associated with increased price of on-street parking, capped at 5.5%	%
Street Cost	=	Percent increase in on-street parking price above baseline within ½ mile of affordable housing development	%

Equation 14: Total VMT Reductions from Parking Measures

$$Parking\ VMT\ Reductions = 1 - (1 - Parking\ Supply\ VMT\ Reductions) * (1 - Unbundled\ Parking\ VMT\ Reductions) * (1 - Street\ Parking\ VMT\ Reductions)$$

Where,			Units
Parking VMT Reductions	=	VMT reductions associated with all parking measures, capped at 20%	%
Parking Supply VMT Reductions	=	VMT reductions associated with limited residential parking supply, capped at 12.5%, from Equation 11	%
Unbundled Parking VMT Reductions	=	VMT reductions associated with unbundled residential parking cost, capped at 20%, from Equation 12	%
Street Parking VMT Reductions	=	VMT reductions associated with increased price of on-street parking, capped at 5.5%, from Equation 13	%

Equation 15: VMT Reductions from Traffic Calming Measures

$$Traffic\ Calming\ VMT\ Reductions = 1\%$$

Where,			Units
Traffic Calming VMT Reductions	=	VMT reductions associated with traffic calming measures within ½ mile of affordable housing development	%

Equation 16: VMT Reductions from Residential Transit Subsidy

$$Subsidy\ VMT\ Reductions = Elasticity * \frac{Recipients}{Total\ Units} * \frac{Duration}{30\ years}$$

Where,			Units
Subsidy VMT Reductions	=	VMT reductions associated with transit passes for residents, capped at 20%	%
Elasticity	=	Elasticity of VMT specific to annual value of transit passes to residents and urban or rural project setting	unitless
Recipients	=	Number of dwelling units receiving transit passes in affordable housing development	dwelling units
Total Units	=	Number of dwelling units in affordable housing development	dwelling units
Duration	=	Number of years for which transit passes are funded	years

Equation 17: Total VMT Reductions

$$Total\ VMT\ Reductions = Land\ Use\ VMT\ Reductions + Parking\ VMT\ Reductions + Traffic\ Calming\ VMT\ Reductions + Subsidy\ VMT\ Reductions$$

Where,			Units
Total VMT Reductions	=	VMT reductions associated with all mitigation measures, capped according to Project Area Type (see Table 3)	%
Land Use VMT Reductions	=	VMT reductions associated with all land use measures, capped according to Project Area Type, from Equation 10	%
Parking VMT Reductions	=	VMT reductions associated with all parking measures, capped at 20%, from Equation 14	%
Traffic Calming VMT Reductions	=	VMT reductions associated with traffic calming measures within ½ mile of affordable housing development, from Equation 15	%
Subsidy VMT Reductions	=	VMT reductions associated with transit passes for residents, capped at 20%, from Equation 16	%

Equations 18 and 19 are used to apply the expected percent reductions in VMT to estimate avoided VMT from the affordable housing development.

Equation 18: Annual Avoided VMT

$$Annual\ Avoided\ VMT = Annual\ Unmitigated\ VMT * Total\ VMT\ Reductions$$

Where,			Units
Annual Avoided VMT	=	Annual reductions in baseline residential VMT	miles/year
Annual Unmitigated VMT	=	Annual VMT by residents of housing development without VMT mitigation measures, from Equation 4	miles/year
Total VMT Reductions	=	VMT reductions associated with all mitigation measures, from Equation 17	%

Equation 19: Total Avoided VMT

$$Total\ Avoided\ VMT = Annual\ Avoided\ VMT * 30\ years$$

Where,			Units
Total Avoided VMT	=	Reductions in baseline residential VMT for quantification period of affordable housing development (30 years)	miles
Annual Avoided VMT	=	Annual reductions in baseline residential VMT	miles/year

Equation 20: Auto Emission Reductions from Affordable Housing Development and Residential Transit Subsidies

$$Emission\ Reductions = \left(\frac{Annual\ Avoided\ VMT * EF_{Yr1} + Annual\ Avoided\ VMT * EF_{YrF}}{2}\right) * 30\ years * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of affordable housing development (30 years)	$MTCO_2e$ or lbs
Annual Avoided VMT	=	Annual reductions in baseline residential VMT, from Equation 18	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of project life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of project life	g/mile
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

B. Solar PV Electricity Generation

The emission reductions from grid-connected solar PV projects are calculated as the emission reductions from avoided fossil-fuel-based electricity generation.[17]

Equation 21: Emission Reductions from Solar PV

$$Emission\ Reductions = \sum_{n=1}^{30} (1 - Degradation)^{n-1} * Production * EF$$

Where,		Units
Emission Reductions	= GHG or criteria and toxic air pollutant emission reductions for useful life of solar PV system (30 years)	$MTCO_2e$ or lbs
Degradation	= Annual rate of system degradation (0.5%)	%/year
Production	= Annual electricity generation estimated using PVWatts Calculator	kWh/year
EF	= Emission factor for California grid electricity	$MTCO_2e$/ kWh or lbs/kWh

[17] The 30-year useful life was obtained from the National Renewable Energy Laboratory "Life Cycle Greenhouse Gas Emissions from Solar Photovoltaics" fact sheet. www.nrel.gov/docs/fy13osti/56487.pdf
The estimated rate of system degradation was obtained from the National Renewable Energy Laboratory Technical Report "Photovoltaic Degradation Rates – An Analytical Review." 2012. www.nrel.gov/docs/fy12osti/51664.pdf

C. New Bicycle Facility or Walkway

The emission reductions from new bicycle facilities or walkways are calculated as the emission reductions from displaced autos.

Equation 22: VMT Reductions from Bicycle Facility or Walkway

$$VMT\ Displaced = D * ADT * (A + C) * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips	miles/year
D	=	Default annual days of use of new facility (200 days)	days/year
ADT	=	Average two-way daily traffic on road parallel to facility	vehicle trips/day
A	=	Adjustment factor for active transportation (see Table 5)	unitless
C	=	Credit for Key Destinations near facility (see Table 6)	unitless
L	=	Average length of auto trip replaced (1.5 miles for cycling; 0.3 miles for walking)	miles

Table 5. Active Transportation Adjustment Factors

Average Daily Traffic (vehicle trips per day)	One-way Facility Length[18] (miles)	Adjustment Factor for Population > 250,000 or Non-university Town with Population < 250,000	Adjustment Factor University Town with Population < 250,000
1 to 12,000	≤ 1	0.0019	0.0104
	1.01 to 2	0.0029	0.0155
	> 2	0.0038	0.0207
12,001 to 24,000	≤ 1	0.0014	0.0073
	1.01 to 2	0.0020	0.0109
	> 2	0.0027	0.0145
24,001 to 30,000	≤ 1	0.0010	0.0052
	1.01 to 2	0.0014	0.0078
	> 2	0.0019	0.0104

[18] The length of bicycle facilities and walkways should be measured in one direction because average daily traffic accounts for two-way traffic volume. Crosswalks should not be included in the length of sidewalks since they are accounted for as traffic calming measures.

Table 6. Key Destination Credits

Number of Key Destinations	Credit Within ½ Mile of Facility	Credit Within ¼ Mile of Facility
0 to 2	0	0
3	0.0005	0.001
4 to 6	0.0010	0.002
≥ 7	0.0015	0.003

Equation 23: Auto Emission Reductions from Bicycle Facility or Walkway

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bicycle facility or walkway	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips, from Equation 22	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of useful life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of useful life	g/mile
UL	=	Useful life of bicycle facility or walkway (20 years for Class I bike path or walkway; 15 years for Class II bike lane or Class IV separated bikeway)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

D. New or Expanded Bike Share

The emission reductions from bike share components that result in an increase in bike trips are calculated as the emission reductions from displaced autos less the emissions from electric bicycles, if applicable.

Equation 24: VMT Reductions from Bike Share

$$VMT\ Displaced = T * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by bike share trips	miles/year
T	=	Total number of trips using bike share expected in first year of service	trips/year
A	=	Adjustment factor to account for induced demand and recreational bike share use (0.5)	unitless
L	=	Average length of auto trip replaced (1.5 miles)	miles

Equation 25: Auto Emission Reductions from Bike Share

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * 10\ years * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bike share (10 years)	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by bike share trips, from Equation 24	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equations 26 and 27 apply to electric bike share only.

Equation 26: Emissions from Electric Bike Share

$$Electric\ Bicycle\ Emissions = T * L * EC * EF * 10\ years$$

Where,			Units
Electric Bicycle Emissions	=	Electric bicycle GHG or criteria and toxic air pollutant emissions for useful life of bike share (10 years)	$MTCO_2e$ or lbs
T	=	Total number of trips using bike share expected in first year of service	trips
L	=	Average length of auto trip replaced (1.5 miles)	miles
EC	=	Energy consumption per mile for electric bicycles	kWh/mile
EF	=	Emission factor for California grid electricity	$MTCO_2e$/ kWh or lbs/kWh

Equation 27: Net Emission Reductions from Electric Bike Share

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Electric\ Bicycle\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for useful life of electric bike share (10 years)	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bike share, from Equation 25	$MTCO_2e$ or lbs
Electric Bicycle Emissions	=	Electric bicycle GHG or criteria and toxic air pollutant emissions for useful life of bike share, from Equation 26	$MTCO_2e$ or lbs

E. New or Expanded Bus, Cable Car, Rail, Streetcar, Shuttle, Trolley Bus, or Vanpool Service

The emission reductions from new or expanded transit service are calculated as the emission reductions from displaced autos less the new emissions from transit vehicles.

Equation 28: VMT Reductions from New or Expanded Transit Service

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by transit trips	miles/year
D	=	Annual days of operation of transit service	days/year
R	=	Increase in daily transit ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip replaced (default or user-defined; see Table 7)	miles

Table 7. Default Trip Lengths and Adjustment Factors by Mode

Mode	Statewide Average Trip Length (miles)[19]	Default Adjustment Factor
Bus rapid transit	6.56	0.542
Cable car	1.26	0.479
Commuter rail	25.69	0.867
Ferry	10.85	1.000
Heavy rail	11.48	0.794
Light rail	5.44	0.685
Local bus	3.77	0.561
Long-distance commuter bus	17.57	0.705
Shuttle	9.08	0.585
Streetcar	1.43	0.479
Trolley bus	1.48	0.479
Vanpool	42.28	0.879

[19] Federal Transit Administration. National Transit Database. 2017. https://www.transit.dot.gov/ntd. Caltrans calculated the statewide average trip lengths by mode as passenger miles traveled divided by unlinked passenger trips, using 2017 annual data.

Equation 29: Auto Emission Reductions from New or Expanded Transit Service

$$Auto\ Emission\ Reductions = \frac{(VMT\ Displaced_{Yr1} * EF_{Yr1}) + (VMT\ Displaced_{YrF} * EF_{YrF})}{2} * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service	$MTCO_2e$ or lbs
$VMT\ Displaced_{Yr1}$	=	Annual passenger VMT replaced by transit trips in first year of service, from Equation 28	miles/year
$VMT\ Displaced_{YrF}$	=	Annual passenger VMT replaced by transit trips in final year of service, from Equation 28	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for transit service, not to exceed maximum useful life per capital type (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

The quantification period for a transit component is the number of years for which there are enforceable committed funds to operate the new or expanded service. The quantification period may not exceed the maximum useful life defined per capital type by the Federal Transit Administration guidelines.[20]

Table 8. Maximum Useful Life by Capital Type

Capital Type	Maximum Useful Life (years)
Bus	12
Ferry	25
Rail vehicle	25
Shuttle	10
Structure	40
Van	4

[20] Federal Transit Administration. Circular FTA C 5010.1E. July 2018. www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e

Equation 30: Transit Vehicle Emissions

$$Transit\ Vehicle\ Emissions\ =\ Transit\ VMT * EF_{YrM} * UL * U^{-1}$$

Where,			Units
Transit Vehicle Emissions	=	Transit vehicle GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service	$MTCO_2e$ or lbs
Transit VMT	=	Annual VMT of transit vehicles to operate new or expanded service	miles/year
EF_{YrM}	=	Transit vehicle emission factor for middle year of service	g/mile
UL	=	Quantification period for transit service, not to exceed maximum useful life per capital type (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equation 31: Net Emission Reductions from New or Expanded Transit Service

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Transit\ Vehicle\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded transit service	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service, from Equation 29	$MTCO_2e$ or lbs
Transit Vehicle Emissions	=	Transit vehicle GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service, from Equation 30	$MTCO_2e$ or lbs

F. New or Expanded Ferry Service

The emission reductions from new or expanded ferry service are calculated as the emission reductions from displaced autos less the new emissions from the ferry.

Equation 32: VMT Reductions from New or Expanded Ferry Service

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by ferry trips	miles/year
D	=	Annual days of operation of ferry service	days/year
R	=	Increase in daily ferry ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip replaced (default or user-defined; see Table 7)	miles

Equation 33: Auto Emission Reductions from New or Expanded Ferry Service

$$Auto\ Emission\ Reductions = \frac{(VMT\ Displaced_{Yr1} * EF_{Yr1}) + (VMT\ Displaced_{YrF} * EF_{YrF})}{2} * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service	$MTCO_2e$ or lbs
$VMT\ Displaced_{Yr1}$	=	Annual passenger VMT replaced by ferry trips in first year of service, from Equation 32	miles/year
$VMT\ Displaced_{YrF}$	=	Annual passenger VMT replaced by ferry trips in final year of service, from Equation 32	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for ferry service, not to exceed 25 years (see Table 8)	years

Equation 34: Ferry Emissions

$$Ferry\ Emissions = Fuel\ Consumption * EF * UL * U^{-1}$$

Where,			Units
Ferry Emissions	=	Ferry GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service	$MTCO_2e$ or lbs
Fuel Consumption	=	Annual quantity of fuel consumed by ferry to operate new or expanded service	gal, scf, kWh, or kg
EF	=	Fuel-specific carbon intensity emission factor for ferry	g/unit of fuel
UL	=	Quantification period for ferry service, not to exceed 25 years (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equation 35: Net Emission Reductions from New or Expanded Ferry Service

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Ferry\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded ferry service	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service, from Equation 33	$MTCO_2e$ or lbs
Ferry Emissions	=	Ferry GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service, from Equation 34	$MTCO_2e$ or lbs

G. Capital Improvements

The emission reductions from capital improvements that result in mode shift to transit are calculated as the emission reductions from displaced autos.

Equation 36: VMT Reductions from Capital Improvements

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by transit trips	miles/year
D	=	Annual days of operation of transit service utilizing capital improvement	days/year
R	=	Increase in daily transit ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip reduced (default or user-defined; see Table 7)	miles

Equation 37: Auto Emission Reductions from Capital Improvements

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced_{Yr1} * EF_{Yr1} + VMT\ Displaced_{YrF} * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of capital improvement	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by transit trips, from Equation 36	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for transit utilizing capital improvement service, not to exceed 40 years (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Section C. References

The following references were used in the development of this Quantification Methodology and the AHSC Benefits Calculator Tool.

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EXHIBIT D

Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks

Summary Report

California Climate Investments Quantification Methods Assessment
California Air Resources Board
Agreement #16TTD004

Prepared by:
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March 25, 2019

Background

Under California's Cap-and-Trade program, the State's portion of the proceeds from Cap-and-Trade auctions is deposited in the Greenhouse Gas Reduction Fund (GGRF). The Legislature and Governor enact budget appropriations from the GGRF for State agencies to invest in projects that help achieve the State's climate goals. These investments are collectively called California Climate Investments. Senate Bill (SB) 862 requires the California Air Resources Board (CARB) to develop guidance on reporting and quantification methods for all State agencies that receive appropriations from the GGRF. CARB may review and update quantification methodologies, as needed.

To date, multiple California Climate Investments programs have offered funding for new bicycle paths or lanes[1] (CARB, 2016, 2017, 2018, 2019). CARB developed quantification methodologies to provide project-level greenhouse gas (GHG) emission reduction and co-benefit estimates for administering agencies to use when selecting projects for funding. To measure GHG emission reductions from new bike paths and lanes, CARB relies on a method it published with the California Department of Transportation (Caltrans) in 2005 for evaluating motor vehicle fee registration projects and congestion mitigation and air quality improvement (CMAQ) projects (CARB, 2016, 2018, 2019; CARB & Caltrans, 2005).

This report summarizes outcomes from a literature review to determine whether and how the CMAQ methods could be modified to better reflect emerging data and methods for estimating reductions in vehicle miles traveled (VMT) from new bike facilities, the first step in estimating GHG emission reductions.[2] The report also proposes an alternative VMT reduction quantification method based on existing bicyclist counts along the project corridor.

The current VMT reduction estimation equation uses five inputs: (1) days per year of facility use, (2) average annual two-way daily vehicular traffic on a road parallel to the proposed facility, (3) an adjustment factor, (4) an activity center credit, and (5) bike trip length. Our report reviews only those inputs—or the components of inputs—whose values are clearly derived in the methodology documentation, specifically the facility use factor, bike trip length, and the mode share and facility-level bicycle ridership change values used to calculate the adjustment factors. The report also reviews the merits of correcting for bike trip type—utilitarian versus recreational. The report does not probe the activity center credit values because it is unclear how they were derived.

[1] The new bike paths and lanes category of projects includes "Bicycle paths (Class I), bicycle lanes (Class II), or separated bikeways (Class IV) that are targeted to reduce commute VMT and other auto travel," with emissions "reduced by replacing auto trips with bicycle trips" (CARB, 2016).
[2] The full list of literature reviewed is provided in the section I of the accompanying technical documentation.

Summary of Current Quantification Method

CARB's current method estimates VMT reductions from new Class I (bike path), II (bike lane) and IV (cycle track) bicycle facilities (CARB, 2016, 2018, 2019). CARB does not currently include Class III facilities (bicycle boulevards) in its VMT reduction quantification method, or distinguish Class IV facilities that replace auto travel lanes or parking from those that replace existing Class II bike lanes. CARB's current method estimates the annual VMT reductions from new bicycle facilities using Equation 1 (CARB, 2016 [B-1], 2018 [26], 2019 [16]):

Equation 1: Auto VMT Reductions (current method)

$$Auto\ VMT\ Reduced = (D) * (ADT) * (A + C) * (L)$$

Where,			Units
D	=	days of use per year (default is 200 days)	Days
ADT	=	annual average two-way daily vehicular traffic on parallel road (project-specific data, with a maximum of 30,000)	Trips/day
A	=	adjustment factor (table lookup value)	-
C	=	activity center credit (table lookup value)	-
L	=	bike trip length (1.8 miles/trip in one direction)	Miles/trip

The multi-component adjustment factor uses mode share and facility-level bicycle ridership change data and assumptions to estimate how much of the measured ADT would be converted to bicycle trips after bicycle facility installation. The adjustment factors "were derived from a limited set of bicycle commute mode split data for cities and university towns in the southern and western United States,"[3] then multiplied by 0.7 to "estimate potential auto travel diverted to bikes," and again by a 0.65 "growth factor" to "estimate the growth in bicycle trips from construction of the bike facility" (CARB & Caltrans, 2005 [31]). However, it is unclear from the method documentation what portion of the cited mode split data was used to calculate the adjustment factors, and how it was used to create different factors by ADT and bicycle facility length.

The activity center credit is an accessibility proxy that increases the adjustment factor for bike facilities that are closer to more "activity centers," like banks, churches, hospitals, light rail stations, office parks, post offices, public libraries, shopping areas, grocery stores, or schools and universities (CARB, 2016 [B-2], 2018 [28], 2019 [17]). It is unclear how the activity center credits were derived, as there is no documentation for this component of the method.

[3] As compiled by the Federal Highway Administration in its 1992 National Bicycling and Walking Study.

Key Report Findings

The literature reviewed in the report indicates a need to update multiple factors in CARB's existing equation for estimating VMT reductions from new bicycle facilities. The report findings include:

- The 0.65 "growth rate" for cycling trips following new facility construction that the current quantification method uses may be low. Recent research indicates the growth rate may be closer to 1.0 for Class I bike paths, Class II bike lanes, and Class IV cycle tracks that do not replace existing Class II facilities. However, the growth rates may be lower for Class IV facilities that replace existing bike lanes (possibly closer to 0.6) and Class III bike boulevards (possibly closer to 0.3 or 0.4) (City of Toronto, 2001; Cohen et al., 2008; Dill et al., 2014; Fitzhugh et al., 2010; Goodno et al., 2013; Gudz et al., 2016; Matute et al., 2016; Monsere et al., 2014; Sallaberry, 2000).

- Methods exist for more accurately accounting for temporal variation in cycling levels than by assuming a new bicycle facility would be used a limited number of days per year (National Bicycle and Pedestrian Documentation Project, 2009; Nordback & Sellinger, 2014).

- The average bicycle trip length for all trips could be updated from the baseline 1.8 miles used in the current quantification method, based on more recent and/or California-specific data (Caltrans, 2013).

- Most of the cyclists riding on new facilities who did not take the same route prior to facility installation switch from other bicycle routes rather than from other travel modes. The available data indicate an overall stated substitution rate (from any non-cycling travel mode) of between 0.2 and 0.3, and an auto substitution rate of about 0.1, meaning that about 10 percent of the new bicycle trips replaced driving trips (Matute et al., 2016; Monsere et al., 2014; Thakuriah, Metaxatos, Lin, & Jensen, 2012).

- Nearly half of bicycle trips nationally are made for recreational purposes (Kuzmyak & Dill, 2012). The current quantification method does not fully exclude recreational trips from its VMT reduction calculus. And at least one recent study indicates that bike facilities do influence people's choice to bicycle instead of drive for recreational purposes (Matute et al., 2016). Nonetheless, if desired, decrementing the VMT reduction estimate by the percentage of recreational trips provides a more conservative estimate.

- A possible method is presented to project VMT reductions from new bicycle facilities based on existing bicycle counts, without using vehicular ADT. One reason to rely on bicycling count data rather than vehicular ADT is that using vehicular ADT assumes that higher auto volumes correlate to higher bicycling volumes, which is often not the case. Another reason is that

pre-facility-installation bicycle counts appear to be a reasonably reliable predictor of post-installation counts (Matute et al., 2016). In addition, there is a growing body of literature on the auto substitution rate for cyclists using a new facility and route, as well as average bicycle trip lengths.

Table 1 summarizes the values used in the current quantification method that could be directly updated based on the literature reviewed in the report. The next section presents the alternative quantification method.

Table 1. Summary of Potential Updates to Current Quantification Method Values

Method Input	Current Value	Updated Value
Bicycle Trip Growth Rate	0.65	1.0
Bicycle Trip Length	1.8 miles	1.5 miles
Auto-Bike Substitution Rate	0.7	0.1[4]

Alternative Quantification Method

Estimating VMT reductions from new bicycle facilities without vehicular ADT begins with obtaining bike counts on the route for the proposed facility (or an adjacent route, if no road or path currently exists where the facility is proposed to run). The short-duration ridership counts must then be converted to average annual daily bike trips using a temporal and seasonal adjustment factor. Post-installation bike ridership can then be estimated from that initial adjusted count using a growth factor based on ridership studies. The growth factor can be adjusted based on facility type and length, although more facility-specific data is needed. Multiplying that new ridership estimate by an average trip length yields new bicycle miles traveled from adding a bike facility. Not all of those new bicycle trips replace vehicle trips, however. Further adjustment is needed, including an auto-bicycle substitution rate, a carpool factor (not every vehicle trip has just one occupant) and, to be conservative, a trip type factor (recreational bike trips may be less likely than utilitarian bike trips to replace auto trips).

Equation 2 is one potential bicycle-count-based method.

[4] This could be adjusted to correct for carpooling (not all bicyclists who would have made the same trip by car would have done it alone) by dividing the substitution rate (or total number of substituted trips) by the average vehicle occupancy rate (average number of people per auto) used by Caltrans (1.15) (Caltrans, 2016).

Equation 2: Auto VMT Reductions (alternative method)

$$Auto\ VMT\ Reduced = (D) * (BC) * (S) * (GF) * (AS) * (C) * (T) * (L)$$

Where,			Units
D	=	days of use per year (default is 365 days, since counts can be adjusted seasonally)	Days/year
BC	=	average hourly (or daily) bicycle count (counts taken on the street to be improved with the bike facility, or, in the case of a facility not on an existing street, a parallel street)	Trips/day
S	=	seasonal adjustment factor (adjusts bicycle count to annual average daily bicycle trips)	-
GF	=	growth factor (expected rate of increase in bicycle count, e.g. 1.0 for a 100% increase in trips on the route)	-
AS	=	automobile substitution rate (expected rate at which cyclists who did not bike on the same route prior to bicycle facility installation switched from driving, or being driven in, an automobile to cycling)	-
C	=	carpool factor (default is 1/1.15, to reflect the California average number of vehicle trips per person trips by personal auto)	-
T	=	trip type factor (optional inclusion for conservative estimates; default is 0.506)	-
L	=	bike trip length (default is 1.5 miles/trip in one direction)	Miles/trip

Values for the first two variables, *D* and *BC*, would be provided by the funding applicant. *D* would have a default of 365, but it could be changed based on local conditions and the type of seasonable adjustment factor used.

The seasonal adjustment factor, *S*, could use local data where available. But to ensure continuity in application across California, the National Bicycle and Pedestrian Documentation Project's adjustment factors can be used in the interim (National Bicycle and Pedestrian Documentation Project, 2009).

The growth factor, *GF*, could be approximated based on the findings from the count-based studies reviewed in the full report. As discussed, it appears from the literature that a uniform, facility-agnostic growth rate around 1.0 could be appropriate. The literature also indicates at least some correlation between facility length and ridership increases (at least for Class IV cycle tracks), but more research is needed to clarify the facility length-ridership relationship.

The auto substitution factor, *AS*, could be based on the available data discussed above, which indicate an auto substitution rate of about 0.1. However, the auto substitution factor should be adjusted to account for carpooling (not all bicyclists who would have made the same trip by car would have done it alone).

The carpool factor, *C*, corrects for that, by dividing the total number of substituted trips by the average vehicle occupancy rate (average number of people per auto) used by Caltrans (1.15) (Caltrans, 2016).

The (optional) trip type factor, *T*, is included to correct for the fact that bike trips that are purely for exercise, sport or recreation are not as likely to substitute for auto trips as utilitarian bike trips. The default value for *T* is based on the combined share (49.4%) of bicycle trips made for "vacation" (2.1%) or "other social or recreational" (47.3%) purposes, taken from the 2009 National Household Travel Survey (Kuzmyak & Dill, 2012). The default value is the percentage of all other (non-vacation, social or recreational) trips, calculated as 1-0.494 (=0.506). This approximation of commute and utilitarian trip share is likely conservative, however. Furthermore, the auto substitution factor already accounts for recreational ridership (Matute et al., 2016; Monsere et al., 2014; Thakuriah et al., 2012).

The trip length factor, *L*, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data.

Ease of Applying the Alternative Quantification Method

To gauge how easy it would be to use the alternative quantification method, jurisdictions' housing projects that received funding from the Affordable Housing and Sustainable Communities program or Active Transportation Program were surveyed about the type, timing and location of their bicycle and vehicular counts, and who conducted the counts. The bicycle and vehicular count information available online for the jurisdictions was also reviewed. The results, along with the insights from the case study presented in the technical documentation, indicate that the alternative quantification method would be at least as easy to use as the existing method, for at least two reasons.

First, once a funding applicant has the requisite hourly (or daily) bicycle count data or vehicular ADT, the alternative quantification method can be applied more quickly than the existing method. Default values are available for all other factors in the alternative method besides the bike count. The existing method, on the other hand, requires the potentially time-consuming identification and documentation of all the "activity centers" within ½-mile and ¼-mile buffers of the planned bicycle facility.

Second, in many jurisdictions it may be just as easy for a funding applicant to obtain the requisite hourly bicycle count data as the necessary vehicular ADT. Most of the jurisdictions for which information was obtained about their bike and auto traffic data collect bike counts at dozens of locations, most updated at least annually. Multiple jurisdictions also collect at least some bike count data using continuous counters, while multiple others are planning to either expand or initiate continuous bike count programs. And many of the surveyed jurisdictions have bike count data for nearly as many locations as automobile counts.

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I. RESPONSES TO LOZEAU DRURY DRAFT IS/MND COMMENT LETTER, JANUARY 19, 2021

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury LLP comment letter. The comment letter is included as Attachment A to this appendix. Responses are keyed to comments in the attorneys' cover letter, however the underlying technical studies have been reviewed by the IS preparers and additional relevant items in those studies also have been addressed in these responses. Responses to the biological resources comments have been prepared by Monk and Associates, with peer review by Jake Schweitzer of Vollmar Natural Lands Consulting (VNLC). Responses to air quality/GHG comments have been prepared for the City by The RCH Group. Responses to VMT comments have been prepared by GHD, with City staff peer review.

Comment 1: There is a fair argument that the project may have significant traffic and GHG impacts because the purported mitigation measure for VMT is not supported by substantial evidence and defies common sense.

Response: The VMT reduction (bicycle commute mode share) included in the original technical memorandum and analysis by GHD was based on the average commute length of Napa County residents, as established using Streetlight Data (approximately 17 miles). The comment letter questions the use of the existing average commute length (based on automobile travel mode) as the basis for estimating potential bicycle commute trip length, following anticipated mode shift once the proposed bicycle trail connection is complete. The methodology used by GHD is consistent with typical application of the bicycle commute mode shift analysis process outlined in the nationally recognized publication (NCHRP 552). GHD has, however, refined the analysis to use an average bicycle commute trip length of 5.2 miles which results in a conservative analysis. This trip length was established in *Understanding and Measuring Bicycling Behavior: A Focus on Travel Time and Route Choice* (OTREC-RR-08-03, December 2008) and was utilized irrespective of existing commute lengths in Napa County.

Upon review of the trip length assumptions questioned in the comment letter, GHD reviewed its analytical basis for establishing average trip lengths in Napa County and for the Project Area, and in turn the basis for establishing a trip length baseline and threshold (15% below baseline) and the basis for establishing an average commute length for the proposed Project. Upon further review of data provided by the applicant, indicating a roughly 11-mile one-way commute length, GHD revisited the available sources and found compelling evidence for using an average of three data sources (Streetlight Data, Census Longitudinal Employer-Household Dynamics, and the California Statewide Travel Demand Model). This additional analysis and supporting evidence for using an average of the available data sources, is provided in GHD's updated memorandum (Section 3), which is included in the Final IS/MND Traffic Appendices. Based on the refined analysis, the proposed Project's net VMT over the calculated threshold level was determined to be 729 daily VMT, as opposed to the previously reported 1,001.

The applicant had previously proposed a 300-foot bicycle trail project to help reduce VMT in the project area by inducing existing and future employee commutes using bicycles instead of

automobiles. The bicycle trail provides significant ancillary benefits outside the question of VMT reduction, including closing a significant gap in the regional bicycle network. Since preparing the prior analysis, the applicant has indicated that a previously-assumed bike trail along the frontage of a new school, south of the proposed project, is no longer being constructed. Thus, the applicant has proposed to nonetheless close the bicycle network gap by funding the construction of the bike trail along the school's frontage as well, extending the length of the proposed bike trail from about 300 to about 800 feet. This bike trail will close the gap between the Class II bikeways on Commerce Court and the existing bike trail along Wetlands Edge Road that currently terminates at Eucalyptus Drive. The prior analysis underrepresented the potential bicycle commute mode shift of the gap closure. Upon further review of the methodology used to estimate induced bicycle commutes, GHD has developed a refined methodology that better captures the anticipated benefits of the closure in the bicycle network gap.

Estimating the benefits of the 800-foot bike trail on its own assumes the bicycle commute potential of the existing trail on Wetlands Edge Road is already fully realized. Due to the isolation of this existing trail, however, this assumption is not realistic. Existing residents along Wetlands Edge Road, and those within a reasonable access buffer, would currently need to navigate State Route 29, which lacks bicycle facilities, to arrive at any significant employment destinations. Only the most experienced and fearless bicyclists would venture this journey to work (this finding is consistent with the industry-standard level-of-traffic-stress, or LTS, ranking of bikeways relative to potential user groups). Therefore, using only the proposed 800-foot bike trail is insufficient in estimating the potential bicycle commute mode shift that could reasonably be anticipated through closure of the gap in the regional bicycle network. GHD also estimated the bicycle mode shift reduction using the entirety of the existing Wetlands Edge Road bike trail in addition to the proposed 800-foot gap closure. This assessment implicitly assumes zero utilization of the existing Wetlands Edge Road bike trail. Although this assumption is likely closer to common-sense estimation of bicycle commute use of the existing trail, GHD used an average of both scenarios to estimate the potential bicycle mode shift of closing the gap in the regional bicycle network, between the existing bike trail on Wetlands Edge Road, and the bike lanes on Commerce Court. GHD has revised the analysis and now estimates an average of 96.5 daily commuters, including existing commuters and commuters to the proposed Project, can be assumed to utilize the available bicycle network to commute in lieu of automotive travel.

The cited data from CARB is misconstrued in the comment letter. The CARB report recommends assuming a bicycle commute length of 1.5 miles only in the absence of better data, and for the purpose of generating a conservative assessment. CARB's own report presents a table that shows a 2016 intercept survey in Los Angeles that presents an average 7-mile trip length. The CARB report also presents a 2.3-mile bicycle trip length from a 2012 National Household Travel Survey. The 1.5-mile bicycle trip length is from a 2013 California Household Travel Survey. The sample sizes for household travel surveys are notoriously small, and the data relative to trip length by mode are not specific to trip type (i.e. commute trip length). The 5.2-mile bicycle trip length applied in this study, from the cited *Understanding and Measuring Bicycling Behavior: A Focus on Travel Time and Route Choice* is more conservative than the 7-mile bicycle trip length from the 2016 intercept survey in Los Angeles. Both sources are of actual bicycle commuters.

The cited household travel surveys, besides the sample size issues, blend all trip purposes rather than focusing on commute trips. Other trip purposes, such as home-based-school and home-based-shopping trips are demonstrably shorter on average than commutes. Commutes are, on average, the longest distance regular household trips. CARB's recommendation is overly conservative in this case, in which our analysis is focused on home-based-work commute trips.

Evidence of potential commuters that could use the proposed bike trail has been further shown in the revised memorandum, through demonstration of significant commute patterns between the proposed Project vicinity and residential communities in American Canyon, in particular along Wetlands Edge Road. Data from Census Transportation Planning Products (CTPP) and Census Longitudinal Employer-Household Dynamics (LEHD) show several hundred commute pairs between these geographies. In the future, the utility of additional proposed and funded bicycle infrastructure along Green Island Road and Devlin Road, will be greatly increased with the closure of the gap in bicycle infrastructure between Eucalyptus Drive and Commerce Court. These indirect cumulative benefits are not included in this analysis. Additionally, non-commute trips are not included in the VMT reduction benefit assessment of the bicycle trail gap closure. The added non-commute bicycle trip inducement of the trail, including safe access to the new school, health benefit of recreational use, and VMT reduction of other non-commute trip mode shift will combine to result in significant societal benefits not included in the GHD analysis.

At an average one-way distance of 5.2 miles, the estimated 96.5 bike commuters calculated to be generated by the proposed 800-foot bike path extension mitigation would reduce VMT by approximately 1004 miles. This would more than offset the un-mitigated project's 729 VMT exceedance of the 15% VMT reduction significance threshold.

The VMT analysis in Item XVII.b, in the Final IS/MND, as well as Mitigation Measure TRA-2 (in the IS/MND and MMRP) have been updated to incorporate this more conservative analysis and the additional length of the path to be constructed by the applicant. The impact significance is not changed.

Comment 2: The MND fails to adequately analyze impacts to biological resources because it relies upon an incomplete baseline and the project may have adverse impacts on numerous sensitive species currently using the site or adjacent areas.

Response: The IS/MND identifies potential impacts to special-status birds, nesting raptors, passerine birds, the western pond turtle, and requires mitigation (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5). The required mitigation (as modified in response to the CDFW comment letter and included in the Final IS/MND and MMRP) reduces impacts to these species to a less-than-significant level. The information provided in the comment letter does not change that conclusion. With respect to the adequacy of the baseline, as noted in Monk & Associates, Inc. (M&A) March 2020 *Biological Resources Analysis* report that was provided to the City of American Canyon's consultant for peer review and incorporation into the Mitigated Negative Declaration, M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel, of which the approximately 10-acre project site is a part. M&A

biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the U.S. Army Corps of Engineers in 2012 and reverified by this agency in 2017. During the site surveys and wetland delineation, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The peer review, conducted for the City's consultants by biologist Jake Schweitzer of Vollmar Natural Lands Consulting, confirmed these conditions.

California Environmental Quality Act (CEQA) Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project site. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project...

In order to perform an impact analysis, it is necessary for one to "fix" the baseline conditions of the project site because this enables the lead agency to determine how the site conditions would be changed as a result of the proposed project. The intent of CEQA Guidelines Section 15125 is to provide guidance to lead agencies as to when to "fix" the baseline conditions of the project site.

The environmental "baseline" is the combined circumstances existing at the time the CEQA document is published, which in the case of M&A's Biological Resources Analysis is March 2020, which preceded an application submittal to the City of American Canyon for the proposed project. Consequently, past surveys and past species sightings by M&A in past years were not discussed for the currently proposed project. Note that the proposed project site is 10 acres of the original 35-acre parcel that M&A surveyed in 2006, 2011, and 2012, 2017, 2018, and 2019. M&A's Biological Resources Analysis report for this project also discusses wildlife habitats and species observed onsite during the current (2020) baseline survey that was used to prepare that report, and acknowledges that many other bird species likely nest in the eucalyptus trees adjacent to the project site to the west, north and south. Finally, CEQA does not require an exhaustive list of all bird species that could occur on a project site, only an analysis of potential

impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance, which M&A's Biological Resources Analysis addressed.

Dr. Smallwood stated that M&A did not consult eBird, the web-based list server that birders use to report their bird sightings. He also states that M&A "mostly relied" on the California Department of Fish and Wildlife's (CDFW) RareFind database (CNDDB) which provides records of special-status species nesting, breeding, or permanently residing in the area. CDFW's CNDDB is extremely useful because it documents nesting records and documents breeding "habitats" as opposed to an incidental sighting of a species (which is what eBird data are). Many of the nesting/breeding/permanent species habitat records in the CNDDB are reported by professional biologists, such as M&A biologists, who hold federal Recovery Permits (10(a)(1)(A) permits) with the U.S. Fish and Wildlife Service (USFWS) and/or a State Memorandum of Understanding (MOU) with the CDFW that allows us to work with specific federal and/or state listed wildlife species. Reporting these listed species sightings to the CNDDB is a *requirement* of these permits. In other words, the biologists making their reports to the CNDDB are experienced, qualified biologists who have been vetted by the federal and state government agencies in order to receive these federal and state permits. Whereas anyone can report their incidental bird sightings to eBird without any way to confirm the qualifications of the observer. Also, since the data reported to the CNDDB is a known occurrence of a nesting or breeding habitat (and not just an incidental flyover), this is relevant for assessing a development project's impacts in that geographic area.

It is important to note that merely observing sensitive birds flying over a property (as Dr. Smallwood reported), or foraging over the site, or using the habitat on the site in the month of January (the non-nesting season), does not warrant reporting to the CNDDB as these sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species, as Dr. Smallwood reported, do not necessarily translate into a "potentially significant biological impact" under CEQA.

While it is interesting to record birds flying overhead on their way to other more suitable habitats, observing a "flyover" bird or a bird resting in a tree adjacent to or on a project site does not necessarily translate into the project site providing "suitable habitat" or that development of that project site would cause a "significant adverse impact" to that species that warrants any special measures to reduce the significance of the potential impacts to a level regarded as less than significant under CEQA. Therefore, loss of *foraging habitat* that may occur on the project site for birds mentioned by Dr. Smallwood such as the red-tailed hawk, great horned owl (*Bubo virginianus*), Nuttall's woodpecker (*Picoides nuttallii*), Cooper's hawk (*Accipiter cooperii*), American kestrel (*Falco sparverius*), red-winged blackbird (*Agelaius phoeniceus*), Say's phoebe (*Sayornis saya*), and other wildlife species *is not necessarily a potentially significant impact.* Indeed, there is a plethora of such foraging habitats throughout the City of American Canyon and throughout this area of Napa County. The project site does not provide unique foraging habitat and the loss of this habitat is not significant relative to the amount of readily available similar foraging habitats located both locally and regionally.

Therefore, impacts to foraging or flyover habitat in most cases do not result in significant biological impacts that require mitigation. The project's impact to foraging habitat is therefore considered to be less-than-significant and does not warrant recirculation of the IS/MND or preparation of an EIR under Public Resources Code Section 21151.

As discussed above, the comment incorrectly states that M&A mostly relied on CNDDB RareFind records to make our biological impacts assessment. M&A biologists have extensive experience conducting biological surveys in the City of American Canyon and in southern Napa County. Also, as stated earlier in this response letter, M&A biologists have years of experience on this project site. It was this breadth of knowledge about the biological resources in American Canyon and on this particular project site that allowed M&A to determine which special-status species could be affected by the proposed development project, and therefore, which species warrant avoidance and minimization measures as necessary to address potentially significant adverse impacts. As noted previously M&A's findings were peer reviewed by an independent biologist under contract to the City's CEQA Consultant.

Comment 3: The Project will have a significant impact on wildlife movement and habitat fragmentation.

Response: The March 2020 *Biological Resources Analysis* prepared by Monk & Associates concluded that the proposed project would not interfere with the movement of native wildlife. The project site has a history of disturbance starting with eucalyptus tree removal in 2012, continued disturbance associated with the paintball facility located immediately to the southeast, and the recent construction of the SDG Commerce 330 Distribution Center distribution center to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

Regional wildlife corridors that have significant values include, well known and agency-recognized deer herd or elk herd migration corridors or any other regionally recognized wildlife corridor. The project site is not recognized by the CDFW or the USFWS as providing regionally or locally important wildlife corridors. Other than a wildlife movement area for an occasional Virginia opossum (*Didelphis virginiana*) or perhaps a striped skunk (*Mephitis mephitis*), or an occasional Columbian black-tailed deer (*Odocoileus hemionus columbianus*), the project site likely has little to no value as a local wildlife corridor at best. Impacts to this localized use area would not be considered significant pursuant to CEQA.

Comment 4: The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

Response: The comment states that: "The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders." "Regardless of whether these species live on site, these and other special status species must cross roadways that will

experience increased traffic volume as a result of the Project." The commenter continues "California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project."

California red-legged frogs (*Rana draytonii*) and California tiger salamanders (*Ambystoma californiense*) do not occur onsite. In the American Canyon/Napa area, there are no records for the California red-legged frog west of Highway 29 (aka State Route 29) where the project site is located. Rather all known records are east of State Route 29. Thus, if this frog is not known on the west side of State Route 29, the commenter's statement that this frog will cross roads used by vehicles servicing the project is not logical; any amphibian trying to cross Highway 29 to reach the project site would be squashed by traffic. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896), east of State Route 29, a major geographic barrier to movements of the California red-legged frog to the west of this highway. It is noteworthy that M&A biologists have surveyed tributaries of the Napa River west of State Route 29 many times over numerous years and have yet to find this frog west of Highway 29. M&A biologists were the first biologists to identify the California red-legged frog east of Highway 29 in Napa County in 1996. Accordingly, they are qualified to assess potential impacts to this species. M&A concluded that increased traffic associated with the project west of State Route 29 would not affect the California red-legged frog.

There are no records for the California tiger salamander in Napa County. The closest known California tiger salamander occurrence is in Solano County located approximately 17 miles east of the project site (CNDDB Occurrence No. 485). M&A biologists carry both federal and state permits that allow us to work directly with the California tiger salamander. Mr. Monk has worked with this salamander throughout its known range in California. Indeed, Mr. Monk was on the scientific advisory panel for the recently completed USFWS Santa Rosa Plain California Tiger Salamander Recovery Plan (USFWS 2016)[1]. M&A concludes that increased traffic associated with the project will not affect the California tiger salamander.

Common wildlife road kill, such as the commenter has observed in the project area, of species associated with man and residential developments, Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*), is not considered a significant impact pursuant to CEQA. There are no regulations that protect common wildlife species that could be killed by vehicular traffic. While it is unfortunate that wildlife is killed on roadways by vehicular traffic, and we wish this was not the case, this is not a direct or cumulative impact that rises to a level that would be regarded as an impact that significantly affects a species or that requires mitigation pursuant to CEQA. Therefore, an EIR is not necessary to evaluate the

[1] USFWS (U.S. Fish and Wildlife Service). 2016. Recovery Plan for the Santa Rosa Plain: *Blennosperma bakeri* (Sonoma sunshine)*; Lasthenia burkei* (Burke's goldfields)*; Limnanthes vinculans* (Sebastopol meadowfoam); California Tiger Salamander Sonoma County Distinct Population Segment (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi + 128 pp. June 20, 2016. Federal Register. Pages: 39945-39946.

direct and cumulative impacts of the project's vehicle collisions with common wildlife species under Public Resources Code Section 21151.

Comment 5: The MND fails to analyze the project's impacts from the use of pest control measures.

Response: The comment states that "The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse." The applicant would employ a pest control company that implements an Integrated Pest Management program. Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. IPM is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

The project warehouse would be built to current code and through building design, would exclude rodents from the facility and would not provide an attractive nuisance. Other exclusion strategies would be incorporated into the design of the façade of the warehouse building, specifically the gables, eaves, overhangs, to prevent or discourage birds from establishing nests, or exclude birds from perching or nesting by using nets. In addition, the applicant uses Bird Gard Pro Plus, which is a sonic bird control system that uses a variety of naturally recorded bird distress calls to frighten, confuse and disorient birds in the immediate area. This has proven to be an effective way to discourage swallows from establishing nests on other warehouse buildings in the City of American Canyon owned by the applicant. Pesticides that would be routinely sprayed around the warehouse include Suspend SC and Essentria® G Granule Insecticide. Suspend is used for insect control on commercial and residential turf and landscape areas. The active ingredient is Deltamethrin (4.75%). Essentria® G Granule Insecticide is an environmentally friendly insecticide derived from essential oils. Essentria® G Granular Insecticide is a natural insecticide formulation for treatments in sensitive areas. Active ingredients include Eugenol (Clove Oil) 2.90% and Thyme Oil 0.60%. This insecticide is used to control ants, centipedes, chinch bugs, clover mites, cockroaches, crickets, earwigs, fleas, leafhoppers, millipedes, and other insect pests in landscape, turf, and perimeters around residential and commercial areas. These products do not result in harm to non-target wildlife. Instead of using an anticoagulant rodenticide to control rodents on this project site, the applicant is proposing to use a multi-use PROTECTA bait station, monitoring device and snap trap holder to capture rodents without the use of poison. The attractant used will be non-toxic, in combination with Trapper T Rex Rat Traps (snap traps) or Catchmaster Glue Traps inside the bait station. This would eliminate the potential risk of secondary poisoning of non-target animals through direct exposure and indirect exposure via predation and scavenging of affected pest animals. Consequently, there is no anticipated use of rodenticides for this project at this time, but if there was a rat or mice infestation of the warehouse grounds, the applicant would use CONTRAC rodenticide, which is considered to be less toxic to non-target animals, in both primary and secondary poisoning situations, than other single-feeding anticoagulants. The

applicant would continue to follow all state and federal laws regarding the use of anticoagulant rodenticides.

Comment 6: The project will have cumulative impacts on biological resources.

Response: The comment concludes that "the Project will have a significant cumulative impact on biological resources. An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well." The commenter states that the "City of American Canyon has sprawled across nearly all the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west…" Over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, many open space preserves and parks have been established to preserve and protect open space habitats within the City limits and in this region. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. Closer to the project site, the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that are preserved in perpetuity. Therefore, conversion of approximately 10 acres of ruderal habitat on the project site to commercial development would be a less-than-significant contribution to the overall cumulative impact, given the extent of preserved open space in this region.

Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the City, the mitigation measures prescribed in the MND would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. The mitigation measures identified in the MND (as modified in response to the CDFW comment letter, below) would be required to be adopted by the applicant upon project approval, and appropriately addresses potential impacts to western burrowing owl, Swainson's hawk, nesting raptors and nesting passerine birds, and reduce those impacts to a less-than-significant level in both the project and cumulative contexts. Therefore, no additional cumulative impacts assessment is required in the MND.

Comment 7: The IS utilized unsubstantiated input and output parameters to estimate project emissions. Specifically, The MND fails to explain how the City calculated the project's average daily construction emissions of ROGs and NOx.

Response: The daily construction emissions provided in Table AQ-1 on page 22 of the MND do not match the daily emissions estimates from the CalEEMod output files provided in Appendix B-3 because CalEEMod output files report construction emissions as maximum daily emissions and Table AQ-1 on page 22 of the MND reports average daily construction emissions, consistent with the BAAQMD's *CEQA Guidelines*. This is explained on page 22 of the MND, "As the

construction phases (i.e., grading, paving, building construction, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds."

For instance, average daily construction emissions of ROG and NOx were calculated to be 13.6 and 24.6 lbs/day, respectively (See Table AQ-1 on page 22 of MND). This was calculated by taking the annual emissions estimates for ROG (1.4226 tons/year) and NOx (2.5827 tons/year) from the CalEEMod annual output files in Appendix B-3, converting them to pounds (2,000 lbs/ton), and dividing them by the number of construction days (210 days) as shown in the construction schedule provided in the CalEEMod output files in Appendix B-3 and the air quality calculations supporting information in Appendix B-2. The average daily emissions calculations for ROG and NOx are the following:

- ROG: (1.4226 tons/ year) x (2,000 lbs/ton) x (210 days) = 13.6 average annual lbs/day of ROG
- NOx: (2.5827 tons/ year) x (2,000 lbs/ton) x (210 days) = 24.6 average annual lbs/day of NOx

As demonstrated by the calculations above, the average daily construction emissions shown in Table AQ-1 on page 22 of the MND are valid and were calculated in accordance with BAAQMD's *CEQA Guidelines*. As stated on page 22 of the MND, "All construction-related emissions would be below the BAAQMD significance thresholds." Therefore, project construction activities would result in a less-than-significant impact.

Comment 8: The MND used improper modeling inputs, including for water use for parking and solid waste generation.

Response: The water demand assumptions input into CalEEMod were based on the approved SDG 330 Warehouse project, but was scaled down proportionally to the building square footage of the proposed project. As stated on page 100 of the MND, the project's water use would be "approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use." Furthermore, water use does not generate air quality emissions under CalEEMod (as detailed in the CalEEMod annual output files in Appendix B-3), water use only generates GHG emissions under the CalEEMod. Adjusting CalEEMod to a total daily water demand of 683 gallons per day or 249,295 gallons per year would result in no increased local air quality emissions and less than one additional metric ton of CO_2e per year. Therefore, the proposed project water use results in negligible emissions and adjustments to that level of water use would not change the air quality emissions or conclusions of the MND.

CalEEMod default values for solid waste generation were not used because the proposed project would generate very little solid waste. Solid waste generation was based on the approved SDG 330 Warehouse project, but was scaled down proportionally to the square footage of the proposed project. As stated on page 100 of the MND, "The warehouses project

would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon." Therefore, the solid waste generation assumptions input into the CalEEMod accurately reflect the estimated solid waste generation of the proposed project.

Similar to the operation of the approved SDG 330 Warehouse project, the proposed project was assumed to only generate trips Monday through Friday and would not need to bring natural gas to the warehouse building since there is no need for natural gas for the warehousing operations. The City of American Canyon considers the best management practices (BMPs) to reduce emissions of dust and particulates to be required and the BMPs would be implemented as part of the proposed project. As stated on page 24 of the MND, "Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's CEQA Air Quality Guidelines. Therefore, project impacts from construction emissions would be less than significant."

Comment 9: SWAPE's CalEEMod modeling run indicates a fair argument that the project may have a significant air quality impact.

Response: The comment is comparing maximum daily emissions estimated by CalEEMod to BAAQMD's **average daily** emissions significance thresholds. SWAPE's comments state that their CalEEMod re-run caused NOx to exceed BAAQMD's average daily significance threshold of 54 lbs/day. However, their CalEEMod re-run actually resulted in lower NOx emissions compared to the CalEEMod modeling for the MND provided in Appendix B-3 (2.58 vs. 2.56 tons of NOx during the entire construction period). Both CalEEMod runs result in average daily NOx emissions of approximately 25 lbs/day, which is less than 50% of BAAQMD's significance threshold of 54 lbs/day for NOx emissions during construction (See Response III.A. for how to calculate average daily construction emissions). Therefore, average daily construction emissions would be below BAAQMD's significance thresholds and project impacts from construction emissions would be less than significant.

Comments 10, 11, 12: The IS inadequately evaluates emissions of diesel particulate matter. Specifically, The HRA fails to account for the fact that the nearest sensitive receptor to the project's emissions is located only 500 feet from the soil borrow site. SWAPE's analysis provides substantial evidence of a fair argument that the project may have significant health risk impacts from its emissions of toxic air contaminants.

Response: The Draft IS acknowledges that a single residence is located within 500 feet of the project site. However, impacts to a single house are not considered potentially significant as CEQA does not consider the impacts on a few particular persons, but on the environment of persons in general. *See, Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 734; *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58

Cal.App.3d 188, 195. There are no other sensitive receptors within 1,000 feet of the project site.

A review of the SWAPE HRA also found a number of deficiencies in that document that skewed its results:

1. SWAPE 's HRA uses maximum daily emissions for DPM instead of using the annual emissions to calculate an emission rate.
2. SWAPE's HRA assumes all of the proposed project construction occurs 500 feet from the one residence, but only approximately 35 days of construction occurs that close (because grading activities are borrowing soil from the property to the south). All other construction activities are roughly 1,000 feet away.
3. SWAPE's HRA assumes that operation of the project occurs 500 feet away from the one residence, but the project site is roughly 1,000 feet away.
4. SWAPE uses AERSCREEN modeling. AERSCREEN modeling is a screening tool which determines the maximum hourly concentrations based on worst-case meteorological and land use conditions. That maximum hourly concentration is then multiplied by a factor of 10 percent to estimate the wind direction variability over a year. Regardless it still uses that worst-case meteorological condition for each hour within that 10 percent period. These worst-case meteorological include wind speeds of about 1 mph and generally stable atmospheric conditions which tend to occur during overnight hours. In this case, construction occurs primarily during the daytime except for the concrete pour. The area does have a high percentage of calm winds but also a moderate percentage of winds greater than 5.5 mph. Also, the SWAPE analysis uses a land use of "urban" to determine meteorological land use parameters of Bowen Ratio, albedo, and surface roughness. These parameters are used to produce the worst-case meteorological conditions. The surrounding land uses to the project site are a combination of open space and one/two story buildings. By using the screening approach, their model greatly overstates the construction and operational health impacts.
5. The majority of operational PM2.5 exhaust emissions calculated in the CalEEMod model are incorrectly calculated from electric forklifts. CalEEMod incorrectly ascribes combustion emissions for the electric forklifts. Electric forklifts do not have engines and therefore do no produce exhaust or generate PM2.5. The project would use only electric forklifts. Therefore, project operational emissions would be negligible and would occur approximately 1,000 feet from the nearest residence.

Comment 13: There is a fair argument that the project may have significant GHG impacts. The MND's reliance on the 1,100 MT CO2e per year threshold is only designed to achieve the GHG reductions required by 2020 and is insufficient to align the project with the State's 2030 GHG Reduction Targets.

Response: The BAAQMD adopted a "bright line" and "efficiency" GHG threshold because some projects have a very low service population, like the proposed project. Applying an efficiency metric for GHG emissions for projects like the proposed project is not appropriate, which is why BAAQMD's "bright line" threshold was used in the MND. As stated by the Commenter, "BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. California's 2030 GHG reduction goals (outlined in SB 32) require a 40% reduction in the State's GHG emissions from the 2020 reduction goal level (1990 levels). Thus, a 40% reduction from BAAQMD's 1,100 metric tons of CO_2e per year threshold or 660 metric tons of CO_2e per year would ensure a project is in line with the State's 2030 GHG reduction goals. As shown in Table GHG-1 on page 52 of the MND, the proposed project would generate 590 metric tons of CO_2e per year (amortized construction emissions plus operational emissions) for the first year of operations assumed to be year 2022, which is well below 660 metric tons of CO_2e per year. Furthermore, proposed project emissions would continue to decrease each year of operation as engine technology gets cleaner, fuels achieve reduced carbon intensity, and electricity generation utilizes more renewable and lower carbon sources. Therefore, the proposed project would have less-than-significant impacts on GHG emissions.

Comment 14: The project's failure to reduce its expected VMT and its levels of VMT per capita are evidence of a fair argument that the project may have significant GHG emission impacts.

Response: Please see response to comment 1, above.

Comment 15: For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts.

Response: As detailed in the responses to the comments presented above, no new or substantially increased impacts have been identified in the comments, and no substantive revisions are required to the Draft IS/MND in response to these comments. Therefore, the impacts remain mitigated to a less-than-significant level and an EIR is not required.

PLANNING COMMISSION
STAFF REPORT

February 25, 2021
Public Hearing

SUBJECT
Consider a Resolution to approve a Mitigated Negative Declaration and a Conditional Use Permit for a 217,294 square foot wine warehouse on a 10.39-acre parcel at 1075 Commerce Court (File No. PL20-0008).

PROJECT LOCATION	1075 Commerce Court (Assessor Parcel Number 058-030-065)
APPLICANT/OWNER	SDG Commerce 217, LLC
ENVIRONMENTAL REVIEW	The City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are part of the project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.
STAFF CONTACT	William He, AICP, Associate Planner

REQUESTED ACTIONS

1. Receive staff report.
2. Reopen Public Hearing.
3. Receive public testimony.
4. Close Public Hearing.
5. Commission comments and questions.
6. Adopt a Resolution to: 1) approve the Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 Project; 2) adopt the Mitigation Monitoring and Reporting Program; and 3) direct staff to file a Notice of Determination.
7. Adopt a Resolution to approve a Conditional Use Permit for a 217,294 square foot wine warehouse.

Site Information

General Plan Designation	Commercial Recreation (REC)
Zoning District	Recreation (REC)
Site Size	10.39 acres
Present Use	Vacant
Surrounding Zoning and Uses	North: General Industrial; warehouses South: Recreation; warehouse (SDG Commerce 330) East: Recreation; vacant West: Recreation, Public; Open space / wastewater treatment facility
Access	Site access is provided off Commerce Court



Figure 1: Vicinity Map

Background and Discussion

Proposed Development:

The project site is located at 1075 Commerce Court, which is an extension of Commerce Boulevard. The 10.39-acre trapezoidal parcel is relatively flat. The site is located in the Recreation zoning district, which permits wineries and wine warehouses with Planning Commission approval of a Conditional Use Permit.

The project consists of a new 217,294 square foot wine storage and distribution center with 134 parking spaces, 21 trucking docks, approximately 62,400 square feet of landscaping. The building is proposed to be 35 feet high and setback 30 feet from Commerce Court. The site also contains a 21,000 square-foot bio retention pond capable of storing 85,000 cubic feet of stormwater.

The building will accommodate one to three tenants. The site plan allocates 4,350 square feet for the tenant office suites. The applicant anticipates the project will have approximately 32 full-time employees and up to 18 part-time employees working in up to three overlapping shifts. The building will operate 12-18 hours/day during the peak season.

History

The project site is undeveloped with records going back to 1937. In the 1950's a eucalyptus grove was planted and the site remained until the 2000's. In 2012, the site was cleared and grubbed of the eucalyptus trees and shrubs, leaving the property vacant with erosion control grasses.

In 2018, the City approved an ordinance to clarify the allowance of wineries in the Recreation zoning district. In February 2019, the Planning Commission approved the first project, SDG Commerce 330, which consisted of a Mitigated Negative Declaration, a Tentative Parcel Map, and a Conditional Use Permit. In March 2020, the SDG Commerce 217 project was submitted for review; it is the second project within the 35.85-acre parcel (APN 058-030-065). In June 2020, the SDG 330 Project finished construction.

Analysis of the Proposed Project

The Conditional Use Permit application analysis includes:

1. Project Consistency with the General Plan
2. Project Consistency with the Zoning Ordinance
3. Specific Project Issues
4. Public Comments

1. Consistency with the General Plan

The General Plan designates the project site as Commercial Recreation with the purpose to accommodate commercial enterprises that capitalize upon the natural environmental setting and resources of the City. Wine warehouses are permitted within the zone and this project complies with the General Plan design guidelines and goals. The project maintains sufficient setbacks and the building mass is articulated through the use of earth-tone color changes, parapet height variety, defined entries, and architectural detailing. The site is supported with landscaping consisting of trees, shrubs, and ground cover.



Figure 2: North elevation in two images.



Figure 3: Photo of SDG Commerce 330 (completed in June 2020) from southern end of bike path, the SDG Commerce 217 project will have a similar aesthetic.

2. Consistency with Zoning Ordinance

According to the American Canyon Municipal Code (ACMC) wineries within the Recreation Zone require a Conditional Use Permit. The project meets the required development standards as follows:

Table 1 – Development Standards

Development Standard	Required	Provided
Minimum Lot Size	10 Acres	10.39 acres
Max Floor Area Ratio	50%	48%
Max Building Height	35 feet	35 feet
Required Setbacks Front Side (Interior)	 15 feet 35 feet	 30 feet 60+ feet

Rear	35 feet	100+ feet
Parking: Warehouses require 1 space per 1,000 SF of gross floor area for the first 20,000, plus 1 space per 2,000 SF of gross floor area thereafter	119	134
Bicycle Parking	7 stalls	12 stalls
Mechanical Equipment	Screened from view using materials and design elements consistent with the overall project	Ground mounted, enclosed with a chain-linked fence with tan slats on the east side of the building
Signage (monument sign)	40 SF, max height of 6 feet above grade	40 SF, 5 feet above grade

3. Specific Project Issues

a. Landscaping

The project includes a landscaping plan that complies with the Parking and Water Efficient Landscaping Ordinances. The Zoning Code requires new developments to provide fully landscaped street setbacks and parking lots with more than 10 parking spaces to provide one tree per three spaces. The project landscaping plan identifies approximately 62,400 square feet of landscaping, which equals approximately 13.8% of the site. The landscaping consists of 54 trees with complementary shrubs and ground cover. The trees species consist of marinas, western red buds, crape myrtles, sweet bay trees, and London plane trees. The landscaping will be supported with automated drip irrigation.

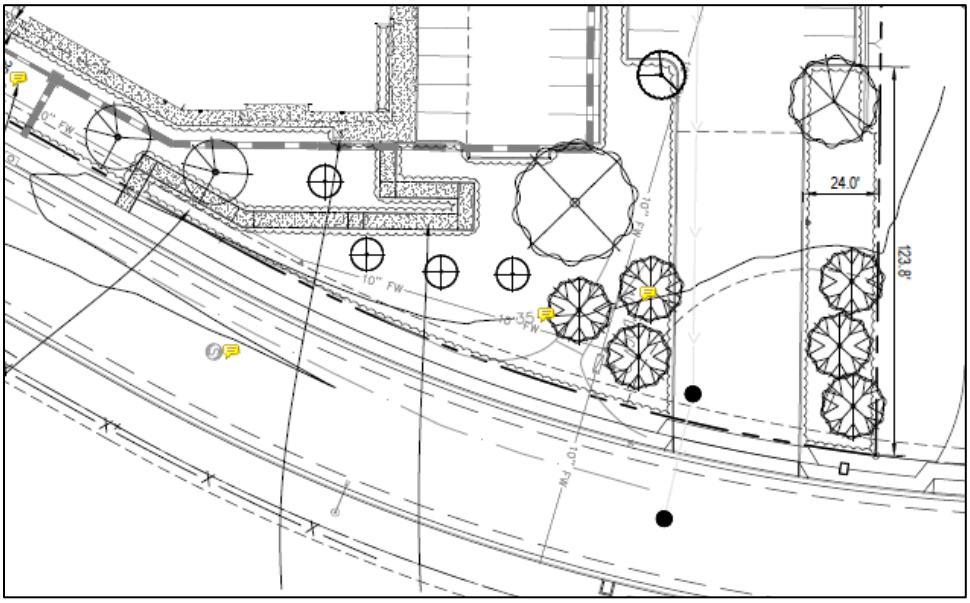

Figure 4: The building will be set back and landscaped with trees at the entry.

b. Traffic and Parking

The applicant completed a traffic impact study (GHD, May 8, 2020) that confirmed the project will have a less-than-significant impact. The site will be supported with 134 vehicle parking spaces and 21 truck

docking spaces. Of the parking stalls, 5 will be designated for handicap access with 2 stalls designated for van accessibility and 7 stalls for electric vehicle parking. The site will include 4 bike parking spaces for each office area for a total of 12. Based on the traffic counts and peer reviewed studies of the traffic in Green Island Industrial Park, this project would be expected to contribute 1.69 daily project trips per 1,000 square feet for a total of 367 net new daily project trips. The applicant is required to pay a traffic impact fee in accordance to the new trips.

c. Bike / Ped path connection

Since July 2020, the State requires new projects to transition from level-of-service (LOS) review to vehicle-miles travelled (VMT) analysis. GHD conducted a VMT analysis for the project in February 11, 2021. The analysis determined the project would have an average trip length of 16.28 miles and the estimated number of employee trips is 136, which makes the estimated VMT generated by the project at 2,214. GHD recommends utilizing the Countywide average trip length of 12.85 miles as the baseline and to determine the VMT threshold of 15% below the countywide average. The 15% reduction equates 10.92 miles or 1,485 VMT. This means the project will need a VMT reduction of 729.

Table 2 – VMT Estimate and Reduction Required

Project Daily Trip Generation	**% Commute Trips**	**Employee Trips**
367	37%	136
Area	**Average Trip Length**	**Total Employee VMT**
Proposed Project	**16.28 miles**	**2,214**
Baseline Threshold	*10.92 miles*	*1,485*
VMT Reduction to meet Baseline Threshold		**729**

Source: GHD

A bike path was constructed along the eastern frontage of the SDG 330 warehouse south of the Commerce Court cul-de-sac. To meet the VMT reduction, GHD recommends the applicant extend the bike path to Eucalyptus Drive to the south. Figure 5 below depicts the existing bike path adjacent to the SDG Commerce 330 project site and the proposed 800-foot bike trail extension. The bike trail construction would result in a continuous route connecting the residential areas to the south and the industrial district to the north. GHD estimates completing the 800-foot bike path gap would reduce the daily VMT 15% below Countrywide average (a reduction of 1,004 VMT) and result in a less-than-significant transportation impact. The bike trail extension requirement is identified as Mitigation Measure TRA-2.



Figure 5: Completing an 800-foot bike path gap, shown in yellow, will achieve the required VMT reduction

d. Public Comments

A 30-day Notice of Intent was sent to the State Clearinghouse and published on December 18, 2020. Staff received 3 comments.

Caltrans. Caltrans requested clarification on the following issues:

- VMT analysis methodology; and
- Methodology to allocate employee trips and visitor trips.

GHD's response is as follows:

> *"The project is not a public-facing retail building, with very little 'customer' traffic. In this case, the non-commute trips are either trucks (excluded from SB 743 analysis for reasons described below) or other work-based non-commute trips (small deliveries, lunch trips, etc.) Therefore, the average worker commute trip (home-based work) was used to make the VMT assessment, as it is directly comparable to the home-based work commute trip of other employment destinations in the region."*

On January 6, 2021, Caltrans confirmed by email they were satisfied with the response and did not request any project changes.

California Department of Fish and Wildlife. A California Department of Fish and Wildlife letter recommended revisions to the proposed Biological Resources mitigation measures. The revisions suggest expanding the size of pre-construction bird survey radiuses, establishing tighter buffer zones, and adding a Western Pond Turtle mitigation measure. The biology consultant Monk and Associates reviewed the requests and updated Mitigation Measures BIO-1 to BIO-5 in the biology section.

Laborers International Union of North America, Local 324 (LIUNA). A Laborer's International Union of North America, Local 324, letter asserted the project may result in significant adverse environmental impacts and suggested an environmental impact report (EIR) should be prepared in accordance to CEQA. The CEQA consultant Richard Grassetti and Associates revised the Transportation section and clarified the Biology, Air Quality, and Greenhouse Gas methodologies. The clarifications show the Project does not result in any new or substantially increased impacts and no substantive revisions are required to the draft ISMND. The analysis and response can be found in Appendix L of Attachment 1, Exhibit A.

CEQA Review

The City of American Canyon prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for the Mitigated Negative Declaration (MND) is the finding that the proposed Project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

The MND was circulated to the public for 30 days starting December 18, 2020. In response to the notice, the City received three letters. The letters are included as Appendix L of the final Initial Study MND in Attachment 1 Exhibit A.

Staff Recommendation

1. Adopt a Resolution to: 1) approve the Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 project; 2) adopt the Mitigation Monitoring and Reporting Program; and 3) direct staff to file a Notice of Determination.
2. Adopt a Resolution to approve a Conditional Use Permit for a new 217,294 square-foot wine warehouse at 1075 Commerce Court.

Attachments:

1. Resolution for the ISMND and MMRP
    a. Exhibit A – ISMND with technical studies and public comments
    b. Exhibit B – MMRP
2. Resolution for the CUP (File No. PL20-0008)
    a. Exhibit A – COA confirmation
    b. Exhibit B – Project Plans

Copies (notification sent electronically):

Stravinski ICC c/o Brian Doswald

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FEB 25 2021
City of American Canyon
Community Development Department

Via Email

February 25, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration (February 25, 2021 Planning Commission Meeting, Agenda Item No. 5.2

Dear Commissioners and Mr. He:

Please accept this brief comment on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). Thank you for the responses prepared to our earlier comments submitted to the Commission on January 17, 2021.

We appreciate the acknowledgement in the responses that the original VMT analysis was incorrect and employed bike trip lengths that could not be substantiated in fact or based on any effort to gather information on bike commuting in general or in the American Canyon area. It appears, however, that the City's consultant, in responding to those obvious shortcomings, has now embellished its VMT mitigation analysis with numerous other unsubstantiated claims and speculation. Rather than an objective analysis of the actual incremental VMT reductions that will

result from an 800-foot stretch of bike lane connecting two existing bike lanes, the effort seeks, without evidentiary basis, to achieve a desired outcome. The notion that an 800-foot connecting bike lane will, by itself, induce 96 new bike commuters to commute to jobs to the north of the Project and reduce VMTs by 1004 is farfetched. The only way the consultant generates such a number is by ignoring the terms of the federal guidance it claims to be applying, blatantly attempting to assign benefits of other parties' bike lane construction efforts to the applicant, and making believe that, without the connector bike lane, bike commuters from the neighborhood south of the Project heading north must ride on the shoulder of State Route 29. All of these efforts to invent a justification for not requiring sufficient VMT reductions to mitigate the Project's increases in VMT are not supported by the cited guidance or facts. These supplemental comments highlight this continued concern and the remaining fair argument that the Project may have significant environmental impacts from its unmitigated increase in VMTs.

1. GHD's analysis is inconsistent with the NCHRP guidelines it cites.

GHD claims to base its analysis of VMT reductions attributable to the bike lane connector on National Cooperative Highway Research Program Report 552, "Guidelines for Analysis of Investment in Bicycle Facilities." ("NCHRP Report"). The method set forth in the NCHRP Report for estimating induced bike commutes from a new bike facility relies on bike commuters from three buffer distances from a bike facility who would most likely use the facility. (NCHRP Report, p. 38.) These three buffers are less than 400 meters, 400 to 799 meters and 800 to 1599 meters. (*Id.*, pp. 38, Appendix B, B-6.) As the NCHRP Report explains:

> Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

(*Id.*) The analysis identifies the population within each of those buffer areas and estimates the number of bike commuters in each buffer using the project region's "bicycle commute share." (*Id.*) The analysis also provides a method to calculate the total adult cyclists in the buffer areas. (*Id.*) The NCHRP Report developed "likelihood multipliers" for each of the three buffer zones to account for the fact that "people who live near a facility are more likely to bike than those that do not…." *Id.*, pp. 38-39. A different likelihood multiplier is provided for each of the three NCHRP buffer zones.

Rather than abide by the NCHRP Report's methodology, GHD took the liberty of adding a buffer zone beyond 1600 meters – from 1600 to 2400 meters from the proposed bike lane. (Agenda Packet ("AP"), pp. 302-303.) Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and ***expert opinion supported by facts***." (CEQA Guidelines, § 15384(b) (emphasis added).) Because there is no justification based on the NCHRP Report to inflate induced bike commuter use by randomly expanding the buffers to include people living 1600 to 2400 meters away from a proposed bike lane, GHD's analysis is not based on substantial evidence.

The inconsistencies of GHD's analysis with the NCHRP Report do not however end there. In its analysis, GHD does not include the closest buffer zone identified in the NCHRP Report – 0 – 400 meters. Instead, it uses a 0 – 799 meter buffer, an 800 to 1599 meter buffer and its third made-up buffer from 1600 meters to 2400 meters. However, in calculating how many of the residents in each of these areas are induced to use the new bike lane, GHD then applies the NCHRP's "likelihood multipliers" for the original NCHRP buffer distances. GHD references the likelihood multipliers "[e]stablished by NCHRP 552 research; see Appendix B." AP, p. 304. However, the NCHRP Report and its Appendix B do not establish a likelihood multiplier for GHD's newly minted buffer zone from 1600 to 2400 meters from a facility. So, GHD could not have been applying a number from the NCHRP Report to that area. GHD does not explain which likelihood multipliers it applied to the three zones it selected. If GHD applied the three multipliers calculated by NCHRP for the 400, 800 and 1600 buffer zones to GHD's 800, 1600, and 2400 buffer zones, there would be no evidentiary basis for GHD's new, induced bike commuter computation. In any event, GHD provides no evidence supporting its application of a multiplier factor for the fictitious buffer it seeks to add surreptitiously to the NCHRP Report's methodology. GHD also does not provide evidence of which likelihood multipliers it applied to the 800 meter and 1600 meter zones in its analysis. Without this evidence, the analysis is not substantial evidence.

2. **GHD's effort to credit the Project with mitigation for the already completed Bay Trail bike facility adjacent to Wetlands Edge Road is entirely arbitrary and is not supported by evidence that the bike lane gap along 800-feet of Commerce Court is "non-traversable."**

GHD further attempts to inflate the VMTs attributable to the proposed 800 feet bike lane by claiming the VMT analysis should include all bike commuters induced by the 1.7 miles of Bay Trail bike access that was constructed along the western side of Wetlands Edge Road many years ago. (AP, pp. 290, 302.) According to GHD, the 800-feet stretch of Commerce Boulevard where it proposes to add bike lanes currently blocks or limits would-be bike commuters heading north from using the Bay Trail bike lanes to the west of Wetlands Edge Road.

First, there is no evidence that the 800-feet stretch of Commerce Boulevard currently blocks or will block any bike commuters from heading north towards the businesses clustered at the north end of Commerce Boulevard or even further north. The MND does not describe in any way the current condition of that road or, more importantly, the condition that will exist upon the completion of the Napa Junction Elementary School project at the corner of Commerce Boulevard and Eucalyptus. The elementary school is scheduled for occupancy this fall. (AP, p. 101.) Construction of the SDG Warehouse project is expected to be ongoing after the school is completed and open. (*Id.*, p. 124.)

The school project includes reconstructing Commerce Boulevard alongside the school property. (*See* Napa Junction Elementary School Replacement Project Draft Environmental Impact Report, p. 10-28 [available at https://drive.google.com/open?id=13Ny2i9F6u2R6NFJBqlifGoNeUqaUoqTk]; *see also id.*, p.

10-29 ("the proposed project would improve the roadway with asphalt concrete pavement and sidewalk"); Figures 3-5, 3-15 and 3-16 (plans showing bike lanes on Commerce Blvd.) Despite this brand new roadway running from Eucalyptus Avenue north to the existing SDG Commerce 330, GHD contends that this stretch of Commerce Boulevard is a "'non -traversable' gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices." (AP, p. 287.) Only from this premise does GHD then claim that bike commuters cannot get through this stretch of Commerce Boulevard and must instead head to State Route 29 "since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders." (AP, p. 302.) Contrary to GHD's assertions, a newly constructed stretch of Commerce Boulevard adjacent to the elementary school does not pose any barrier to bike commuters to travel between Eucalyptus Avenue and the bike path across from SDG Commerce 330. As a result, GHD's and the final MND's assertions that the proposed new bike lanes will unlock additional potential from the 1.7 miles of existing bikeway along Wetlands Edge Road is not supported by any substantial evidence. Well before the Project is completed, any commuting biker will be able to peddle unobstructed along the brand-new stretch of Commerce Boulevard whether the new bikeway is constructed or not.

Even if the stretch of Commerce Boulevard adjacent to the new elementary school did pose some limited impediment to bikers that required them to slow down for 800 feet does not justify GHD's random proposal to attribute half of the VMT reductions of an already completed 1.7 mile bikeway to the Project. This blatant effort to inflate the VMT benefits of the Project's proposed 800-foot bike lane has no basis in fact and is not a mitigation measure attributable to the Project.

Applying the NCHRP buffer zones that are actually included in that methodology (800 and 1600 meters) and the actual length of the bike facility proposed by the Project (800 feet), and assuming the rest of GHD's calculations are correct, the number of new bike commuters induced by the 800-foot bike lane is at most 22 cyclists. Assuming GHD's estimate of bike commute distance is reasonable, that amounts to, at most, a VMT reduction of 229 VMTs. As a result, substantial evidence of a fair argument exists that the Project's VMT increases may have a significant environmental impact.

3. GHD's estimate of commuter bike trip lengths does not eliminate the substantial evidence of a fair argument that average bike commute lengths in California are 1.5 miles as published by the California Air Resources Board.

GHD relies on a study of Portland, Oregon to borrow an estimated bike commute length for American Canyon. (AP, p. 290, citing "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC -RR -08 -03, December 2008.) GHD provides no rationale in its report why Portland bicycle commute lengths would be representative of American Canyon bicycle commute lengths. This is despite a CARB approved distance of 1.5 miles for bike trips used to calculate VMT reductions from bikeways. (AP, p. 684.) There is no substantial evidence to support the use of bike commute distances from a highly urbanized area like Portland versus a

more rural/suburban setting such as American Canyon. Using 1.5 miles as the lower end of a bike commute distance estimates yields a mere 33 VMT reduction form the 800-feet bike lane.

4. **The inclusion of the new VMT calculations and efforts to justify the limited bike lane mitigation require the City to recirculate the MND for public review and comment.**

The law is well-established that even if an EIR is not required, a revised negative declaration must be circulated for full public review if it adds new mitigation measures or identifies new impacts. *Gentry v. Murrieta*, 36 Cal.App.4th 1359, 1392, 1411, 1417. The MND's substantial 'changes to its VMT analysis and new mitigation proposals based on the so-called non-traversability of Commerce Boulevard are significant changes to the MND that should be recirculated to the public for review and comment.

Despite the responses to our earlier comments, substantial evidence of a fair argument still exists in the record that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comment, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to these supplemental comments.

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

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RESOLUTION NO. 2021-02

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA; 1) ADOPTING THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE SDG COMMERCE 217 PROJECT CONSISTING OF A CONDITIONAL USE PERMIT FOR A 217,294-SQUARE FOOT SINGLE STORY 35-FOOT TALL WINE WAREHOUSE ON A 10.39-ACRE SITE AT 1075 COMMERCE COURT; 2) ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM; AND 3) DIRECTING STAFF TO FILE A NOTICE OF DETERMINATION, APN 058-030-065 (FILE NO. PL20-0008)

WHEREAS, a Conditional Use Permit application (PL20-0008) was filed by Stravinski Development Group, LLC for a new 217,294 square-foot single story 35-foot tall wine warehouse on a 10.39-acre site with parking, truck and trailer loading spaces, drive aisles, landscaping, and a stormwater detention pond at 1075 Commerce Court, APN 058-030-065; and

WHEREAS, the City of American Canyon determined that the project was subject to the California Environmental Quality Act (CEQA) and prepared an Initial Study pursuant to CEQA evaluating the potential environmental effects of the project; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA"), an Initial Study/Mitigated Negative Declaration ("IS/MND"), that includes a "Mitigation and Monitoring Reporting Plan ("MMRP") was prepared for the Project and circulated for 30 days starting December 18, 2020; and

WHEREAS, the IS/MND examined the Project at the project level to allow for construction; and

WHEREAS, a Notice of Intent ("NOI") to adopt a Mitigated Negative Declaration ("MND") was posted at the County Clerk in accordance with the CEQA requirements on December 18, 2020; and

WHEREAS, a Notice of Completion ("NOC") was delivered to the State Clearinghouse in accordance with the CEQA requirements on December 16, 2020 with instructions to begin the review period on December 18, 2020; and

WHEREAS, an NOI to adopt an MND was published in The Vallejo Times-Herald in accordance with the CEQA requirements on December 17, 2020 and the same noticing was mailed to property owners within 300-foot radius of the site; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on January 28, 2021 and February 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission, based upon the record**,** finds as follows:

1. The foregoing recitals are true and correct.

2. The American Canyon Planning Commission has independently reviewed, analyzed, and considered the Mitigated Negative Declaration, the Mitigation Monitoring Plan and the whole record before it (including, the initial study and comments received) and, based on the foregoing, the American Canyon Planning Commission hereby finds that all environmental impacts of the Project with mitigation measures are below a level of significance and there is no substantial evidence supporting a fair argument that the Project will have a significant effect on the environment.

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3. The American Canyon Planning Commission finds the Mitigated Negative Declaration and Mitigation Monitoring Plan has been completed in compliance with CEQA and consistent the State of California Guidelines for the Implementation of the California Environmental Quality Act.

4. The American Canyon Planning Commission finds that the Mitigated Negative Declaration represents the independent judgment and analysis of American Canyon as lead agency for the Project.

5. The American Canyon Planning Commission further finds that the Mitigated Negative Declaration is adequate to serve as the required CEQA environmental documentation for the Project, and hereby:

1) adopts the SDG Commerce 217 Project Initial Study and Mitigated Negative Declaration, attached hereto as Exhibit A and incorporated herein;

2) adopts the Mitigation and Monitoring Program for the Project, attached hereto as Exhibit B and incorporated herein; and

3) directs staff to file a Notice of Determination for the Project consistent with the CEQA Guidelines.

6. The Community Development Director is the custodian of the records of the proceedings on which this decision is based. The records are located at 4381 Broadway, Suite 201, American Canyon, CA 94503.

7. The American Canyon Planning Commission directs staff to file a notice of determination with the County of Napa within five working days of the adoption of this Resolution.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of February 2021, by the following vote:

AYES: Commissioners Altman, Goff, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: None

DocuSigned by:
Tyrone Navarro 2/26/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 3/1/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
Bill Ross 2/26/2021
285D50133D93421...
William D. Ross, City Attorney

EXHIBITS:
A. Initial Study and Mitigated Negative Declaration
B. Mitigation and Monitoring Program

FINAL INITIAL STUDY FOR THE SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT

(PL20-0008)

Prepared for:

CITY OF AMERICAN CANYON

Community Development Department
4381 Broadway, Ste. 201
American Canyon, CA 94503

Prepared by:

Grassetti Environmental Consulting
7008 Bristol Drive
Berkeley, CA 904705

Date: February 2021

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ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics	X	Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
	Air Quality		Land Use/Planning		Tribal Cultural Resources
X	Biological Resources		Mineral Resources	X	Transportation/ Traffic
X	Cultural Resources	X	Noise	X	Utilities/Service Systems
X	Geology/Soils		Population/Housing		Mandatory Findings of Significance
	Greenhouse Gas Emissions		COVID-19		

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Brent Cooper, Community Development Director — Date: 12/15/20

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J Mitigation Monitoring and Reporting Program
K State Clearinghouse Draft IS Circulation Documents
L Comments Received on Draft IS and Responses

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO2E	carbon dioxide equivalent
CWA	Clean Water Act
District	American Canyon Fire Protection District
DPR	California Department of Parks and Recreation
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MBTA	Migratory Bird Treaty Act
MDL	most likely descendant
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCALUCP	Napa County Airport Land Use Compatibility Plan
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
NWIC	Northwest Information Center
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SO_x	sulfur dioxide
SR-29	State Route 29
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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INITIAL STUDY FOR THE

SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT (PL20-0008)

This Initial Study (IS) has been prepared by the City of American Canyon, Community Development Department, 4381 Broadway, Ste. 201, American Canyon, CA 94503, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations).

The Draft Initial Study is circulated on December 18, 2020 for a 30-day review period closing on January 19, 2021. Comments received on this document will be addressed in the Final IS.

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I – SUMMARY: Provides summary background information about the project.

SECTION II – PROJECT DESCRIPTION: Includes project background and detailed description of the proposed project and required permits.

SECTION III – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION IV – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed project for potentially significant environmental effects, and identifies mitigation measures to reduce potentially significant impacts to less-than-significant levels, where feasible.

SECTION V – MANDATORY FINDINGS OF SIGNIFICANCE: Determines whether environmental effects associated with development of the proposed project are significant, including cumulative impacts.

SECTION VI – REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION VII – REPORT PREPARERS: Identifies persons preparing the study.

APPENDICES - Includes applicable technical studies, comments and responses on the Draft Initial Study, and Mitigation Monitoring and Reporting Program (MMRP).

I. SUMMARY

Project Name and File Number:	SDG Commerce 217 Distribution Center Project (Application PL20-0008)
Project Location:	Commerce Court in the City of American Canyon. APN 058-030-065 (partial**)**
Project Applicant:	SDG Commerce 217 LLC Brian Doswald, Project Manager 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 bdoswald@icc-stravinski.com
Project Planner:	William He, Associate Planner; Brent Cooper, AICP, Community Development Director City of American Canyon 4381 Broadway, Ste. 201 American Canyon, CA 94503 (707) 647-4336
Property Owner:	SDG Commerce 330 LLC 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 (phone) (559) 908-6363 (fax)
General Plan Designation:	Commercial Recreation (CR)
Zoning:	Recreation (REC)
Project Approvals:	Conditional Use Permit for 217,294 sq. ft. wine distribution center on a 10.39-acre parcel
Date Draft Initial Study Completed:	December 18, 2020
Date Final Initial Study Completed:	February 16, 2021

II. PROJECT DESCRIPTION

Project Location

The project site is located at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area (see Figure 1, Project Location Map). It is on the west side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the project site is from SR-29 via Green Island Road to Commerce Court.

The project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size; there are no current plans for development of that parcel.

Site Conditions

Since 1937 the site was occupied by a planted crop of trees and at some time after that but before the late 1950's a eucalyptus grove was planted. Until 2001 the site remained relatively unchanged. Then in 2001 until around 2012 the northwest corner of the site was used as a paintball field (Sherwood Forest Paintball Area) with the eucalyptus trees remaining in place. In 2004 a warehouse was built directly to the north of the site which included Commerce Court cul-de-sac road Improvements on the northeast corner of the site. Also in 2004, the City of American Canyon installed underground utilities and a rock-paved access road through the middle of the eucalyptus grove adjacent to the east side of this site. This work also included installation of a sanitary sewer force main that bisects the northeast corner of the site. In 2012 the site was cleared and grubbed of the eucalyptus trees and shrubs, and is currently a gently sloping open site covered primarily with ruderal vegetation. A new Wine Distribution Center Project (SDG Commerce 330 Distribution Center) with bike path improvements along the eastern frontage is nearing completion on the southerly Commerce Court parcel (15.24 acres).

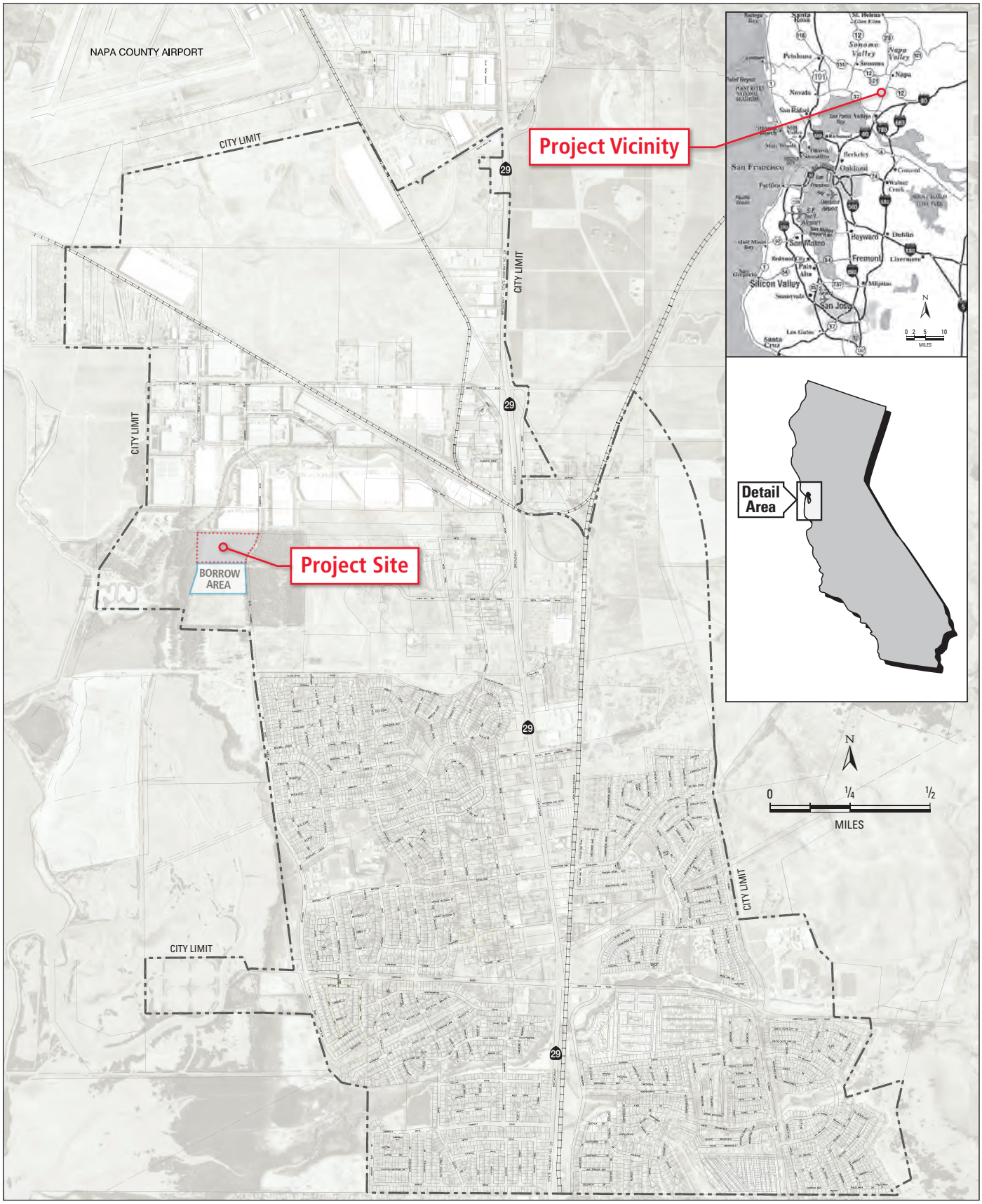

Figure 1

Project Location

Source: City of American Canyon General Plan

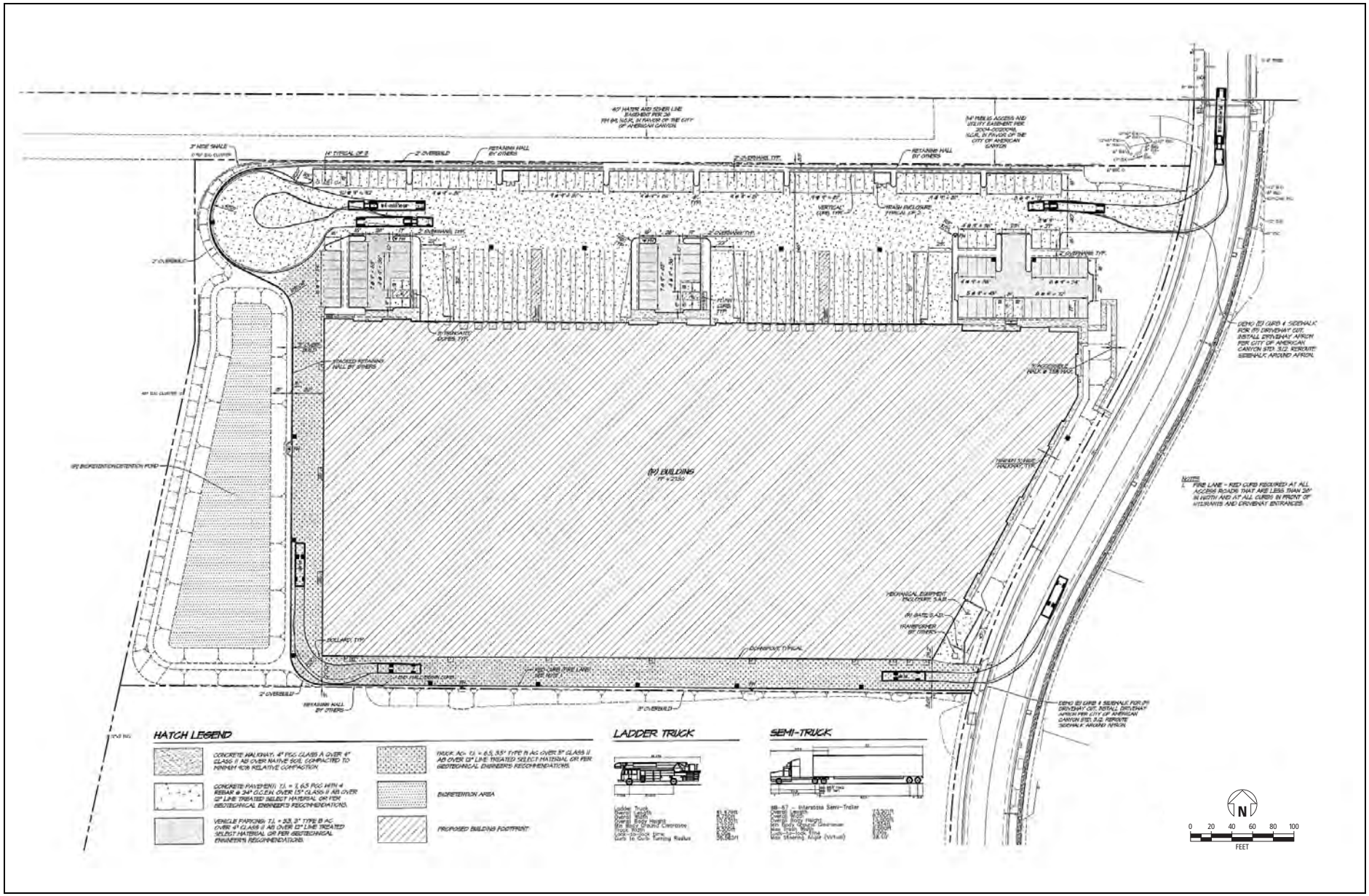

Figure 2

Site Plan

Source: RSA+ Consulting Civil Engineers

Surrounding Land Uses

The project is bounded on the north by a row of eucalyptus trees and the City Access Road within its Utility Access Easement. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus tree grove and a wire fence; on the south is a 10.17-acre unimproved parcel of native grasses; to the east is Commerce Court with underground sewer, water, reclaimed water, sewer force lines, and PG&E underground power with vaults. On each side of Commerce Court is a 5-foot-wide Public Utility Easement; to the east of this easement is a 40-acre parcel owned by the Couch Family which has a mobile home, dirt/gravel roads, accessory structures and wire fences.

Current Zoning and General Plan Designations

The General Plan designates the site as Commercial Recreation (CR) and the Zoning Map designates the site as Recreation (REC). The City's Municipal Code, Chapter 19.15.020 permits Wineries and non-winery uses with a conditional use permit in the Recreation Zoning District. A Conditional Use Permit is applied for in the attached Entitlement Application Form. It is anticipated that the distribution center would be used for "Winery" work in conjunction with viticulture related activities such as bottling, storage logistics, distribution, wine-packing, and wine related services.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Proposed Development

As discussed above, the project applicant proposes to develop a 217,294 sq. ft. wine distribution center on the northern 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR). The assumed 4,350 square feet of office space is an estimate as exact office build-outs would be determined in the future and reviewed by the City during the tenant-improvement phase of the project. The proposed development is described below. The proposed site plan is shown in Figure 3.

<u>Distribution Center Building</u>

The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. It would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings

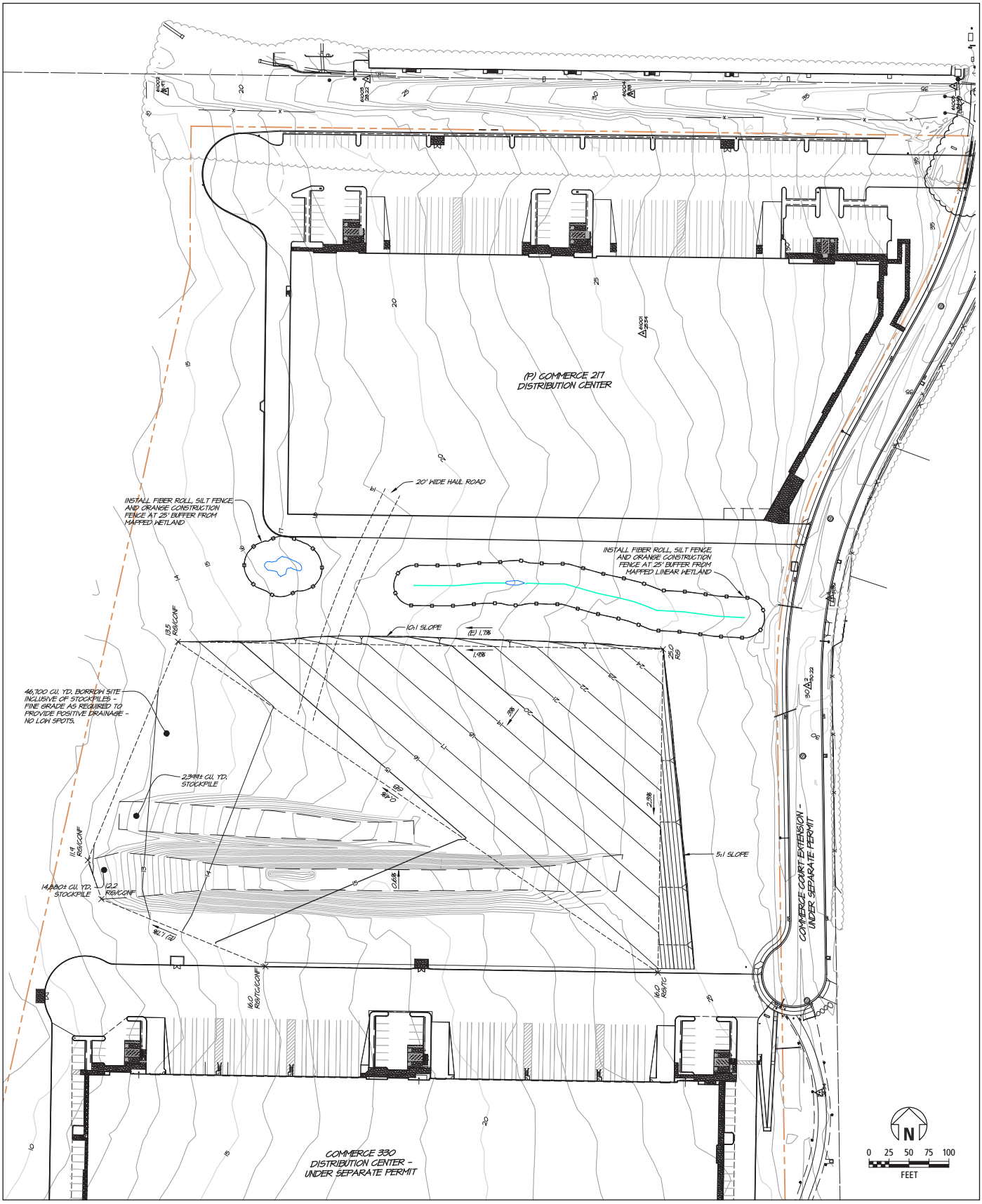

Figure 3

Project Site and Borrow Area

Source: RSA+ Consulting Civil Engineers

to provide additional modulation. The average roof height of the building would be approximately 35 feet and exterior walls would have various heights (33-37 feet) to provide architectural relief. The building would have earth-tone colors and style matching the SDG Commerce 330 Distribution Center building to the south. Building elevations are shown on Figure 4.

The building has the potential of accommodating multiple tenants with provisions for up to three offices. It is anticipated that the distribution center would be used for wine storage and other wine-related storage, distribution, and warehousing activities (i.e. bottles, corks, barrels, etc.).

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

Access, Parking, and Circulation

A total of 134 car and 21 truck dock parking spaces would be provided. Six of the parking stalls would be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building would have 21 truck loading docks. The developer would construct ADA accessible walkways between the ADA accessible stalls and the entrances to the offices to allow for pedestrian access on-site. Emergency ingress and egress would be provided around the full perimeter of the building. Site circulation has been evaluated including fire truck movements and in-bound/out-bound turning movements at the Commerce Court entrance. This is discussed in the Transportation section of this Initial Study.

The proposed distribution center would be accessed from Commerce Court. Commerce Court was recently extended this same length as a two-lane road (44 feet wide) with concrete curb and gutter on the east and west sides. A steel fire access gate has been installed just south the new cul-de-sac at the north end of the new Class 1 bike path improvements. Commerce Court has a 5-foot wide sidewalk and landscaping on the west side, and streetlights (both sides) in accordance with City Standards. The east and west sides of Commerce Court have a Class 1 bike path.



Figure 4

Building Elevations

Source: Ward Architects, Inc.

Bicycle Facilities

Each office within the building would have a bike rack to accommodate up to 4 bicycles, which totals 5 more than the required 7 bicycle stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

Lighting

The proposed project would include exterior lighting on the building and on the north side parking lot poles. Parking lot lighting would meet City of American Canyon standards. The dimmable LED 30-foot "shoebox" light fixtures will reduce glare to surrounding properties by directing light toward the ground. A photometric study has been prepared to analyze the light pole spacing to maximize light coverage and eliminate off-site light spillage and is available for review at the City Community Development Department (See Appendix A).

Signage

One monument sign is proposed, (approximately 8-foot wide by 5 -foot tall) at the project entry from Commerce Court. The applicant would submit a separate Sign Permit application for City approval of the monument sign, as this proposed sign is not submitted with this application.

Grading and Drainage

Grading of the property would consist of cuts of approximately five feet and fills of approximately nine feet. Approximately 38,000 cubic yards of fill would be placed on the site, with about 17,000 cubic yards from an existing soil stockpile on the abutting parcel to the south, and about 21,000 cubic yards to be excavated from a borrow area on that adjacent parcel. The boundaries of this borrow area are shown on Figure 3. Grading on the adjacent parcel would avoid the mapped wetlands with a 25-foot buffer area from those wetlands.

Retaining walls that range in height from about 2 to 7 feet to accommodate the grade differential will be constructed along the north, west and partial south sides of the site. These precast concrete block system engineered walls would meet the California Building Code requirements. Excavations and fills to protect adjoining property would comply with Chapter 33 of the California Building Code. The Applicant would ensure adequate erosion protection (see Hydrology discussion).

As part of the proposed project, storm drain pipes would direct storm water runoff into a newly created detention/bioretention pond. The storm water detention/bioretention pond is designed to treat the storm water in conformance with federal, state, and regional requirements. Roof drains will connect to the proposed detention/bioretention pond. Down spouts on the exterior of the building would be painted to blend-in with the building façade.

Landscaping

The project would have approximately 62,000 square feet (+/- 1.42 acres) of landscaping. Landscaping will be provided around the site perimeter building setbacks and in parking islands. Mechanical equipment will be placed on the east side of the building. behind a landscaped 6' high color slatted chain link fence. The irrigation system will use reclaimed water thus eliminating potable water for landscape purposes.

Utilities

Major utility services (sewer, water, electricity, phone, etc.) are available from Commerce Court. The building would have a 6" domestic sewer service stubbed to each office and a sewer pump lift station near the middle office parking area that ties into the existing City sewer main line in Commerce Court.

Domestic water service, fire water service and reclaimed water service would be brought to the east side of the building from existing City mains in Commerce Court. Gas service can be tied into the existing gas stub in the Commerce Court to the north. Electric and telephone service are available along the project frontage on the Commerce Court. Electric and telephone service would be extended underground within the subject property to the southeast corner of the building.

Building Energy Efficiency

The building will be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand.

Interior lighting would meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the building would be promoted. Features such as motion-sensor lighting would be installed for areas within the building. This reduces heat generate inside, further reducing the energy demands to cool the building. The most current Marin Clean Energy incentives would be investigated and all attempts to incorporate them into the design would be made.

The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation, all in compliance with applicable codes. The building tenants would be responsible for paying for all of their electrical energy consump8on have the option and may elect to install solar power facilities to offset their electrical usage.

Construction Activities and Schedule

Construction of the proposed project would occur in one phase. This includes site grading and underground utilities stubbed to the building pad. The detention/bioretention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during initial construction phases. It is anticipated that approximately 9.5 months would occur from commencement of initial grading start on March 1, 2021 to building construction completion. The grading component would be about 9 weeks.

Project construction hours would occur from 7:00am to 6:00pm Monday through Friday except for the concrete building slab pour, wall panel and large concrete paving pours. These are required during nighttime hours starting no earlier than 12:00am. Pre-notification of these night pour dates and times will be provided to the City and nearby residents that expressed concerns during the SDG 330 nighttime concrete pours, as well as all property owners within 300 feet of the project site. The project is anticipated to have approximately 5 concrete night pours for the building slab, 4 for the large concrete paving, and 6 for the tilt-up walls. Pours would start between 12am - 2am and continue into daytime hours. Maximum noise levels at the nearest residential receptor would be less than 53 dBA (See section XIII, Noise, for a complete discussion of concrete pour noise impacts). Nighttime pours are not optional due to cooler ambient nighttime temperatures, volume of concrete poured, morning traffic congestion that can prevent concrete trucks from arriving at the site on time, and concrete vendor conflict with other customers needing concrete during the day.

Typical construction equipment used at the site include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, it is typical for 12 to 24 workers on- site but can equal up to 80 workers, and a minimum of one worker.

Proposed Building Uses

It is anticipated that the building will operate 12-18 hours per day in up to 3 overlapping shifts during the peak season. During this time, up to 32 full-time employees and 18 part-time employees may work on-site at the same time. The employment estimates are approximations as there is no specific user identified with the application; however, they are substantiated with similar uses. The proposed uses for the building can be estimated that approximately 2 to 4 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The building is designed to accommodate three tenants. Office space within the building is incidental to the distribution center operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal

months, typically June through November.

Proposed Access Improvements

The Project would be accessed from the recently completed Commerce Court off of Green Island Road. Commerce Court has landscaping on the west side and street lights (both sides) in accordance with City Standards. The east side of Commerce Court has a five-foot wide sidewalk to match Commerce Boulevard to the north, and a Class 2 bike path in the roadway. The east side frontage to the south of the *cul-de-sac* has a class 1 bike path on the west side, with the widened rock maintenance road.

Land Use Entitlements and other Agency Approvals

City of American Canyon

The applicant is requesting a Conditional Use Permit and Design Permit approval from the City of American Canyon for the project.

Other Agency Approvals

The project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Stormwater Pollution Prevention Plan and Permit.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Background

The project site is undeveloped open land covered with sparse, weedy vegetation (see Figures 5 and 6). The project is bounded on the north by the developed Green Island Industrial Park, containing large warehouses with parking lots aesthetically similar to the proposed building. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove. To the south is an open field and, beyond, the Commerce 330 Distribution Center (See Figure 5), which is a warehouse similar in general character to the buildings to the north. Further south is a row of mature eucalyptus trees and beyond that is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space. To the east is a 40-acre parcel owned by the Couch Family including a mobile home and various accessory buildings, and a large commercial recreational paintball facility known as American Canyon Paintball Jungle.

The site is visible from Commerce Court, the Bike Path improvement area, as well as from the Couch property and the Paintball Jungle facility. Distant views of the site may be accessed from the crest of the Oat Hill. There are no views of the site from nearby residential neighborhoods as the property is screened from views by a dense stand of eucalyptus trees Clarke Ranch northern property frontage, and is further screened by the Commerce 330 Building and the landscaped bicycle path to the east of the Commerce 330 Building.

Figure 5- View of the Site Looking South towards Commerce 330 Building.



Figure 6 – View from the Northeast Corner of the Site looking Southwest.



Discussion

a, c) The proposed project would replace the existing view of relatively level, undeveloped grassland with views of a new distribution center warehouse and parking area. The project constitutes a visual extension of the existing warehouses on Commerce Boulevard. Overall, the project would change the visual character of the site from one of a large, undeveloped field to a new landscaped warehouse with articulated walls, parapets and earth tone wall colors. While this change would be substantial, the number of viewers affected would be small. Views from the residential area from the south would be obstructed by the Commerce 330 building and intervening trees and vegetation. Therefore, the proposed project would not substantially degrade the visual character of the project site or its surroundings. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

b) The project site is located in the City of American Canyon, west of SR-29. Highway SR-29 is designated as an Eligible State Scenic Highway by Caltrans. The City's General Plan specifies that the SR-29 corridor provides opportunities for enhancing the City's visual quality and includes a policy to preserve significant views from areas along major arterial roadways (City of American Canyon 1994, as amended through July 2020). The project site is about 5,000 feet west of the SR-29 highway and is fully shielded from any views by intervening hillside terrain.

Because the proposed project would not be visible in views from that highway, it would have ***no impact*** to vistas from a state scenic highway.

The project would not remove any existing trees, historic buildings or rock outcroppings that would be considered scenic resources. Because there are no city-designated scenic vistas or scenic resources on this site or nearby that the project could adversely affect, development of this site would result in ***no impact*** on these resources.

d) The proposed project includes exterior lighting. Project lighting would include building lights and lights in the parking lot areas which would increase artificial light in the project area and potentially generate glare. On-site lighting would be shielded and designed to cast light downward, thereby reducing spillover light and glare on adjacent properties. The applicant has prepared a photometric plan showing that project lighting spillover beyond the project site would be minimal (Bosley Electric, 2020). The lighting would be required to adhere to the City of American Canyon's performance standards for street lighting and glare. In reviewing the Conditional Use Permit application for the proposed project, the City would consider the proposed outdoor lighting prior to approval. The building design would not introduce a source of glare associated with large expanses of glass. Therefore, impacts from light or glare would be ***less than significant***.

The project would include an approximately 5-foot by 8-foot entry sign. The applicant would be required to submit a sign program (indicating location of any lighted signs) to the City for review and approval. The project applicant would be required to implement the sign program, as approved by the City. Visual impact from signage would be ***less than significant***.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

Discussion

a-e) The project site is undeveloped and located adjacent to a developed area of the City of American Canyon. The site has been rough graded and stripped of trees. It is designated Recreation in the City's General Plan. Although portions of the site may have historically been used for small-scale agriculture, no such uses have occurred since at least the 1950s, when the site was planted with a eucalyptus grove. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. The most recent California Department of Conservation Important Farmland Maps for Napa County designates the site as Urban and Built

Up Land (California Department of Conservation, California Important Farmland Finder, accessed July 23, 2020 https://maps.conservation.ca.gov/DLRP/CIFF/). In addition, this site is located within the municipal boundaries of the City of American Canyon. There are no Williamson Act lands on the site. The proposed project would not involve any changes that could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use or loss of forest land.

There are no forest lands on the site, nor is the site designated or zoned for timberland resources. Therefore, implementation of the project would not involve the loss of any forest land.

Therefore, there would be ***no impact*** to agricultural or forestry resources.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b) Result in a cumulatively considerable net increase of any criteria for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			**X**	
c) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			**X**	

Background

An air quality analysis was performed using methodologies and assumptions recommended in the Bay Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (May 2017). This section describes existing air quality, and air pollutant construction and operational impacts.

Air pollutants evaluated are carbon monoxide (CO), reactive organic compounds (ROG), nitrogen oxides (NO_x), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5). Greenhouse gas (GHG) emissions are addressed in GHG Emissions section of this Initial Study.

The project site is located in the San Francisco Bay Area Air Basin (Air Basin), which is under the jurisdiction of the BAAQMD. The BAAQMD is the agency responsible for the administration and enforcement of state and federal air quality regulations for the Air Basin. The Air Basin is designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Air Basin is designated "attainment" or "unclassifiable"

with respect to the other ambient air pollutant standards. Additional information regarding the existing air quality setting is found in Appendix B.

Discussion

a) The BAAQMD's Clean Air Plan (2017 CAP) is the regional air quality plan for the Air Basin. The 2017 CAP updates the 2010 CAP, pursuant to air quality planning requirements defined in the California Health and Safety Code. The 2017 CAP provides a comprehensive strategy to improve air quality, protect public health, and protect the climate, utilizing all the tools and resources available to the BAAQMD. The BAAQMD recommends that the agency approving a project where a CAP consistency determination is required analyze a project with respect to the following questions. If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Air Basin. Thus, the following criteria are used for determining the proposed project's consistency with the 2017 CAP:

Criterion 1: Does the proposed project support the primary goals of the 2017 CAP?

The primary goals of the 2017 CAP are to:

- Protect air quality and health at the regional and local scale
- Protect the climate

As discussed in this section and the GHG Emissions section of this Initial Study, all air quality and GHG emissions impacts would be less than significant after implementation of MM AQ-1 through AQ-2. Therefore, the proposed project supports the primary goals of the 2017 CAP.

Criterion 2: Does the proposed project include applicable control measures from the 2017 CAP?

The 2017 CAP's control strategy includes 85 control measures designed to reduce ozone precursors in order to fulfill ozone planning requirements, protect public health by reducing emissions of ozone precursors, particulate matter and toxic air contaminants, and to serve as a regional climate protection strategy by reducing GHG emissions across a full range of economic sectors. The proposed project would include features that support applicable control measures such as water conservation, green buildings, and bicycle access/facilities. Therefore, the proposed project includes applicable control measures from the 2017 CAP.

Criterion 3: Does the proposed project disrupt or hinder implementation of any 2017 CAP control measures?

The BAAQMD provides examples of how a project may cause the disruption or delay of control measures. Examples include a project that precludes an extension of a transit line or bike path, or

proposes excessive parking requirements. The proposed project would not cause a disruption or delay of the 2017 CAP's control measures.

The proposed project with mitigation measures would support the primary goals of the 2017 CAP and would be consistent with applicable 2017 CAP control measures, and would not disrupt or hinder implementation of any 2017 CAP control measures. Therefore, the proposed project would have a ***less than significant impact***.

b) Construction activities were assumed to commence in the first quarter of 2021 with site preparation and grading. Paving, building construction, and architectural coating would follow and construction would be complete at the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately 9.5 months.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. Air quality calculation details and CalEEMod output worksheets are included in Appendix B.

Table AQ-1 provides the estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's thresholds for construction exhaust emissions. As the construction phases (i.e., grading, paving, building construction, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. All construction-related emissions would be below the BAAQMD significance thresholds. The air quality analysis includes use of paint compliant with BAAQMD Regulation 8, Rule 3 for architectural coatings. Regulation 8, Rule 3 limits the VOC content of the paint.

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM10 and PM2.5. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local meteorological conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. Nearby receptors could be adversely affected by dust generated during construction activities.

The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.

The following measures also are required by regulation:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***.

Following the completion of construction activities, the proposed project would generate air pollutant emissions from mobile and stationary sources, including on-road vehicles, and area sources (space heating, water heating, maintenance of the buildings and landscaping). Complete details of the emissions calculations are provided in Appendix B[1].

Estimated maximum daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and AQ-3 and are compared to BAAQMD's thresholds of significance. As indicated, the estimated operational emissions that would be associated with the proposed project would be below the BAAQMD's significance thresholds and would be ***less than significant***.

Table AQ-2. Estimated Daily Operational Emissions (pounds/day)

Condition	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Summer	6.0	3.6	2.3	0.6	7.7
Winter	5.9	3.8	2.3	0.6	7.9
Maximum Proposed Project	**5.9**	**3.8**	**2.3**	**0.6**	**7.9**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

[1] Note, the Draft IS CalEEMod model calculated exhaust emissions for the project's electric forklifts which is incorrect, thus electric forklift emissions have been subtracted from the emissions estimates in the CalEEMod outputs (provided in Appendix B) for displaying estimated daily and annual operational emissions in Tables AQ-2 and AQ-3 in this Final IS/MND.

Table AQ-3. Estimated Annual Operational Emissions (tons/year)					
	ROG	**NO_x**	**PM10**	**PM2.5**	**CO**
Proposed Project Emissions					
Area	1.0	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.5	0.3	0.1	1.0
Off-Road Equipment (Forklifts)	0	0	0	0	0
Total Proposed Project	**1.1**	**0.5**	**0.3**	**0.1**	**1.0**
BAAQMD Significance Threshold	*10*	*10*	*15*	*10*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD has identified preliminary screening criteria for determining whether CO emissions would be exceeded. The screening criteria provide a conservative indication of whether the implementation of a project would result in CO emissions that are potentially significant. This methodology includes the following:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on the size of the proposed project (367 trips per day) and the anticipated resultant traffic volumes, the additional traffic would be well below the screening criteria. Therefore, impacts that would be associated with long-term operational CO exhaust emissions would be ***less than significant***.

The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the BAAQMD's mass daily and annual significance thresholds. As shown in Tables AQ-1 through AQ-3, proposed project-related emissions would be below the thresholds. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be ***less than significant***.

c) The significance of impacts to sensitive receptors is dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) such as DPM or of having adverse health effects from exposure to non-carcinogenic TACs. A project is considered to be significant if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project site. There is one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

Construction activities would occur intermittently for approximately 9.5 months and the vast majority of construction activities would be well beyond 1,000 feet from the nearest residence and 1,500 feet from the school. Some construction activities during the approximately nine weeks of site preparation and grading for the project could be within 1,000 feet of the school property boundary, however, site preparation and grading activities are planned for March 2021 and the school is set to begin instruction in Fall 2021. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD.

A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation.

The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***.

d) The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project[2]. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant

[2] The confirmation process for odor complaints involves odor testing with a dynamic olfactometer. The BAAQMD considers if the odor is still detectable when diluted with 4 parts of odor-free air. "Minimal" odors are less than the 4 dilution/threshold (D/T) standard used in BAAAQMD Rule 7-301 (General Limit on Odorous Substances)

impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect the residential neighborhood or the school under construction to the southeast of the site (scheduled to open in Fall 2021). Post-construction odors would be solely from truck exhausts, and would not be perceptible to nearby sensitive receptors. Therefore, odor impacts associated with construction and operation of the proposed project would be ***less than significant***.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Background

A Biological Resource Analysis (BRA) was prepared by Monk & Associates (Monk & Associates 2020) that provides a description of existing biological resources on the project site and identifies potentially significant impacts that could occur to sensitive biological resources from the construction of the proposed project site.

An addendum memo was prepared by Monk & Associates to address potential impacts to the adjacent parcel to the south from the proposed grading activities associated with the proposed soil borrow. The reports are included as Appendix C to this IS. Biologist Jake Schweitzer of Vollmar Natural Lands Consulting (VNLC) peer-reviewed the Monk & Associates reports and conducted a site visit on August 10, 2018 to confirm the biological conditions of the project site as described in the biological documentation prepared for the project.

The approximately 10-acre project site is approximately 1000 feet northwest of a large eucalyptus grove with a mobile home and accessory structures, as well as the "Paintball Jungle" recreation area. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The Couch Family owns an approximate 10-acre parcel with eucalyptus trees to the west. Further west, is the American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is nearing completion immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, are further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive.

The 10.39-acre project site and the adjacent borrow pit area to the south are part of a larger 35.85-acre parcel that is comprised of a highly disturbed, ruderal (weedy) plant community, that was graded and leveled after removal of a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees in 2012.

The project site and the borrow excavation area on the adjacent site to the south are dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native coyote brush (*Baccharis pilularis*), a plant that responds to land disturbances, such as have occurred on the project site, is also common on the parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Redshouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus*

polyglottos), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

Discussion

a) Special-status plant species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 7. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of eight special-status plant species are known to occur in the region of the project site (Monk & Associates 2020). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Bark and leaf debris collect on the ground beneath the trees, and very few plants will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018, and 2019, special-status plants are not likely to be found onsite (Monk & Associates 2020). Therefore, impacts to special-status plants would be ***less-than-significant***.

Special-status wildlife species documented by the California Natural Diversity Database (CNDDB 2020) within approximately 3 miles of the project site are shown in Figure 7. No special-status wildlife records have been mapped on or adjacent to the project site. However, a total of 18 special-status wildlife species are known to occur in the region of the project site (Monk & Associates 2020). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status wildlife species occurring onsite (Monk & Associates 2020). However, due to the sensitivity of four of the special-status wildlife species known to occur in the area and/or potential habitat on the site, these species are further discussed below. Additional information regarding these special-status species, as well as species known from the region but for which no suitable habitat occurs on or in areas to be impacted by the proposed project, is provided in Table 4 from the Biological Resource Analysis prepared for the project site by Monk & Associates (2020); (Appendix C).

California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a state species of special concern. The project site is located outside USFWS designated critical habitat for the species, but designated critical habitat occurs approximately 1.7 miles to the east. In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located.

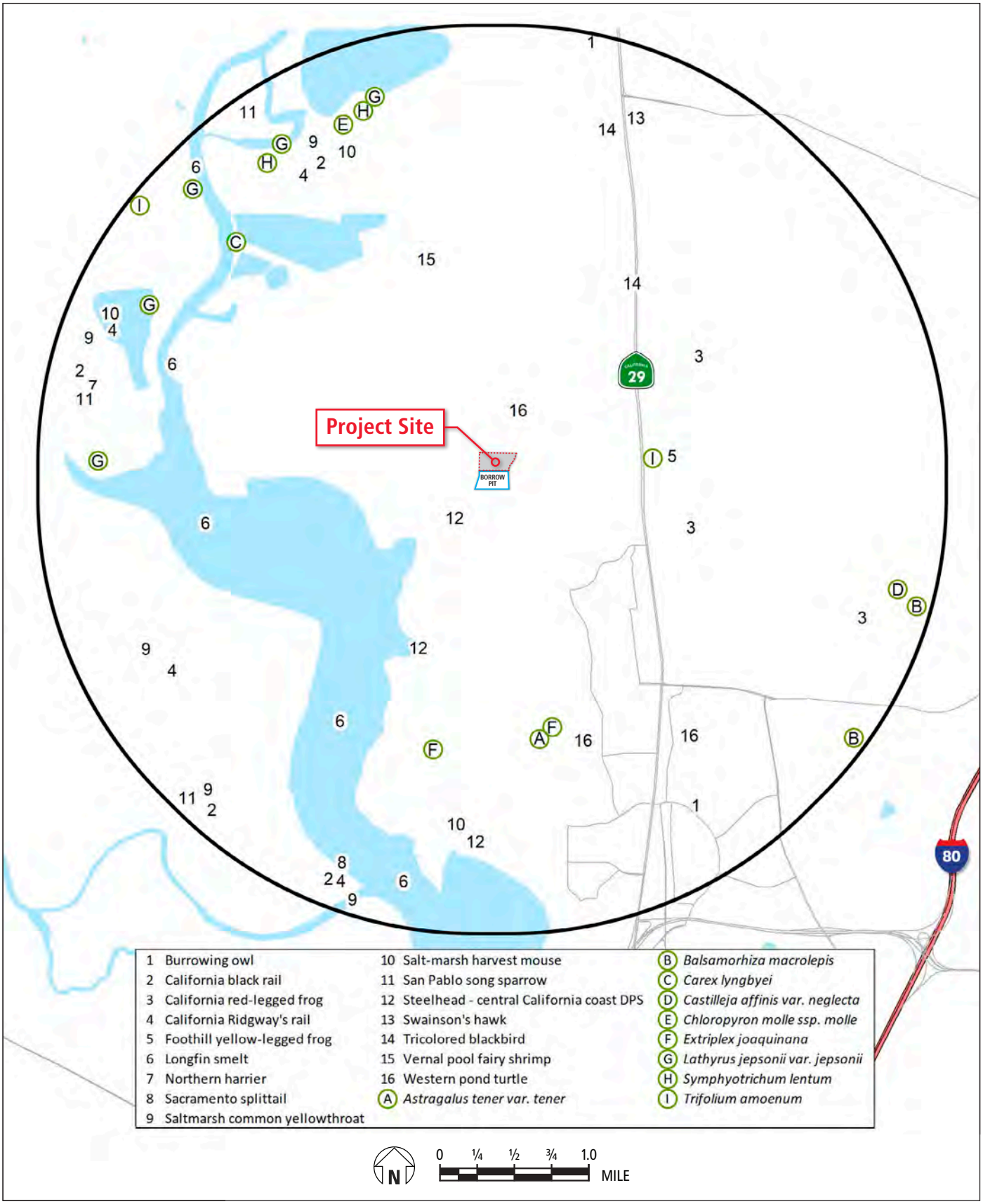

Figure 7

CNDDB Special Status Species within 3 miles of Project Site

Source: Monk & Associates

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes a geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site (Monk & Associates 2020). There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. The highly disturbed conditions on the project site (due to prior grading and tree removal activities) and the other factors discussed above, result in this species being unlikely to occur on the project site. Therefore, impacts to California red-legged frog would be ***less-than-significant***.

The western pond turtle (*Emys marmorata*) is a California "species of special concern." In April of 2015, the USFWS issued a 90-day finding on a petition to list this species under FESA. In September 2016, M&A spoke with USFWS' Sacramento Field Office and was told that they "hope to finish a 12-month finding in the fiscal year of 2021" (G. Tarr, USFWS, Sacramento Field Office, pers. comm. with S. Lynch of M&A, September 21, 2016). Until the western pond turtle is formally listed it is not afforded the protections of FESA.

The western pond turtle is a habitat generalist, inhabiting a wide range of fresh and brackish, permanent and intermittent water bodies from sea level to about 4,500 feet above sea level (USFWS 1992). Typically, this species is found in ponds, marshes, ditches, streams, and rivers that have rocky or muddy bottoms. This turtle is most often found in aquatic environments with plant communities dominated by watercress, cattail, and other aquatic vegetation. It is a truly aquatic turtle that usually only leaves the aquatic site to reproduce and to overwinter. Recent field work has demonstrated that western pond turtles may overwinter on land or in water, or may remain active in water during the winter season; this pattern may vary considerably with latitude, water temperature, and habitat type and remains poorly understood (Jennings and Hayes 1994).

The pond turtle also requires upland areas for burrowing habitat where it digs nests and buries its eggs. These nests can extend from 52 feet to 1,219 feet from watercourses (Jennings and Hayes 1992), however most pond turtles nest in uplands within 250 meters of water (Bury, unpublished). Upland nest sites are usually found in areas with sparse vegetation. Sunny, barren, and undisturbed (not disked) land provides optimal habitat, while shady riparian habitat and planted agricultural fields do not provide suitable habitat (op. cit.). Eggs are typically laid from March to August (Zeiner et. al. 1988), with most eggs being laid in May and June. Hatchlings will stay in the nest until the following April (Bury, unpublished). Predators of juvenile pond turtles include the non-native bullfrog

(*Lithobates catesbeiana*) and Centrarchid fish (sunfish). This turtle is most visible between April and July when it can be observed basking in the sun. In areas where the water is very warm during these months, however, it will bask in the warm water and will be more difficult to observe. It eats plants, insects, worms, fish and carrion (Stebbins 2003).

According to the CDFW's CNDDB there is a 2002 record of this turtle in North Slough approximately 0.28-mile to 0.45-mile north of the project site. There is no aquatic habitat onsite and the upland habitat onsite appears to be most unsuitable for nesting turtles as it is a former eucalyptus forest that now, though devoid of trees, has undulating topography from past land disturbance including from eucalyptus tree removal that took place in 2012. While it appears to be a most unlikely area for turtles to haul out and nest, in an abundance of caution that there is a possibility of turtles nesting onsite, impacts to western pond turtle from the proposed project are considered ***potentially significant***. Mitigation Measure BIO-5 would reduce this impact to a ***less-than-significant*** level.

Western burrowing owl (*Athene cunicularia*) is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; ground squirrel burrows are few and of recent origin (Monk & Associates 2020). The mobility of the western burrowing owl enables the species to colonize the recent burrows. Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys. However, the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be ***potentially significant***. Mitigation Measure BIO-1 would reduce this impact to a ***less-than-significant*** level.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species afforded protection pursuant to the California Endangered Species Act (CESA). While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800). The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near the project site in future years and that nesting could be disturbed by construction activities.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code.

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be ***potentially significant***. Implementation of Mitigation Measure BIO-2 (preconstruction surveys and buffers) would ensure that any potentially significant impacts are reduced to a ***less-than-significant*** level.

The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.

Northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. However, the project site provides marginal nesting habitat for the northern harrier (Monk & Associates 2020). Should northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be ***potentially significant***. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a ***less-than-significant*** level.

White-tailed kite (*Elanus leucurus*) is a state Fully Protected species. It inhabits grasslands, agriculture fields, oak woodlands, savanna and riparian habitats in rural and urban areas. The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a ***less-than-significant*** level.

Other Raptors and Passerine Birds. In addition to the above special-status bird species, construction of the proposed project has the potential to affect species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (§3503), such as tree or ground nesting raptors or nesting passerine birds. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project could cause nest abandonment and death of eggs or young.

Passerine birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Similar to the raptors, construction activities could disturb or directly affect passerine birds, their eggs, and/or young. Therefore, impacts to nesting raptors and passerines are potentially significant, and Mitigation Measures BIO-3 and BIO-4 would reduce the impact to a ***less-than-significant*** level.

Special-status bats. Although there are several species of special-status bats in the project area, the project site contains no roosting or besting habitat because it has no trees, rock faces, structures, or cliffs. Therefore, there would ***no impact*** from the project to special-status bat species.

b) There is no riparian habitat at the project site, and no Streambed Alteration Agreement from CDFW would be necessary. Additionally, there are no sensitive plant communities on the project site. The project site is separated from the Napa River and associated marsh habitats by greater than 300 feet and by a dense eucalyptus grove. Therefore, related impacts are ***less than significant***. Wetlands are discussed below under c).

c) A formal wetland delineation for the larger 35-acre parcel of which the project site is the northern 10.39 acres was performed by Monk & Associates in in 2016, and was verified by the Army Corps of Engineers (Corps) on May 16, 2018. Based on the verified wetland delineation, there are no wetland features under the jurisdiction of the Corps on the 10.39-acre project parcel. There are two wetland features on the parcel to the south that is proposed for soil borrow. However, the proposed grading for the borrow area would avoid these two features and incorporate a 25-foot buffer area from these wetlands. These buffers, along with sediment-control measures identified in the geology and

hydrology sections of this IS/MND, would eliminate the potential for the project to affect these wetlands. Therefore, the project would have ***no impacts*** to wetlands or waters of the US.

d) Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated. All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project would not substantially interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife, and these areas would not be impacted by the proposed project. Therefore, the proposed project would not substantially affect wildlife movement and related impacts would be ***less than significant***

e) The City of American Canyon's Tree Ordinance (Ord. 18.40.110) specifies that:

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

The mature eucalyptus trees along the northern and western project boundaries would not be removed by the project. The site itself does not support any trees. Therefore, the project would have ***no impacts*** to protected trees***.***

f) There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans that include the proposed project site. Therefore, the project would have ***no impact*** to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

Mitigation Measure BIO-1: A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:

• From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.

• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.

• No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.

3) If the survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded before

project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

Mitigation Measure BIO-2: If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site.

2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor

displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

This mitigation measure would reduce impacts to nesting raptors to a less than significant level because it meets or exceeds all standard resource agency requirements for nesting raptors, and is consistent with professionally accepted approaches to mitigating impacts to nesting raptors.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance

buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.

Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities, and the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of formal cemeteries?		**X**		

Background

A cultural resources investigation of the project area was undertaken by Solano Archaeological Services (SAS) which consisted of a record search conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System, a field survey, outreach to the Native American community, and study documentation (SAS, Cultural Resources Technical Memorandum, SDG Commerce 217 Distribution Center Project, September 1, 2020). The NWIC research indicates that sixteen previous cultural resources investigations were conducted within or in the vicinity of the project area between 1975, and 2009, and in 2018 as part of the Commerce 330 project. None of these studies or other research identified any prehistoric or historic-era sites, features, or artifacts within the project area. One site (CA-NAP-727H), a historic period ranch complex, was identified approximately 200 meters south of the project area. Additional archival research and a field survey conducted by SAS also did not identify the locations of any potential cultural or historical resources in the project area.

The field survey encountered an historic-era dispersed trash disposal area comprised mostly of glass fragments, on the northwest corner of the project site. This was evaluated by the SAS archaeologists and determined not to eligible for the California Register of Historic Resources (SAS 2020).

The Native American Heritage Commission (NAHC) conducted a search of Sacred Lands File the results of which indicate that no Native American historical resources or other culturally sensitive properties are known to be present within or near the project area. Outreach to tribal organizations and individual representatives in August 2020 per a contacts list provided by the NAHC also did not result in the identification of properties or locations possessing cultural significance to the Native American community.

Archival research, outreach to the Native American community, and a field survey did not identify the present of any historical resources within the project area. However, field surveys cannot always identify the presence of sub-surface cultural remains that could be significant per CEQA criteria. As a result, presently unidentified historical resources could be present within the project area.

Discussion

a) As described above, project grading and land disturbance could affect unknown cultural resources. This impact is ***potentially significant***. Mitigation Measure CUL-1, below, would reduce any impacts to presently unidentified historical resources to a ***less-than-significant*** level.

b) As described in a), above, an NWIC record search, archival research, NAHC and Native American community input, and a field survey did not identify any prehistoric or historic-era cultural sites, features, artifacts, or culturally significant properties within the project area. However, there remains a possibility that project ground-disturbing activities could uncover evidence of Native American or early historic period use and/or occupation of the project area. Mitigation Measure CUL-1, below, would reduce any impacts to such resources to a ***less-than-significant*** level.

c) Archival research, Native American community outreach, an NWIC record search, and a field survey did result in the documentation of any known human remains within the project area However, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Mitigation Measure CUL-2 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures

***Mitigation Measure CUL-1*:** Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation

in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

VI. Energy

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Background

SB 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety. The *2019 Integrated Energy Policy Report* (CEC,2020) is the most recent update. The State's energy system includes energy extraction, transport, conversion (such as combusting natural gas in power plants to generate electricity or producing gasoline and diesel from crude oil in refineries), and consumption for services (such as electricity for lighting, natural gas use in homes and buildings for space and water heating, pumping water to communities and crops, and gasoline and diesel to fuel cars and trucks), as well as electricity from out-of-State plants serving California.

California's electricity generation capacity is composed of multiple fuel sources, including coal, hydroelectric, natural gas, nuclear, oil, petroleum coke, waste heat, biomass, geothermal, solar photovoltaic, solar thermal, and wind. In 2019, the State system generated 200,475 gigawatt hours (GWh) of electrical power. Renewable resources accounted for approximately 34 percent of the State's electricity used in 2018 (CEC, 2020). In 2018, the State consumed approximately 15.5 billion gallons of ethanol and gasoline and approximately 3.7 billion gallons of diesel.

The City of American Canyon adopted an *Energy Efficiency Climate Action Plan (EECAP)* in 2013 (City of American Canyon, 2013). The *EECAP* provides feasible strategies to cost-effectively reduce energy use

and energy-related GHG emissions both in municipal operations and in the community. Successful implementation of the plan will reduce utility bills, reduce water usage, increase home and building values and support local jobs.

Discussion

a) Construction of the proposed project would require consumption of gasoline and diesel fuel by construction worker vehicles travelling to and from the site, by haul trucks delivering construction materials and supplies to the site, and by onsite construction equipment. Once the construction is completed and the proposed project is occupied, gasoline and diesel fuel would continue to be consumed by motor vehicles from employees, deliveries and visitors. Electricity would be consumed for lighting, space and water heating, and landscape maintenance (i.e., electricity to control irrigation equipment), as well as the operation of typical office and warehouse equipment such as computers and electric forklifts.

The air quality modeling (CalEEMod) described in detail in the air quality section of this Initial Study, utilized standard fuel consumption estimates to determine that project construction activities would require approximately 42,500 gallons of diesel fuel.[3] For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. Natural gas would not be used during construction.

During construction of the proposed project, the building contractor would be required by Mitigation Measure AQ-2 (see air quality section) to limit idling time of equipment and vehicles to 5 minutes or less and maintain construction equipment and vehicles in optimal working condition. These requirements would benefit air quality and would also prevent wasteful or inefficient consumption of fuel during project construction. The building contractor would also be required to comply with the 2019 California Green Building Standards Code (codified in Title 24 of the California Code of Regulations (CCR)) Section 5.408 Construction Waste Reduction, Disposal and Recycling, which requires the recycling or salvaging for reuse of a minimum of 65 percent of the nonhazardous construction and demolition waste. Compliance with the 2019 California Green Building Standards Code would reduce consumption of energy associated with transport, processing, and disposal of solid waste at landfills.

[3]Fuel usage is estimated using the CalEEMod output for CO_2, and a $kgCO_2$/gallon conversion factor, as cited in the *U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program* https://www.eia.gov/environment/pdfpages/0608s(2009)index.php.

The proposed project's electricity consumption was based upon actual electricity usage from two nearby and almost identical warehouse buildings and was estimated to be approximately 652,000 kilowatt-hours (kWh) of electricity per year (See Appendix B for details). The proposed project would not require the use of natural gas. The daily weekday vehicle trip rate of 1.69 weekday trips per 1,000 square feet was used to estimate mobile vehicle emissions (367 weekday vehicle trips). Based on air quality modeling (CalEEMod), the estimated annual vehicle miles traveled for the proposed project would be approximately 765,788 miles, requiring approximately 35,000 gallons of gasoline per year. Additional information regarding the energy calculation details are found in Appendix B.

The Project would not result in wasteful, inefficient, or unnecessary consumption of energy, because it would include several energy efficiency features. The building would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process. The energy-saving climate feature is one of the reasons the project is located in the City of American Canyon.

Interior lighting would be designed to meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the distribution center would be promoted. Features such as motion-sensor lighting would be installed for areas within the building. This reduces heat generated inside, further reducing the energy demands to cool the building. The most current PG&E incentives would be investigated and all attempts to incorporate them into the design would be made. Furthermore, the proposed project would be required to comply with the 2019 California Green Building Standards Code codified in Title 24. Therefore, this impact would be **less than significant.**

The proposed project would not conflict with or obstruct the City's EECAP. Therefore, the project would not conflict with a local plan for energy efficiency

b) Because the CEC's *2019 Integrated Energy Policy Report* is intended to reduce GHG emissions by transitioning the State's energy portfolio to more renewable energy sources, it can also be viewed as a plan for renewable energy and energy efficiency on the Statewide level. As discussed in a) above, the proposed project would be required to comply with a variety of building and appliance energy efficiency standards, which would maximize its energy efficiency. Therefore, the project would not conflict with a State plan for energy efficiency. Therefore, this impact would be **less than significant.**

VII. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?			X	

Background

A Geotechnical Investigation of the project site was prepared by Krazan and Associates, Inc. (Krazan 2019), included as Appendix D in this IS. Krazan's geologists performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 24 borings to depths ranging from about 10 to 50 feet, followed by laboratory testing. Results of the Krazan study are summarized in responses to specific checklist questions below. The full report is available for review at the City Community Development Department.

Discussion

a.i, ii, iii, iv) The project site is located in a seismically active region associated with the San Andreas Fault System. It is in close proximity to several major faults including the West Napa, Green Valley, Hayward-Rogers Creek, Mount Diablo Thrust, Calaveras, and San Andreas Faults (see Table GEO-1). Data presented by the Working Group on California Earthquake Probabilities (2008) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region between 2007 and 2036 to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It would be necessary to design and construct the proposed distribution center and parking lot in strict adherence with current standards for earthquake-resistant construction.

Although the site is in close proximity to several faults, it is not within the mapped California Earthquake Fault Zone or Alquist-Priolo Earthquake Fault Zone (Krazan 2019). It is approximately 3,200 feet west of the West Napa fault and 600 feet west of the California Earthquake Fault Zone for the West Napa Fault zone. Therefore, the risk of fault rupture at the site is low.

Table GEO-1. Active Fault Proximity to the Project Site

Fault	Direction from Site	Distance from Site (miles)
San Andreas	W	30
Hayward-Rogers Creek	W	11
Mt. Diablo Thrust	S	24
Green Valley	E	8
West Napa	W	0.6
Calaveras	NW	29

For the West Napa Fault, the maximum credible earthquake on this fault is approximately 6.5 moment magnitude[4] based on empirical data and the length of the fault. The 2014 South Napa earthquake was located to the south of Napa and to the northwest of American Canyon on the West Napa Fault. It had a magnitude of 6.0 on the moment magnitude scale, and with a maximum Mercalli intensity of VIII (Severe); the event was the largest in the San Francisco Bay Area since the 1989 Loma Prieta earthquake.

Liquefaction is a 'liquefying' of the ground under strong seismic shaking. Liquefaction occurs in water-saturated, loose, granular soils (such as sandy soils). Because of active faults near the site and high acceleration the site may be subject to liquefaction hazards. Krazan evaluated the site's liquefaction potential and determined that soils above a depth of 9 feet below the ground surface have no liquefaction potential because of an absence of groundwater; soils below 9 feet below the ground surface were determined to have a slight to very low liquefaction potential due to predominantly dense/stiff top very dense/hard clayey soils. Total and differential seismic-induced ground settlement were calculated not to exceed 1 inch and 0.66-inch, respectively (Krazan 2019). This level of settlement would be addressed in the foundation design.

Lateral spreading (or lurching) is another type of ground failure that is generally caused by liquefaction. It involves movement of large surficial blocks of soil as a result of subsurface liquefaction. Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, the potential for liquefaction-induced lateral spreading at the site is low.

Impacts associated with seismic shaking and associated ground failure issues can be reduced to a ***less-than-significant*** level by proper engineering and construction in accordance with the provisions of the Uniform Building Code and with other site stabilization, drainage, and, foundation design methods, as detailed in the Krazan report.

The project site is nearly flat, so landslide hazards would be minimal.

b) The proposed project would require site stripping, grading and excavation/re-compaction of soils on the site and on the adjacent parcel to the south (for borrow pit construction and stockpile removal), therefore, construction of the proposed project could result in soil erosion or loss of topsoil. All construction practices would be in accordance with the State of California UBC Title 24, and measures to control soil erosion found in the general construction activities non-point source storm-water

[4] "The **moment magnitude scale** (a successor to the Richter scale), is used by seismologists to compare the energy released by earthquakes. The constants in the equation are chosen so that estimates of moment magnitude roughly agree with estimates using other scales such as the Richter magnitude scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes. The USGS does not use this scale for earthquakes with a magnitude of less than 3.5. (Wikipedia, 2015)

permit (See Hydrology section of this IS). The RWQCB requires that Best Management Practices be incorporated into projects to reduce wind and water erosion (see Mitigation Measure GEO-2). This impact would be reduced to ***less than significant with mitigation***.

c) See responses to items aii, iii, and iv, above.

d) The upper soils on the site are alternating layers of silty clays, clayey sands, and sandy clays. The clayey soils have a moderate-to-high potential for expansion. Mitigation Measure GEO-3, below, would reduce hazards associated with potentially expansive soils to a level that is ***less than significant***.

e) The project would not use septic tanks or other on-site land disposal systems. ***No impac***t would occur.

f) A review of the University of California Museum of Paleontology (UCMP) on-line database indicates that very few paleontological specimens have been collected from Napa County. Only one specimen, an example of *Magnoliposida* (a flowering plant) was found in the general vicinity (City of Napa) approximately six miles north of the project area (UCMP 2018). In addition, according to the Geologic Map of the Cuttings Wharf 7.5' Quadrangle (Bezore et al. 2002), the project area is located solely within late Quaternary alluvial fan deposits. Quaternary alluvium is often devoid of fossil remains due to its high-energy depositional regime, and the subaerial nature of that deposition which generally precludes rapid burial. Organic remains are left exposed to the elements and degrade rapidly before they can be buried. Given the lack of previous paleontological discoveries in and near the project area and the low sensitivity of the landform, it is unlikely that significant paleontological remains or unique geological features would be encountered during project ground-disturbing activities. Therefore, this impact would be ***less than significant*.**

Mitigation Measures

Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention

Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile
- Establishment of a single destination "wash-out" for construction subcontractors
- Use of siltation fences
- Use of sediment basins

Mitigation Measure GEO-3: **T**he applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).

VIII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Background

The BAAQMD *CEQA Air Quality Guidelines* identify a project specific threshold of either 1,100 metric tons of carbon dioxide-equivalents[5] (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development) as resulting in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion. Additional information regarding the existing GHG emissions setting is found in Appendix B.

Discussion

a) GHG emissions are associated with proposed project construction activities, as well as long-term operations associated with energy usage, area sources (landscape maintenance), water/wastewater conveyance, solid waste collection, off-road mobile equipment (forklifts) and motor vehicles. GHG emissions calculation details are found in Appendix B.

The estimated construction GHG emissions are 431 metric tons of CO_2e in 2021 (see Table GHG-1). The BAAQMD does not recommend a threshold for GHG emissions from construction, so this analysis (similar to many other analyses prepared in the Air Basin) amortizes the construction emissions over the lifetime of the proposed project (30 years) and adds amortized construction emissions to the

[5] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

annual operational emissions. The 30-year amortized annual construction related GHG emissions would be approximately 14 metric tons of CO_2e.

Table GHG-1 also provides the estimated operational GHG emissions that would be associated with the proposed project. The GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a ***less-than significant*** impact.

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

b) The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's *Climate Change Scoping Plan* and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant*** impact.

IX. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Background

A Phase I environmental site assessment (ESA) was conducted by ATC in June 2018 (ATC 2018). That ESA

summarized the previous ESA's on the property conducted by Environmental Science Associates (October 2004), Kleinfelder (July 2005; December 2009), and ICES (April 2010). Those previous reports focused on the larger 106-acre Couch Property, of which the proposed development site of about 10.39 acres. The 2018 ATC study also conducted additional site interviews, database reviews, and a new site reconnaissance. ATC subsequently prepared a Limited Phase II ESA to address potential impacts of underground storage tanks on the larger property (March 25, 2019). The results of the two ATC studies are summarized in responses to Item d), below.

Discussion

a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials. Therefore***, no significant impacts*** would occur during construction activities.

The site was historically used for agricultural purposes and was occupied by a crop of planted Eucalyptus trees since sometime before circa late 1950's. Up until 2001 the site remained relatively unchanged. From 2001 until around 2012 the northwest corner of the site was used recreationally as a paintball field with the eucalyptus trees remaining in place. In 2012 the property was cleared and grubbed of the eucalyptus trees and shrubs.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of warehousing and distribution center land use. Small quantities of these hazardous materials would likely be used on site, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, chlorine (pool), and fertilizers. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

The City of American Canyon Fire Protection District and Napa County Sheriff would be the first responders in the event of a train derailment or spill. Fire and police are trained in how to address

hazardous materials spills or fires and in emergency evacuation procedures in the event of a major emergency.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be ***less than significant.***

c) The proposed project site is located approximately 0.8 miles from existing Napa Junction Elementary School. That school is proposed to be relocated to a new campus south of Commerce Court, approximately 0.34 miles southeast of the site. This new school is under construction and scheduled for occupancy in the fall of 2021[6]. Implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant*.**

d) Given the historical use of the property for agricultural purposes, it may have been subject to past use of pesticides, herbicides and fertilizers. If these materials were stored, used and applied according to industry standards, they should not have significantly impacted the property. Evidence of large-scale use or disposal of pesticides, herbicides or fertilizers, such as mixing tanks, chemical storage areas, sprayers, etc. was not observed on the property. Evidence for the overuse of these materials, such as stressed vegetation or soil discoloration was not observed. The property has not been used for agricultural purposes since sometime prior to 2012. Therefore, ATC concluded that the historical use of the property for agricultural purposes and any potential residual pesticides, herbicides and fertilizers in the property soil does not represent a recognized environmental condition to the property (ATC 2018).

The eastern portion of the overall Couch property, to the east of the project site, where some past contamination had been noted, is buffered from the project parcel by the paved extension of Commerce Court. and about 70 feet of utility easements. The ATC report noted that contaminant generating land uses operated in the past in the eucalyptus groves in the area of the Couch Property. These uses generate hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. The ATC report did not note any stressed vegetation or soil staining at the 10-acre site of proposed development that would indicate a potential environmental condition from these chemicals of concern.

[6] (http://www.njes-nvusd-ca.schoolloop.com/cms/public_news?d=x&group_id=1295706633895&news_group_id=1295706633895&return_url=1302484043084)

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a recognized environmental condition to the property.

The property is not listed within the Napa County Leaking Underground Storage Tank (LUST) database, and was not found in further database searches. However, a Site Assessment was performed by Napa County in 1990 and the presence of underground storage tanks (USTs) was recorded (ATC 2018). The USTs are on the Eastern 40-acre parcel owned by the Couch Family. The property was reported to have three USTs sitting on the top of the ground in 2004, in an assessment by Environmental Science Associates. A Phase II soil investigation was conducted by Kleinfelder in July 2005, but groundwater sampling was not administered. The soil investigation found no hazards in concentrations above 2005 environmental screening levels except chromium. The 130 milligrams per kilogram chromium concentration is within new standards set by February 2016 environmental screening levels and thus constitutes a historical recognized environmental concern (ATC 2018).

ATC subsequently conducted a limited phase II soil investigation (ATC March 25, 2019). Two borings were conducted and soils and groundwater were sampled for total petroleum hydrocarbons and volatile organic compounds, as well as a suite of heavy metals.

The results of the analysis of the soil samples indicated the following:

- Concentrations of TPH as gasoline, diesel, and motor oil were not detected above the laboratory method detection limits.
- Concentrations of VOCs were not detected above the laboratory method detection limits.
- Arsenic was detected at a maximum concentration of 11 milligrams per kilogram (mg/kg) which is above the ESL of 0.067 mg/kg. It should be noted that the maximum concentration of background levels of arsenic in California soils is 11 mg/kg as indicated in a study entitled Background Concentrations of Trace and Major Elements in California Soils by Bradford dated March 1996.
- The remaining metals were either detected at concentrations below the ESLs or below the laboratory method detection limits.

The report concluded that in order for potential impacts from the Couch property to impact the subsurface of the subject property the following conditions would have to be satisfied:

1. The potential contaminants would have to be released and the release would have to migrate to the subsurface,
2. The impacts would then have to travel through the soil column to groundwater which is at a depth below 40 feet bgs,
3. The contaminants would then have to migrate in the groundwater in the direction of the subject property, and
4. The contaminants would have to arrive beneath the property in sufficient concentrations to be a concern.

Although a degree of uncertainty exists, ATC concluded that, based on these enumerated factors taken altogether, it is unlikely that contamination from the Couch property could impact the subject property. Therefore, this impact is considered ***less than significant***.

e) The Napa County Airport is located approximately 1.5 miles mile to the north of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the General Plan, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan, with a small part of the southern end of the site potentially in Zone E. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine distribution center would be an acceptable use with appropriate easement, which has been granted by the County. Zone E is less restrictive, and allows all of the uses allowed in Zone D, plus certain additional uses.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Therefore, the proposed project would not create aviation safety hazards for persons residing or working in the project vicinity, and impacts would be ***less than significant***.

f) The project is not located in the vicinity of a private airstrip. Therefore, there would ***be no impact*** associated with safety hazards from such airstrips.

g) The development of a wine distribution center on a 10.39-acre site on Commerce Court does not include any facilities or uses that would interfere with the City's emergency response or evacuation plans. The roadway extension has been developed per City standards. The project would be designed to facilitate emergency traffic through and around the site, in accordance with the City's Fire Protection District development standards. During construction, emergency routes would remain open and emergency response plans would not be affected. The impact would be ***less than significant*.**

h) The project site is surrounded by parcels containing industrial and warehouse development, and open spaces with ruderal (weedy) vegetation, with marshlands to the south and west. These areas are not subject to wildlands fires. Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

There is a potential for the dry vegetation on this undeveloped site to catch fire during grading. Equipment could create sparks that would ignite vegetation. Standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire to a ***less-than-significant*** level.

The American Canyon Fire Protection District would provide fire protection to the proposed project. The District indicated in an email that mitigation fees would cover needs for fire services or facilities to serve the proposed project (Weeks 2020). Therefore, the proposed project would not create or expose people or structures to significant wildland fire risks, and impacts would *be* ***less than significant***.

X. Hydrology and Water Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?		X		
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Background

A Hydrology Report, and a Stormwater Control Plan were prepared for the proposed project by RSA+ (2019a; 2019b). The project site is relatively flat with gentle slopes draining toward the west. Runoff from the property flows over the surface of the site to the western property line, then continues westward, where is ultimately conveyed to the Napa River (RSA+ 2019a). Downstream, the Napa River discharges into the San Pablo Bay through the Napa- Sonoma Marsh.

Discussion

a, c, e) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) Stormwater program to control Stormwater discharges, including those associated with construction activities. Authority for NPDES permitting has been delegated by the federal government to the California State Water Resources Control Board (SWRCB), which has nine regional boards; the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the project area, which is in Napa County. The NPDES Stormwater permitting program regulates Stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009DWQ).

Development of the proposed project would require clearing ruderal vegetation and grading of the approximately 10.39-acre proposed development site as well as clearing and excavation a major portion of the parcel to the south for soil stockpile transfer to the site, as well as for creation of a borrow pit to provide additional fills for the proposed project. In addition, a new distribution center building, and associated paved areas would be constructed; landscaping would be installed; and bioretention facilities would be created.

During construction activities there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's Stormwater system and local waterways. Soil erosion may occur on the project site and parcel to the south (soil stockpile and borrow pit areas) during construction. Small quantities of pollutants have the potential to be washed into the storm drainage system, ultimately entering the Napa River, thereby potentially degrading water quality.

Construction of the proposed project also would require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. On-site portable toilets could leak or tip over and spill, releasing sanitary waste, bacteria, solids, nutrients, and pathogens. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would exceed the NPDES one-acre threshold; therefore, the project proponents would be required to comply with the CGP. The project applicant would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a less-than-significant level, as described in Mitigation Measure HYD-1, below.

As required under State Water Resources Control Board Order No. 2013-001 DWQ, the City of American Canyon requires regulated projects, such as this one to prepare a Stormwater Management Program (NPDES Permit No. CAS 612007). As one element of the program, the City requires regulated projects to address post-construction stormwater quality. More specifically, the City of American Canyon requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP) in accordance with the Bay Area Stormwater Management Agencies Associated Post-Construction Manual. The SWPC must include post-construction stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWMP must also address ongoing maintenance of those facilities.

The project site and adjacent soils stockpile and borrow area have no impervious surfaces. Development of the proposed project would increase impervious surface coverage on the project site through construction of the distribution center building, parking areas, internal roadways and driveways, and sidewalks. The increase in impervious surface coverage would create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff

transported to receiving waters. Runoff from the proposed landscaped areas may also contain residual pesticides and nutrients.

A Stormwater Control Plan has been prepared for the proposed project in accordance with the Bay Area Stormwater Management Agencies Association's (BAASMA) Post Construction Manual. The proposed project would incorporate low-impact development design strategies. An approximately 21,000 sq. ft. bioretention pond would be designed with biotreatment and constructed on the western side of project site (that would treat runoff from much of the project site as well as a small portion of Commerce Court). A pervious area would be installed along the east side of the proposed building, which would allow infiltration/treatment of additional runoff (RSA+ 2019b).

The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. Potential impacts related to compliance with post-construction runoff would be would be reduced to ***less-than-significant*** with implementation of Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, below, which assure proper design, construction, and long-term maintenance of the stormwater facilities.

The project proposes to use recycled water for landscape irrigation. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. The City, as the purveyor of recycled water, is required to comply with the State Water Resources Control Board's (SWRCB) General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water. Coverage under the State's General Waste Discharge Requirements (WDRs) for Recycled Water Use (Water Quality Order 2009-006-DWQ) is limited to treated municipal wastewater for non-potable uses. The General Permit establishes requirements to manage recycled water for landscape irrigation uses in a manner that is protective of public health and the environment. The City is responsible for overseeing the recycled water system and compliance with specific BMPs set forth by the SWRCB which include implementation of operations and a management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 1,000 gallons; proper design and operation of sprinkler heads; refraining from application during precipitation events; and management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater. In the event of an unauthorized discharge, the Executive Officer of the appropriate Regional Water Board shall be notified. In addition, as part of the site maintenance, the recycled water system is inspected monthly to verify there are no leaks

or runoff from the landscaped area. The recycled water is managed by the City of American Canyon, and use of the recycled water by the proposed project would be a ***less-than-significant*** impact.

b) The proposed project would be served with potable water supplied by the City of American Canyon, and no new groundwater wells or other groundwater supplies would be required. Therefore, the proposed project would not contribute to depletion of groundwater supplies. The project's on-site drainage systems would consist of a detention pond and a vegetated detention swale. These features of the development would contribute to replenishing the groundwater supply. Therefore, the development of the proposed project would not interfere with groundwater recharge. As such, impacts would be ***less than significant***.

d) The Federal Emergency Management Agency's Flood Insurance Rate Map No. 06055C0617F, Panel 617 out of 650 indicates that the project site is not located within a 100-year flood hazard area and is in an area of minimal flood hazard. The project site is not located in a dam failure inundation zone, as depicted in the American Canyon General Plan (City of American Canyon 1994, as amended through January 2018). The project site is east of the Conn and Miliken Dams, Rector Reservoir, and Summit Reservoir inundation areas. The project site is not protected by any levees. These conditions preclude the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. Seiches and tsunamis are seismically induced large waves of water. The project site is distant from any water bodies that could result in a seiche or tsunami. Similarly, mudflows are not a concern in this area of the City.

Therefore, the proposed project would have ***no impact*** to water quality from inundation by flooding, dam failure, seiche, tsunami or mudflow.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall address both

the project site and adjacent parcel where soils stockpiles would be removed and the borrow pit would be created to provide fill for the project site. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site and the soils stockpile and borrow pit areas on the parcel immediately south of the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to

the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

Mitigation Measure HYD-5: The proposed bio-retention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

XI. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Discussion

a) The project site is undeveloped open land covered mostly with ruderal vegetation, with some small wetland areas. The project is bounded on the north by existing warehouse uses. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove; on the south is the under-construction Commerce 330 distribution Center building and, beyond that, the City-owned 24-acre Clarke Ranch West Open Space, which is partially covered eucalyptus trees, and includes horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 64-foot wide City Public Access and Utility Easement; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement; to the east of these easements is a 40-acre parcel owned by the Couch Family including a mobile home and accessory structures, and a large commercial recreation facility (Paintball Jungle). Farther north on Commerce Blvd. are other warehouses similar to the proposed project. South of Eucalyptus Drive is a residential neighborhood. A public school is under construction just southeast of the site, to the south of the paintball center, at the northeast corner of Eucalyptus Drive and Wetlands Edge Road. The nearest established residential community is south of Commerce Court, which is not accessible by motor vehicle. Therefore, the project would have no potential to divide any such community and there would be ***no impact*****.**

b) The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). The General Plan describes typical permitted used in the

CR land use category as: *Recreation vehicle parks, interpretative nature centers and conference facilities, and similar uses*. (General Plan Land Use Element, Land Use Schedule Table, p. 1-9). The City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan (email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018).

A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries as a conditionally permitted use. The Zoning Ordinance defines "Winery" as including viticulture-related activities such as bottling, storage, logistics, distribution, wine packing, and wine-related services. Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19th, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit". The project complies with the City's Zoning Code standards, with approval of a minor variation to height standards to allow a 37-foot height.

The following City General Plan land use policies applicable to the project are noted below.

Policy 1.2.2: Establish as a priority the development of projects that are contiguous with and infill the existing pattern of development, avoiding leap-frog development, except for large scale master-planned projects that are linked to and planned to be extensions of existing development and for which infrastructure and services are in place or funded.

> **Consistent:** The proposed project would be adjacent to, and become part of, the developed existing Green Island industrial/warehouse area. Therefore, the project would be generally consistent with this policy.

Policy 1.3.4: Limit the total additional new development that can be accommodated in the City and its Urban Limit Line to the following provided that the highway improvements stipulated by the Circulation Element are implemented. Industrial development within the City is limited to 1,560,195 sq. ft., and within the Urban Limit Line the limit would be 5,778,500 sq. ft.

Policy 1.3.5 of the GP provides some flexibility in implementing Policy 1.3.4: Consider increases in development capacity when it can be demonstrated that additional transportation improvements have been implemented or are funded, or demands have been reduced (based on highway level of service and vehicle trips), and such increases are consistent with community needs and desires. (I 1.9 and I 1.10)

Consistent: The project would contribute its fair share to traffic improvements that would assure that appropriate transportation improvements would be implemented. See Transportation/Traffic section of this IS for additional discussion.

Policy 1.22.3: 1.22.3 Permit development according to the following standards:

a. Labor-intensive uses: a maximum floor area ratio of 0.5.

b. Low labor uses (such as warehousing): a maximum floor area ratio of 0.7.

Consistent: The proposed project would have a floor area ratio of 0.48.

Policy 1.22.4: Require that development be designed to achieve a high level of quality and compatibility with existing uses including the consideration of the following:

1. architectural treatment of all building elevations;
2. use of extensive landscape along the primary street frontages and parking lots; and
3. enclosure of storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements. (I 1.1, I 1.4-I 1.7, I 1.11, and I 1.14)

Consistent: The project includes architectural treatments consistent with nearby warehouse developments. It includes a landscape plan for the street frontage, site perimeter, and storage areas.

Policy 1.27.1: Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Plan (ALUP).

Consistent: The project site is located within ALUP Compatibility Zone D. The proposed project use (warehousing/distribution) would comply with the conditions of the ALUP. Therefore, the project would be consistent with this policy.

Policy 1.27.2: Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.

Consistent: The proposed project site is mostly located within Zone D; a small part of the site may be in Zone E. Wine distribution uses are permitted in these zones. In addition, the applicant has obtained an Avigation Easement for the property. Therefore, the project would be consistent with this policy.

Policy 1.32.1: Require adherence to the *Design and Development Principles* prescribed in the General Plan and the City's Design Review Guidelines, which shall be updated periodically.

> **Consistent:** The project has been designed to adhere to the *Design and Development Principles* prescribed in the General Plan as well as the City's Design Review Guidelines. Therefore, the project would be consistent with this policy.

Policy 1.32.2: Require that development projects subject to discretionary review submit and implement a landscape plan.

> **Consistent:** Landscaping would be provided throughout the parking lot areas and along project site boundaries. Therefore, the project would be consistent with this policy.

Policy 1.32.4: Require developers to incorporate mature and specimen trees and other significant vegetation, which may exist on a site into the design of a development project for that site.

> **Consistent:** The project includes a landscaping plan, which includes trees and other plants. There are no mature or specimen trees on the project site that can be incorporated as part of the project.

Policy 1.32.5: Require the use of drought-tolerant species in landscape design in accordance with the provisions of the Water Conservation and Landscape Act.

> **Consistent:** Vegetative species included in the project landscape plan are generally native to California and are drought-tolerant where appropriate. Therefore, the project would be consistent with this policy.

Policy 1.32.6: Require that commercial, industrial, and multi-family residential development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.

> **Consistent:** The proposed project would incorporate drought-conscious irrigation systems and maintain the health of the landscape consistent with Policy 1.32.6. Therefore, the project would be consistent with this policy.

Policy 1.32.7: Require that all commercial, industrial, multi-family, and common area landscape be adequately irrigated with automatic irrigation systems.

> **Consistent:** The proposed project would include the use of automatic irrigation systems. Therefore, the project would be consistent with this policy.

Policy 1.32.8: Promote the use of reclaimed water for the irrigation of public and private landscape, as available.

> **Consistent:** The proposed project would include an on-site irrigation system that would use recycled irrigation water. Therefore, the project would be consistent with this policy.

Policy 1.33.1: Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings.

> **Consistent:** The proposed project would be constructed in accordance with the City's building and other pertinent codes. Therefore, implementation of the proposed project would be consistent with this policy.

Policy 1.33.3: Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, and other pertinent elements.

> **Consistent:** The project would provide sufficient space for access, parking, and open space consistent with Policy 1.33.1. Therefore, the project would be consistent with this policy.

Policy 4.9.3: Require that sufficient and secure bicycle parking be provided in all parking areas.

> **Consistent:** Bicycle parking in excess of City requirements is provided as part of the project. Therefore, the project would be consistent with this policy.

Policy 5.5: In order to reduce light and glare, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) is designed using City engineering standards and/or Best Management Practices to prevent artificial lighting from illuminating adjacent private property in residential neighborhoods and/or natural areas. If isolated areas are identified as having excessive spillover post construction, specific mitigations shall be implemented, e.g. installation of glare shields.

> **Consistent:** The proposed project includes lights in the parking lot and on the building. The lighting has been designed to minimize spillover light, per City requirements. A lighting study has been prepared by the applicant's lighting engineers showing minimal spillover lighting.

Policy 6.4.1: Continue to implement an ordinance requiring built-in fire protection for most building types, including single- and multi-family residential, to:

- minimize the potential for loss of life and property
- allow for the provision of a high level of fire protection services while reducing the needs for additional staff and equipment.

Consistent: The proposed project would be constructed to meet City and State fire code requirements. The proposed project would not require additional fire staff or equipment.

Policy 6.9.2: Require that landscaping in proximity to commercial, industrial, multi-family, and public structures be sited to allow for security surveillance.

Consistent: Landscaping would be planted in accordance with City standards to allow for security surveillance.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

- Site Design
  - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
  - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
  - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
  - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas;
  - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels; and,
  - All truck docks and truck traffic noise on the north side facing away from south residential areas.

  Consistent: The proposed project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise).

Napa County Airport

The Napa County Airport Land Use Commission regulates land use around the Napa County Airport by requiring compliance with the Napa County Airport Land Use Compatibility Plan (NCALUCP). The City of American Canyon's General Plan and Zoning Ordinance were found to be consistent with the

NCALUCP. The project is consistent with the City's General Plan. The project site is located in Zones D and E of the Airport's land use compatibility map, which permit development of warehouse/distribution center uses. Please see a comprehensive discussion of this issue in response to Item VIII e), above.

The project has been designed consistent with all applicable City land use and planning documents adopted to avoid or mitigate an environmental effect, as discussed throughout this Initial Study. Therefore, the impact is ***less than significant*.**

c) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be ***no impact***.

XII. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Discussion

a, b) The project site is designated Commercial Recreation in the City's General Plan and consists of a vacant parcel. The site and adjacent borrow area site to the south are not identified in the City's General Plan as a site containing locally important mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources. The project does not propose to excavate the site for mineral resources; therefore, no impacts related to mineral resources would result from construction of the project. The project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources.

XIII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project within the vicinity of a private airstrip, or within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Background

Existing Noise Levels and Sensitive Receptors

Noise-sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) include residential developments, schools, health care facilities, and libraries. Noise-sensitive receptors in the project vicinity include one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

To quantify existing ambient noise levels at the project site and surrounding area, one long-term (72-hour) and several short-term (10-minute) noise measurements were conducted at and near the project site. The long-term meter was placed on the row of eucalyptus trees at the northern project site boundary and measured existing 24-hour noise levels. The short-term measurements were conducted at several locations on the project site to measure traffic noise from Commerce Court and Highway 29, and noise from adjacent properties.

The main source of noise in the project vicinity is aircraft noise from Napa County Airport. Secondary noise sources included traffic on Commerce Court, construction noise and pedestrians flying drones in the project

vicinity. The noise measurements are summarized in Table Noise-1, below. The Noise Appendix (Appendix E) includes noise measurement site locations, 24-hour noise plots and additional sound level data.

Table Noise-1: Existing Noise Levels in the Project Area[7]

Location	Time Period	Noise Levels (dB[8])	Noise Sources
Site 1. North property line of the project site along Eucalyptus grove.	Tuesday August 4, 12:00 a.m. through Thursday August 6, 11:59 p.m., 2020 72-hour measurement	Hourly Leq[9]s ranged from: 44-54 Ldn[10] s: 53, 52, 52 Hourly Lmax[11]s ranged from: 44-76	Unattended noise measurements do not specifically identify noise sources
Site 1. North property line of the project site along Eucalyptus grove.	Monday August 3, 2020 11:47-11:57 a.m.	5-minute Leqs: 58, 45 5 minute Lmaxs: 75, 60	Jet overhead was 74 dB. Quieter noises included traffic, winds, & distant construction.
Site 2. North area of the project site.	Monday August 3, 2020 12:01-12:10 p.m.	5-minute Leqs: 43, 45 5 minute Lmaxs: 52, 60	Distant construction was 45 dB. Traffic on Commerce Blvd was 43 dB. Quieter noises included wind & birds.
Site 3. Northwest edge of the project site.	Monday August 3, 2020 12:14-12:24 p.m.	5-minute Leqs: 43, 42 5 minute Lmaxs: 54, 50	Drones flying in north area of the project site was 50 dB. Quieter noises included birds, wind & distant construction.
Site 4. Southeast edge of the project site.	Monday August 3, 2020 12:26-12:36 p.m.	5-minute Leqs: 41, 44 5 minute Lmaxs: 55, 57	Distant aircraft was 55 dB. Quieter noises birds, wind & distant construction.
Site 5. Western edge of the project site, 50 feet east of centerline of Commerce Court.	Monday August 3, 2020 11:21-11:31 a.m.	5-minute Leqs: 59, 52 5 minute Lmaxs: 75, 64	Large delivery trucks up to 65 dB. Quieter noises included distant construction & horns.

[7] Source: RCH Group, 2020

[8] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report would be A-weighted unless noted otherwise.

[9] The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[10] Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[11] Lmax is the instantaneous maximum noise level for a specified period of time.

Regulatory Framework

The City of American Canyon addresses construction noise in Section 8.12.080 of the American Canyon Municipal Code. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties would not exceed those listed in Table Noise-2.

Policy 11.7.1 of the City's General Plan Noise Element limits construction activities adjacent to noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m. The Noise Element also requires construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses (Policy 11.7.2). Policy 11.2.4 of The Noise Element requires new industrial, commercial and related land uses to demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65dB in areas containing housing, schools, health care facilities, or other noise-sensitive land uses.

Table Noise-2: Noise Limits for Construction Activities (Lmax)

Timeframe	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dB	80 dB	85 dB
Daily: 7 p.m. to 7 a.m.	60 dB	65 dB	70 dB

Source: American Canyon Municipal Code, Chapter 8.12

Discussion

a) Construction and operational noise impacts are addressed below.

Construction Noise

The project could result in temporary, short-term increases in noise levels during project construction. Noise-sensitive receptors near the project site include single-family residences (to the southeast). Residents in those homes could experience short-term increases in noise levels during construction of the project.

The maximum noise levels for various types of construction equipment that would be required to build the project are provided in Table Noise-3, below. Maximum noise levels generated by construction equipment used for the project would range from 74 to 85 dB at a distance of 50 feet. Table Noise-4 shows the maximum estimated noise levels at the nearest residence that could occur during construction.

As shown in Table Noise-4, site preparation, grading and paving activities for the warehouse would take place approximately 1,000 feet from the nearest residence and would generate

maximum noise levels of approximately 53 dB. Hauling of stockpile material and grading of the borrow area within the parcel to the south would take place approximately 500 feet from the nearest residence and would generate maximum noise levels of approximately 60 dB. The construction of the warehouse would take place approximately 1,100 feet from the nearest residence and would generate maximum noise levels of approximately 52 dB. Noise levels would be lower than these estimates most of the time, and maximum levels would only occur for a short duration when the construction equipment is at its closest point to the residence. Thus, noise levels resulting from project construction would be far below the 75 dB daytime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code.

Table Noise-3: Typical Noise Levels from Construction Equipment (Lmax)

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Auger Drill Rig	84
Backhoe	78
Bulldozer	82
Compactor (ground)	83
Crane	81
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Slurry Trenching Machine	80
Tractor	84
Welder/Torch	74

Source: *Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide,* 2006.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

Note: Noise levels were estimated using a reference noise level of 85 dB at 50 feet and attenuation rate of 7.5 dB per doubling of distance due to soft-site conditions at the project site.
Source: RCH Group 2020

Project construction would require approximately 15 days of nighttime construction activities for pouring concrete for the building slab, wall panel, and additional large paving due to the scale of the pour requiring that the plant and trucks being dedicated to it for the pour duration. Previous nighttime concrete pours occurred for the construction of the SDG Commerce 330 Distribution Center building approximately 1,000 feet south of the project. The City received a few calls from the residents to the southeast (the neighborhood southeast of the Eucalyptus Drive/ Wetlands Edge Road intersection) inquiring about nighttime construction noise. Once the pre-notification of nighttime construction dates and times were submitted to the City, the residents to the southeast were notified and understood the nature and timing of nighttime construction and submitted no further noise inquiries (Doswald, 2020). The concrete pours would occur during nighttime hours starting no earlier than 12:00 a.m.

Concrete pouring activities would occur approximately 1,000 feet from the existing residence and 2,300 feet from the residential neighborhood. In addition, the existing SDG Commerce 330 Distribution Center building to the south would work as a noise barrier to the residences approximately 2,300 to the southeast. As shown in Table Noise-4, the maximum noise levels generated at 1,000 feet would be approximately 53 dB. This would be below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code. Similar to previous construction for the SDG Commerce 330 Distribution Center building, pre-notification of these night pour dates and times would be provided to the City of American Canyon and to residents that expressed concern with nighttime noise during the Commerce 330 Distribution Center construction.

A portion of the project construction activities could occur when the new elementary school that is currently under construction is in-session. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would not exceed any noise standards.

The implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce potentially significant impacts from temporary construction noise to ***less than significant***.

Operational Noise

Operational noise from the project would include automobile and truck traffic travel to and from the site, loading dock activities, and parking lot activities. All truck and automobile activity would be on the north side of the building, so that the building would shield residential areas to the south from that noise. The warehouse building's cooling system would bring in cool night air with intake louvers and fans. Cooling equipment would be located greater than 1,000 feet from the nearest residence to

the southeast and the noise from the operation of mechanical equipment would not be audible at the residence over ambient noise levels in the project vicinity.

Noise from parking lot activities would occur at the project site intermittently when warehouse employees arrive at the beginning of a shift and leave at the end of a shift. Representative parking activities such as employees conversing and doors slamming generate maximum noise levels of 60-70 dB at 50 feet (LSA Associates, 2012). The project includes parking spaces on the north side of the project. Parking spaces would be approximately 1,400 feet from the nearest residence to the east and, given this distance, parking lot noise would attenuate to a level below ambient noise levels before reaching the nearest residence.

The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Court and Green Island Road. The existing average traffic noise levels measured at Commerce Court (Site 5) were 52 to 59 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 367 trips per day during weekdays with 35 AM peak-hour trips and 28 PM peak-hour trips, which would be less than one trip per minute during the peak hour traffic (GHD, 2020). Project traffic would not result in a doubling of traffic and would have a less than 3 dB increase and would have a minimal effect upon ambient noise levels in the project vicinity.

Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.

The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).

Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be ***less than significant***.

b) Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table 4 of the Noise Appendix. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry building (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers). Project construction would involve the use of a roller and a bulldozer, which could produce vibration levels of 0.210 and 0.089 ppv at 25 feet. Ground vibration generated by construction operations would be primarily associated with on-site trucks and excavation equipment and would result in vibration levels of less than 0.1 ppv at 25 feet. Construction activities would occur as close as approximately 1,000 feet from the nearest structure and the predicted vibration levels at the nearest structure would not exceed the 0.5 ppv threshold for residential and commercial structures. Therefore, vibrational impacts would be ***less than significant***.

c) The project site is not located within the vicinity of a private airstrip. There are no private airstrips located in the City of American Canyon or near the city limits. The project site is located in Zone D of the Napa County Airport Land Use Compatibility Plan. Warehousing is listed in the American Canyon General Plan Noise Element as one of the uses that is normally acceptable in this zone. The project would not exceed the maximum density specified in the General Plan for Zone D and would be consistent with the land use designation in the Airport Land Use Plan and the General Plan's airport vicinity land use compatibility criteria. The project would not expose people working on the project site to excessive noise levels. This impact would be considered ***less than significant***.

Mitigation Measures

Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All

property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City also shall be pre-notified of nighttime construction.

Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

XIV. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

a) The proposed warehouse development would not directly increase the population because there is no housing component, but it would introduce new businesses to the area. As part of the Commerce 330 project, infrastructure at the site was expanded. This infrastructure includes Commerce Court, which is an approximately 1100-foot-long paved roadway extension and widening of an existing rock-surfaced road, water and sewer main tie-ins, a sewer lift station, gas line extension, storm drainage facilities, and recycled water service. These improvements serve the proposed project, the Commerce 330 project, and, if developed in the future, the intervening parcel. The project could induce similar warehouse development on the remaining undeveloped parcel between it and the Commerce 330 development. However, the number of new employees at that facility would be similar to the project's employment (32 full-time employees and up to 18 part-time employees). Therefore, this impact would be considered ***less than significant***.

b, c) The project site is vacant and development of the proposed project would not displace existing housing or people. Therefore, there would be ***no impact*** associated with displacements.

XV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?			**X**	
d) Parks?				**X**
e) Other public facilities?				**X**

Discussion

a) As a light industrial/warehouse/distribution center development, the proposed project would not directly increase the residential population of the City of American Canyon. The General Plan for the City evaluated impacts related to increased industrial development (City of American Canyon. 1994, as amended through June 2020).

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The ACFPD's goal is to respond to 90 percent of their calls in five minutes or less. The response time from this fire station is around five minutes, but may be longer depending on traffic and other variables. In 2019, the ACFPD responded to 72 incidents in the Green Island Industrial area. In 30 percent of the incidents, response time of the first fire vehicle was within five minutes to this area. Therefore, the proposed development may exceed the District's target response time.

The City provides fire service and facilities through two different fees. The first fee, a Fire Mitigation Fee is a one-time assessment of new development, which is $0.5474 per square foot for industrial properties. The second fee is the Fire Service Fee, which is an annual assessment for each parcel based on a formula which includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. The ACFPD may need additional resources to address increased call volume and fire flow needed for the proposed project in the form of additional facilities, apparatus, and staffing. With payment of the required Fire Service Fee, this impact would be reduced to a ***less-than-significant*** level (email from Chief Glen Weeks, July 23, 2020).

b) The City of American Canyon contracts with the Napa County Sheriff's Office for staffing the American Canyon Police Department to provide police services. The California Highway Patrol is responsible for traffic related enforcement. The police headquarters are located at 911 Donaldson Way East, which is the same location as the fire district, approximately 2.1 miles from the project site. The Police Department has a force of 24 full-time sworn officers, two police technicians, and an administrative clerk. Additionally, the Napa County Sheriff's Office investigations Bureau has a Lieutenant, a Sergeant, and 7 Detectives. These Detectives carry a significant ACPD case load for follow-up investigations. (City of American Canyon Police Department 2019 Annual Report).

Staff and equipment required to provide service to the proposed project would depend on the occupants of the building. The Police Department generally does not require additional police personnel for warehouse projects. Such businesses typically provide some self-monitoring, such as video cameras in parking lots, which reduces police calls. The applicant would be responsible for mitigation/impact fees for the police station in accordance with the City of American Canyon's Mitigation Impact Fee schedule. With payment of the Mitigation Fee, the project would result in a ***less-than-significant impact*** on the City's police services.

c) The City of American Canyon is within the Napa Valley Unified School District (NVUSD). The proposed project would not affect schools, parks or other public facilities because this warehouse project would not directly increase the population. However, industrial developments in the City of American Canyon are required to pay school fees and a Civic Facilities Fee, in accordance with the City's Master Fee Schedule. With payment of the mitigation fees this potential impact would *be **less than significant***.

d) The proposed industrial project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. Pursuant to the City's General Plan Policy 7.1.1, the City has a minimum parkland standard of 5.0 acres per 1,000 residents. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore, the project would have ***no impacts*** to parks and recreation facilities**.**

e) No other public facilities would be required by the proposed project. Therefore, the project would have ***no impacts*** to any such facilities**.**

XVI. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Discussion

a, b) The proposed distribution center project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. The project would be on land designated for recreation, but would not affect any such uses or facilities. Therefore the project would have ***no impact*** to recreational facilities.

XVII. Transportation/Traffic.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadways, pedestrian and bicycle facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Background

A traffic impact analysis (TIA) was conducted for the project by GHD (May 8, 2020), included as Appendix F to this IS. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[12] The TIA addressed the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

The following study intersection was identified and analyzed for this project:

[12] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this intersection:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road.

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the heavy vehicles (trucks) traffic was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

The Green Island Road/Commerce Boulevard intersection is operating at acceptable LOS during both peak hours (LOS A and B in AM and PM Peak Hours, respectively).

An updated Vehicle Miles Traveled (VMT) analysis was conducted for the project by GHD (GHD February 2021). GHD reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority, the City of American Canyon, and other relevant sources to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from available data sources. The site is undeveloped so generates no VMT at the present time.

Discussion

a) Although CEQA no longer considers traffic congestion, by itself, to be a potentially significant impact, the City of American Canyon established the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

Trip Generation and Distribution

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak-hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[13] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities.

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

The average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf, respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak-hour the average rates for the two-day counts were 0.12 trips/ksf

[13] Omni-Means, Ltd., Trip Generation Rates--Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

and 0.13 trips/ksf resulting in an overall average PM peak-hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily trip generation would be 367 trips, with 35 AM peak-hour trips (21 in and 14 out) and 28 PM peak-hour trips (10 in and 18 out).

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

Existing Plus Approved Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects, including the Commerce 330 distribution center. That report projected a small increase in delay with no change in LOS in either the AM peak hour (LOS A) or PM peak hour (LOS B). The intersection would continue to operate acceptably.

Existing Plus Approved Plus Project Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects plus the proposed project. That report projected a small increase in delay with a reduction in the AM peak hour from LOS A to LOS B. There was no change in the PM peak hour (LOS B). The intersection would continue to operate acceptably.

Cumulative Conditions with Project

The GHD report evaluated LOS for the intersection of Commerce and Green Island Road for cumulative projects plus the proposed project. That report projected a reduction in the AM peak hour to LOS C. The PM peak-hour LOS would decline from LOS B to LOS D. These would be the same with both cumulative baseline conditions and cumulative-plus-project conditions. The City's target LOS is D, so the intersection would continue to operate acceptably.

Signal Warrant Analysis

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include "8-hour volumes" (Warrant 1), "4-hour volumes" (Warrant 2), and "peak hour volumes" (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. At the Green Island Road/Commerce Boulevard intersection during the AM and PM peak periods a maximum of two pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

The crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve-month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three-year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location does not warrant signalization for safety reasons.

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak-hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips. Mitigation TRA-1, which recommends installation of a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under Existing Plus Project and Cumulative Plus Project conditions during the PM peak hour (worst case). Therefore all intersection impacts would be reduced to a ***less-than-significant level with mitigation***.

b) As noted above, an updated VMT analysis was completed for the project to determine consistency with CEQA Guidelines Section 15064.3, subdivision (b), which requires a 15% reduction in VMT compared with current regional VMT generation for similar uses (GHD, February 11, 2021). This updated analysis is included as part of Appendix F in this IS. GHD reviewed its analytical basis for establishing average trip lengths in Napa County and for the Project Area, and in turn the basis for establishing a trip length baseline and threshold (15% below baseline) and the basis for establishing an average commute length for the proposed Project. Upon further review of data provided by the applicant, indicating a roughly 11-mile one-way commute length, GHD revisited the available sources and found compelling evidence for using an average of three data sources (Streetlight Data, Census Longitudinal Employer-Household Dynamics, and the California Statewide Travel Demand Model). This additional analysis and supporting evidence for using an average of the available data sources, is provided in GHD's updated memorandum (Section 3),

which is included in the Final IS/MND Traffic Appendices. Based on the refined analysis, the proposed Project's net VMT over the calculated threshold level was determined to be 729 daily VMT. The VMT analysis determined that completing the bike path from the current terminus at 330 Commerce Court, to connect with Eucalyptus Drive and Wetlands Edge Road, would achieve a reduction of 1004 daily VMT, and thus reduce this impact to a ***less-than-significant level with mitigation***. The bike path extension is described in Mitigation Measure TRA-2, below.

c) The Napa County Airport is located approximately one mile northwest of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over-flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the ALUCP, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. A small portion of the site may be in Zone E, which is less restrictive than Zone D, and would allow the proposed project use.

An Avigation and Hazard Easement Deed extending over the whole of the property has been approved by the Napa County Board of Supervisors.

Therefore, the proposed project would not create aviation safety hazards for air traffic. Impacts would be ***less than significant***.

d, e) The project circulation plan complies with standard traffic design standards and would not present any traffic hazards. The project's location on Commerce Court assures that traffic into and out of the site would not conflict with any other traffic movements. Internal circulation within the proposed project's parking and loading dock areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. A truck turn-around area is included in the internal circulation plan. The project design does not include any features that would create a hazardous condition. A sidewalk exists along the project site's Commerce Court frontage. Impacts of the proposed project would be ***less than significant***.

The circulation plan has been designed to allow 40-foot fire trucks to access all sides of the building. The access point to the project site from Commerce Court would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

A total of 134 car and 21 truck dock parking spaces will be provided for the building. Of these parking stalls, 6 will be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building will have a total of 21 truck loading docks. The developer will construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress will be provided around the full perimeter of the building.

CSG Consultants, contractor to the City of American Canyon Fire Protection District, who conducts plan check and inspection has reviewed and approved the single access design. Semi-trucks would not be allowed on the east, west and south sides of the Building. Only cars and Fire trucks would be allowed. Signage and the truck turnaround at the west end of the truck docks would assure these limitations on truck access are implemented. The Public Works Engineering Division has also reviewed the single access design with the applicant and has no comments.

f) The City of American Canyon and Napa County adopted a Bicycle Plan into its General Plan in 2020 (City of American Canyon and Napa County Transportation Authority, American Canyon Bicycle Plan, January 2020). That plan (p. 222) shows a proposed Class I Bicycle Route on Green Island Road connecting to other areas of the City to the east and wetland and open space areas to the west and south.

The proposed project has been designed to encourage and support public transit as well as bicycle and pedestrian access to the site. Each of the three office areas would have a bike rack to accommodate up to 4 bicycles, 5 more bicycles than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

The site plan and nearby off-site improvements appear to be compatible with walking, bicycling, and transit use and do not appear to create additional conflicts with intersections, streets, and highways near the site. Therefore, the project would not conflict with any adopted plans, policies or programs that address alternative transportation and this impact would be ***less than significant***.

Mitigation Measures

Mitigation Measure TRA-1: As described above, Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed

project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.

Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.

XVIII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) I, ii. A Sacred Lands File search and SB-52 contact information request was forwarded to the Native American Heritage Commission (NAHC) on behalf of the City. The NAHC stated that there were no Tribal Cultural Resources (TCRs) or other potentially significant properties known to be present within or in the vicinity of the project area.

SAS emailed a letter and a map depicting the SDG Commerce 330 Warehouse Project area to the Native American Heritage Commission (NAHC) on July 29, 2020. On behalf of the City of

American Canyon, the letter requested a Sacred Land File (SLF) search of the project area, and a list of Native American community representatives who should be contacted about the Project under AB-52. On July 30, 2020, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied in an emailed letter that the Sacred Lands File search was completed with positive results and specifically noted the Mishewal-Wappo Tribe of Alexander as the main point-of-contact regarding this finding. Ms. Fonseca also provided a list of local Native American contacts. On August 3, 2020, SAS mailed letters to the following Native American representatives identified by the NAHC (see Appendix G):

- Charlie Wright, Chair - Cortina Rancheria – Klestal Dehe Band of Wintun Indians
- Jose Simon III, Chair - Middletown Rancheria of Pomo Indians
- Merlene Sanchez, Chair - Guidiville Indian Rancheria
- Scott Gabaldon, Chair - Mishewal-Wappo Tribe of Alexander Valley
- Anthony Roberts, Chair - Yocha Dehe Wintun Nation

On August 17, 2020, SAS contacted each of the above-listed individuals by phone and/or email as provided by the NAHC. On August 17, Sally Peterson from Middletown Rancheria emailed SAS stating that the information request would be forwarded to the THPO department and provided updated contact information which SAS forwarded to the NAHC. On August 22, SAS received an email from Mr. Ryan Peterson, Admin and Projects Coordinator of Guideville Indian Rancheria, stating that the project area was outside the Rancheria's area of concern and suggested that SAS contact Mr. Scott Gabaldon of the Mishewal Wappo. SAS contacted Mr. Gabaldon as part of the August 17 emails and phone calls but no responses have been received as of this report. If any other substantive contacts are made with the Native American community regarding the proposed project, an addendum to this report may be developed.

Archival research, coordination with the NAHC, an archaeological field survey, and outreach to the Native American community did not result in the identification of any TCRs within or near the project area. Consequently, the project would have ***no impact*** on Tribal Cultural Resources

XIX. Utilities and Service Systems

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the waste water treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Background

This analysis is based on the City of American Canyon Will Serve Water Application for the project dated April 17, 2020 (See Appendix H).

Discussion

a, b, c) *Wastewater:* The City of American Canyon would provide wastewater collection, treatment, and disposal services for the proposed project. Wastewater from the City's service area is treated at the American Canyon Wastewater Treatment Plant on Mezzetta Court. This secondary/tertiary treatment plant handles domestic and industrial wastewater flows, and employs a Membrane Bio Reactor and ultraviolet light disinfection to produce a very high- quality effluent exceeding the standards set by the discharge permit (City of American Canyon 2017, 2018c). The facility, which was commissioned in 2002, has the capacity to treat 2.5 mgd with a 5.0 mgd wet weather peak flow. American Canyon's current average dry and wet weather daily flows are estimated at 1.3 and 2.7 million gallons, respectively. These daily flow amounts represent 52 percent and 54 percent of the treatment plant's design capacities (Ambrose, email communication). Based on the calculations for the Commerce 330 Distribution Center project, the proposed project would have an estimated domestic sewer demand of about 0.35 AFY (270 gallons/day average), or peak sewer demand of about 9,000 gallons per day, which would be less than 0.7% of plant capacity. The domestic sewer demand exceeds potable water demand because a portion of the wastewater would be reclaimed water used for toilets and urinals.

To the south of the treatment plant, 20 acres of constructed wetlands hold effluent from the wastewater plant prior to discharge into the Napa River, which has been designated by the Regional Water Quality Control Board (RWQCB) as an impaired waterway. During the wet season from November 1 through April 30, effluent is discharged to North Slough, a tributary to the Napa River. Effluent can be discharged to constructed freshwater wetlands all year round, which eventually overflows to the North Slough. Year round, a portion of the effluent is available as recycled water for industrial, agricultural, landscaping, and other uses. Currently approximately 17% of total City inflow, (282 AFY) is recycled, and the rate of use of recycled water is increasing. There were no water quality violations from the reclaimed water system in 2019[14]. The Wastewater Treatment Plant complies with the California Department of Public Health requirements for tertiary recycled water.

A six-inch sanitary sewer line will connect the office locations within the distribution center to a sewer-pump lift-station located near the northeast corner of the building tying into the existing City sewer main line in Commerce Court.

The proposed project's domestic discharge (no industrial discharge is proposed) would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater treatment facilities or expansion or upsizing of existing facilities. Therefore this impact would be ***less than significant.***

[14] City of American Canyon, Recycled Water Annual Report 2019, March 18, 2020

Stormwater: Stormwater runoff from the project site would be directed into a bioretention pond that would be constructed as part of the proposed project. The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. New storm drainage facilities are described in the Hydrology and Water Quality section based on a Hydrology Report (RSA 2019a), and Stormwater Control Plan (RSA 2019b) prepared for the proposed project. With the project's proposed storm drainage/detention facilities and Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, the impact to storm water facilities would be reduced to a ***less-than-significant*** level.

Water supply infrastructure is adequate to serve project needs, which are discussed below in Item b.

b) The City of American Canyon would provide water service to the site. The City receives water from the following sources:

- State Water Project (SWP);
- Permit (raw) water from the City of Vallejo;
- Treated water from the City of Vallejo;
- Emergency (raw) water from the City of Vallejo, and
- Recycled water from the City of American Canyon's wastewater treatment plant and Napa Sanitation District (City of American Canyon 2016a).

The amount of water delivered to the City of American Canyon from each of these sources can vary from year to year. For instance, deliveries from the SWP have varied between five percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount (City of American Canyon 2016a).

The City of American Canyon has two water treatment plants: a conventional sedimentation and filtration plant that was commissioned in 1976 and a membrane filtration plant, which has pores small enough to filter out contaminants, such as microorganisms, and that has been in use since 2004 (City of American Canyon 2020). Together the two plants produce up to 5.5 million gallons of potable water per year. The proposed project's net water demand of less than 1.2 acre-feet of water per year (AFY) could be supplied by the existing water treatment plants.

California Water Code requires that water purveyors, such as the City of American Canyon, develop an Urban Water Management Plan (UWMP) and update it every five years. The City's 2015 UWMP estimated an available year 2020 water supply of 5287 AFY, and a demand of 4412 AFY (City of American Canyon 2015). The City's 2020 UWMP is not yet available.

The Public Works Department of the City of American Canyon manages the City's water supply. As required by the City, the applicant has submitted a Will-Serve Water Application to the Public Works Department for the proposed project.[15] As part of that application, a Water Supply Report has been prepared for the proposed project in accordance with the City's Methodology for Determining Zero Water Footprint and Developing Water Supply Reports. the proposed project is estimated to have an average potable water daily demand of 142 gallons/day (gpd), and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. In addition, it will use about 541 gpd of recycled water. (Stravinski Development Group 2020). Implementation of mitigation measures UTIL-1 through UTIL-5, below would reduce the project impacts to *a* ***less-than-significant*** level.

d, e) During project construction and operation, the project would generate solid waste requiring disposal. Recology American Canyon provides solid waste and recycling collection services to the commercial and residential customers in American Canyon. Solid waste from American Canyon is delivered by Recology American Canyon to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. The transfer station is permitted to receive 1,440 tons of waste per day. From the Devlin Road Transfer Station, solid waste is sent to Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill has a maximum daily throughput of 3,500 tons/day and remaining capacity of 63.4 million cubic yards, which is 84 percent of the landfill's maximum permitted capacity. The anticipated closure date for the landfill is 2030 (CalRecycle 2020[16]). Construction and demolition waste accepted at Keller Canyon Landfill is sorted for recyclable material, such as wood, plastics, and metal, which further helps to alleviate the amount of solid waste going to the landfill.

The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon.

Green waste from landscape maintenance is minimal because there are no cultivated grass areas that would need to be mowed. Green wastes would be removed from the site. Natural areas would be left in their native state. If required for fire abatement purposes, high weeds would be cut and left to decompose on-site. Solid waste impacts would be ***less than significant***.

[15] Richard Kaufman, Public Works Director, City of American Canyon, letter to Peter Stravinski, SDG, April 17, 2020.
[16] https://www2.calrecycle.ca.gov/swfacilities/Directory/07-AA-0032

Mitigation Measures

Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

- Reducing existing potable water demands onsite
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
- Purchase new water supplies from other water providers

The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.

Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.

Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

- Drought-resistant vegetation
- Irrigation systems employing the following features:
  - Drip irrigation

  - Low-precipitation-rate sprinklers
  - Bubbler/soaker systems
  - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
  - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
  - Conservative sprinkler spacings that minimize overspray onto paved surfaces
  - Hydrozones that keep plants with similar water needs in the same irrigation zone
- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

XX. Wildfire Hazards

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors,exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				**X**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

Background

California PRC 4201 - 4204 and Govt. Code 51175-89 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires. CAL FIRE is remapping Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRA) to provide updated map zones, based on new data, science, and

technology. The Project site and surrounding area are classified Local Responsibility Areas and are mapped as in a "non-very high fire hazard zone[17].

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The Project would not require the provision of or need for new or physically altered facilities to continue to serve the Project site.

Discussion

a, b, c) The Project would construct a large warehouse-style building and paved parking on the grassy site in a non-very-high-fire-hazard area. The building would be constructed in accordance with current fire codes. No expansion of fire response facilities is required. Therefore, the Project would have a **less-than-significant impact** with respect to wildfire hazards, associated hazards, and equipment/infrastructure needs.

[17] https://osfm.fire.ca.gov/media/6732/fhszl_map28.pdf

XXI. COVID-19 Hazards

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially affect the spread of Covid-19			X	

Discussion

On March 4, 2020, Governor Gavin Newsom proclaimed a State of Emergency to exist in California as a result of the threat of the COVID-19. Governor Newsom and other state and local agencies have issued various orders, directives, and policies to address the COVID-19 pandemic and the health, safety and welfare of California residents, including a stay at home mandate and provisions intended to provide for the continued delivery of necessary goods and services.

Executive Order N-33-20, which includes the stay at home mandate, provided that residents working in 13 critical infrastructure sectors identified by the federal government may continue working, because of the importance of these sectors to California's health and well-being. The State Public Health Officer has identified the following sectors as essential critical infrastructure with essential workers who should continue reporting to work as normal: communications and information technology; chemical; critical manufacturing; defense industrial base; emergency services; energy; financial services; food and agriculture; hazardous materials; healthcare/public health; community-based government operations and essential functions; transportation and logistics; and water and wastewater. These sectors have been identified as critical infrastructure to allow state, local, tribal, and industry partners to work to protect communities and ensure continuity of functions critical to public health and safety as well as economic and national security.

Under this Order, local governments, including the City of American Canyon and Napa County, have continued to provide critical functions and services to the public. Many critical workers are allowed to continue working under the Order. These functions and services include, among others, law enforcement, fire protection, public safety, emergency management, emergency medical technicians, public works, health care, and transportation. Additionally, local government agencies have emergency plans that provide appropriate procedures and actions to implement during emergency situations such as the COVID-19 pandemic. These plans address many of the concerns associated with the consequences of the pandemic, such as the continued provision of emergency and essential services.

Private sector businesses also continue to provide critical infrastructure functions and services such as food and transportation among many others. Firms that enable logistics operations, including cooling storage, packaging and distributing products for wholesale or retail sale or use are identified as essential. Roadways are considered part of the essential transportation system sector.

The COVID-19 pandemic and the related orders and policies have resulted in certain social and economic impacts. Whether these social and economic impacts will result in any significant, adverse physical environmental impacts has not been documented and it would be speculative to make such determinations as there is no valid, reliable evidence available to the City at this time. A number of federal, state, and local programs (e.g., state unemployment, expansion of workers covered by the unemployment program, the federal supplement for unemployment benefits, the CARE Act, pandemic relief for migrant workers, and various locally-enacted residential and commercial rent relief) are available to assist individuals and businesses with funding to offset the economic impacts of the stay at home mandate.

Certain physical impacts resulting from the stay at home Order have been beneficial, including a substantial reduction in traffic and related impacts such as noise reduction and vehicle air quality and greenhouse gas emission reductions. Additionally, the continued provision of critical infrastructure functions and services, including emergency services, ensure that no significant adverse impacts would occur from the COVID-19 pandemic with respect to public services, safety, or utilities. The COVID-19 pandemic and stay at home Order would not adversely affect resources related to geology, hydrology, hazards, cultural resources, aesthetics, land use, biology, energy, and other topics, because the pandemic has not necessitated significant construction activities.

Since September, the state and local jurisdictions have been implementing phased reopening plans for certain employment and recreation sectors subject to implementation of appropriate protocols to reduce the potential for spreading the virus. It is expected that a COVID-19 vaccine will be available in the foreseeable future. Buildout of the Project and full occupancy of the site is not expected until after the current state of emergency has expired.

If construction is initiated prior to the availability of a COVID-19 vaccine, construction activities would be subject to various safety measures necessary to reduce the potential for the spread of the virus. These measures will be addressed in a project construction site safety plan and could include, among other measures, social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The applicant has prepared a draft Covid-19 Exposure Control Plan, which is included as Appendix I to this Initial Study. With implementation of this plan, potential impacts would be less than significant.

XXII. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

a) The proposed project could affect special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. Although the site does not contain any known historic resources or prehistoric resources, unknown resources could potentially be affected by project implementation, as discussed above in Section V. Cultural Resources. Compliance with the mitigation measures for the unearthing of any unknown cultural resources as well as mitigation required for biological resources would ensure all potential impacts associated with biological and cultural resources would be reduced to ***less than significant with mitigation***.

b) A number of cumulative projects are proposed or under construction in the project area (City of American Canyon, Active Planning Projects, July 2020[18]. The 330,000 sq. ft. Commerce 330 Distribution Center building is just south of the proposed project site. Copart Auto applied for a Conditional Use Permit to store vehicles at 1578 and 1660 Green Island Road. A new elementary school is under construction just southeast of the site at Commerce Blvd. and Eucalyptus Road. The only other large project planned is an approximately 200,000 sq. ft. logistics center at 300 Boone Drive, near the Napa Airport, about a mile north of the site. It is unlikely that impacts of those projects other than the school would overlap those of this project, with the exception of regional air quality (addressed in this IS) and traffic along SR 29, which is addressed in the City's General Plan. It is possible that construction impacts from the new school could overlap those of the proposed project, however they are likely to be accessed from opposite ends of Commerce Court, so overlap of noise and traffic would be minimal. Construction on the Commerce 330 Distribution Center has been completed, so construction impacts would not overlap with those of the 217 Commerce project. The cumulative effects of the proposed project would therefore be ***less than significant*.**

With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.

Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

It is possible that the remaining parcel between the project site and the Commerce 330 site would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, biological resources, and air quality impacts of the proposed

[18] https://www.cityofamericancanyon.org/government/community-development/projects

project, as with the project impacts. No projects are currently proposed for that site, Therefore assessment of those impacts would be speculative at this time. Environmental review of that project would be required to also consider the proposed project, if approved.

c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. Hazards associated with any soil contamination would be mitigated on site. The project's hazards would be less than significant, as described in this IS. The impact is considered ***less than significant*.**

IV. REPORT PREPARERS

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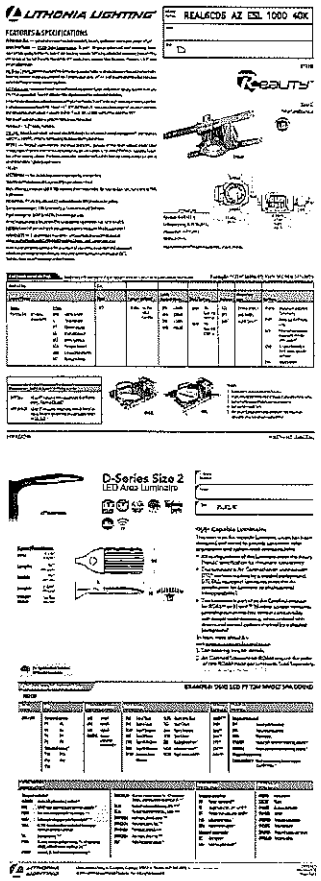
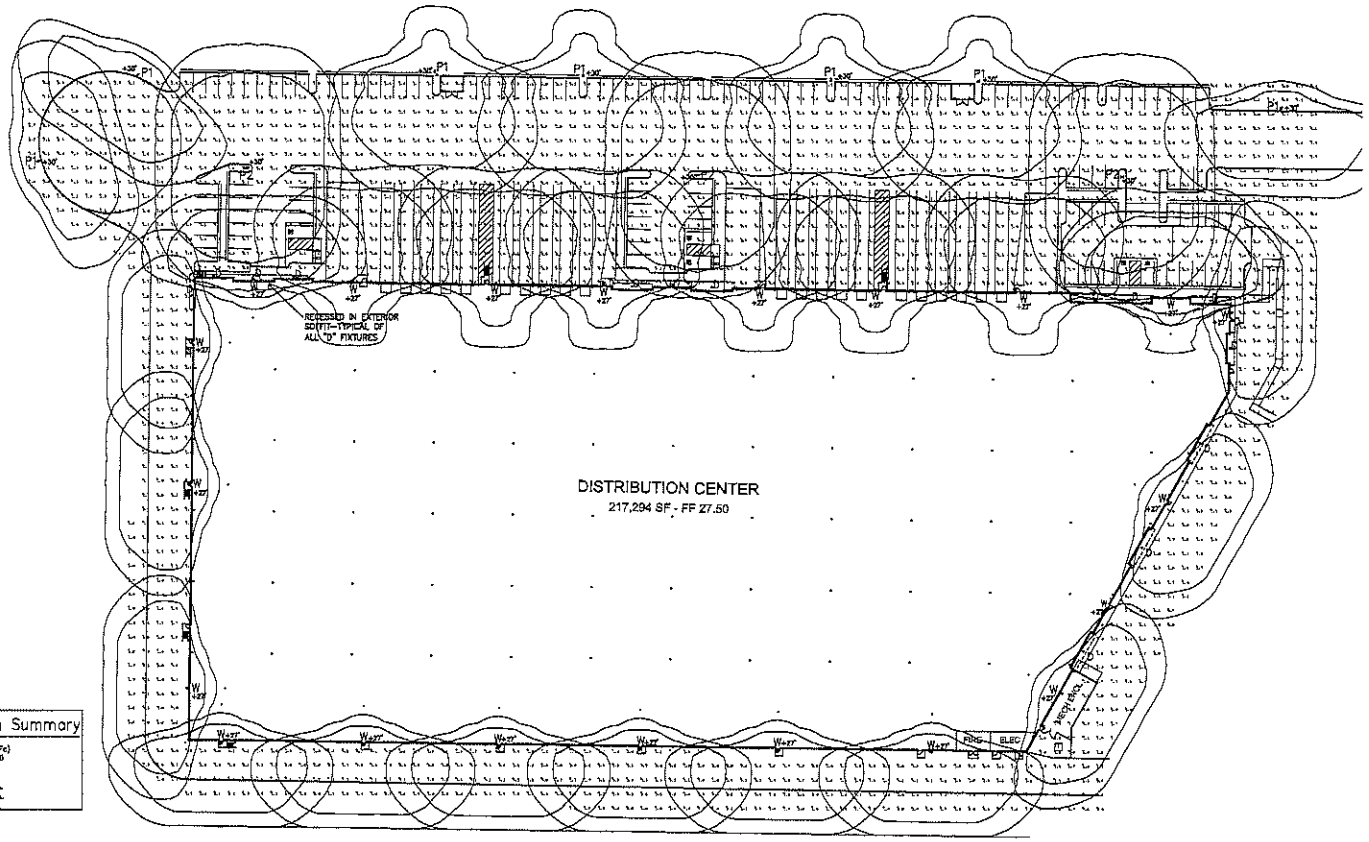
Appendix A

Lighting Studies





Summary by Label	
Label	Total
D —recessed	19
W —wall mount	21
P1 —pole mount	7
P2 —pole mount	3

Calculation Summary

Illuminance (Fc)
Average: 2.50
Maximum: 6.4
Minimum: 0.0
Avg/Min: N.A.
Max/Min: N.A.

SITE PHOTOMETRIC

SCALE: 1" = 40'-0"

Bosley Electric COMPANY

COMMERCIAL AND INDUSTRIAL SERVICE AND CONTRACTING

BOSLEY ELECTRIC COMPANY
CLASSIFICATION B C-10 C-36
LICENSE NO. 378245
STATE OF CALIFORNIA

THESE PLANS HAVE BEEN PREPARED BY BOSLEY ELECTRIC FOR THEIR EXCLUSIVE USE IN ACCORDANCE WITH SECTION 8727.5 OF THE PROFESSIONAL ENGINEERS ACT AND ARE NOT TO BE USED FOR THE PURPOSE OF BIDDING OR INSTALLATION BY ANY OTHER CONTRACTOR.

Project
SDG COMMERCE 217
DISTRIBUTION CENTER
AMERICAN CANYON, CA

No.	Revision	Date

Client

Sheet title
SITE PHOTOMETRIC

Date: 12-12-19
Project No.
Drawn by: KC
Sheet No.
Checked by
E-1.1

Appendix B

Air Quality Model Output Data

Appendix B

Air Quality and GHG Emissions Data and Supporting Information

B-1: Air Quality Setting

B-2: Air Quality Calculations

B-3: CalEEMod Output Files

B-4: Greenhouse Gas Setting

Appendix B-1

Air Quality Setting and Regulatory Context

The project site is located within the San Francisco Bay Area Air Basin (Air Basin), which encompasses Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties. The Air Basin is characterized by complex terrain which distorts normal wind flow patterns, consisting of coastal mountain ranges, inland valleys, and bays.

Regional Meteorology

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, stability, and air temperature, in combination with local surface topography (i.e., geographic features such as mountains, valleys, and San Francisco Bay), determine the effect of air pollutant emissions on local air quality.

The climate of the greater San Francisco Bay Area, including Napa County, is a Mediterranean-type climate characterized by warm, dry summers and mild, wet winters. The climate is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. In winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, air emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as sulfates and nitrates.

The proposed project site lies in the Napa Valley climatological sub-region of the Bay Area. The Napa Valley is between the Mayacamas Mountains to the west and the Vaca Mountains to the east. These mountains, with an average ridge line height of about 2,000 feet, are effective barriers to the prevailing northwesterlies. The valley is 27 miles long with Napa and Calistoga defining its southern and northern ends, respectively. [1]

An upvalley wind frequently develops during warm summer afternoons drawing from air flowing through the San Pablo Bay. During the evening, especially in the winter, downvalley drainage flow can occur. The prevailing winds are upvalley, southwest through south southeasterly, and occur approximately 50 percent of the time. The second most common winds are down valley drainage winds, north northwesterly through northeasterly, which occur approximately 25 percent of the time. Wind speeds are low with almost 50 percent of the winds between calm and four miles per hour (mph) and an average speed of about five mph. Only five

[1] BAAQMD. Climate, Physiography, And Air Pollution Potential – Bay Area and Its Subregions http://hank.baaqmd.gov/dst/papers/bay_area_climate.pdf

percent of the winds are between 16 and 18 mph which represent strong summer time up valley winds and winter storm winds. Summer average maximum temperatures at the southern end of the valley are in the low 80's with extremes in the high 80's, and at the northern end are in the low 90's with extremes in the high 90's. Winter high temperatures are in the high 50's and low 60's with low temperatures in the high to mid-30's. Sunshine is plentiful and annual average precipitation is 24 inches at Napa.

Summer and fall prevailing winds can transport non-local and locally generated ozone precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows setup by the surrounding mountains may also recirculate pollutants adding to the total burden. Also, the high frequency of light winds and associated stable conditions during the late fall and winter, contributes to the buildup of particulates and carbon monoxide (CO) from automobiles, agricultural burning, and fireplace burning.

Local Air Quality

The Bay Area Air Quality Management District (BAAQMD) maintains a network of monitoring stations within the Air Basin that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to and most representative of the project site is in Napa (Jefferson Street), approximately ten miles north of the proposed project site; where levels of ozone (O_3), particulate matter less than 10 micrometers (coarse or PM10), particulate matter less than 2.5 micrometers (fine or PM2.5), CO, and nitrogen dioxide (NO_2) are recorded. In April 2018, the Napa (Jefferson Street) monitoring station was discontinued and air monitoring began at Napa Valley College. Thus, 2018 data shown in **Table 1** is from the Napa Valley College monitoring station (and annual average data is not available for 2018).

Table 1 summarizes the most recent three years of data (2016 through 2018) from the Napa (2016-2017) and Napa Valley College (2018) air monitoring stations. No State or federal standards were exceeded in 2016. The State ozone standard (24-hour) was exceeded once in 2017 and the federal ozone standard (8-hour) was exceeded twice in 2017. The federal PM2.5 24-hour standard was exceeded 13 times in 2017 and 12 times in 2018. The state annual average PM2.5 standard was exceeded in 2017. No other State or federal air quality standards were exceeded during the three-year period.

The Bay Area is currently designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Bay Area is designated "attainment" or "unclassifiable" with respect to the other ambient air quality standards.

Table 1

Air Quality Data Summary (2016 through 2018)

Pollutant	Standard[a]	Monitoring Data by Year 2016	2017	2018
Ozone				
Highest 1 Hour Average (ppm)[b]	0.09	0.080	**0.098**	0.083
Days over State Standard		0	**1**	0
Highest 8 Hour Average (ppm)[b]	0.070	0.067	**0.084**	0.068
Days over National Standard		0	**2**	0
Nitrogen Dioxide (NO_2)				
Highest 1 Hour Average (ppm)[b]	0.180	0.039	0.053	0.043
Days over State Standard		0	0	0
Annual Average ($\mu g/m^3$)[b]	0.030/0.053	0.007	0.007	--
Carbon Monoxide (CO)				
Highest 1 Hour Average (ppm)[b]	9.0	2.2	5.6	1.4
Days over State Standard		0	0	0
Highest 8 Hour Average (ppm)[b]	20	1.5	4.7	1.1
Days over State Standard		0	0	0
Coarse Particulate Matter (PM10)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	50	33	--	26
Days over State Standard		0	0	0
State Annual Average ($\mu g/m^3$)[b]	20	16.6	--	--
Fine Particulate Matter (PM2.5)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	35	24.3	**199.1**	**117.9**
Days over National Standard		0	**13**	**12**
State Annual Average ($\mu g/m^3$)[b]	12	8.5	**13.7**	--

*NOTES: Values in **bold** are in excess of at least one applicable standard.*
Generally, state standards and national standards are not to be exceeded more than once per year.
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. A "—" denotes no information available.

Source: BAAQMD, Air Quality Summary Reports, May 24, 2019. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for

CARB's diesel regulations. Overall, cancer risk from toxic air contaminants (TAC) dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[2]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

The proposed project is within the city of American Canyon, which is not part of the seven CARE program impacted communities in the Bay Area. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, is approximately 160 cancer risk per million persons, while in American Canyon, the health impact is approximately 98 cancer risk per million persons.[3]

Nearby Sensitive Receptors

BAAQMD considers the relevant zone of influence for an assessment of air quality health risks to be within 1,000 feet of a project site. The project site is generally bound by a warehouse to the north, a eucalyptus tree grove to the west, a vacant parcel and the Commerce 330 warehouse to the south, and a 68-foot wide City Public Access and Utility Easement to the east. There is one residence approximately 1,000 feet from the project site boundary (to the southeast) and a residential neighborhood approximately 2,000 feet from the project site boundary (to the southeast). There are no schools or daycare centers within 1,000 feet of the proposed project.

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2 BAAQMD. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective & Path Forward (2004 – 2013). April 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

3 BAAQMD. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Air Quality Significance Thresholds

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G, and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant air quality impacts if it were to:

A. Conflict with or obstruct implementation of the applicable air quality plan;

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

C. Expose sensitive receptors to substantial pollutant concentrations; or

D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The air quality analysis follows the methodology presented in the BAAQMD 2017 CEQA Guidelines. The thresholds of significance applied to assess project-level air quality impacts are:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10;
- Average daily operation emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM2.5 or 15 tons per year of PM10;
- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers; or
- Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Assessment of a significant cumulative impact if it would result in:

- Exposure of persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs during either construction or operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 $\mu g/m^3$.

The BAAQMD air quality significance thresholds are found in **Table 2**.

The BAAQMD *CEQA Air Quality Guidelines* identify a project-specific threshold of either 1,100 metric tons of carbon dioxide equivalent (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development), which is also considered a cumulatively considerable contribution to the

global GHG burden and, therefore, a significant cumulative impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion to proposed project GHG emissions.

Table 2

BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Daily Operational Thresholds	Annual Operational Thresholds
Criteria Air Pollutants			
Reactive Organic Compounds (ROG)	54	54	10
Nitrogen Oxides (NOx)	54	54	10
Coarse Particulate matter (PM10)	82	82	15
Fine Particulate Matter (PM2.5)	54	54	10
Carbon Monoxide (CO)	NA	9.0 ppm (8-hour) and 20.0 ppm (1-hour)	
Fugitive Dust	Best Management Practices	NA	
Project Health Risk and Hazards			
Excess Cancer Risk	10 per million	10 per million	
Chronic Hazard Index	1.0	1.0	
Acute Hazard Index	1.0	1.0	
Incremental Annual Average PM2.5	0.3 $\mu g/m^3$	0.3 $\mu g/m^3$	
Cumulative Health Risk and Hazards			
Excess Cancer Risk	100 per million	100 per million	
Chronic Hazard Index	10.0	10.0	
Acute Hazard Index	10.0	10.0	
Incremental Annual Average PM2.5	0.8 $\mu g/m^3$	0.8 $\mu g/m^3$	
Greenhouse Gas Emissions			
Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		

SOURCE: BAAQMD *2017 CEQA Guidelines*

Appendix B-2

Air Quality Calculations

Construction Activities

Construction activities are expected to commence in March 2021 with site preparation and grading occurring for approximately nine weeks. Paving, building construction and architectural coating would follow through the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately nine and one half months. **Table 3** provides the estimated construction schedule for each phase:

Table 3

Estimated Construction Schedule

Phase	Description	Start	End	Working Days
1	Site Preparation	03/01/2021	03/12/2021	10
2	Grading	03/13/2021	04/30/2021	35
3	Paving	05/01/2021	05/28/2021	20
4	Building Construction	05/28/2021	11/25/2021	130
5	Architectural Coating	11/26/2021	12/16/2021	15

SOURCE: CalEEMod Version 2016.3.2.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. CalEEMod output worksheets are included in **Appendix B-3**.

The estimated construction equipment associated with the proposed project along with the number of pieces of equipment, daily hours of operation, horsepower (hp), and load factor (i.e., percent of full throttle) are shown in **Table 4**.

Table 4

Estimated Project Construction Equipment Usage

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

SOURCE: CalEEMod Version 2016.3.2.

Based on CalEEMod, a total of 4,750 haul truck one-way trips (based on a 16 cubic yard haul truck capacity) were estimated as a result of the 38,000 cubic yards of soil import required for grading/earthwork, however all soil import would come from the existing stockpile and grading of the parcel adjacent to the south of the project site (estimated trip length of 0.25 mile). Based on CalEEMod, a total of approximately 60 vendor truck one-way trips were estimated during building construction. During the construction, approximately 12 to 24 workers would be at the site, with a maximum near 80 workers. **Table 5** provides a list of the expected trips and trip lengths by construction phase of vendors and construction workers.

Table 5

Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Site Preparation	18	0	0	10.8	7.3	20.0
Grading	15	0	4,750	10.8	7.3	0.25
Building Construction	155	60	0	10.8	7.3	20.0
Paving	15	0	0	10.8	7.3	20.0
Architectural Coating	31	0	0	10.8	7.3	20.0

SOURCE: CalEEMod Version 2013.2.2.

The emissions generated from these construction activities include:

- Dust (including PM10 and PM2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces;
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM10, and PM2.5) primarily from operation of heavy off-road construction equipment and construction worker automobile trips (primarily gasoline-operated); and
- VOC emissions from coating.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles, screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

Operations

The proposed project would consist of a 217,294 square foot wine storage warehouse on the 10.39-acre project site. It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours a day during the peak season. Approximately 2 to 4 vehicles trips per day would be from clients or visitors to the site.

A total of 134 car and 21 truck dock parking spaces would be provided for the building. Of these parking stalls, 4 stalls would be designated for Clean Air Vehicle parking. The project's traffic demands would be 367 weekday daily project trips (1.69 trips per 1,000 SF).[1]

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated. The proposed project would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the refrigeration system. This reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

In many climates, night temperatures are cool even when daytime temperatures exceed economizer limits. Taking advantage of this resource, the air handler and economizer can flush the building with night air to cool down the building mass. The cool mass then acts as a heat sink the following day.

[1] GHD. *Traffic Impact Analysis Memorandum*. May 8, 2020.

Setting controls for night precooling can save a significant amount of energy, depending on location. Studies indicate cost savings range from five percent in Phoenix, Arizona, to 18 percent in Denver, Colorado, for a typical office building. Night precooling also reduces peak demand. Simulation analyses show that precooling a 100,000 square foot three-story building in Sacramento, California, would reduce energy use by 12.6 percent and cause a peak demand reduction of 31.3 percent.[2]

Interior lighting for the proposed project would be designed to meet Title 24 standards; however, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion sensor lighting for areas within the warehouse would be installed. This is beneficial as it reduces energy bills and reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current Pacific Gas & Electric incentives would be investigated and all attempts to incorporate them into the design would be made.

The fork lifts (estimated at 10) used within the warehouse would be powered by electricity instead of the typical natural gas powered fork lifts. This reduces the GHG emitted by the fork lift and is more efficient and less impactful on the air within the building. The building would have bike racks to accommodate up to a total of 12 bicycles, five more than the required seven stalls.

CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project[3] but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.

CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices.

GHG emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric's projected 2020 (year in which project becomes operational) CO_2 intensity rate. This intensity rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641 pounds of CO_2 per megawatt of electricity produced. The Pacific Gas & Electric's projected 2020 CO_2 intensity rate is 290 pounds of CO_2 per megawatt of electricity produced.[4]

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[2] Energy Star Building Upgrade Manual, Chapter 9, Revised January 2008, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/energy-star

[3] City of American Canyon. Initial Study for the SDG Green Island 258 Warehouse Project (PL 15-0019). January 25, 2016.

[4] Greenhouse Gas Emission Factors: Guidance for PG&E Customers, November 2015.

Appendix C

Biological Resources Reports

Revised
BIOLOGICAL RESOURCE ANALYSIS
SDG COMMERCE 217 DISTRIBUTION CENTER
CITY OF AMERICAN CANYON, CALIFORNIA

March 2, 2020

Prepared for

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Figure 2. SDG Commerce 217 Distribution Center Project Site Location Map.

Figure 3. SDG Commerce 217 Distribution Center Project Site Aerial Photograph.

Figure 4. Known Special-Status CNDDB Records Within 3 Miles of the SDG Commerce 217 Distribution Center Project Site.

Figure 5. USFWS Critical Habitat in the Vicinity of the SDG 217 Commerce Distribution Center Project Site.

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Table 1. Plant Species Observed on the SDG Commerce 217 Distribution Center Project Site.

Table 2. Wildlife Species Observed on the SDG Commerce 217 Distribution Center Project Site.

Table 3. Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 217 Distribution Center Project Site.

Table 4. Special-Status Wildlife Species Known to Occur Within 3 Miles of the SDG Commerce 217 Distribution Center Project Site.

ATTACHMENTS
(At Back of Report)

Sheet A1. Preliminary Site Plan for the SDG Commerce 217 Distribution Center, prepared by WAI (Ward Architects, Inc.) dated January 15, 2020.

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017.

Sheet UP4. Utility Plan for the SDG Commerce 217 Distribution Center, prepared by RSA, dated January 2020.

Storm Drain Level Spreader Detail, prepared by RSA, dated January 7, 2020.

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resource analysis for the proposed SDG Commerce 217 Distribution Center project site (herein referred to as the project site) located in the City of American Canyon, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from the construction of a distribution center and associated parking on the project site.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW. Our analysis includes a formal delineation of "waters of the U.S." that was confirmed in 2012 and reverified by the Corps in 2017.

This biological resources analysis also provides mitigation measures for "potentially significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of American Canyon for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The approximately 10-acre project site is located at 1075 Commerce Court, American Canyon, Napa County, California (Figures 1 and 2). The project site is bordered to the southeast by Jungle Paintball, a 40-acre paintball park. To the east is located a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is currently under construction occurs immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, occur further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive. Figure 3 provides an aerial photograph that shows the project site features and the surrounding land use.

The 10.39-acre project site is part of a larger 35.85-acre parcel (formerly known as Lot 3) that is comprised of a highly disturbed, ruderal (weedy) plant community, that was recently graded and leveled. This site formerly was occupied by a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees that were removed in 2012.

3. PROPOSED PROJECT

The applicant proposes to construct a 217,294-square foot distribution center with associated parking areas and a detention/bioretention pond on the 10.39-acre project site. Access to the distribution center will be provided by the Commerce Court extension, as illustrated on the Preliminary Site Plan (see attached Sheet A1).

4. ANALYSIS METHODS

Prior to preparing this biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. The Corps Confirmed Reverification of Aquatic Resources Delineation Map is provided as Sheet 2.

During the site surveys and wetland delineations, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The results of our literature research and field reconnaissance are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography

The project site is relatively flat with elevations ranging from 8 to 20 feet above sea level. The ground is undulating due to past land use disturbances including eucalyptus tree removal in 2012. The site slopes gently to the west towards North Slough and the Napa River.

5.2 Hydrology

There are no drainages on the project site. There are no indicators of hydrology on the 10-acre project site (Sheet 2).

5.3 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website (http://ucjeps.berkeley.edu/interchange/index.html). Table 2 is a list of wildlife species observed on the project site during multiple years of surveys at the project site. Nomenclature for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (CDFW 2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

5.3.1 RUDERAL HERBACEOUS VEGETATION

A complete list of plant species observed within the project site is presented in Table 1. The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, such as is found on the project site, is also common on this parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

5.4 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible

to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paintball facility located immediately to the southeast and construction of the SDG Commerce 330 Distribution Center distribution center to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq*.; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);

- plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2017). The California Department of Fish and Wildlife (CDFW) recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001) (CNPS 2017). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);

- animals that are designated as "species of special concern" by CDFW (2018);

- Animal species that are “fully protected” in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

- Bat Species that are designated on the Western Bat Working Group’s (WBWG) Regional Bat Species Priority Matrix as: “RED OR HIGH.” This priority is justified by the WBWG as follows: “Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.”

In the paragraphs below we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized “take” (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a Federal listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the state Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized “take” (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to “take” a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the “take.”

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered “rare.” Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a “significant effect on the environment” (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an “Inventory” of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern, and are reviewed by CDFW and maintained on "watch lists."

Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)";
- .2 is "fairly endangered in California (20-80% of occurrences threatened)";
- .3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

6.2 Potential Special-Status Plants on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB, a total of eight special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris accumulate on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018 and 2019, special-status plants are not likely to be found onsite and mitigation for special-status plants should not be warranted.

6.3 Potential Special-Status Animals in the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within three miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animal records have ever been mapped on or adjacent to the project site. However, a total of 18 special-status animal species are known to occur in the region of the project site (Table 4). Due to the disturbed nature of the project site and its history as a eucalyptus grove, there is a very low likelihood of special-status species occurring onsite. Regardless, due to the sensitivity of four of the special-status wildlife species known to occur in the area, we further discuss these species below.

6.3.1 California red-legged frog

The California red-legged frog (*Rana draytonii*) was federally-listed as threatened on May 23, 1996 (Federal Register 61: 25813-25833) and as such is protected pursuant to the Federal Endangered Species Act. On March 16, 2010 the USFWS issued the final designation for California red-legged frog Critical Habitat (USFWS 2010). *The project site does not fall within mapped critical habitat, although it is adjacent* (see Figure 5).

The California red-legged frog is also a state "species of special concern." While the state designation "species of special concern" does not provide any legally mandated protection, species of special concern must be considered in any project undergoing a CEQA review.

The California red-legged frog is typically found in ponds, slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. This frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. Populations probably cannot be maintained if all surface water disappears (i.e., no available surface water for egg laying and larval development habitat). Larval California red-legged frogs require 11-20 weeks of permanent water to reach metamorphosis (i.e., to change from a tadpole into a frog), in water depths of 10 to 20 inches (USFWS 2002). Riparian vegetation such as willows and emergent vegetation such as cattails are preferred red-legged frog habitats, though not necessary for this species to be present. Populations of California red-legged frog will be reduced in size or eliminated from ponds supporting non-native species such as bullfrog, Centrarchid fish species (such as sunfish, bluegill, or large-mouth bass), and signal and red swamp crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*, respectively), all of which are known California red-legged frog predators. However, the presence of these non-native species does not preclude the presence of the California red-legged frog.

California red-legged frogs also use upland habitats for migration and dispersal. The USFWS *Recovery Plan for the California Red-Legged Frog* states that frog overland excursions via uplands can vary between 0.25-mile up to 3 miles during the wet season, and that frogs "have been observed to make long-distance movements that are straight-line, point to point migrations rather than using corridors for moving in between habitats" (USFWS 2002). The information presented in the USFWS' Recovery Plan was taken from a publication by Bulger et al. (2003) that recounts a study in coastal redwoods in Santa Cruz area. M&A believes that such overland straight-line migrations are primarily limited to periods of heavy rainfall or during periods when ambient conditions exhibit high moisture levels such as in fog belts along the coast. Working in

Point Reyes National Seashore on the coast of California, Fellers and Kleeman (2007) found approximately 31 percent of California red-legged frogs moved more than 30 meters from their breeding sites and about 69 percent moved less than 30 meters from their breeding site during seasonal movement periods. Similarly, Bulger et al. (2003) found that 60 percent of their radio tagged frogs stayed within 30 meters of their breeding sites.

In locations that are characterized by hot and seasonally dry climates, the California red-legged frog is inclined to stay closer to its aquatic environments or will not migrate. Tatarian (2005) who studied an inland population of California red-legged frogs in eastern Contra Costa County where the climate is far drier than the coastal environment, found that all movements started after the first 0.5 cm of rain in the fall, with more terrestrial movements being made in the fall pre-breeding season (57%) than in the winter breeding season (32%) or spring post-breeding season (11%). Tatarian (op. cit.) also found that California red-legged frogs moved greater average distances aquatically (84.6 m) than terrestrially (27.7 m). Greater terrestrial distances were moved in the pre-breeding season (35.2 m) than in the breeding season (15.5 m) or post-breeding season (16.3 m) with the majority of movements occurring for only one of the 3-4 day survey periods. The majority of frogs (57%) were position faithful within a pool, indicating they did not migrate at all. These data suggest that long forays across the landscape found in coastal populations are less likely in dry inland locations.

The USFWS *Recovery Plan for the California Red-Legged Frog* states that populations are "most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal." "The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat" (USFWS 2002).

In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. *Therefore, the proposed project will not impact the California red-legged frog and mitigation should not be warranted.*

6.3.2 SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their active nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986). It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall (Schmutz et. al. 1984). Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads (Palmer 1988). Swainson's hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). They have also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded (CDFG 1994). The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats due to larger prey populations. In addition, agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase foraging success of Swainson's hawks by flushing prey (personal observations of G. Monk). During the nesting season Swainson's hawks usually forage within two miles of the nest. Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially, therefore it can occupy habitats with few or no perches except the nest tree (James 1992).

Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late-spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and the Swainson's hawk population appears to be dramatically responding in California. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round in the Davis area and in the Sacramento River Delta, resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since insecticide use over Argentinian wintering grounds was halted (G. Monk, personal observations). For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently.

The closest known record for nesting Swainson's hawk is 2.6 miles northeast of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near this project site in future years. *Hence, prior to earth-disturbance or construction, nesting surveys must be conducted that confirm or negate this species' presence as a nesting bird on or adjacent to the project site. Accordingly, impacts to Swainson's hawk are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.3 WESTERN BURROWING OWL

The western burrowing owl (*Athene cunicularia hypugaea*) is a California "species of special concern." Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Otospermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin. The mobility of the western burrowing owl enables the species to colonize the recent burrows. M&A did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys.

Regardless, the project site provides marginal nesting habitat for the western burrowing owl. *In order to confirm or negate the presence of western burrowing owls on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to western burrowing owl are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.4 NORTHERN HARRIER

The northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. This species is particularly vulnerable to ground predators such as coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and various snake species. Ground nesting birds in general are also subject to disturbance by agricultural practices. Northern harriers may forage over the project site and may nest in the open ruderal habitats onsite that provide suitable nesting habitat for this species. Hence, the proposed project could result in impacts to nesting northern harriers.

The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. Regardless, the project site provides marginal nesting habitat for the northern harrier. *In order to confirm or negate the presence of northern harriers on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to northern harrier are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

7. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the U.S. Fish and Wildlife Service and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the USFWS can no longer require mitigation based on the probability that the species could use the site. Rather they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain a incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the

geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion, it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an "incidental take" permit that allows applicants to "take" federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 Responsible Agency

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

7.1.2 Applicability to the Proposed Project

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank

adjacent to a large quarry pond that supported bullfrogs. State Route 29 is located between the closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity along any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. Therefore, the proposed project will not impact the California red-legged frog.

No other federally listed species are expected to occur on the project site. The project site does not provide fisheries habitat as it consists entirely of upland communities. *Therefore, it can be stated with confidence that the proposed project would not impact federally listed plant, animal, or fish species.*

7.2 Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to "take" (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

7.2.1 Applicability to The Proposed Project

Western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk, and red-tailed hawk (*Buteo jamaicensis*), among other raptors (birds of prey) could nest in the eucalyptus grove in the immediate vicinity of the project site. These raptors would be protected by the Migratory Bird Treaty Act. Also, the common songbirds that could forage on the site would be protected pursuant to this Act. As long as there is no direct mortality of species protected pursuant to this Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations section below.

7.3 California Endangered Species Act

7.3.1 Section 2081 of the California Endangered Species Act

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a provision for "harm" (see discussion of FESA, above),

CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state-listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFW will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity;
2) the impacts of the authorized take are minimized and fully mitigated;
3) measures required to minimize and fully mitigate the impacts of the authorized take:
    a) are roughly proportional in extent to the impact of the taking on the species;
    b) maintain the project applicant's objectives to the greatest extent possible; and,
    c) capable of successful implementation; and,
4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." *See* Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy*"* federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent

with state law, and that all state-listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state-listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 Applicability to The Proposed Project

No state-listed plant species would likely occur on the project site due to an absence of habitat. The project site does not support any trees and does not provide nesting habitat for the Swainson's hawk. Suitable nesting habitat for this hawk exists in the eucalyptus trees on the adjacent properties; thus, preconstruction nesting surveys will be necessary to ensure that earth-work or construction does not occur while this raptor is nesting nearby or that if it does, it does not disturb the nesting birds. If the proposed project follows the proposed mitigation measures as detailed in the Impacts and Mitigation section below, *an Incidental Take Permit (ITP) from the CDFW should not be necessary for this project.*

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.4.1 Applicability to the Proposed Project

Raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these birds including their eggs, or young. Any active nests that were found during preconstruction surveys

would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. More specifics on the size of buffers are provided below in the Impacts and Mitigations section.

7.5 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

7.5.1 Goal 8, Objective 8.1 and Policies 8.1.1 and 8.1.4

- **Goal 8:** Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.
- **Objective 8.1:** Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.
- **Policy 8.1.1:** Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
- **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

7.5.2 Applicability to the Proposed Project

Consistent with General Plan Policies 8.1.1 and 8.1.4, this report provides a detailed assessment of the biological resources present on the project site.

7.5.3 Objective 8.2 and Policy 8.2.1

- **Objective 8.2:** Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.
- **Policy 8.2.1:** Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

7.5.4 Applicability to the Proposed Project

Consistent with General Plan Policy 8.2.1, the project site has been evaluated for the presence of sensitive biological resources. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the project site.

7.5.5 Objective 8.3 and Policy 8.3.1

- **Objective 8.3:** Protect natural drainages and riparian corridors within the American Canyon Planning Area.
- **Policy 8.3.1:** Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:
    a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

7.5.6 Applicability to the Proposed Project

No wetland, natural drainages or riparian habitats are proposed to be impacted, as there are none present on the 10-acre project site.

7.5.7 Policy 8.3.1 b

- **Policy 8.3.1 b:** Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).

7.5.8 Applicability to the Proposed Project

Proposed development on the project site does not impact watercourses, riparian habitat, vernal pools or wetlands.

7.5.9 Policy 8.3.1 e

- **Policy 8.3.1 e:** Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

7.5.10 Applicability to the Proposed Project

Previous disturbance on the project site prohibits presence of land linkages, corridors, or habitat areas. Similarly, because creation of a mitigation site is not necessary for this site, there will be no habitat area or otherwise natural space in need of buffering.

7.5.11 Policy 8.3.1 f

- **Policy 8.3.1 f:** Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

7.5.12 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.f, and Policy 8.3.1.g roads and utilities have been designed to avoid conflicts with biological resources on the project site.

7.5.13 POLICY 8.3.1 G

- **Policy 8.3.1 g:** Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

7.5.14 POLICIES 8.3.5 AND 8.3.6

- **Policy 8.3.5:** Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.
- **Policy 8.3.6:** Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

7.5.15 APPLICABILITY TO THE PROPOSED PROJECT

There are no drainages on the project site or significant biological habitats onsite; hence, these policies do not apply to the proposed project.

8. CITY OF AMERICAN CANYON –ORDINANCES

8.1 Trees (Ord. 18.40.110)

> A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.
>
> B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

8.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site does not support any trees.

9. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFW to determine those areas within a project area that would be subject to their regulation.

9.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

9.1.1 SECTION 404 OF THE CLEAN WATER ACT

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(1) Extends to the mean high tide line, or
(2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
(2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
(3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

9.1.1.1 Significant Nexus of Tributaries

On December 2, 2008, the Corps and the Environmental Protection Agency (EPA) issued joint guidance on implementing the U.S. Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act. In this joint guidance these agencies provide guidance on where they will assert jurisdiction over waters of the U.S.

The EPA and Corps will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (for example, typically three months).
- Wetlands that directly abut such tributaries.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and

- Significant nexus includes consideration of hydrologic and ecologic factors.

9.1.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas

that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

9.1.1.3 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the United States. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to "waters of the United States."

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of "waters of the United States" found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g. a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of "no net loss" of wetlands (waters of the United States) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., if a

stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 Applicability to the Proposed Project

M&A originally prepared a preliminary wetland delineation map of the 35 acre parcel in 2006; however, this map was never submitted to the Corps. In 2011, a formal wetland delineation was conducted on July 14th and July 20th by M&A biologists Ms. Hope Kingma and Mr. Tim O'Donnell. The wetland delineation report and map were submitted to the Corps on August 22, 2011, requesting confirmation of the extent of Corps jurisdiction at the American Canyon Flat Lands site. In a letter dated January 31, 2012 the extent of Corps jurisdiction was confirmed, based on a field investigation on September 21, 2011. That jurisdictional determination expired five (5) years from the date of that letter.

M&A biologists Ms. Hope Kingma and Mr. Devin Jokerst conducted another wetland delineation of the entire 35.85-acre parcel (known as Lot 3), which includes this project site, on November 16, 2016 to re-verify the extent of jurisdictional areas on the site. M&A used the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the *Regional Supplement for the Arid West Region*. The jurisdictional determination request and the Draft Aquatic Resources Delineation Map (Sheet 2) were submitted to the Corps in December 2016. Mr. Bryan Matsumoto of the Corps conducted a site verification visit on May 18, 2017. On May 16, 2018 the Corps issued the jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the 35.43-acre parcel. The confirmed Jurisdictional Delineation Map (Sheet 2) and letter are attached. None of the jurisdictional features on that map occur on the 10-acre project site that is the subject of this report. *As such there will be no impacts to the waters of the U.S. for this project.*

9.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

9.2.1 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in "waters of the State" (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is an NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific

certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

9.2.2 Applicability to the Proposed Project

The Corps' Confirmed Reverification Aquatic Resources Delineation Map dated May 22, 2017 is provided as Sheet 2. The proposed project will not impact any waters of the State. *Therefore Section 401 of the Clean Water Act is not necessary for this project.*

9.3 California Department of Fish and Wildlife Protections

9.3.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
   (A) A detailed description of the project's location and a map.
   (B) The name, if any, of the river, stream, or lake affected.
   (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
   (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
   (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
   (F) Any other information required by CDFW" (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

9.3.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would be regulated by CDFW. *Hence, an SBAA with CDFW would not be necessary for this project*.

10. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

10.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs). It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

<u>Types of Construction Activity Covered by the Construction General Permit</u>

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several "post-construction" requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This "runoff reduction" approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development ("LID") design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA's 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

[1] CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

10.1.1 APPLICABILITY TO THE PROPOSED PROJECT

To obtain coverage under the SWRCB administered Construction General Permit, the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify Best Management Practices (BMPs) for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015).

10.2 RWQCB Municipal Storm Water Permitting Programs

The federal Clean Water Act (CWA) was amended in 1987 to address urban stormwater runoff pollution of the nation's waters. In 1990, the U.S. Environmental Protection Agency (USEPA) promulgated rules establishing Phase 1 of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase 1 program for Municipal Separate Storm Sewer System (MS4s) requires operators that serve populations of 100,000 or greater to implement a stormwater management program to control polluted discharges from these MS4s. While Phase 1 of the municipal stormwater program has focused on large urban areas, Phase 2 of the municipal stormwater program was promulgated by the USEPA for smaller urban areas including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

MS4 permits require the discharger (or dischargers that are permitted by the MS4 permittees) to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

10.2.1 NPDES C.3 REQUIREMENTS

The NPDES C.3 requirements went into effect for any project (public or private) that is "deemed complete" by the City or County (Lead Agency) on or after February 15, 2005, and which will result in the creation or replacement (other than normal maintenance) of at least 10,000 square feet of impervious surface area (roofs, streets, patios, parking lots, etc. Provision C.3 requires the onsite treatment of stormwater prior to its discharge into downstream receiving waters. Note that these requirements are in addition to the existing NPDES requirements for erosion and

sedimentation controls during project construction that are typically addressed through acquisition of coverage under the SWRCB administered Construction General Permit. The C.3 requirements are typically required to be implemented by MS4 permittees (and their constituencies).

Projects subject to Provision C3 must include the capture and onsite treatment of all stormwater from the site prior to its discharge, including rainwater falling on building rooftops. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable.* While the Clean Water Act does not define "maximum extent practicable," the Stormwater Quality Management Plans required as a condition of the municipal NPDES permits identify control measures (known as Best Management Plans, or BMPs) and, where applicable, performance standards, to establish the level of effort required to satisfy the maximum extent practicable criterion. It is ultimately up to the professional judgment of the reviewing municipal staff in the individual jurisdictions to determine whether a project's proposed stormwater controls will satisfy the maximum extent practicable criterion. However, there are numeric criteria used to ensure that treatment BMPs have been adequately sized to accommodate and treat a site's stormwater. The C3 requirements are quite extensive, and their complete explanation is not provided here. However, the following are minimums that should be understood and adhered to:

- The applicant must provide a detailed and realistic site design *and impervious surface area calculations*. This site design *and calculations* will be used by the Lead Agency (County or City) to determine/*verify* the amount of impervious surface area that is being created or replaced. It should include all proposed buildings, roads, walkways, parking lots, landscape areas, etc., that are being created or redeveloped. If large (greater than 10,000 square feet) lots are being created an effort will need to be made to determine the total impervious surface area that could be created on that parcel. For example, if only a portion of the lot is shown as a "building envelope" then the lead agency will need to consider that a driveway will have to be constructed to access the envelope and that the envelope will then be developed as shown. If the C.3 thresholds are met (creation/redevelopment of 10,000 square feet of impervious surface area), a Stormwater Control Plan (SWCP) (if required by the Lead Agency, or whatever steps for compliance with Provision C3 are required locally) must accompany the application.

- If a SWCP is required by the Lead Agency for the project it must be stamped by a Licensed Civil Engineer, Architect, or Landscape Architect.

10.2.2 Applicability to the Proposed Project

The Water Board issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s. On November 19, 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies. Permittees in the San Francisco Bay area are included in a Municipal Regional Permit (MRP), issued to 76 cities, counties and

flood control districts in 2009 and revised in 2015. Each of the Permittee's must file an Annual Report that is comprised of three parts: regional, countywide, and individual. Some requirements of the MRP are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all the MRP Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs have submitted Annual Report elements on the regional and countywide collaborative tasks, respectively, on behalf of the MRP Permittees and the individual MRP Permittees have also submitted Annual Report elements on the Permit Provisions they have implemented individually.

It is the applicant's responsibility to ensure that the project civil engineer prepares all required Storm Water Planning documents for submittal to the City of American Canyon to comply with its MS4 permit requirements. In addition, if the project includes a requirement to obtain a Clean Water Act Section 401 permit from the RWQCB, the Storm Water Management Plan (or equivalent plan) must be submitted to the RWQCB with the application package submitted for acquisition of a Section 401 permit (aka "water quality certification").

The applicant is proposing to treat all stormwater falling on impervious surfaces in the detention/bioretention basin located on the western edge of the project site (see Sheet UP4). Once treated, stormwater would be conveyed to "level spreader outfalls" that will be installed along the western project site boundary. The level spreader outfalls consist of perforated pipe set on contour that will discharge flows uniformly across a gradual slope covered by riprap, which will mimic sheet flow conditions similar to current project site runoff (see Storm Drain Level Spreader Detail). Accordingly, the project will not violate any water quality standards.

11. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are "Categorical Exemptions" that apply to the proposed activity; thus, the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a "Negative Declaration." If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a "Mitigated Negative Declaration" is typically prepared by the lead agency. Finally, those projects that may have significant effects on the environment, or that have impacts that can't be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact

Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. "Rare" species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

This report has been prepared as a Biology section that is suitable for incorporation into a Mitigated Negative Declaration. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA and can be incorporated by the CEQA lead agency (in this case City of American Canyon) into an initial study or higher levels of CEQA review including incorporation into the biology section of an Environmental Impact Report.

12. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

12.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other Federal, State, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers including riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources, including special-status wildlife species. We follow each impact with a mitigation prescription that when

implemented would reduce impacts to the greatest extent possible. This impact analysis is based on the Preliminary Site Plan (Sheet A-1).

13.1 Impact BIO-1. Development of the Project Could Have a Potentially Significant Impact on Nesting Swainson's hawks (Potentially Significant)

The Swainson's hawk is a state listed threatened species. While the Swainson's hawk has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's multiple project site surveys; however, the nesting population appears to be increasing throughout its nesting range in northern California and thus, it could conceivably nest in trees near the project site in the future.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (CDFG v. ACID, 8 CA App. 4, 41554) (CDFG 1994).

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be *potentially significant pursuant to CEQA.* This impact could be mitigated to a level considered less than significant pursuant to CEQA.

The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). There are extensive foraging opportunities both around the closest nesting location and between this nesting location and the project site. Considering that the entire project site consisted of a eucalyptus grove until 2012, it did not historically provide potential foraging habitat. Also, as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks. Furthermore, M&A has confirmed that the project site has a low rodent population, therefore development of the project site will not have a significant impact on Swainson's hawk foraging habitat. Therefore, no mitigation for the loss of foraging habitat is warranted for this project.

13.2 Mitigation Measure BIO-1. Mitigation for Potential Impacts to Nesting Swainson's Hawk

Preconstruction surveys shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to the project's initiation. The survey period timing and methodology shall be conducted in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 1994), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW will be required. The size of the nest protection buffer will be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of this mitigation measure would reduce potential impacts to nesting Swainson's hawk to a level considered less than significant pursuant to CEQA.

13.3 Impact BIO-2. Development of the Project Could Have a Potentially Significant Impact on Western Burrowing Owl (Potentially Significant)

The western burrowing owl is a California Species of Special Concern. This raptor (that is, bird of prey) is also protected under the Migratory Bird Treaty Act (50 CFR 10.13) and its nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5. While western burrowing owls have not been observed on the project site and their likelihood of presence on the project site is considered to be low, limited suitable nesting habitat occurs on the project site. Since the western burrowing owl is a mobile species that could move onto the project site prior to development, preconstruction surveys would be necessary to determine its presence. Thus, the project may result in impacts to the western burrowing owl; this would be a *potentially significant impact pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure BIO-2. Mitigation for Potential Impacts to Western Burrowing Owl

Based on the presence of this species in the project vicinity and the potential habitat found on the project site, a preconstruction survey for burrowing owls should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

a. Burrowing owl surveys should be conducted by walking the entire project site. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be 7 meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility.

Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approximately 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows should be avoided during all seasons.

b. If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per CDFW's Staff Report (2012).

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- From October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.

Implementation of these mitigation measures would reduce potential impacts to burrowing owls to a level considered less than significant pursuant to CEQA.

13.5 Impact BIO-3: Development of the Project Would Have a Potentially Significant Impact on Tree or Ground Nesting Raptors (Potentially Significant)

Tree or ground nesting raptors that could be affected by the project include northern harrier, white-tailed kites, red-shouldered hawk and red-tailed hawk. Nesting raptors are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13). All nesting raptors, their eggs and young are protected pursuant to California Fish and Game Code §3503.5. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project may impact nesting raptors which could result in nest abandonment and death of eggs or young. Therefore, impacts to nesting raptors are regarded as *potentially significant pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.6 Mitigation Measure BIO-3: Mitigation for Potential Impacts to Tree or Ground Nesting Raptors

To ensure that impacts to tree or ground nesting raptors are avoided or offset, the following mitigation measures will be implemented:

a. In order to avoid impacts to nesting raptors, a preconstruction nesting survey will be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey should be

conducted within the 30 day period prior to site disturbance. The raptor nesting surveys will include examination of all trees and ruderal habitat within 200 feet of the project site.

b. If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site must be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site must be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer should be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist should prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity should occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers should be maintained in place through the month of August and work within the buffer can commence on September 1st.

c. If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) should be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer should remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey should be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer should remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Implementation of these mitigation measures would reduce potential impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

13.7 Impact BIO-4: Development of the Project Would Have a Potentially Significant Impact on Nesting Passerine Birds. (Potentially Significant)

Nesting passerine birds (i.e., perching birds) are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13) and by California Fish and Game Code §3503 and §3503.5 which protects nesting birds, their eggs and young. These birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Accordingly, impacts to nesting passerine birds, their eggs, and/or young resulting from the proposed project are considered potentially significant. *This impact could be mitigated to a level considered less than significant pursuant to CEQA.*

13.8 Mitigation Measure BIO-4: Mitigation for Potential Impacts to Nesting Passerine Birds.

To ensure that impacts to nesting passerine birds are avoided or offset, a nesting survey shall be conducted 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before August 1st.

Implementation of this mitigation measure would reduce potential impacts nesting passerine birds to a level considered less than significant pursuant to CEQA.

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Figure 1. SDG 217 Commerce Distribution Center
Project Site Regional Map
City of American Canyon, California

County: Napa
Map Preparation Date: December 3,



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Figure 2. SDG 217 Commerce Distribution Center
Project Site Location Map
City of American Canyon, California

38.185626, -122.274079
Section: 23, T4N R4W
7.5-Minute Cuttings Wharf quadrangle
HUC08 Watershed CA: San Pablo Bay
Aerial Photograph Source: ESRI
Map Preparation Date: December 3,



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Figure 3. SDG 217 Commerce Project Site
Aerial Photograph
City of American Canyon, California

Aerial Photograph Source: ESRI
Map Preparation Date: December 3,

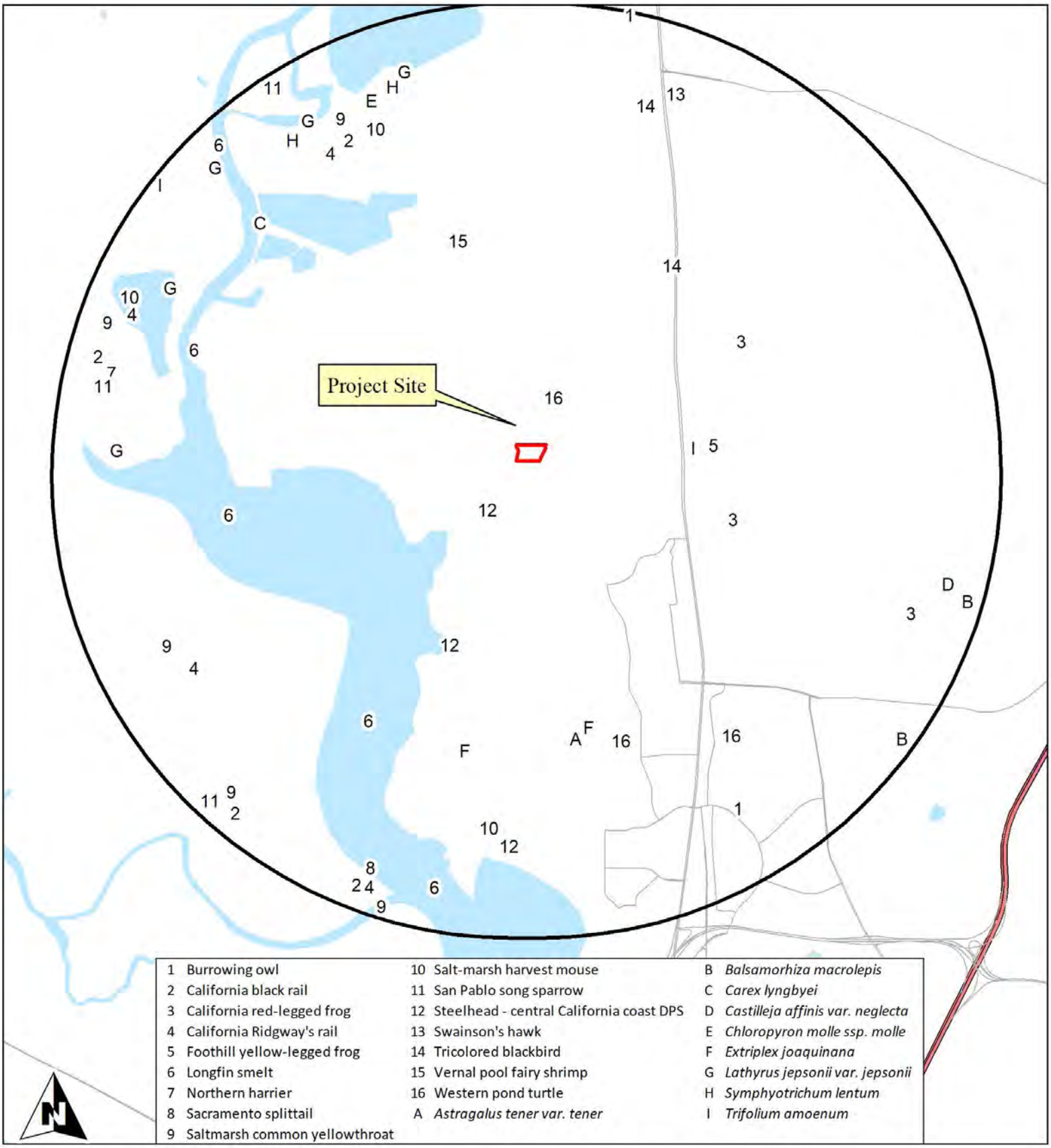

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Figure 4. Known CNDDB Records for Special-Status Species Within 3 Miles of the SDG 217 Commerce Project Site

Map Preparation Date:
December 3, 2019
3-Mile Radius
Source: CDFW, California Natural Diversity Data Base,

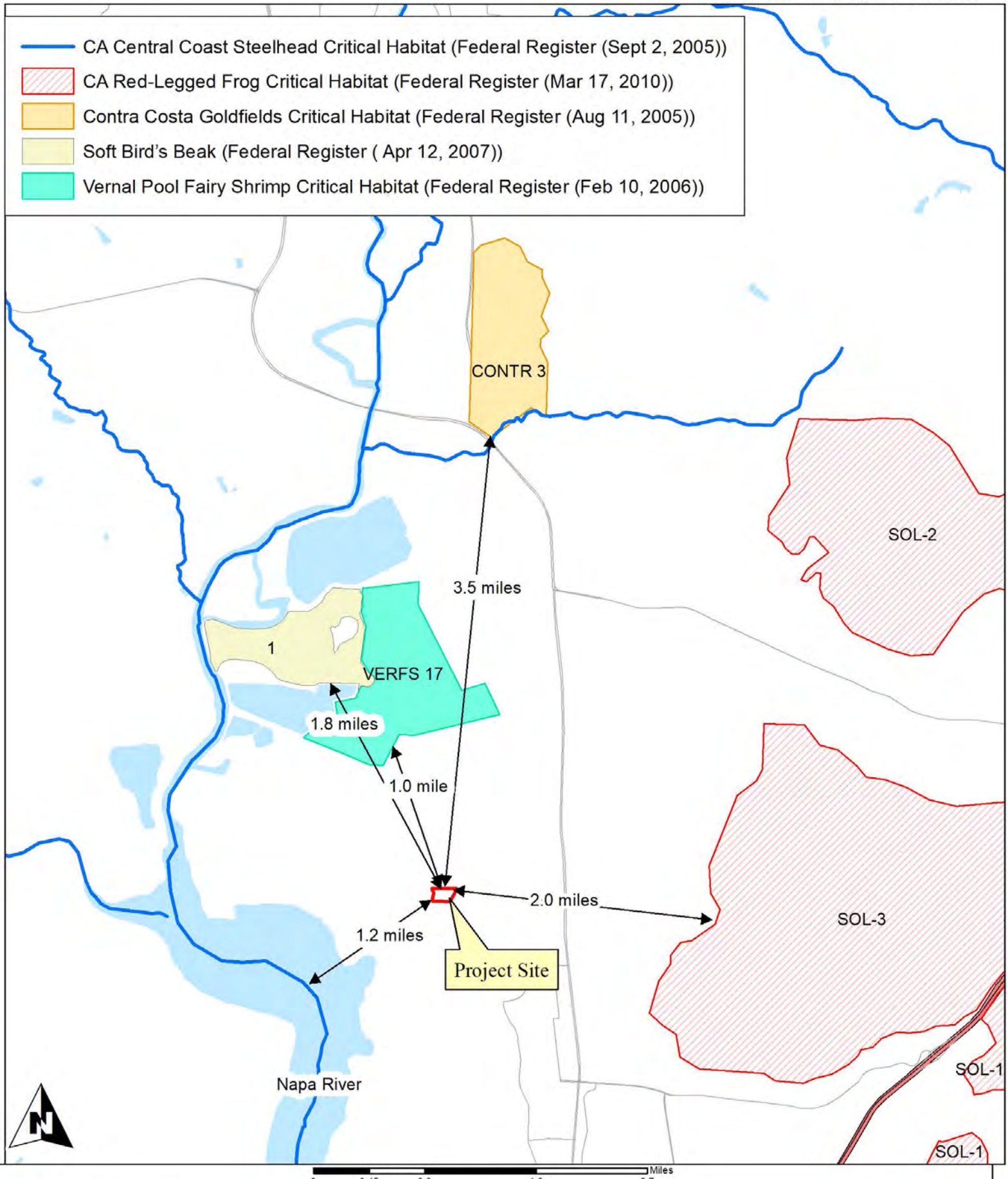

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Figure 5. USFWS Critical Habitat
in the Vicinity of the
SDG 217 Commerce Distribution Center

Source: USFWS
Map Preparation Date: December 20,

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms - Dicots

Apiaceae	
Torilis sp.	sock destroyer
Asteraceae	
Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
**Hypochaeris radicata*	Rough cat's-ear
**Sonchus asper subsp. asper*	Prickly sow-thistle
Brassicaceae	
**Hirschfeldia incana*	Short-podded mustard
**Sinapis alba*	White mustard
Caryophyllaceae	
**Stellaria media*	Common chickweed
Convolvulaceae	
**Convolvulus arvensis*	Bindweed
Fabaceae	
**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch
Geraniaceae	
**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium
Montiaceae	
Claytonia perfoliata	Miner's lettuce
Myrsinaceae	
**Lysimachia arvensis*	Scarlet pimpernel
Orobanchaceae	
**Parentucellia viscosa*	Yellow glandweed
Papaveraceae	
**Fumaria parviflora*	Fumaria
Plantaginaceae	
**Plantago lanceolata*	English plantain
Polygonaceae	
**Rumex crispus*	Curly dock
Ranunculaceae	
**Ranunculus muricatus*	Spiny-fruit buttercup
Rubiaceae	
Galium aparine	Goose grass

* Indicates a non-native species

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms -Monocots

Iridaceae

Sisyrinchium californicum	Golden-eyed-grass

Juncaceae

Juncus occidentalis	Slender rush

Poaceae

**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Elymus triticoides	Creeping wildrye
**Festuca perennis*	perennial ryegrass
**Hordeum murinum*	Wall barley
Phalaris angusta	Canary timothy grass

* Indicates a non-native species

Table 2
Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*
Birds	
Northern flicker	*Colaptes auratus*
Great blue heron	*Ardea herodias*
Turkey vulture	*Cathartes aura*
Canada goose	*Branta canadensis*
Osprey	*Pandion haliaetus*
White-tailed kite	*Elanus leucurus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Ring-necked pheasant	*Phasianus colchicus*
Wild turkey	*Meleagris gallopavo*
California quail	*Callipepla californica*
Virginia rail	*Rallus limicola*
Eurasian collared-dove	*Streptopelia decaocto*
Mourning dove	*Zenaida macroura*
Barn owl	*Tyto alba*
Anna's hummingbird	*Calypte anna*
Belted kingfisher	*Megaceryle alcyon*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
California scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Common raven	*Corvus corax*
Tree swallow	*Tachycineta bicolor*
Cliff swallow	*Petrochelidon pyrrhonota*
Barn swallow	*Hirundo rustica*
Chestnut-backed chickadee	*Poecile rufescens*
Bushtit	*Psaltriparus minimus*
Brown creeper	*Certhia americana*
Bewick's wren	*Thryomanes bewickii*
Marsh wren	*Cistothorus palustris*
Ruby-crowned kinglet	*Regulus calendula*
Western bluebird	*Sialia mexicana*
American robin	*Turdus migratorius*
Wrentit	*Chamaea fasciata*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Yellow-rumped warbler	*Setophaga coronata*
Spotted towhee	*Pipilo maculatus*

Table 2

Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

California towhee	*Pipilo crissalis*
Savannah sparrow	*Passerculus sandwichensis*
Song sparrow	*Melospiza melodia*
White-crowned sparrow	*Zonotrichia leucophrys*
Dark-eyed junco	*Junco hyemalis*
Red-winged blackbird	*Agelaius phoeniceus*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown-headed cowbird	*Molothrus ater*
Bullock's oriole	*Icterus bullockii*
House finch	*Haemorhous mexicanus*
Lesser goldfinch	*Spinus psaltria*
House sparrow	*Passer domesticus*
Mammals	
Western gray squirrel	*Sciurus griseus*
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Otospermophilus beecheyi*
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*
Coyote	*Canis latrans*
Raccoon	*Procyon lotor*
Feral cat	*Felis catus*

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; chaparral; valley and foothill grassland; [sometimes serpentinite]. 90 - 1555 meters	Closest record is from 2011 and is 3.0 miles east of the project site (Occurrence No. 7).	None. The project site is highly disturbed. No suitable habitat on the project site.
Symphyotrichum lentum Suisun Marsh aster	Fed: - State: - CNPS: Rank 1B.2	August-November	Marshes and swamps (brackish and fresh water)	Closest record is from 1993 and is 2.5 miles northwest of the project site (Occurrence No. 128).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chenopodiaceae					
Extriplex joaquinana San Joaquin spearscale	Fed: - State: - CNPS: Rank 1B.2	April-October	Chenopod scrub; meadows; valley and foothill grassland; [alkaline].	Closest record is from and is 1.8 miles south of the project site (Occurrence No. 58).	None. The project site is highly disturbed. No suitable habitat on the project site.
Cyperaceae					
Carex lyngbyei Lyngbye's sedge	Fed: - State: - CNPS: Rank 2	May-August	Marshes or swamps (brackish or freshwater)	Closest record is from 2008 and is 2.3 miles northwest of the project site (Occurrence No. 28).	None. The project site is highly disturbed. No suitable habitat on the project site.
Fabaceae					
Astragalus tener tener Alkali milkvetch	Fed: - State: - CNPS: Rank 1B.2	March-June	Playas; mesic grasslands (adobe clay), vernal pools (alkaline).	Closest record is from 1993 and is 1.8 miles south of the project site (Occurrence No. 50).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Lathyrus jepsonii jepsonii Delta tule pea	Fed: - State: - CNPS: Rank 1B.2	May-September	Marshes and swamps (freshwater and brackish).	Closest record is from 1978 and is 2.6 miles northwest of the project site (Occurrence No. 13).	None. The project site is highly disturbed. No suitable habitat on the project site.
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: Rank 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	Closest record is from 1952 and is 1.2 miles east of the project site (Occurrence No. 23).	None. The project site is highly disturbed. No suitable habitat on the project site.
Orobanchaceae					
Castilleja affinis neglecta Tiburon paintbrush	Fed: FE State: CT CNPS: Rank 1B.2	April-June	Valley and foothill grassland [serpentinite]	Closest record is from 2013 and is 3.0 miles east of the project site (Occurrence No. 5).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chloropyron molle molle Soft bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	July-September	Marshes and swamps (coastal salt).	Closest record is from 2010 and is 2.3 miles north of the project site (Occurrence No. 3).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern

CNPS:
Rank 1A - Presumed extinct in California
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other:	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabit static rain-filled/vernal pools, small, clear water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression	Closest record is from 2003 and is 1.5 miles north of the project site (Occurrence No. 232).	None. No suitable habitat on the project site.
Fish				
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Closest record is from 2000 and is 0.39 miles southwest of the project site (Occurrence No. 4).	None. No suitable habitat on the project site.
Longfin smelt *Spirinichus thaleichthys*	Fed: -- State: CT Other:	Endemic to the Sacramento-San Joaquin River system. Inhabits open waters in the Delta and Suisun Bay. After spawning, larvae are carried downstream to brackish nursery areas.	Closest record is from 2012 and is1.2 miles west of the project site (Occurrence No. 26).	None. No suitable habitat on the project site.
Sacramento splittail *Pogonichthys macrolepidotus*	Fed: State: CSC Other:	Endemic to the lakes and rivers of the Central Valley; now confined to the delta, Suisun Bay, and associated marshes. Inhabits slow moving river sections and dead-end sloughs. Needs flooded vegetation for spawning.	Closest record is from 2001 and is 2.9 miles southwest of the project site (Occurrence No. 12).	None. No suitable habitat on the project site.
Amphibians				
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Closest record is from 2006 and is 1.4 miles east of the project site (Occurrence No. 896).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Foothill yellow-legged frog *Rana boylii*	Fed: -- State: CC Other:	Found in partially shaded, shallow streams with rocky substrates. Requires perenial pools or flowing water. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Closest record is from 193X and is 1.2 miles east of the project site (Occurrence No. 2341).	None. No suitable habitat on the project site.
Reptiles				
Western pond turtle ** *Emys marmorata*	Fed: - State: CSC Other:	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County.	Closest record is from 2002 and is 0.45 miles northeast of the project site (Occurrence No. 552).	None. No suitable habitat on or adjacent to the project site.
Birds				
Northern harrier *Circus cyaneus*	Fed: - State: CSC Other:	Nests on the ground or in shrubby vegetation typically in grasslands, fallow farm lands, near freshwater and salt water marshes.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 29).	Unlikely to nest onsite. Preconstruction surveys will be conducted.
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other:	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging.	Closest record is from 2013 and is 2.6 miles northeast of the project site (Occurrence No. 2744).	Unlikely to nest adjacent to project site. Preconstruction surveys will be conducted.
Ferruginous hawk *Buteo regalis*	Fed: -- State: WL Other:	Winter migrant to California where they prefer grasslands, cultivated fields and arid areas with an abundance of prey species, such as pocket gophers, black-tailed hares, and cottontails.	Closest record is from 1988 and is 3.0 miles north of the project site (Occurrence No. 28).	None. Does not nest in California.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Peregrine falcon *Falco peregrinus*	Fed: - State: - Other:	Nests on high cliffs near wetlands, lakes, rivers, or other water; also nests on human-made structures. Nest consists of a scrape on a depression or ledge in an open site. Was formerly state and federally listed but delisted due to species recovery.	Closest record is from 2015 and is 3.0 miles east of the project site (Occurrence No. 42).	None. No suitable nesting habitat on or near the project site.
California black rail *Laterallus jamaicensis coturniculus*	Fed: -- State: CT Other:	Inhabits salt marshes bordering larger bays. Prefers tidal salt marshes of pickleweed.	Closest record is from 2011 and is 2.5 miles northwest of the project site (Occurrence No. 31).	None. No suitable habitat on the project site.
California Ridgway's rail *Rallus obsoletus obsoletus*	Fed: FE State: CE Other:	Inhabits salt water and brackish marshes with tidal sloughs in San Francisco Bay. Prefers dense pickleweed for cover, but forages for invertebrates along mud-bottomed sloughs.	Closest record is from 1989 and is 2.4 miles northwest of the project site (Occurrence No. 16).	None. No suitable habitat on the project site.
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Closest record is from 1989 and is 2.6 miles southeast of the project site (Occurrence No. 109).	Unlikely to nest on the project site. Preconstruction surveys will be conducted.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	Fed: - State: CSC Other:	Resident of freshwater and salt water marshes in the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	Closest record is from 2004 and is 2.5 miles northwest of the project site (Occurrence No. 37).	None. No suitable habitat on the project site.
San Pablo song sparrow *Melospiza melodia samuelis*	Fed: -- State: CSC Other:	More properly known as Samuels Song Sparrow. Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the California marshes; nests in grindelia bordering slough channels.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 17).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CC Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Closest record is from 2014 and is 1.6 miles northeast of the project site (Occurrence No. 243).	None. No suitable nesting habitat on the project site.
Mammals				
Salt marsh harvest mouse *Reithrodontomys raviventris*	Fed: FE State: CE Other:	Inhabits saline marshes in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	Closest record is from 1989 and is 2.4 miles south of the project site (Occurrence No. 150).	None. No suitable habitat on the project site.

***Status**

Federal:	State:
FE - Federal Endangered	CE - California Endangered
FT - Federal Threatened	CT - California Threatened
FPE - Federal Proposed Endangered	CR - California Rare
FPT - Federal Proposed Threatened	CC - California Candidate
FC - Federal Candidate	CSC - California Species of Special Concern
FPD - Federally Proposed for delisting	FP - Fully Protected
	WL - Watch List. Not protected pursuant to CEQA

**The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.

- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
- Plastic Pipe
- RCP
- Control Points
- Delineation Area: Lot 3 (35.8 Acres)

Wetland #	Sq. Ft.	Acres	Linear Wetland #	Lin. Ft.	Sq. Ft.	Acres
W 1	601	0.014	LW 1	113	339	0.008
W 2	93	0.002	LW 2	276	828	0.019

Isolated Wetland #	Sq. Ft.	Acres
IW 1	874	0.020

Approved Jurisdictional Determination, pursuant to Section 404 Clean Water Act

U.S. Army Corps of Engineers
San Francisco District
Regulatory Division

American Canyon Flat Lands
American Canyon, Napa County, California
(APNs: 058-030-067 and 058-030-065)

Accurate as depicted in legend

Section 404 jurisdiction verified only within the designated Delineation Area. Construction-related and isolated wetlands are not subject to Section 404 jurisdiction.

File ID. **2011-00322** Date: **March 6, 2018** Sheet 2 of 2

38.187836 -122.271692 Decimal Degrees

38.183213 -122.276052 Decimal Degrees

W 1
LW 1
W2
LW2
IW 1
3'
3'

0 50 100 200 300 400 500 Feet Scale: 1 inch = 100 feet

Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

September 3, 2020

Industrial and Commercial Contractors, LP
403 W. Yosemite Avenue, Suite 105
Madera, California 93637

Attention: Mr. Brian Doswald

RE: Addendum Letter to CEQA Biology Report Discussing Proposed Borrow Site SDG Commerce 217 Distribution Center, Napa, California APN: 058-030-065-000

Dear Mr. Doswald:

1. INTRODUCTION

Monk & Associates, Inc., (M&A) has prepared this Addendum to our March 2, 2020, *Revised Biological Resource Analysis* (biology report) for the SDG Commerce 217 Distribution Center located in the City of American Canyon, California (the "project site"). Since the time M&A prepared our biology report for the project site, it has been determined that it will be necessary to acquire soil from the adjacent parcel to the south (the "borrow area parcel") and transport this soil for use as clean fill on the project site. M&A has prepared this Addendum to our biology report to address the transportation of soil from the offsite borrow area parcel onto the project site and to analyze any affects this activity could have on mapped jurisdictional waters of the United States/State that lie inbetween the project site and the adjacent borrow area parcel. Mapped waters of the United States are shown on the attached exhibits.

2. DESCRIPTION OF THE PROJECT SITE AND ADJACENT BORROW AREA PARCEL

The project site and the adjacent borrow area parcel were once part of a contiguous approximately 35-acre project site that M&A conducted surveys on over multiple years dating between 2006 and 2018. Both the project site and adjacent borrow area parcel are dominated by ruderal (weedy) vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). These non-native, weedy species provide little habitat value to wildlife and they do not constitute a native plant community. Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, is also common on the 35 acres. Ruderal vegetation is the only vegetation community found on the project site. The adjacent borrow area parcel, however, in addition to supporting a ruderal herbaceous community also supports waters of the United States, as described below.

On May 16, 2018, the U.S. Army Corps of Engineers issued a jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the approximately 35-acre

parcel that comprises the project site, the adjacent borrow area parcel, and another property now known as 330 Commerce Center (see attached exhibits). The entire 0.043-acre of waters of the U.S. confirmed by the Corps is found on the adjacent borrow area parcel as shown on the attached exhibit "Borrow Site Rough Grading," Sheet 1 prepared by RSA on August 21, 2020. There are no waters of the United States or State on the project site.

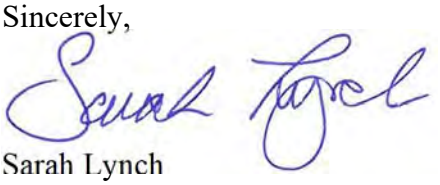
3. DISCUSSION OF PROPOSED ACTIVITIES AND AVOIDANCE OF IMPACTS TO MAPPED WATERS OF THE UNITED STATES

The project applicant intends to rough grade the borrow area parcel and transport soil from that parcel onto the project site for use in development of the project site. In order to protect the waters of the United States/State that occur in between the project site and the borrow area parcel, a 25-foot buffer area around the outside edge of the wetlands will be staked and protected with fiber roll, silt fencing and high visibility orange construction fencing to prevent equipment from driving into the wetlands during hauling activities. See the attached exhibit.

With these protection measures in place, as shown on the attached Borrow Site Rough Grading exhibit, Sheet 1, attached, *there are no expected impacts to waters of the U.S./State from the transport of soil/materials from the borrow area parcel to the project site*.

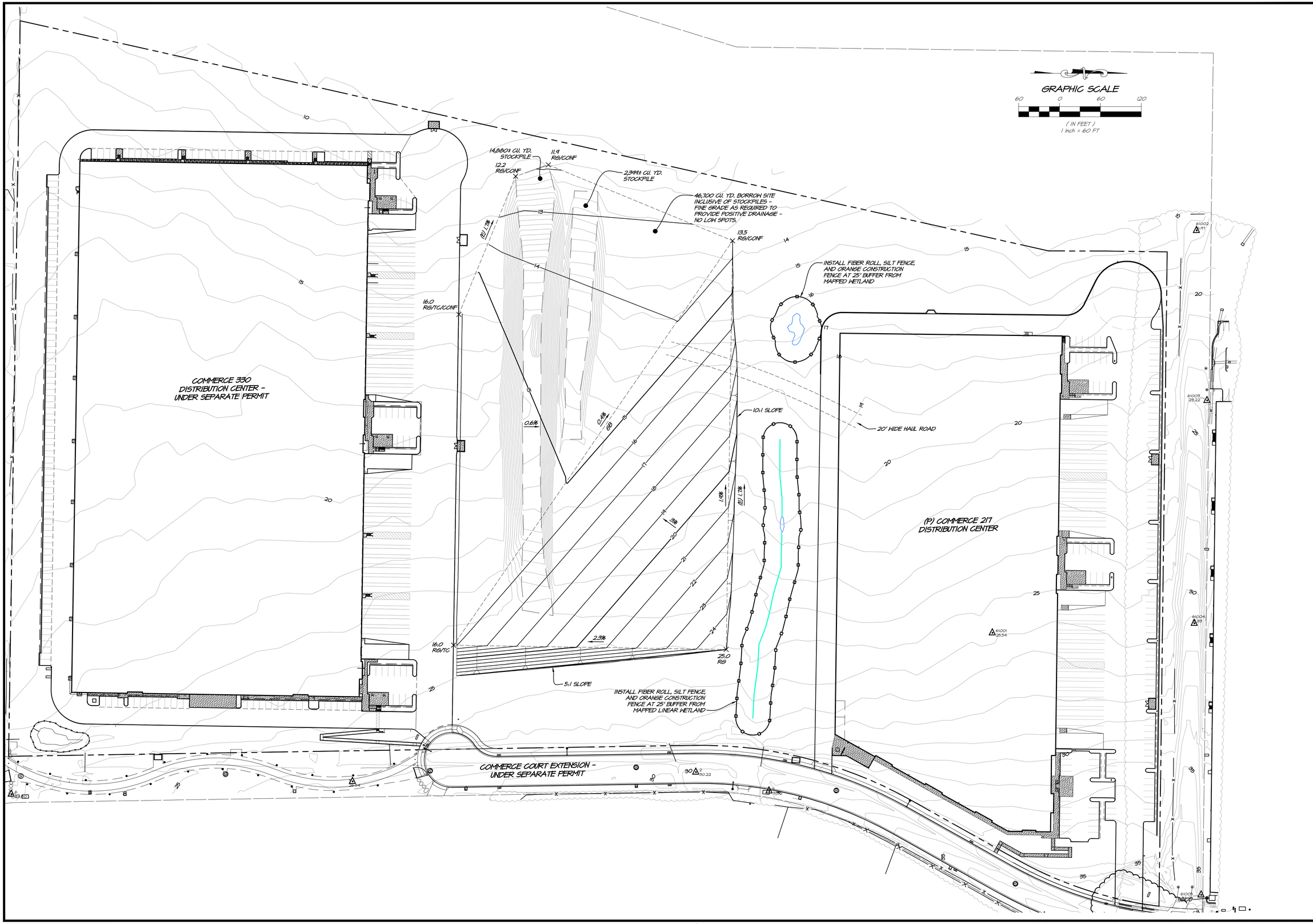
This concludes our addendum to our biology report. If you have any questions or require additional information, please do not hesitate to contact me at (925) 323-4850 or Sarah@monkassociates.com. Thank you.

Sincerely,



Sarah Lynch
Senior Associate Biologist

Attachments: U.S. Army Corps of Engineers Confirmed Aquatic Resources Delineation Map;
Sheet 1, Borrow Site Rough Grading prepared by RSA, August 21, 2020



NO.	DATE	REVISIONS	BY	APPD

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NAPA, CALIF. 94559
OFFICE [707] 252.3301
+ www.RSAcivil.com +
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SDG COMMERCE 217 DISTRIBUTION CENTER
BORROW SITE ROUGH GRADING
AMERICAN CANYON
CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNOCK
No. 82758
Exp. 9-30-20
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	AUG. 21, 2020
DRAWN	DRL
DESIGNED	DRL
CHECKED	PSW
JOB NO.	4119037.0
SHEET NO.	1
	1 OF 1 SHEETS

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PRELIMINARY - NOT FOR CONSTRUCTION

- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
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- Delineation Area: Lot 3 (35.8 Acres)

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American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

Appendix D

Geologic Report

ICC, LP
JAN 09 2020
RECEIVED

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217
DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

PROJECT NO. 032-19032
DECEMBER 9, 2019

Prepared for:

MR. BRIAN DOSWALD
INDUSTRIAL AND COMMERCIAL CONTRACTORS, L.P.
413 W. YOSEMITE AVENUE, SUITE 105
MADERA, CALIFORNIA 93637

Prepared by:

KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
4320 ORANGE GROVE AVENUE, SUITE E-F
SACRAMENTO, CALIFORNIA 95841
(916) 564-2200

Krazan & ASSOCIATES, INC.
SITE DEVELOPMENT ENGINEERS

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

December 9, 2019

KA No. 032-19032

Mr. Brian Doswald
Industrial and Commercial Contractors, L.P.
413 W. Yosemite Avenue, Suite 105
Madera, California 93637

RE: Geotechnical Engineering Investigation
Proposed SDG Commerce 217 Distribution Center
1075 Commerce Court
American Canyon, California

Dear Mr. Doswald:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at or (916) 564-2200.



Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

DRJ:ht

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December 9, 2019 KA Project No. 032-19032

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217 DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed SDG Commerce 217 Distribution Center to be located at Commerce Court near Eucalyptus Drive in American Canyon, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, pavement design and soil cement reactivity.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs, and the boring log legend are presented in Appendix A. Appendix A contains a description of the laboratory-testing phase of this study, along with the laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements, and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated October 14, 2019 (KA Proposal P641-19) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 24 borings to depths ranging from approximately 10 to 50 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood that development will include the construction of an approximately 217,000 square foot distribution center building. It is anticipated the building will be a single-story concrete tilt-up structure utilizing concrete slab-on-grade construction. Foundation loads are anticipated to be light to moderate. On-site paved areas and landscaping are also planned for the development of the project.

In the event, these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is rectangular in shape encompasses approximately 10.39 acres. The site is located approximately 0.4 miles north of Eucalyptus Drive, just west of Commerce Court Extension in American Canyon, California. The site has a street address of 1075 Commerce Court. The site is surrounded by agricultural land, groves of trees and industrial developments.

Site history was obtained by reviewing historical aerial photographs taken in 1948, 1982, 1993, 2002, 2005, 2012 and 2018. Review of the 1948 aerial photograph indicates that the project site was occupied by a grove of trees. Commerce Boulevard Extension trended north-south along the eastern edge of the site. The land to the north was vacant. Land to the south, east and west were occupied by groves of trees. A stream trending north-south was located west of the project site.

Review of the 1982 and 1993 aerial photographs indicate that the project site conditions appeared to be relatively similar to that noted in the 1948 aerial photograph. The northwest portion of the site had been cleared of trees.

Review of the 2002 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 1993 aerial photograph. A parking area and access road were located at the clearing in the northwest corner. Land further north of the site was developed with an industrial warehouse.

Review of the 2005 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 2002 aerial photograph. Land immediately north of the site was developed with an industrial warehouse. The section of Commerce Boulevard Extension bordering the project site was realigned to connect to new Commerce Boulevard, resulting in an enlarged project site.

Review of the 2012 and 2018 aerial photograph indicates that the project site and the land to the south had been cleared of the trees and were vacant.

Presently, the site predominately consists of vacant land. Some grading activities had been performed throughout the site. Several stockpiles of rocks are located in the northeast corner of the site. The surface soils have a loose consistency and contain a moderate amount of grass and weeds. Trees border the site to the north and west. Commerce Boulevard Extension is a gravel road and borders the site to the east. Buried utility lines may be located along Commerce Boulevard Extension along the eastern edge of the site. The site gently slopes from east to west with approximately 20 to 23 feet in grade change across the site.

GEOLOGIC SETTING

The subject site is located in the north-eastern portion of the San Francisco Bay Region, within the Coast Ranges Geomorphic Province of California. The Coast Range Geomorphic Province borders the Coast of California and generally consists, more or less, of a discontinuous series of northwesterly/southeasterly trending mountain ranges, ridges, and intervening valleys characterized by intense, complex folding and faulting. The ridges are most often comprised of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges.

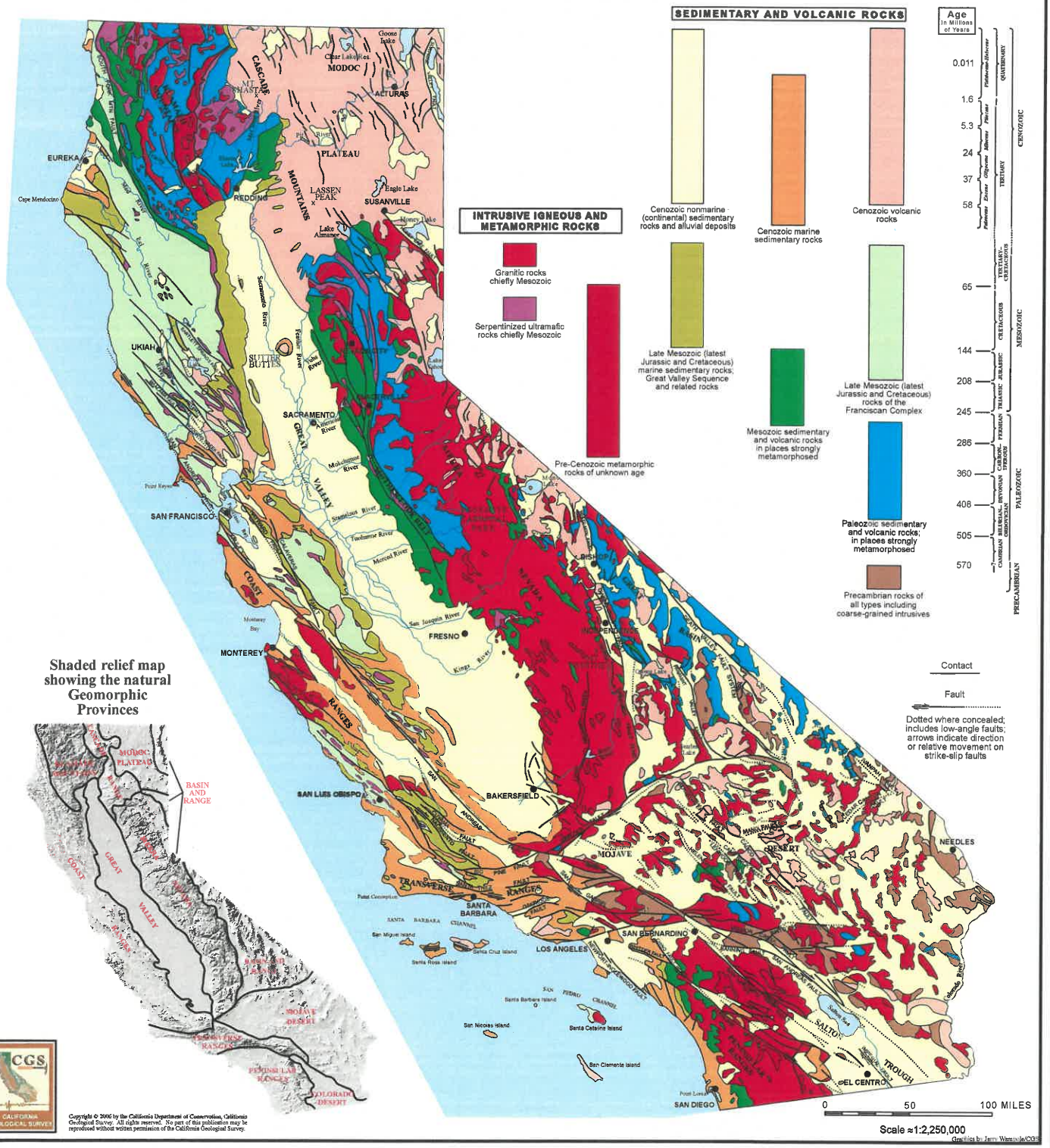
The project site is located in a seismically active region, which is situated on a tectonic plate boundary marked by the San Andreas Fault System and several northwest trending active and potentially active faults. The site is in close proximity to several major faults, including the West Napa, Green Valley, Hayward-Rodgers Creek, Mount Diablo Thrust, Calaveras, and San Andreas faults located approximately 0.8 miles west, 8.0 miles east, 11 miles west, 24 miles south, 29 miles southeast, and 30 miles west of the site, respectively. Although the site is in close proximity to several faults, the site is not within a State of California Earthquake Fault Zone or Special Study Zone for faulting. The site is located approximately 3,200 feet west of the West Napa Fault and 600 feet from the California Earthquake fault zone for the West Napa Fault. The site is not located on a State of California Seismic Hazard Zone Map.

The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the San Francisco Bay Area within a 30-year period of time is evaluated by the U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities on a periodic basis. The result of the 2008 evaluation indicated a 63 percent likelihood that such an earthquake event will occur in the Bay Area between 2007 and 2036 (USGS 2008). The faults with the greater probability of a magnitude 6.7 or higher earthquake are the Hayward fault at 31 percent and the San Andreas fault at 21 percent.

Based on published geologic maps of the area the near-surface deposits in the vicinity of the subject site are indicated to be comprised of late Pleistocene to Holocene fan deposits of sand, gravel, silt and clay that are moderately to poorly sorted and moderately to poorly bedded. The site is located at an elevation of approximately 20 feet above sea level. Groundwater in the vicinity of the site is typically encountered at depths of approximately 11 to 25 feet.

SIMPLIFIED GEOLOGIC MAP OF CALIFORNIA

CORRELATION OF MAP UNITS



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FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 24 borings to depths ranging from approximately 10 to 50 feet below existing site grade, using a truck-mounted drill rig. In addition, 3 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Soil samples were retained for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential, plasticity, R-value and moisture density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and results of the laboratory test are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the upper soils consisted of approximately 6 to 12 inches of very loose clayey sand and sandy clay. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

Beneath the loose surface soils, approximately 7 to 13½ feet of loose to dense clayey sand or stiff to hard sandy clay and silty clay were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. The clayey soils had a moderate to high potential for expansion. Penetration resistance ranged from 16 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 100 to 132 pcf. Representative soil samples swelled approximately 1 to 1½ percent under a 2 ksf load when saturated. Representative soil samples had angles of internal friction between 16 and 18 degrees. Representative samples of the clayey soil had expansion indices between 77 and 102.

Below 8 to 14½ feet, alternating layers of predominately stiff to hard silty clay or medium dense clayey sand, clayey sand/sandy clay, sandy silt, silty sand, and sandy silt were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 9 to 52 blows per foot. Dry densities ranged from 88 to 121 pcf. These soils had slightly stronger strength characteristics than the upper soils and extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. The historic high groundwater depth for the region was determined to be 10 feet below existing site grade, based on the State of California Department of Water Resources data from 3 wells within 1.5 miles of the site. However, free groundwater was encountered between depths of 9 and 22 feet during our subsurface investigation.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

SOIL LIQUEFACTION

Soil liquefaction is a state of soil particle suspension, caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs in soils, such as sands, in which the strength is purely frictional. However, liquefaction has occurred in soils other than clean sands. Liquefaction usually occurs under vibratory conditions, such as those induced by seismic events.

To evaluate the liquefaction potential of the site, the following items were evaluated:

1) Soil type

2) Groundwater depth

3) Relative density

4) Initial confining pressure

5) Intensity and duration of groundshaking

The predominant soils within the project site consist of alternating layers of silty clays, clayey sands, clayey sand/sandy clay and sandy clays. Groundwater was encountered at depths as shallow as 9 feet below existing site grade during our exploratory drilling. Information obtained from the Department of Water Resources indicated that water wells had historic groundwater elevations as shallow as 10 feet below existing site grade within the project site vicinity.

The potential for soil liquefaction during a seismic event was evaluated using the LIQUEFYPRO computer program (version 5.8h) developed by CivilTech Software. For the analysis, a maximum earthquake magnitude of 6.9 was used. A peak horizontal ground surface acceleration of 0.687g was considered conservative and appropriate for the liquefaction analysis. An estimated high groundwater

depth of 9 feet was used for our analysis. The computer analysis indicates that soils above a depth of 9 feet are non-liquefiable due to the absence of groundwater. The soils below a depth of 9 feet have a slight to very low potential for liquefaction under seismic shaking due to predominately medium dense/stiff to very dense/hard sandy and clayey soils. The analysis also indicates that the total and differential seismic induced settlement is not anticipated to exceed 1 and ⅔ inch, respectively. Accordingly, measures to mitigate liquefaction potential are not necessary.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, expansive nature of the clayey soils, and previous development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

The site was previously utilized as agricultural land consisting of orchards. In addition, several dirt access roads trend throughout the site. Associated with these developments may be buried structures, such as utility lines and irrigation lines that extend into portions of the project site. Demolition activities should include proper removal of any buried structures. Any surface or buried structures, including utilities or loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that demolition activities of the existing structures will disturb the upper soils. After demolition activities it is recommended that these disturbed soils be removed and/or recompacted. This compaction effort should stabilize the upper soils and locate any unsuitable or pliant areas not found during our field investigation.

It is recommended that following stripping and fill removal operations, the upper 12 inches of soil within the proposed building areas be excavated worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, in order to reduce the potential for differential settlement, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soils and fill material will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This

compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

The upper soils within the site are predominately clayey sands and sandy clays. These soils appeared to have a moderate to high swell potential. The estimated swell pressures of the clayey soils may cause minor movement effecting slabs and possible stucco or similar brittle exterior finishes. To reduce potential soil movement, it is recommended the upper 30 inches of soil within slab-on-grade and adjacent exterior flatwork areas consist of 24 inches of non-expansive Engineered Fill overlain by 6 inches of Class 2 aggregate base. During construction, it is recommended that additional tests should be performed on the on-site soils to verify their physical and index properties.

As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting the slab areas can consist of lime-treated clayey soils. The lime-treated soils should be recompacted to a minimum of 90 percent of maximum density. Preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be above optimum moisture during the mixing operations.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

Buried utility lines are located along Commerce Boulevard Extension on the east side of the site and may extend into the site. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and the resulting excavations cleaned to firm native ground and backfilled with Engineered Fill. Disturbed areas caused by demolition activities should be removed and/or recompacted.

Tree removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be cleaned to firm native ground and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 3,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 18 inches.

Groundwater Influence on Structures/Construction

During our field investigations, groundwater was encountered at depths of 9 to 22 feet below site grade. Therefore dewatering and/or waterproofing may be required should structures or excavations extend below the groundwater table. If groundwater is encountered, our firm should be consulted prior to dewatering the site. Installation of a standpipe piezometer is suggested prior to construction should groundwater levels be a concern.

In addition to the groundwater level, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Site Preparation

General site clearing should include removal of vegetation; concrete and metal debris; existing utilities; structures including foundations; basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

The site is surrounded by agricultural land, groves of trees and industrial developments. Associated with these developments are buried structures such, as utility lines that are located along the edges of the site and within the project site vicinity. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and/or relocated and the resulting excavations backfilled. Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. The resulting excavations should be backfilled with Engineered Fill.

The site was previously occupied by a eucalyptus grove. Tree root removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

It is recommended that following stripping, tree removal operations and fill removal operations, the upper 12 inches of native soils within the proposed building areas be excavated, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soil and fill material will be suitable for reuse as Engineered Fill, provided it is cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Following stripping and fill removal operations, the exposed subgrade in exterior flatwork and pavement areas should be excavated/scarified to a minimum depth of 12 inches, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Limits of recompaction should extend 3 feet beyond structural elements. This compaction effort should stabilize the surface soils and located any unsuitable or pliant areas not found during our field investigation.

It is recommended that the upper 30 inches of soil within proposed slab-on-grade and adjacent exterior flatwork areas consist of non-expansive or lime-treated Engineered Fill. The intent is to support slab-on-grade and exterior flatwork areas with 24 inches of non-expansive or lime-treated fill, overlain by 6 inches of compacted Class 2 aggregate base. Alternatively, the upper 30 inches may consist of lime-treated Engineered Fill. The fill placement serves two functions: 1) it provides a uniform amount of soil, which will more evenly distribute the soil pressures and 2) it reduces moisture content fluctuation in the clayey material beneath the building area. The non-expansive fill material should be a well-graded silty sand or sandy silt soil. A clean sand or very sandy soil is not acceptable for this purpose. A sandy soil will allow the surface water to drain into the expansive clayey soil below, which may result in soil swelling. Imported Fill should be approved by the Soils Engineer prior to placement. The fill should be placed as specified as Engineered Fill. In addition, it is recommended conventional foundations and slabs be nominally reinforced to reduce cracking and vertical offsets.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent

of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The organic-free, on-site, upper native soils and fill material are predominately clayey sand, sandy clay, and silty clay. These clayey soils will not be suitable for re-use as non-expansive Engineered Fill. These clayey soils will be suitable for reuse for fill placement within the upper 30 inches of slab-on-grade and adjacent exterior flatwork areas, provided they are lime-treated. The preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be at or near optimum moisture-condition during mixing operations. Additional testing is recommended to determine the appropriate application rate of lime prior to placement. These clayey soils will be suitable for reuse as General Engineered Fill, provided they are cleansed of excessive organics, debris, and moisture-conditioned to at least 2 percent above optimum moisture. It is recommended that additional testing be performed on the on-site soils and fill material to evaluate the physical and index properties prior to reuse as Engineered Fill.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material with a plasticity index less than 10 and a UBC Expansion Index less than 15. Imported Fill should be free from rocks and lumps greater than 4 inches in diameter. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

The Contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

The proposed structure may be supported on a shallow foundation system bearing on a minimum of 30 inches of Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	2,250 psf
Dead-Plus-Live Load	3,000 psf
Total Load, Including Wind or Seismic Loads	4,000 psf

The footings should have a minimum depth of 18 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load. Ultimate design of foundations and reinforcement should be performed by the project Structural Engineer. A modulus of subgrade reaction of 35 pci can be used for the on-site soils.

The total soil movement is not expected to exceed 1 inch. Differential movement measured across a horizontal distance of 40 feet should be less than 1 inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

The footing excavations should not be allowed to dry out any time prior to pouring concrete. It is recommended that footings be reinforced by at least one No. 4 reinforcing bar in both top and bottom.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.3 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 250 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

In areas that will utilize moisture-sensitive floor coverings, concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder.

The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt, or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted. Floor slabs subject to forklift traffic should be underlain by a minimum of 2 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D1557. Slabs can be designed utilizing a modulus of subgrade reaction of 100 pci.

The floor slab should be a minimum of 6 inches thick and reinforced at a minimum with No. 4 reinforcement bars at 24 inches on-center each way within the middle one-third. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever large vehicular loads, heavy concentrated loads, heavy equipment, or machinery is anticipated.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. All fills required to bring the building pads to grade should be Engineered Fills.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 50 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 70 pounds per square foot per foot per depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways. All of the above earth pressures are unfactored and are, therefore, not inclusive of factors of safety.

Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic concrete or other suitable backfill to

of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (916) 564-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.



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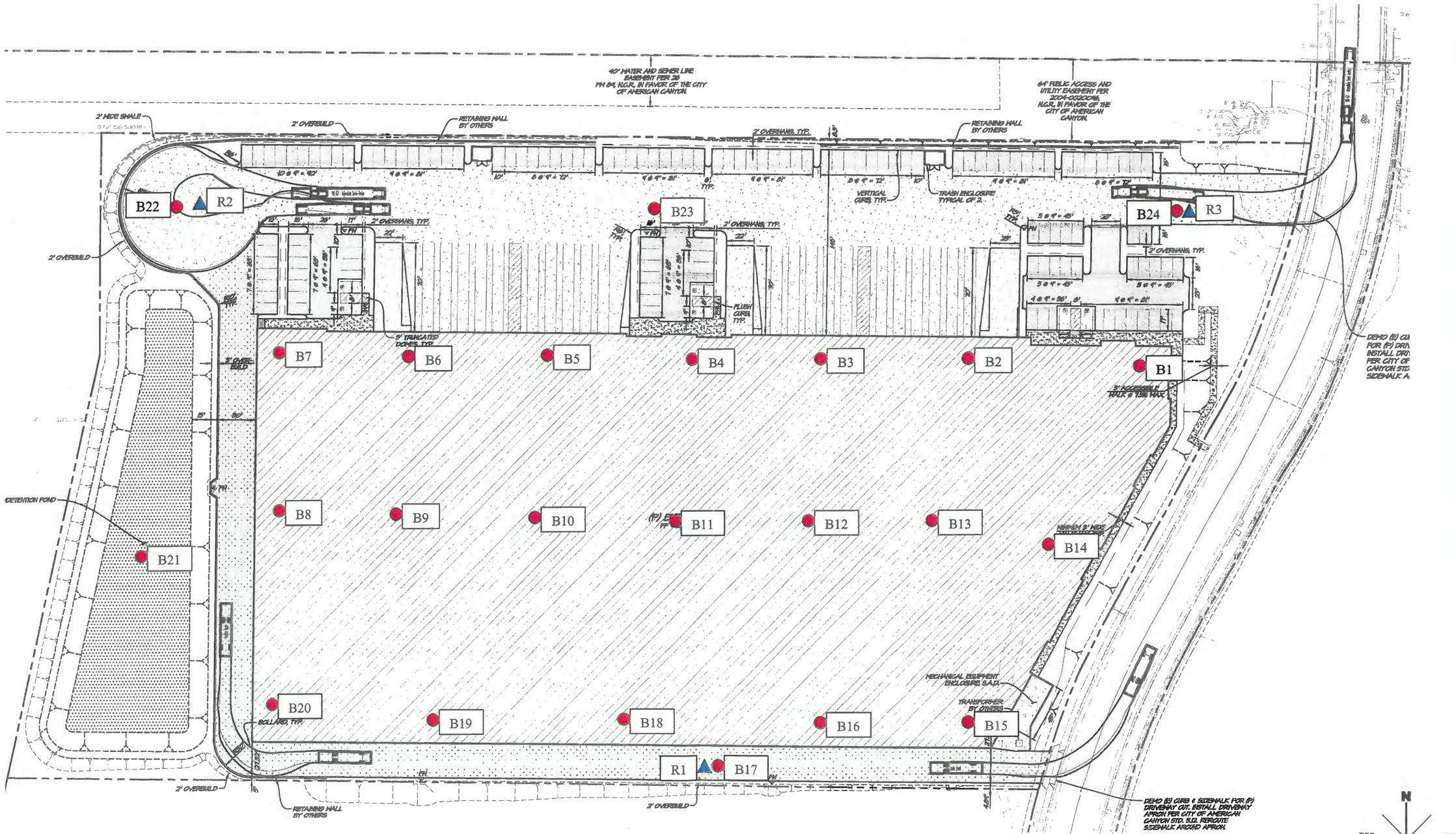
MKW/DRJ:ht



● APPROXIMATE BORING LOCATION

▲ APPROXIMATE R-VALUE LOCATION

SITE MAP	**Scale:** NTS	**Date:** December 2019	Krazan GEOTECHNICAL ENGINEERING
Commerce 217 Distribution Center **1075 Commerce Court** **American Canyon, California**	**Drawn by:** HT	**Approved by:** DJ	
	Project No. 032-19032	**Figure No.** 1	

Appendix E

Noise Appendices

American Canyon SDG Commerce 217

Wine Storage Project Noise Appendix

Technical Information

Site 1 – 24-Hour Noise Plots (3 pages)

Noise Measurement Locations Figure

RCH GROUP
planning & environmental consulting

NOISE APPENDIX

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the "loudness" of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[1]; day–night 24-hour average sound level (Ldn)[2] with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[3], also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

Table 1 identifies decibel levels for common sounds heard in the environment.

Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (Caltrans, 1998b). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

Temporary Construction Noise

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. **Table 2** shows typical noise levels from construction equipment. **Table 3** shows noise levels from construction activities, which typically range from 81 to 88 dB Leq at 50 feet, depending on the construction phase.

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[1]The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[2]Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[3]CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Table 1: Typical Noise Levels

Noise Level (dB)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: modified from Caltrans, 1998a

Groundborne Vibration

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment at a distance of 25 feet are summarized in **Table 4**. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inches per second (in/sec) or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a PPV threshold of 0.5 in/sec for residential and commercial structures, 0.25 in/sec for historic buildings and archaeological sites, and 0.2 in/sec for non-engineered timber and masonry buildings (FTA, 2006).

Table 2: Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Grader	85
Impact Pile Driver	101
Jackhammer	89
Loader	79
Paver	77
Pickup Truck	75
Roller	80

Source: FHWA, 2006

Table 3: Typical Construction Activities Noise Levels

Construction Phase	Noise Level (dB, Leq at 50 feet)
Ground Clearing	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.
Leq = equivalent sound level
Source: U.S. Environmental Protection Agency, Legal Compilation, 1973

Table 4: Representative Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Large Bulldozer		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, 2006

State Guidelines

State Land Use Compatibility standards for Community Noise (**Table 5**) are provided in the State of California General Plan Guidelines.

TABLE 5:
LAND USE COMPATIBILITY NOISE STANDARDS

Land Use Category	Community Noise Exposure Ldn or CNEL, dB
Residential – Low Density Single Family, Duplex, Mobile Homes	50 to 60 = Normally acceptable 55 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Residential -- Multifamily	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Transient Lodging – Motels, Hotels	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Auditoriums, Concert Halls, Amphitheaters	50 to 75 = Conditionally acceptable 65 to 85 = Clearly unacceptable
Sports Arena, Outdoor Spectator Sports	50 to 70 = Conditionally acceptable 70 to 85 = Clearly unacceptable
Playgrounds, Neighborhood Parks	50 to 70 = Normally acceptable 67.5 to 75 = Normally unacceptable 72.5 to 85 = Clearly unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75 = Normally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly Unacceptable
Office Buildings, Business, Commercial and Professional	50 to 70 = Normally acceptable 67.5 to 77.5 = Conditionally acceptable 75 to 85 = Normally acceptable
Industrial, Manufacturing, Utilities, Agriculture	50 to 75 = Normally acceptable 70 to 80 = Conditionally acceptable 75 to 85 = Normally acceptable

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: **State of California General Plan Guidelines, Office of Planning and Research, 2017.**

REFERENCES

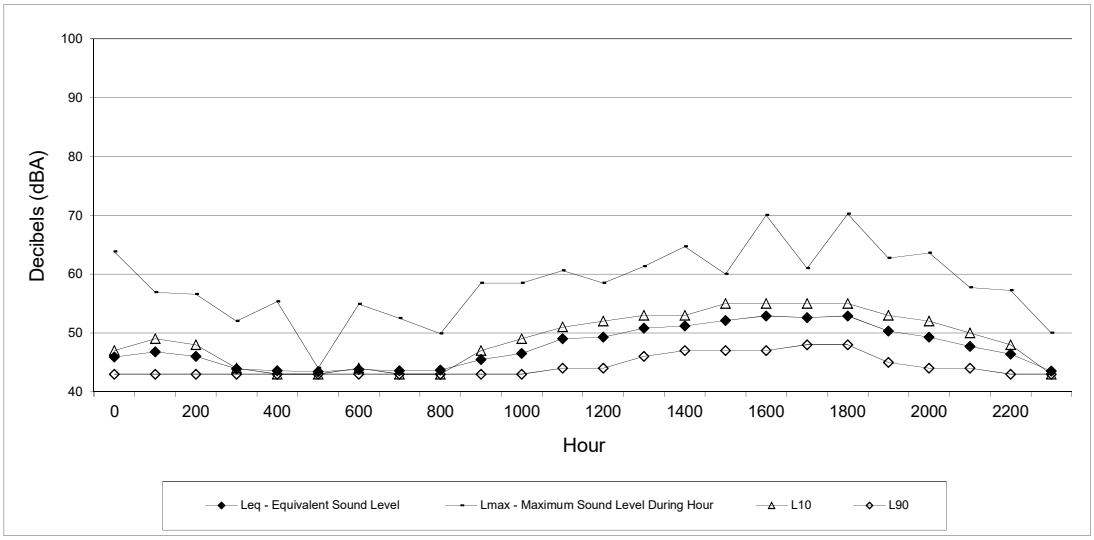
California Department of Transportation (Caltrans), 1998a. *Technical Noise Supplement*.

California Department of Transportation (Caltrans), 1998b. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October 1998.

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06).

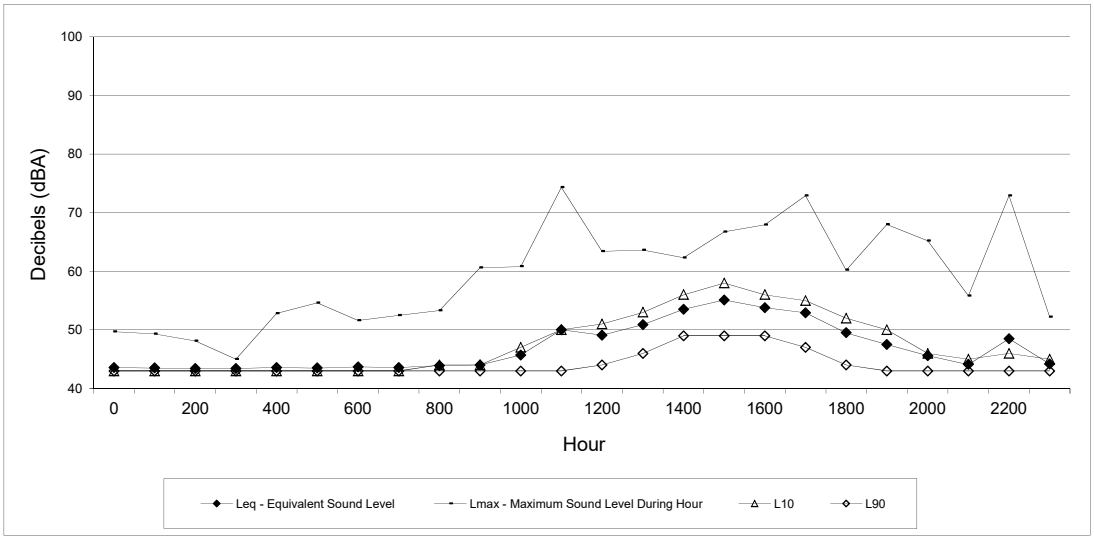
Governor's Office of Planning and Research (OPR), 2017. *State of California General Plan Guidelines*. Appendix D: Noise Element Guidelines.



Site 1: Northern Boundary of Site on Eucalyptus Grove
Tueday August 4, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	46	64	47	43
100	47	57	49	43
200	46	57	48	43
300	44	52	44	43
400	44	55	43	43
500	43	44	43	43
600	44	55	44	43
700	44	53	43	43
800	44	50	43	43
900	46	59	47	43
1000	47	59	49	43
1100	49	61	51	44
1200	49	59	52	44
1300	51	61	53	46
1400	51	65	53	47
1500	52	60	55	47
1600	53	70	55	47
1700	53	61	55	48
1800	53	70	55	48
1900	50	63	53	45
2000	49	64	52	44
2100	48	58	50	44
2200	46	57	48	43
2300	44	50	43	43

CNEL 53
LDN 53

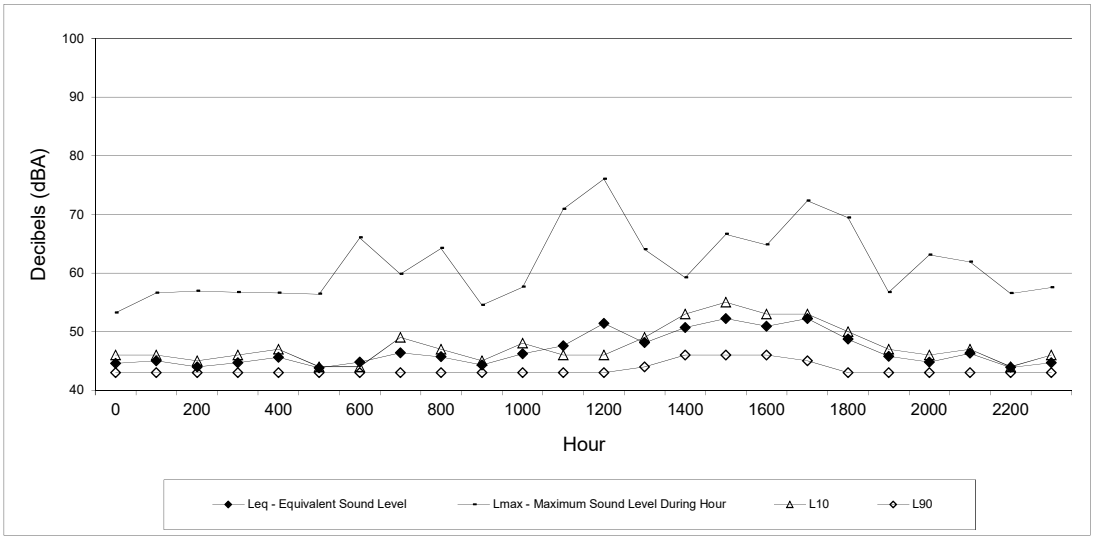


Site 1: Northern Boundary of Site on Eucalyptus Grove
Wednesday August 5, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	44	50	43	43
100	44	49	43	43
200	43	48	43	43
300	43	45	43	43
400	44	53	43	43
500	44	55	43	43
600	44	52	43	43
700	44	53	43	43
800	44	53	44	43
900	44	61	44	43
1000	46	61	47	43
1100	50	74	50	43
1200	49	63	51	44
1300	51	64	53	46
1400	54	62	56	49
1500	55	67	58	49
1600	54	68	56	49
1700	53	73	55	47
1800	50	60	52	44
1900	48	68	50	43
2000	46	65	46	43
2100	44	56	45	43
2200	49	73	46	43
2300	44	52	45	43

CNEL: 53

LDN 52



Site 1: Northern Boundary of Site on Eucalyptus Grove
Thursday August 6, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	45	53	46	43
100	45	57	46	43
200	44	57	45	43
300	45	57	46	43
400	46	57	47	43
500	44	56	44	43
600	45	66	44	43
700	46	60	49	43
800	46	64	47	43
900	44	55	45	43
1000	46	58	48	43
1100	48	71	46	43
1200	51	76	46	43
1300	48	64	49	44
1400	51	59	53	46
1500	52	67	55	46
1600	51	65	53	46
1700	52	72	53	45
1800	49	69	50	43
1900	46	57	47	43
2000	45	63	46	43
2100	46	62	47	43
2200	44	57	44	43
2300	45	58	46	43

CNEL: 52

LDN 52

Noise Measurement Locations



RCH GROUP planning & environmental consulting

Source: Google Earth and RCH Group 2020

Appendix F
Traffic Memorandumă

Memorandum

May 8, 2020

To:	Mr. Brian Doswald Stravinski Development Group, LLC	Project:	SDG 217 Commerce Boulevard Distribution Center Project
From:	Kenneth Isenhower III, EIT Kamesh Vedula, P.E.	Ref/Job No.:	11213027
CC:		File No.:	C2106MEM007.DOCX

Subject: Traffic Impact Analysis Memorandum

1. Introduction

This traffic impact analysis memorandum (TIAM) has been prepared to present the results of a traffic impact analysis performed by GHD for a proposed new distribution center development at 217 Commerce Boulevard in the City of American Canyon. The term "project" used in this memorandum refers to the proposed new 217,294 square foot wine storage warehouse. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[1] The project site is located at the terminus of Commerce Boulevard south of Green Island Road.

Included in this technical memorandum are analyses and discussion of the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this project:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

[1] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

GHD
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The following study intersection was identified and analyzed for this project:

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

The *Existing Conditions* analysis represents current operations of roadway and intersections based on collected traffic count data (October 2018);

The *Existing Plus Approved Conditions* represent the projects that have been approved by the City of American Canyon but have not been constructed and adding these trips to the existing traffic volumes.

The *Existing Plus Approved Plus Project Conditions* represent the net increase in project trips that are then added to existing plus approved traffic volumes to quantify potential impacts from proposed project uses;

The *Cumulative (No Project) Conditions* represent future traffic conditions based on the City of American Canyon General Plan to the Year 2030 but with the proposed project trips backed off as this project is assumed in the buildout of the General Plan.

The *Cumulative Plus Project Conditions* represent the net increase in project trips added to cumulative (no project) volumes to quantify impacts from proposed project uses. Care is given not to "double count" proposed project trips based on assumed land uses for the proposed project site used in City's General Plan.

1.1 Existing Traffic Volumes

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road (see Appendices for Supporting Data Information).[2]

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the amount of heavy vehicles (truck traffic) was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

[2] National Data and Surveying Services (NDS), AM peak period (7:00-9:00), PM peak period (4:00-6:00) intersection count at the Green Island Road/Commerce Boulevard intersection, October 2, 2018. Average daily traffic (ADT) counts on Green Island Road (east and west of Commerce Boulevard) and Commerce Boulevard (north and south of Green Island Road, October 2, 3, 4, 2018.

1.2 Analysis Level of Service Methodologies/Policies

1.2.1 City of American Canyon Traffic Study Thresholds of Significance

The City of American Canyon establishes the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

1.2.2 Project-Specific Significance and Mitigation Thresholds

In accordance with the City of American Canyon guidelines, the following thresholds of significance are used to determine if an impact is significant and requires mitigation:

Unsignalized Intersections:

The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS in the *No Project* condition to deteriorate to an unacceptable LOS in the *Plus Project* condition; or,
- Increase the delay by more than 5 seconds at an unsignalized intersection that is already operating or will operate at an unacceptable LOS in the *No Project* condition.

2. Existing Intersection Operations

2.1 Methodology

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. For all-way-stop-control intersections it is the average delay for all approaches.

Intersection levels-of-service have been based on the most recent Highway Capacity Manual (*HCM 6*) operations methodology for unsignalized all-way-stop-control intersections using *Synchro* software (version 10). In addition, peak hour factors (PHF's) for each intersection approach have been incorporated into all existing and future intersection LOS calculations. The PHF is a comparison of the peak 15 minute period within the peak hour compared to the peak hour. Based on field count data, these PHF's ranged from .75 to .87 depending on the peak hour.

2.2 Intersection

Table 1 presents a summary of the *Existing* peak hour intersection delay and level of service at the Green Island Road/Commerce Boulevard intersection using the most recent Synchro model.

Table 1: Existing Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	9.5	A	10.6	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 1, the Green Island Road/Commerce Boulevard intersection is currently operating at acceptable LOS during both peak hours.

2.3 Project Description

The proposed 217 Commerce Boulevard Wine Storage Facility project would be located in the City of American Canyon south of the current terminus of Commerce Boulevard. Based on the latest correspondence and site plan from the project applicant the proposed project would consist of a 217,294 square foot wine storage warehouse. At this time, vehicle and truck access to/from the proposed facility would be to/from Commerce Boulevard via Green Island Road.

2.4 Project Trip Generation

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[3] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities. Using the same methodology for the AM peak hour (between 7:00-9:00) and PM peak hour (between 4:00-6:00) peak hour trip generation has been compared in Tables 2 and 3.

[3] Omni-Means, Ltd., Trip Generation Rates---Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

Table 2: AM and PM Peak Hour Trip Generation Comparison--Tuesday

Tuesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	10-May-16	61 / 42	0.15 / 0.11
787 Airpark Road	377		27 / 37	0.07 / 0.10
175 & 177 Tower Road	254		30 / 31	0.12 / 0.12
Commerce Boulevard	692	16-Feb-16	72 / 93	0.10 / 0.13
Hanna Drive	718		151 / 109	0.21 / 0.15
Lombard Drive	287		50 / 33	0.17 / 0.12
Six Site Combined Average Tuesday Trip Rate				**0.14 / 0.12**

Table 3: AM and PM Peak Hour Trip Generation Comparison---Wednesday

Wednesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	11-May-16	57 / 34	0.14 / 0.09
787 Airpark Road	377		54 / 24	0.14 / 0.06
175 & 177 Tower Road	254		51 / 36	0.20 / 0.14
Commerce Boulevard	692	17-Feb-16	99 / 133	0.14 / 0.19
Hanna Drive	718		164 / 128	0.23 / 0.18
Lombard Drive	287		57 / 38	0.20 / 0.13
Six Site Combined Average Wednesday Trip Rate				**0.18 / 0.13**

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

As presented in Tables 2 and 3, the average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf , respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily and peak hour trip generation has been presented in Table 4.

Table 4: Project Trip Generation; Daily and Peak Hour

Observed Daily and Peak Hour Trip Rates	Unit[1]	Daily Trip Rate/Uni	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Wine Warehouse/Storage	ksf	1.69	0.16	60%	40%	0.13	35%	65%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
American Canyon Wine Warehouse	217	367	35	21	14	28	10	18
Net New Project Trips		**367**	**35**	**21**	**14**	**28**	**10**	**18**

Notes:

1. 1 ksf = 1,000 square feet

2. Trip rates based on daily traffic driveway counts at six (6) different wine warehouse/storage facilities in the American Canyon Area focusing on the 24-hour and AM and PM peak hours between (7:00-9:00 am and 4:00-6:00 pm).

As calculated in Table 4, the proposed project would be expected to generate 367 daily trips with 35 AM peak hour trips and 28 PM peak hour trips.

2.5 Project Distribution

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

3. Existing Plus Approved Traffic Conditions

Existing Plus Approved conditions were simulated by superimposing AM and PM peak hour traffic by adding approved project trip distribution patterns and volumes onto *Existing* intersection traffic volumes. The current list of approved projects consistent of only one project (330 Commerce Blvd Wine Storage Facility).

Intersection Operation

Table 5 provides a summary of *Existing Plus Approved* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 5: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.0	A	12.4	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 5, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

4. Existing Plus Approved Plus Project Traffic Conditions

Existing Plus Approved Plus Project conditions were simulated by superimposing AM and PM peak hour traffic by the proposed project onto *Existing Plus Approved* intersection traffic volumes.

Intersection Operation

Table 6 presents a summary of *Existing Plus Approved Plus Project* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 6: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.3	B	13.0	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 6, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

5. Cumulative (No Project) Conditions

Cumulative (No Project) conditions were based on cumulative AM and PM peak hour volume projections found in the *Napa Logistics Park Phase 2 Project Draft EIR* subtracting out the proposed project trip estimates. Peak hour volume projections for Green Island Road west of Paoli Loop Road were used for this analysis and encompass all future vehicle trips originating from industrial and light industrial areas in the Mezzetta Court, Jim Oswalt Way, Hanna Drive, and Commerce Boulevard areas. As a conservative measure, the *No Shift Change Reduction* volumes were utilized.

5.1 Intersection Operation

Table 7 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 7: Cumulative (No Project) Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	16.5	C	31.3	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 7, the Green Island Road/Commerce Boulevard intersection would operate at acceptable LOS during both peak hours.

6. Cumulative Plus Project Conditions

Cumulative Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto *Cumulative (No Project)* intersection traffic volumes.

6.1 Intersection Operation

Table 8 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 8 Cumulative Plus Project: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	17.9	C	35.0	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 8, the Green Island Road/Commerce Boulevard intersection would continue to operate at acceptable LOS with *Cumulative Plus Project* volumes during both peak hours.

7. Signal Warrants and Turn Lane Warrants Analyses

7.1 Signal Warrants Analysis

The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants. The CaMUTCD manual identifies up to nine warrants which can be used and states that "*An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location*".[4] Traffic signals can have several advantages which are outlined in the manual. These include: maintaining orderly movement of traffic; increasing capacity, reducing the frequency of certain accident types (right-angles), provide continuous movement of traffic at a definite speed, and permit minor street traffic/pedestrians to cross the major street.

However, the manual goes on to state that "*The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated*." The manual recommends that engineering judgment ultimately be used when deciding the appropriateness of signal controls.

Five of the nine warrants were evaluated (four warrants concerning school crossings, coordinated signal systems, roadway networks, and railroad crossing locations were not applicable). The signal warrant worksheets are attached in the Appendix.

7.1.1 Existing Without Project and Existing Plus Project Signal Warrants

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include “8-hour volumes” (Warrant 1), “4-hour volumes” (Warrant 2), and “peak hour volumes” (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The CAMUTCD warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard intersection are very low. During the AM and PM peak periods, a maximum of two (2) pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

[4] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 5 (March 27, 2020).

Finally, the crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location indicates that the current conditions do not warrant signalization for safety reasons.

7.1.2 Cumulative (No Project) and Cumulative Plus Project Signal Warrants

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

7.2 Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips.[5]

8. Summary/Mitigation

The proposed 217 Commerce Boulevard Wine Storage Facility project would not significantly affect AM and PM peak hour traffic operations at the Green Island Road/Commerce Boulevard intersection. With *Existing Plus Approved Plus Project* and *Cumulative Plus Project* volumes, the intersection would continue to operate at acceptable levels during the AM and PM peak hours (LOS D or better).

Analyses of intersection signal warrant satisfaction at the Green Island Road/Commerce Boulevard location indicates that no signal warrant would be satisfied under *Existing Plus Approved Plus Project* volumes. With forecast cumulative volumes, the intersection would qualify for signalization under the Peak Hour Warrant (Part A only) during the PM peak hour for *Cumulative (No Project)* and *Cumulative Plus Project* conditions.

At the City's request, the northbound Commerce Boulevard approach was evaluated for right-turn lane warrants based on TRB and AASHTO guidelines for the installation of a right-turn lane. Commerce Boulevard during the PM peak hour would meet the peak hour volume thresholds for installation of a separate right-turn lane with *Existing Plus Approved* and *Existing Plus Approved Plus Project* volumes (the proposed project would add to the existing warrant). In response, the following measure is recommended:

- Widen and/or re-stripe northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7% (28 trips / 1,018 cumulative volumes—PM peak hour).

With recommended improvements for a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under *Existing Plus Approved Plus Project* and *Cumulative Plus Project* conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (13.0 seconds) to LOS B (11.7 seconds) with *Existing Plus Approved Plus Project* conditions. Under *Cumulative Plus Project* conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds).

[5] Transportation Research Board, Intersection Channelization Design Guide, Chapter 4, Guidelines for Design of Channelized Intersections, Figure 4-23, Traffic volume guidelines of right-turn lanes, 1995.

Technical Memorandum

February 11, 2021

To:	Brian Doswald Stravinski Development Group, LLC	Project:	Commerce 217 Distribution Center
From:	Kamesh Vedula, PE Todd Tregenza, AICP Rosanna Southern, EIT	Ref/Job No.:	11213027
CC:		File No.:	11213027-MEM003.DOCX

Subject: Focused Traffic Impact Analysis for Vehicle Miles Traveled (VMT)

1. Introduction

GHD has been contracted by Stravinski Development Group, LLC (SDG) to prepare a technical memorandum that summarizes the results of a qualitative vehicle miles traveled (VMT) analysis consistent with the guidance and methodologies under the California Environmental Quality Act (CEQA) and the California Governor's Office of Planning and Research (OPR), per Senate Bill 743, for the Commerce 217 Wine Storage Facility/Distribution Center. The Project is located in the northern portion of the City of American Canyon, on Commerce Boulevard, near several other similar land use types.

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS) is no longer considered an environmental impact under CEQA. Instead, Project impacts are determined by changes to VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

As part of this study, GHD has reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority (NVTA) and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding threshold values, GHD has presumed a reduction of 15% from regional baseline VMT per employee, consistent with the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) and CEQA Guidelines. GHD has estimated baseline and Project trip-based VMT per employee, using journey-to-work data from the US Census Bureau, data from the California Statewide Travel Demand Model (CSTDM), and data from StreetLight. The Project-level VMT per employee estimates are reviewed against the regional baseline.

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1.1 Vehicle Miles Traveled (VMT)

VMT is the amount and distance of automobile travel on a daily basis. VMT for land use projects is measured by multiplying average trip length by the trip generation for the project. VMT estimates for the project are reported based on analysis of average commute trip lengths and estimated project site trip generation for employees. Average trip length information was established from a variety of sources, including StreetLight Data, census housing and employment data, applicant-provided commute data, and the California Statewide Travel Demand Model. This analysis is summarized in this memorandum and discussed in detail in the Appendix. Ultimately, a blend of sources was used to establish baseline VMT for the Project and for the Countywide average (Napa County). Average trip length for the Project Area was multiplied by the Project commute trip generation to estimate Project work-based VMT.

1.2 CEQA Baseline Considerations & Significance Thresholds

Under CEQA, the Project must be evaluated by comparing environmental conditions after Project implementation to conditions at a point in time referred to as the baseline. The CEQA Guidelines state that generally, the baseline is the environmental condition that exists at the time the notice of preparation is published or environmental analysis is commenced, from both a local and regional perspective. However, a lead agency may define the baseline by referencing historic conditions, as long as substantial evidence is provided that such a baseline is necessary to provide the most accurate picture practically possible given that existing conditions change or fluctuate over time.

GHD has reviewed available literature, guidance, and documentation from NVTA and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from StreetLight Data, US Census Longitudinal Employer-Household Dynamics (LEHD) database, and the California Statewide Travel Demand Model (CSTDM). The VMT impact has been assessed for the Project in terms of average daily VMT and the associated average trip length, and assessed against applying a Napa Countywide average trip length.

2. Reviewed Data Sources

2.1 LEHD Data, CSTDM, and StreetLight Data

Data from LEHD and the California Statewide Travel Demand Model were used to compare journey-to-work patterns, including trip length. The technical analysis processes used to verify and interpret the outputs from these data sources are provided in Appendix A. Ultimately, StreetLight Data was also acquired to address concerns regarding geography and sample size in the LEHD and CSTDM data. StreetLight Data provides empirically-based and directly comparable commute trip length (work-based VMT) information for the Project Area and Napa County. Lastly, commute data from the applicant was provided for similar uses in the project vicinity. Although a good source of information for employee commute lengths in the project area, the absence of comparable data for establishing a defensible baseline precluded its use in our analysis.

2.2 Data Review Summary

Based on review of the available data sources, GHD has found pros and cons to each source. Although all the data sources reviewed support the general finding that the Project area employee commutes are longer than the Countywide average, the amount of difference between the Project area and Countywide average commute length varies. Table 2.1 presents a summary of the pro's, con's, and trip length findings from each data source. Appendix A provides a full accounting of each applied methodology.

Table 2.1 Data Review Summary

	LEHD	CSTDM	StreetLight Data	Applicant Data
Pros	• Relatively small geography (precise) • Employment record-based	• Accessible VMT metrics by TAZ	• Custom precision for geography	• Data based on employees of similar uses in Project area
Cons	• Telecommute and remote office not considered • Employer records outside realistic commute shed	• TAZ geography (imprecise) masks localized variation	• Sample-based methodology may not reflect reality	• No comparable baseline data for County
Average Employee Commute Lengths				
County	15.69 miles	11.16 miles	11.70 miles	N/A
Project Area	18.65 miles	12.89 miles	17.30 miles	11.00 miles

3. Analysis Results Summary

As shown in the prior Table 2.1, the various reviewed data sources share similarities. For example, the County average commute trip lengths from the CSTDM and Streetlight Data are similar, when compared to the LEHD data. However, the LEHD is similar to StreetLight Data for the Project Area, as compared to the CSTDM. The CSTDM VMT is similar, however, the Project-applicant submitted employee data. GHD recommends a blended approach using the LEHD, CSTDM, and StreetLight Data. Although the applicant provided data shares similarities for the local Project area with the CSTDM data, GHD did not include it in the assessment due to the lack of a comparable regional average.

Table 3.1 presents a summary of the VMT analysis results, showing average employee commute trip lengths for the Project Area and the County, establishing VMT baseline and threshold of a 15% reduction from baseline. As shown in Table 3.1, the County average baseline is estimated at 12.85 miles, resulting in a VMT impact threshold of 10.92 miles. The Project area estimate for commute length is 16.28 miles.

Table 3.1 Commute Length Data Analysis Summary

Trip Type	Commute Trip Length
Countywide Average	12.85 miles
Impact Threshold	10.92 miles
Project Area Average	16.28 miles

The commute trip length values shown in Table 3.1 are subsequently used to estimate Project VMT, and quantify potential VMT impacts against the threshold established using the Countywide average.

3.1 Project Only VMT

In order to evaluate the Project's impact on VMT, total VMT is calculated based on the Project's employee-based trip generation and the Project Area's average trip length (identified in Table 3.1 above). The Project's trip generation was estimated in GHD's Traffic Impact Study for the Project, dated May 2020. The Project is estimated to generate 367 new daily trips, this represents employee trips, visitor trips, delivery trips, and truck trips. Using the StreetLight Data, the percentage of employee trips vs non-employee trips (37%) was established and utilized to estimate the Project's employee-based VMT. Table 3.2 presents the calculation of the Project's estimated VMT, the VMT threshold based on the trip length that is 15% below the countywide average, and the resulting reduction in VMT necessary to reduce any VMT excess over that threshold.

Table 3.2 Project VMT Calculation

Project Daily Trip Generation	% Commute Trips	Employee Trips
367	37%	136
Area	**Average Trip Length**	**Total Employee VMT**
Proposed Project	**16.28 miles**	**2,214**
Baseline Threshold	*10.92 miles*	*1,485*
VMT Reduction to meet Baseline Threshold		**729**

Based on an average Project Area trip length of 16.28 miles, the total employee VMT generated by the Project is estimated to be 2,214 VMT. In the absence of applicable local thresholds for light industrial and warehouse uses, GHD recommends utilizing the Countywide average commute trip length as the baseline and a VMT threshold of 15% below that average. Based on 136 employee trips, the Project's VMT would need to be reduced by 729 VMT to fall below the proposed 1,485 VMT threshold.

4. Recommendations to Reduce VMT

The applicant has proposed to construct a Class I bike path running from the current terminus of Commerce Court (northern extent) to Eucalyptus Drive (southern extent) to help reduce the Project's VMT below the required threshold. As illustrated in Figure 4.1 below, a portion of the bike path has already been constructed adjacent to the Project site, extending south from the terminating cul-de-sac of Commerce Court (which was also recently extended to the Project site) to the southern property line of the Project site.

The bike path will fill an approximately 800-foot gap in regional bike infrastructure, resulting in a continuous route from the residential areas to the south with employment destinations to the north. The bike path will extend the alignment of the Class I bike path along Wetlands Edge Road (San Francisco Bay Trail).

Figure 4.1 Extents of Bike Path and Recommended Improvement



4.1 Minimum and Maximum VMT Reduction Estimates

VMT reduction estimates for the proposed trail were prepared using two methodologies. The “Minimum” assessment estimates the induced bicycle commuting (or VMT reduction) from the 800-foot bike path only. This assessment therefore assumes the commuting potential of the balance of the Wetlands Edge bike path is already fully realized. This assessment assumes the closure of the bike trail gap would provide no indirect benefits to users of the surrounding bicycle network. However, continuing the bike path north from Wetlands Edge Road to Commerce Court fills a currently non-traversable gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices.

The “Maximum” assessment estimates the induced bicycle commuting for the entire length of the existing bike path along Wetlands Edge and the proposed 800-foot gap closure. This assessment assumes that the existing Wetlands Edge bike trail has zero utilization for bicycle commutes. This assumption is supported by the fact that the existing Wetlands Edge bike trail is fully disconnected from commute destinations, since

State Route 29 poses a significant barrier to bicycle commuting and the trail is, today, isolated from other bike infrastructure.

Acknowledging that neither the “Minimum” nor “Maximum” assessment are likely to portray the existing trail’s exact commuter use, GHD proposes to use an average of both assessment results to quantify the anticipated induced bicycle commute (or VMT reduction) provided by the 800-foot bike trail and gap closure.

4.2 Supporting and Additional Information

The elementary school development, which is located on the northeast corner of Eucalyptus Drive and Wetlands Edge Road, is currently under construction and would also benefit from the construction of the adjacent bike path. Additionally, with the planned Class I bike path further north, connecting Green Island Road to Devlin Road, continuous bikeways will be provided to connect American Canyon to employment centers north of Green Island. Without closure of the 800-foot gap in bike facilities, the full benefit of the Devlin Road bike connection will not be realized.

Evidence for the existence of viable bicycle commuters between the Project site and the areas utilized in the induced bicycle commute analysis is provided by US Census Transportation Planning Products (CTPP) and LEHD data, as shown below in Figure 4.2. The units of analysis available for this assessment are limited to Census Block Group geography. As shown in the figures, the proposed Project (outlined in blue) is served by hundreds of commuters within American Canyon, and particularly along Wetlands Edge Road.

Figures 4.3 below depicts a ½ mile buffer from the existing Wetlands Edge bike trail with the addition of the 800-foot gap closure and connection to Commerce Boulevard. The induced bicycle commute analysis includes several buffer distances, and as noted above, was performed on both a “Minimum” and “Maximum” basis. Figure 4.3 visualizes the residential population and employment destinations currently accessible within a half-mile of this corridor, demonstrating the number of potential users within close walking distance. The half-mile buffer distance is estimated to include 5,300 residents and up to 1,600 jobs.

Figure 4.2 Existing Commute Patterns in Project Area

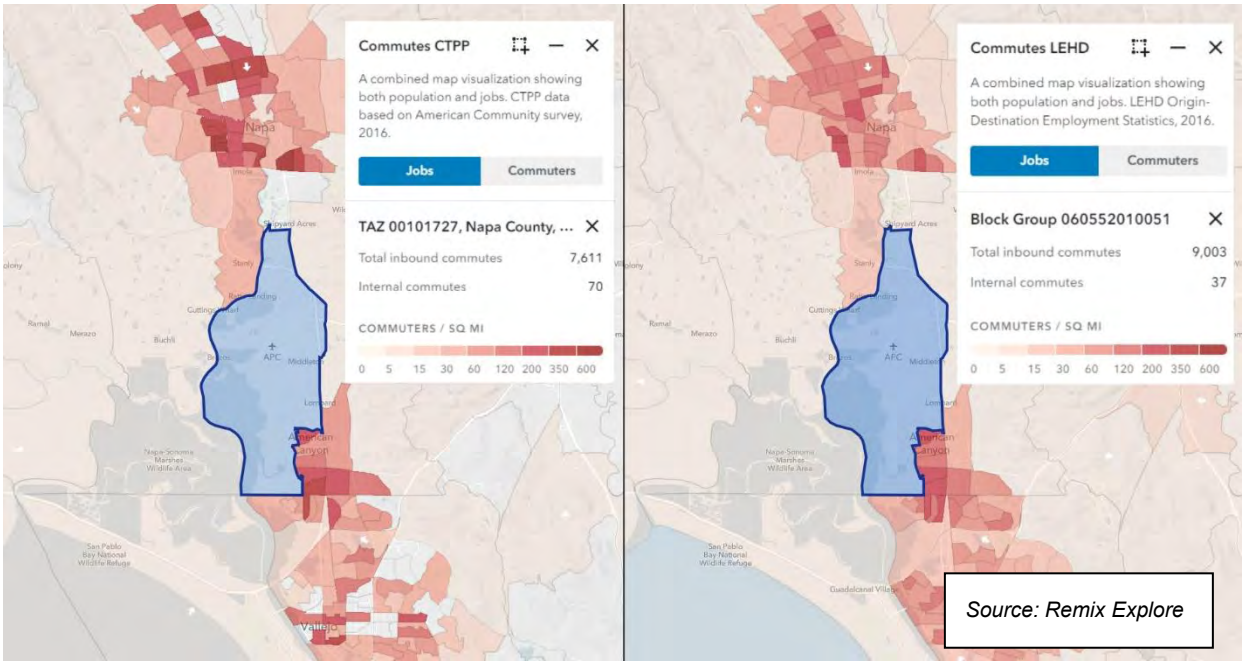
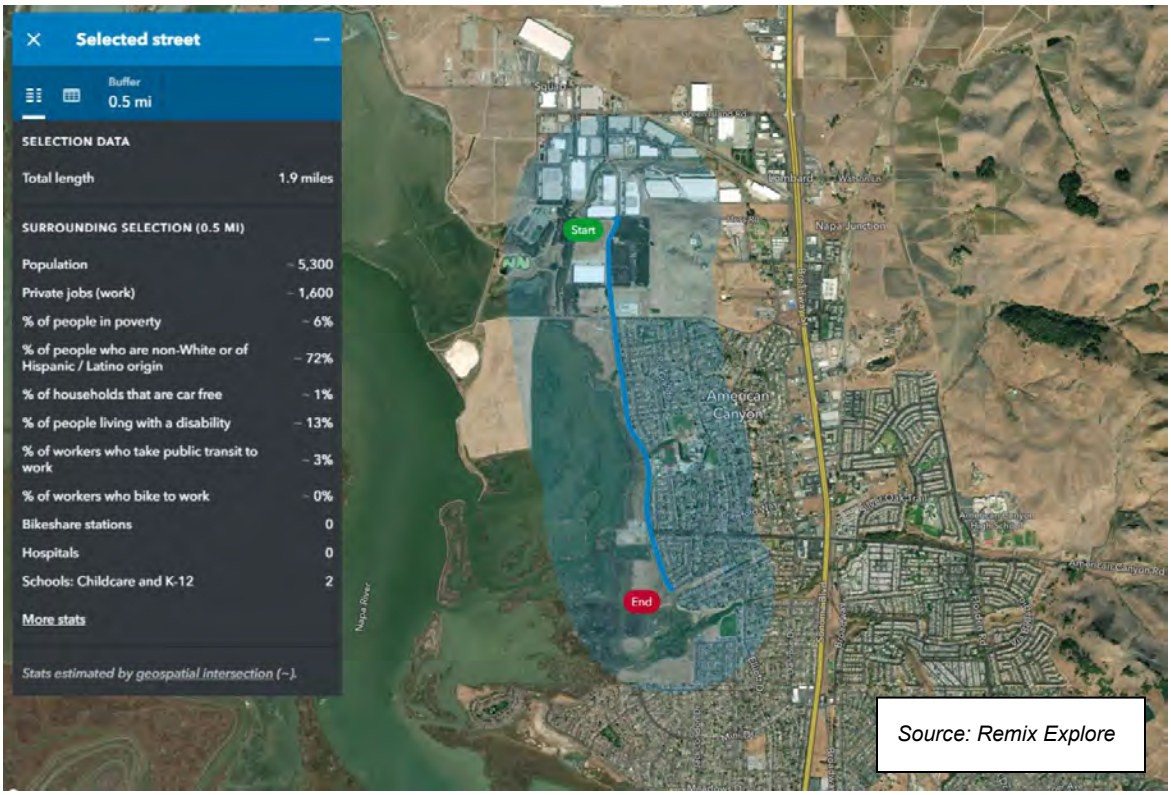


Figure 4.3 Half-Mile Demographic Buffer from Bicycle Corridor



4.3 VMT Reduction Analysis Findings

The quantification of the VMT reduction from full construction of the bike path is detailed in Appendix B. The VMT reduction is based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*. Table 4.1 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the bicycle facility and the new connection north to Commerce Court. The total new commuters estimated from the analysis (detailed in Appendix B) is used to estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and by the average trip length for a bicyclist commuter.

Table 4.1 VMT Reduction with Induced Demand/Bicycle Mode Shift

	Minimum (800 ft)	Maximum (1.85 mi)	Average
Total New Commuters	38	155	96.5
Daily Commute Trips (2 trips)	76	310	193
Average One-way Trip Length[1]	5.2	5.2	5.2
Daily VMT Reduction	**395**	**1,612**	**1,004**
Annual VMT[2]	92,872	378,820	235,846

[1] *"Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC-RR-08-03, December 2008.*

[2] *Assumes 47 weeks per year, 5 days per week for average commute year*

As shown, the new shared-use path (Class I bicycle facility) is expected to result in mode shift from vehicle to bicycle for up to 155 commuters. According to the NCHRP calculation, this bike path is anticipated to reduce VMT by up to 1,612 vehicle trip miles. If the Wetlands Edge trail today were fully utilized by commuters, and the proposed 800-foot bike trail were not closing a critical gap in network connectivity, the 800-foot bike trail project alone would be estimated to reduce 395 vehicle trip miles. Acknowledging that current commute use of the Wetlands Edge trail today is likely a non-zero figure, GHD recommends using a blended average of the "Minimum" and "Maximum" assessment, which would result in a reduction in VMT of 1,004 vehicle trip miles, which is sufficient to reduce the total Project VMT to a value less than the threshold established in this memorandum.

Memorandum

Appendices

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Appendix A
Technical Methodologies & Data

Appendix A Technical Methodologies & Data

The following section outlines the analysis methodologies and data sources that have been used in the VMT impact study to quantify VMT for the proposed Project. The regional travel demand model and VMT policy are currently under development. Therefore, various data sources were utilized to determine VMT characteristics.

1. Project Specific (Related) Information

SDG has provided site-specific information for home locations of existing employees at the existing building at 330 Commerce Boulevard, which is a similar use to the use anticipated at the proposed Project site. This information is presented in Table A.1 along with the calculated two-way commute distance, VMT, and the total VMT per employee rate (21.9). According to the application, the proposed Project is anticipated to employ 43 workers, whose residence locations are currently unknown. However, since the estimate in the below table is the existing data for a single similar use only, it does not provide substantial evidence to support a baseline VMT per employee commute distance estimation in the greater project area and cannot support a Countywide baseline finding.

Table A.1 Employee Commute & VMT for 330 Commerce Blvd (3 buildings)

Home Origin	Number of Employees	Two-Way Commute Distance (mi)	VMT Estimate
Vallejo	21	12.6	264.6
Napa	18	22.8	410.4
American Canyon	8	2.0	16.0
Fairfield	7	31.8	222.6
Vacaville	3	46.8	140.4
Benicia	1	29.5	29.5
Suisun City	1	32.6	32.6
Sonoma	1	36.8	36.8
Yountville	1	37.5	37.5
Pittsburg	1	65.3	65.3
Antioch	1	73.6	73.6
Winters	1	74.9	74.9
TOTAL	64		1404.2
Weighted average VMT per employee			21.9 trip miles
Weighted average commute distance		11.0 miles	

2. LODES Data

Journey-to-work data is available from the Longitudinal Employer-Household Dynamics (LEHD) program[1]. The primary source of data used in the LEHD program is the enhanced Quarterly Census of Employment and Wages (QCEW) microdata files obtained from each participating Local Employment Dynamics (LED) state. The employer-based QCEW data is merged with additional worker-based administrative data collected by the US Census Bureau to create integrated employer-worker data, available through two different databases, Quarterly Workforce Indicators (QWI) and LEHD Origin-Destination Employment Statistics (LODES).

Unlike sample-based surveys (such as the US Census's American Community Survey or CTPP), the LODES data provides a nearly complete enumeration of home-to-work flows covering over 90% of all workers and employers in the United States. The LODES data does not contain details on the work trips such as mode choice, route, or travel times. The LODES data does not include federal workers, self-employed or the military, and workplace location is assigned algorithmically for people who work for a business with multiple locations in a County. The LODES data provides many more origin-destination pairs than collected through sampled data, and provides sufficient data for home-to-work flows.

The LODES data was used to calculate average trip lengths and associated VMT for the Project Area in comparison against the region. The 2017 LODES data was downloaded statewide, on the US Census block level, and then filtered for Napa County. Based on the LODES data, approximately 52% of Napa County workers live outside the County, and approximately 48% of County employees live and work in Napa County. The employment number used for VMT per employee was determined by summing all the job destinations in the LODES dataset for Napa County.

Based on the methodology for estimating Baseline VMT as described herein, Table A.2 below presents a summary of the Baseline VMT estimates and Project VMT estimates utilizing LODES data and shortest-path analysis for trip lengths, within a 50-mile radius. The Project Area average trip length was found to be 18.6 miles, the Citywide average was found to be 16.4 miles, and the Countywide average was found to be 15.7 miles. The selected census blocks for the Project Area that present similar uses currently have VMT per employee rates that are, on average, higher than the Countywide average. The finding of above-average commute lengths in the project area was later corroborated in the StreetLight data findings.

[1] Data Source: U.S. Census Bureau. 2020. Longitudinal-Employer Household Dynamics Program (LEHD) Origin-Destination Employment Statistics Data (2015-2017). Washington, DC. accessed on 05/12/2020 at https://lehd.ces.census.gov/data/#lodes. LODES 7.4

Table A.2 LODES Analysis Results Summary

Area	Total Employees	Total VMT	Average VMT per Employee	Average Commute Distance
Napa County	58,836	1,846,314	31.4	15.7
City of American Canyon	3,171	103,671	32.7	16.4
Project Area	682	25,366	37.2	18.6
Project Area % Difference from County			18.5%	
Project Area % Difference from City			13.8%	

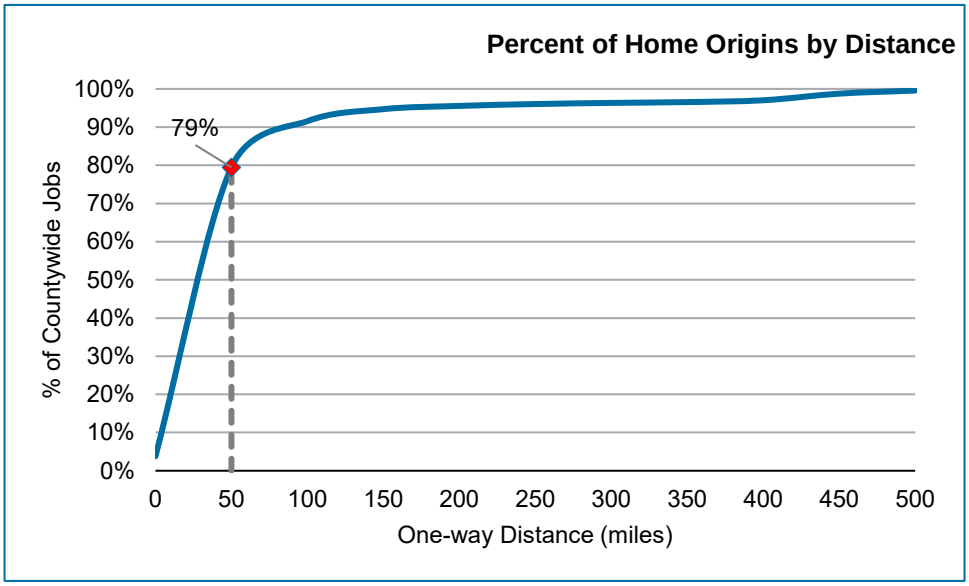
Shortest Path GIS Analysis Methodology

Shortest path analysis was performed using the GIS-based Google Distance Matrix API. The API is a service that computes travel distance and journey duration between multiple origins and destinations using a given mode of travel. The geographic boundaries of the census blocks Statewide were downloaded from the US Census Bureau to be utilized within the analysis. The LODES data was queried to retrieve the census blocks statewide that had a work destination within Napa County, then joined to the reference block dataset to find their locations. There were over 67,300 origin-destination pairs with a work destination in Napa County. The geometric centroids of each of the filtered census blocks were then calculated and utilized to determine the coordinates of the origins or destinations for analysis within the GIS-based API. The API was then called iteratively for a process which calculated the distance and travel time between each origin and destination (block to block). Distances between each origin-destination pair account for the full trip length, outside of the County boundary. The results were then joined back to the original LODES data to preserve the job count information, and assure the calculated destinations corresponded with the correct origin-destination pairs. GHD reviewed some of the origin-destination pair's distances against Google maps directions for quality control and assurance.

The primary work location reported by the LODES data may not represent the actual physical location where workers work, i.e. large corporations or other companies may have a headquarters located in an unrealistic location for commuting to and from work on a daily basis. Figure A.1 shows the percent of home origins of the Countywide jobs by distance. The Figure shows that a 50-mile buffer captures 79% of work destination trips Countywide (travel time is approximately 1 hour). Based on the project-specific information provided by the Project applicant, the existing employees of the neighboring use commute within a 50-mile distance. Therefore, the VMT per employee was calculated utilizing only the trips within a 50 mile buffer, one-way, thus removing errant outliers in the data that incorrectly inflate the average VMT per employee.

Based on the LODES data and shortest-path analysis, the Countywide average VMT per employee was estimated to be 31.4, and the Citywide average VMT per employee was estimated to be 32.7.

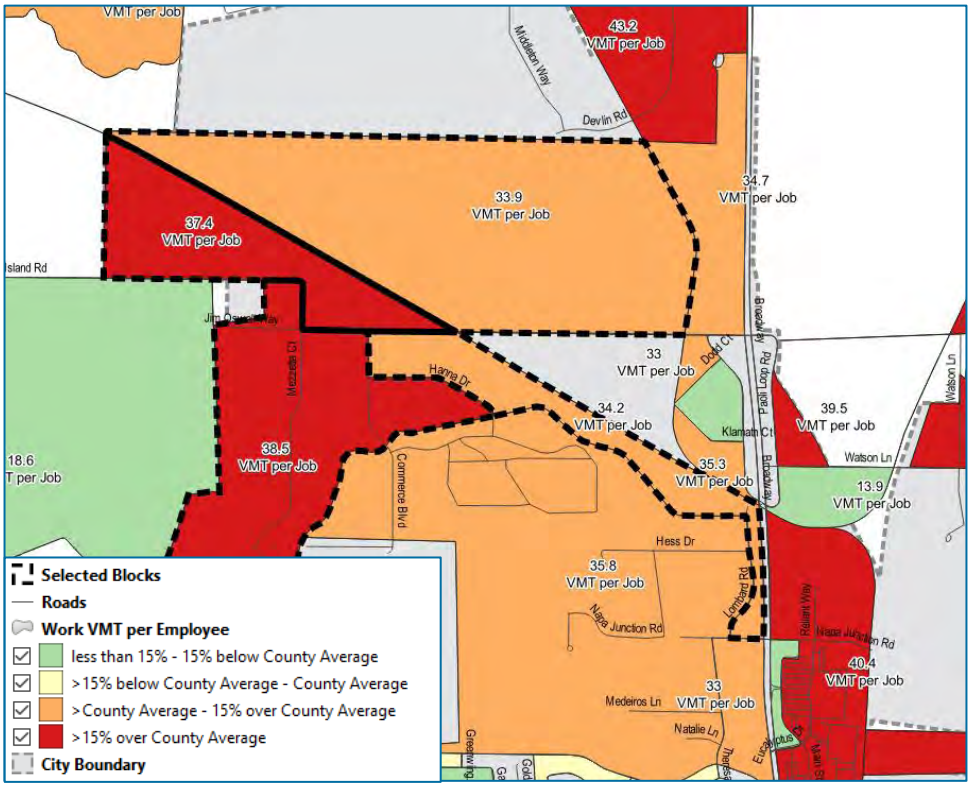
Figure A.1 Percent of Home Origins of Countywide Jobs by Distance



VMT Estimations & Geography

The distances calculated from the shortest path GIS analysis combined with the LODES data was utilized to estimate VMT per employee. VMT for each origin-destination pair was estimated by multiplying the number of jobs (employees) by the distance between the origin, destination, and back to the origin (2x distance) to include the full daily trip length for each origin-destination pair. The number of jobs, total VMT estimation, and average VMT per employee results were then summarized by geography (County, City, Project Area) for baseline estimation, Project Area estimation, and comparison of VMT per employee rates. The average VMT per employee for the County and City of American Canyon were calculated by dividing the total VMT by the total number of jobs for the census blocks in those geographies. For the Project Area average, four census blocks were evaluated, as identified in Figure A.2 below, to estimate the VMT per employee of the Project, by estimating the VMT per employee of the surrounding similar land uses. The census block along Commerce Boulevard was not selected due to also containing an elementary school, City Hall, and other dissimilar uses. Figure A.2 also shows the VMT per employee for each of the selected census blocks, and is colorized based on the comparison to the Countywide average VMT per employee. As shown, the selected census blocks in the Project Area range from rates of 33.9 to 38.5 VMT per employee. The average VMT per employee for the Project Area is 37.2 (total of VMT for Project Area divided by the total of employees in Project Area).

Figure A.2 Selected Census Blocks for Project Area



3. StreetLight Data

GHD has implemented alternative resources and tools to facilitate data collection and accurately represent origin-destination data for home-based-work trips in the study area and Countywide. GHD utilized “big data” from StreetLight Data to assess journey-to-work characteristics including trip length and VMT during 2019. StreetLight Data uses Location Based Services (LBS) and provides VMT and trip length estimations based on an anonymized sample of traffic. Estimations include trips that are tracked from start to finish and provides a more granular estimation of VMT patterns when compared to most travel demand models.

StreetLight Data is updated monthly and provides information for all roadways identified on the “Open Streets Map”. The data available through this service allows for evaluation of historical and/or current travel conditions. The data was collected for all days throughout 2019 (pre-COVID-19), for two sets of geographies: Napa County and the “Project Area”. The Project Area is identified in Figure A.3 below. The data was provided for all days, weekdays, and weekends. However, the analysis evaluated data for weekdays only. The data was analyzed by trip type including commute-based and non-commute-based for origins and destinations from/to work, home, and other trip types.

Figure A.3 Selected Project Area for StreetLight Data Analysis



The employee commute data from StreetLight Data was used to calculate average trip length and VMT estimates for the Project Area and Countywide. The average trip length information was utilized to establish Project-level VMT and the VMT that would be 15% below the Countywide average baseline metric.

Table 3.1 presents a summary of the StreetLight Data analysis results, showing employee and visitor trips and the average trip lengths for the Project Area and the County. Additionally, the percent split of employee and visitor trips within the Project Area is presented, which will be utilized to estimate the employee portion of trips from the Project's trip generation. As presented, a 37% portion of Project Area trips were employee (commute) trips. The average trip lengths presented vary between 11.7 and 31.3 miles, when evaluating commute trips and visitor-based trips. The VMT estimation associated with the Project utilizes the average trip length associated with employee commute trips from the Project Area.

Table A.3 StreetLight Data Analysis Results Summary

Trip Type	Project Area Volumes	% of Trips	Project Area Trip Length (mi)	Countywide Volume	Countywide Trip Length (mi)
Commute Daily Volume	2,138	37%	17.3	704,468	11.7
Non-Commute Daily Volume	3,626	63%	23.8	287,068	31.3
Total / Average	5,764	100%	21.4	991,536	17.4

It should be noted that the average commute trip length for the project area (17.3 miles) significantly exceeds the applicant-provided information on worker home bases for similar uses in the area (11.1 miles). Thus, the

VMT estimate for the project area from StreetLight Data may be conservatively high. Notwithstanding this consideration, since the applicant-provided data cannot be directly compared to the Countywide information from StreetLight data, GHD has decided not to use it in this analysis.

4. Caltrans Statewide Travel Demand Model

Caltrans maintains the Statewide travel demand model (CSTDM) which contains VMT information on the traffic analysis zone (TAZ) level. Based on the CSTDM, the Countywide average VMT per employee is estimated to be 23.7, the Citywide average VMT per employee is estimated to be 38.7, and the TAZ where the Project is located has a VMT per employee rate of 38.1. However, the CSTDM only has two TAZ's that are located in the City of American Canyon. Based on the CSTDM, the Countywide average trip length is 11.2, and the average trip length for the Project area is 12.9.

Appendix B
VMT Reduction for Class I Bikeway

Appendix B VMT Reduction for Class I Bikeway

The proposed SDG Commerce 330 Distribution Center Project (herein referred to as the Project) includes a segment of Class I Shared-Use Path that will close a gap between two shared-use facilities to the north and south of the proposed project. Based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*, the new facility may result in mode shift from vehicle to bicycle for some users. The methodology describes an approach for estimating the induced demand associated with a given bicycle facility improvement, and translates the projected increase in demand to monetized benefits related to mobility, health, recreation, and decreased auto use.

To estimate the reduction in vehicle miles traveled (VMT) associated with the bicycle facility improvement proposed as part of the Project, this analysis utilizes only the decreased auto use benefit component of the NCHRP 552 methodology. The induced demand benefits associated with the Project's proposed bicycle facility improvement is translated to a VMT reduction estimate by using the projected increase in number of daily commuters estimated to be associated with the proposed bicycle facility, and the average bicycle commute trip length.

This memorandum describes our application of the NCHRP 552 methodology in additional detail, the results of the induced demand and reduced auto use benefit, and the estimated reduction in VMT associated with the Project.

Methodology

The NCHRP 552 methodology is centered on several assumptions (NCHRP 552, Appendix A):

1. Existing bicyclists near a new facility will shift from the existing nearby facility to the new facility.
2. The new facility will result in induced number of cyclists as a function of the number of existing bicyclists, relative to the attractiveness of the proposed facility.
3. People are more likely to ride a bicycle if they live within 1.5 miles of a facility than if they live outside that distance.

The methodology suggests that existing bicycle commute mode share can be utilized to estimate the number of existing and future bicycle ridership based on low, moderate, and high likelihood multipliers and the population within 1.5 mile, 1.0 mile, and 0.5 mile buffers that surround a facility. The total rate of adult bicycling ranges from a low estimate, based on the Census commute share, to a high estimate, based on 0.6 percent plus three times the Census commute share (NCHRP 552, Appendix A). Moreover, the highest likelihood of a member of the population to use the facility exists if they live within a 0.5 mile buffer around the facility. Thus, demand is reported at low, medium, and high estimates for the populations at each buffer distance. Each buffer area—at 0.5, 1.0, and 1.5 mile was assessed for both a "Minimum" and "Maximum" bikeway benefit area.

The “Minimum” benefit area assumes only the direct induced demand of the 800-foot segment proposed by the project applicant. However, this assessment methodology undervalues the bike facility’s benefit as it assumes no additional benefit to the existing bike path along Wetlands Edge Road. The Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus.

In an effort to demonstrate this cumulative benefit, a “Maximum” benefit area was also calculated. The “Maximum” benefit area includes the entire length of the existing Wetlands Edge bike trail in addition to the proposed 800-foot gap closure segment. This assessment assumes zero commute benefit for the existing Wetlands Edge bike trail. Acknowledging that some commute benefit likely exists on the existing trail, and average of the “Minimum” and “Maximum” benefit is used in this study. However, this may still undervalue the benefit of the gap closure since the existing bike trail’s commuter use is likely closer to zero than it is to fully-actualized, since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders.

To project the future bicycling demand, the population was estimated based geospatial intersection of Census Block Group geography, using 2019 American Community Survey (ACS) five-year population estimates. Using the estimated population and the sketch planning method presented in Appendix A of the NCHRP 552 Report, the induced demand and decreased auto use benefits associated with the proposed bicycle facility were estimated for the “Minimum” and “Maximum” scenarios described above.

Results

Induced Demand

Table B.1 presents the calculations for estimating the induced demand associated with the proposed bicycle facility at the three buffer distances. As shown, the bicycle facility improvement is anticipated to induce 38 new bicyclist commuters (“Minimum”) and 155 new bicyclist commuters (“Maximum”), for an average 97 new bicyclist commuters.

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Adult Population Percentage [1]	73.70%	73.70%
Bicycle Commute Mode Share [2]	1.10%	1.10%
Existing Population [3]		
Population near Facility, 2400m	9,600	27,400
Population near Facility, 1600m	3,700	16,500
Population near Facility, 800m	700	5,300
Existing Bicycle Commuters [4]		
Bicyclist Commuters, 2400m	105.6	301
Bicyclist Commuters, 1600m	40.7	182
Bicyclist Commuters, 800m	7.7	58
Existing Adult Population [5]		

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Adult Population near Facility, 2400m	7,075	20,194
Adult Population near Facility, 1600m	2,727	12,161
Adult Population near Facility, 800m	516	3,906
Existing Adult Bicycling Rates (Non-Commuters) [6]		
Adult Bicycling Rate, High	3.90%	3.90%
Adult Bicycling Rate, Moderate	1.72%	1.72%
Adult Bicycling Rate, Low	1.10%	1.10%
Existing Adult Bicyclists (Non-Commuters), High Estimates [7]		
Adult Bicyclists, High 2400m	276	788
Adult Bicyclists, High 1600m	106	474
Adult Bicyclists, High 800m	20	152
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]		
Adult Bicyclists, Moderate 2400m	122	347
Adult Bicyclists, Moderate 1600m	47	209
Adult Bicyclists, Moderate 800m	9	67
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]		
Adult Bicycling Rates, Low 2400m	78	222
Adult Bicycling Rates, Low 1600m	30	134
Adult Bicycling Rates, Low 800m	6	43
Likelihood Multipliers By Each Buffer Distance [8]		
Likelihood Multiplier, 2400m	0.15	0.15
Likelihood Multiplier, 1600m	0.44	0.44
Likelihood Multiplier, 800m	0.51	0.51
New Bicycle Commuters [9]		
Total New Commuters, 2400m	16	45
Total New Commuters, 1600m	18	80
Total New Commuters, 800m	4	30
Total New Commuters	**38**	**155**
New Adult Bicyclists (Non-Commuters), High Estimates [10]		
New Adult Cyclists, High 2400m	41	118
New Adult Cyclists, High 1600m	47	209
New Adult Cyclists, High 800m	10	78
New Adult Bicyclists (Non-Commuters), Medium Estimates [10]		
New Adult Cyclists, Moderate 2400m	18	52
New Adult Cyclists, Moderate 1600m	21	92
New Adult Cyclists, Moderate 800m	5	34
New Adult Bicyclists (Non-Commuters), Low Estimates [10]		

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Total New Adult Cyclists, Low 2400m	12	33
Total New Adult Cyclists, Low 1600m	13	59
Total New Adult Cyclists, Low 800m	3	22
Total New Adult Cyclist Estimates (Commuter and Non-Commuter) [11]		
Total New Cyclists, High	154	634
Total New Cyclists, Moderate	99	407
Total New Cyclists, Low	84	343

Table Notes:

[1] U.S. Census Bureau, American Community Survey ACS 2019 5-Year Estimates

[2] Napa County, CA Commuting Characteristics 2019 ACS 5-Year Estimates

[3] 2010 U.S. Decennial Census Population by Block; 2018 U.S. Census American Community Survey (ACS) 5-Year Estimates by Block Group

[4] Population near Facility x Bicycle Commute Mode Share

[5] Population near Facility x Adult Population Percentage

[6] High Estimate Rate = .06% + 3(Census Bicycle Commute Mode Share); Medium Estimate Rate = 0.4% +1.2(Census Bicycle Commute Mode Share); Low Estimate Rate = Census Commute Mode Share

[7] Adult Population near Facility at Given Buffer Distance x Adult Bicycling Rate

[8] Established by NCHRP 552 research; see Appendix B

[9] Existing Bicycle Commuters x Likelihood Multiplier

[10] Existing Adult Bicyclist (Non-Commuter) x Likelihood Multiplier

[11] Sum of New Adult Bicyclists (Non-Commuter) and New Bicyclist Commuters at High, medium and Low Estimates

Vehicle Miles Traveled (VMT) Reduction

Table B.2 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the proposed bicycle facility. The total of new commuters shown in Table B.1 is used to estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and the average one-way trip length for a bicycle commute trip. As shown, the daily VMT reduction is estimated to be up to 1,612, at least 395, and an average of 1,004 vehicle miles travelled.

Table B.2: VMT Reduction Associated with Induced Demand/Bicycle Mode Shift

	Minimum (800 ft)	Maximum (1.85 mi)	Average
Total New Commuters	38	155	96.5
Daily Commute Trips (2 trips)	76	310	193
Average One-way Trip Length[1]	5.2	5.2	5.2
Daily VMT Reduction	**395**	**1,612**	**1,004**
Annual VMT[2]	92,872	378,820	235,846

[1] "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC-RR-08-03, December 2008.

[2] Assumes 47 weeks per year, 5 days per week for average commute year

Appendix G
Tribal Outreach Letters

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 29, 2020

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

To Whom It May Concern:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

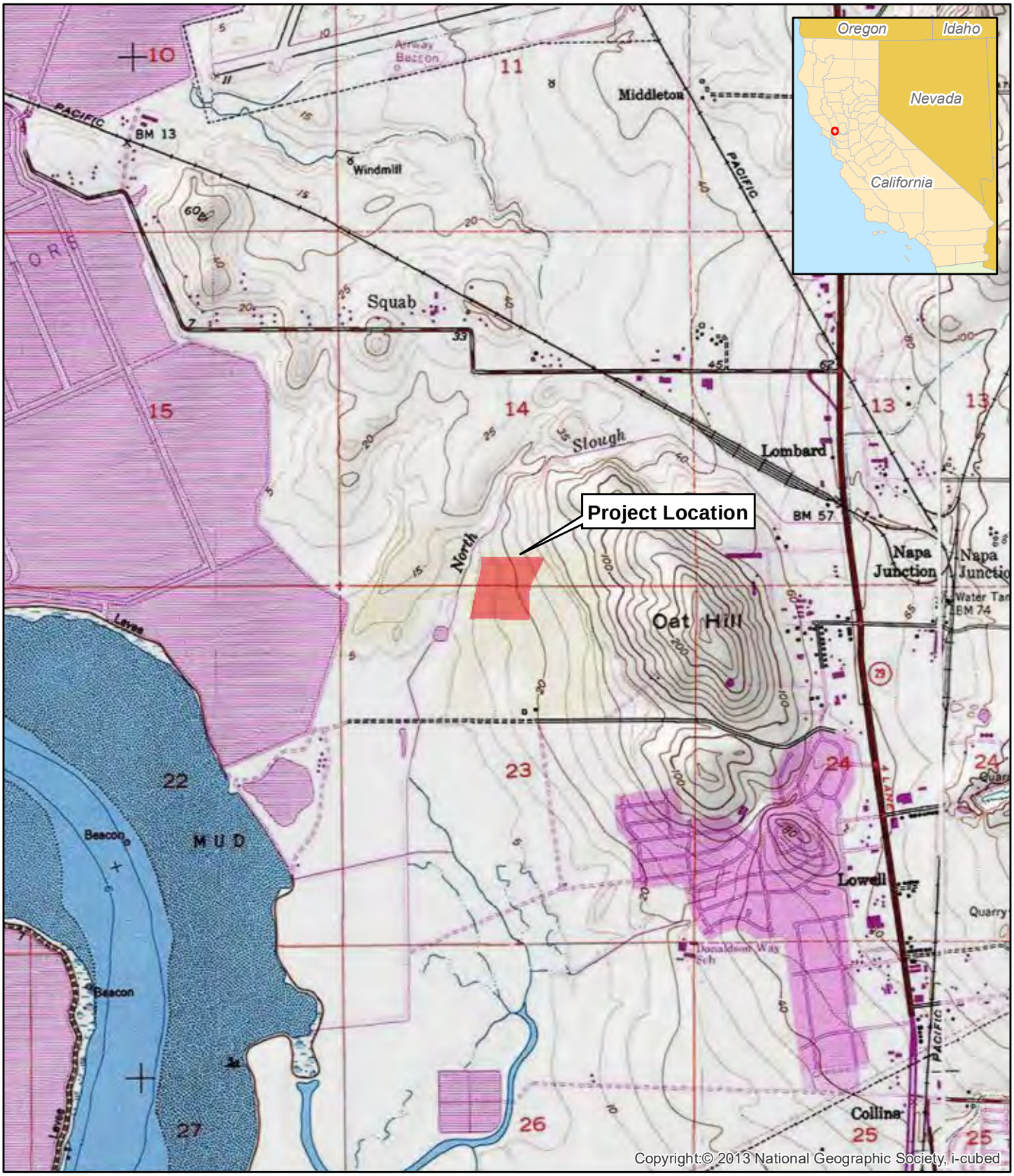
The SAS study will include a pedestrian cultural resources survey of the project area. Before we commence fieldwork, however, we would like to facilitate AB 52 consultation on behalf of the City. To provide this assistance to the City, we would like to request a list of appropriate regional Native American community contacts and a search of the Sacred Lands File.

If you have any questions, feel free to contact me at your convenience by phone at 530-417-7007 or via email at Brian@solanoarchaeology.com. Thank you very much for your time and I look forward to hearing from you soon.

Regards,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

Native American Heritage Commission
Tribal Consultation List
Napa County
7/30/2020

Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 — Wintun
Williams, CA, 95987
Phone: (530) 473 - 3274
Fax: (530) 473-3301

Guidiville Indian Rancheria
Merlene Sanchez, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Middletown Rancheria of Pomo Indians
Jose Simon, Chairperson
P.O. Box 1035 — Lake Miwok
Middletown, CA, 95461 — Pomo
Phone: (707) 987 - 3670
Fax: (707) 987-9091
sshope@middletownrancheria.com

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor, CA, 95492
Phone: (707) 494 - 9159
scottg@mishewalwappotribe.com

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
Fax: (530) 796-2143
aroberts@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed SDG Commerce 330 Warehouse Project, Napa County.

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
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Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

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Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

July 30, 2020

Brian Ludwig, PhD, Principal Investigator
Solano Archaeological Services

Via Email to: brian@solanoarchology.com
Cc to: scottg@mishewalwappotribe.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, SDG Commerce 330 Warehouse Project, Napa County

To Dr. Ludwig:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Mishewal-Wappo Tribe of Alexander Valley tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Sarah.Fonseca@nahc.ac.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Ms. Merlene Sanchez
Guidiville Indian Rancheria
P.O. Box 339
Talmage, CA 95481

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Ms. Sanchez:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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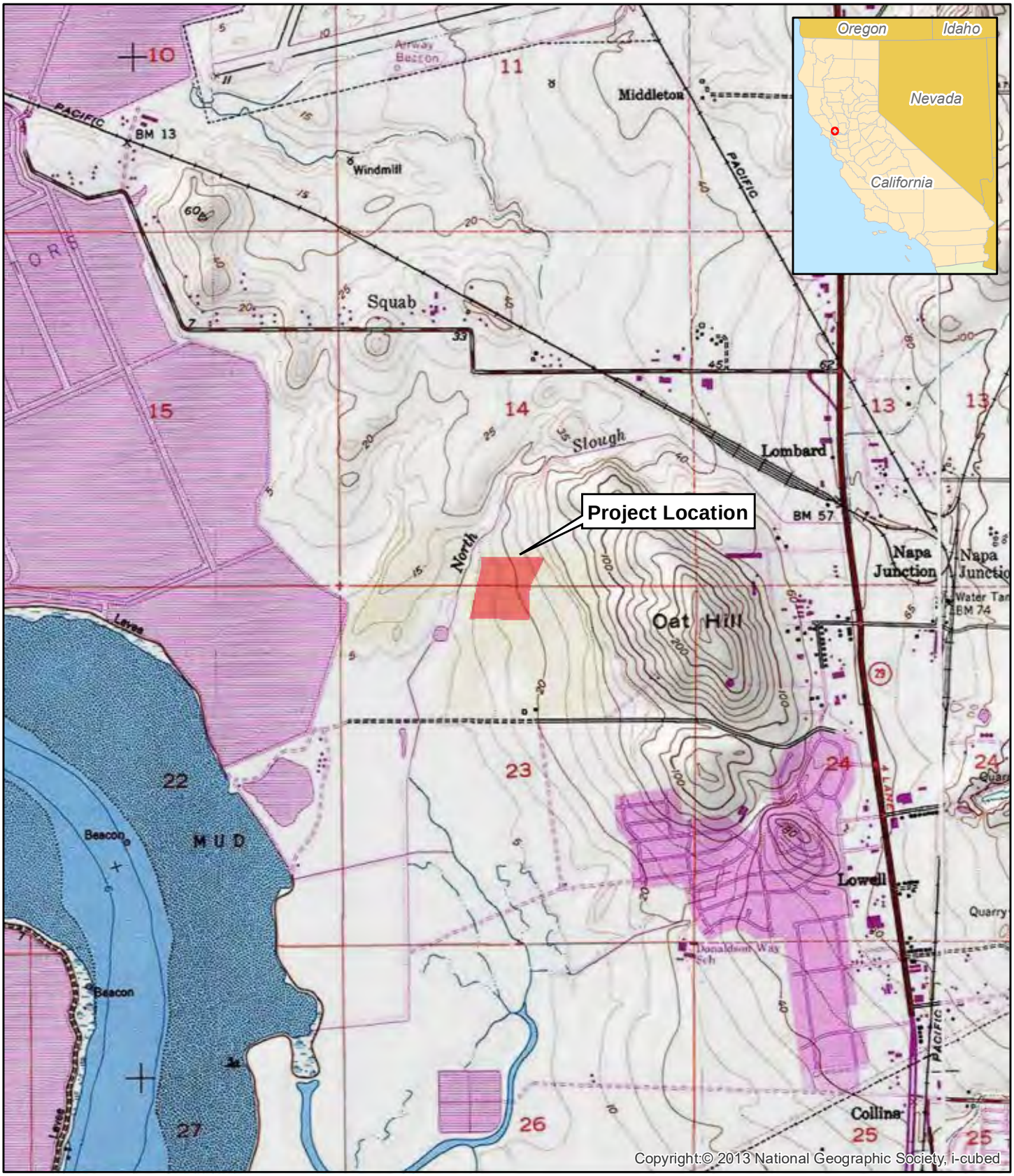
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Scott Gabaldon
Mishewal-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, CA 95492

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Gabaldon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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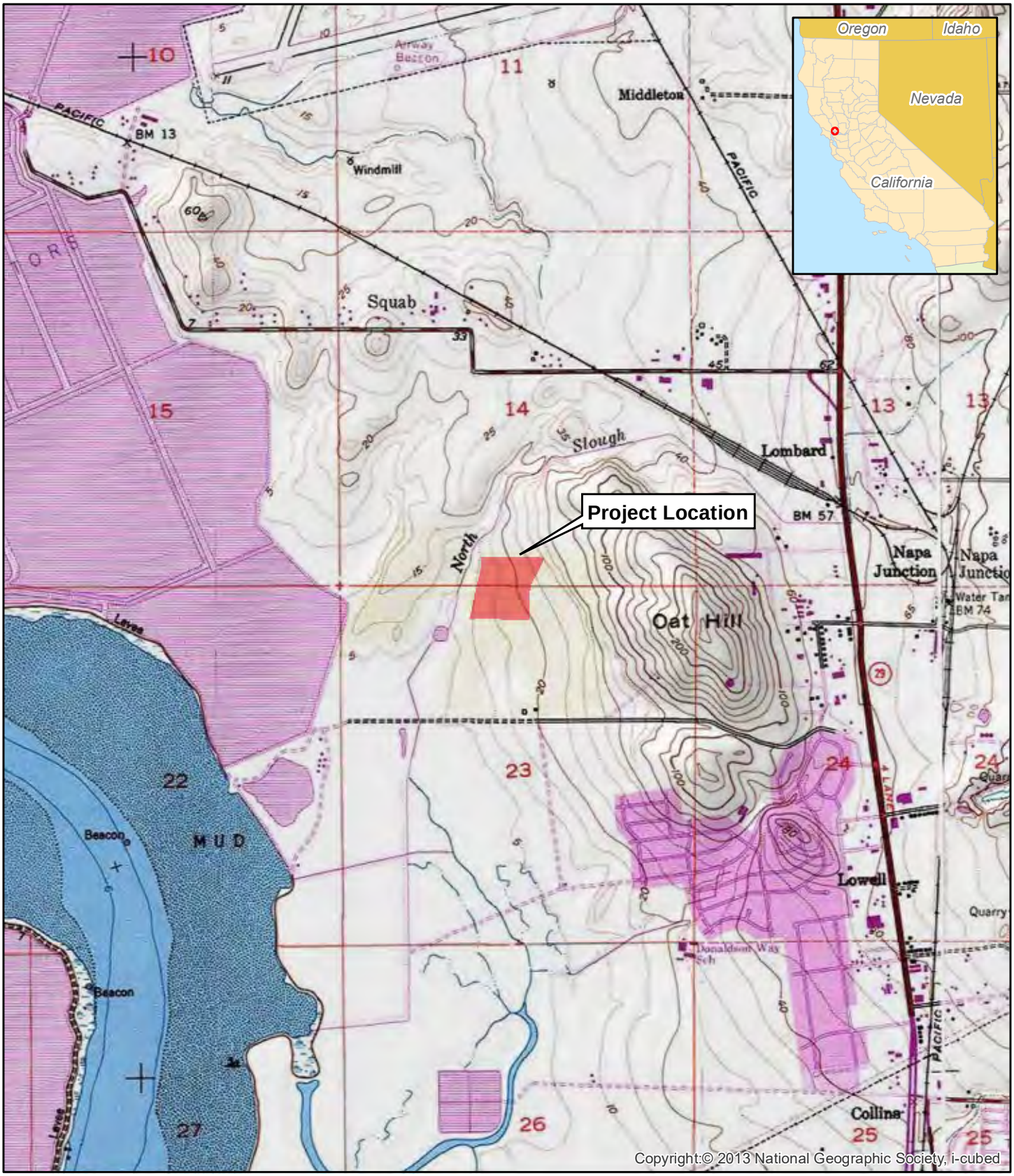
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project to you, and solicit any information on undocumented sites that may exist in the project area or concerns you might have with the proposed Project. In addition, if you can provide specific information on, or guidance pertaining to the cultural property noted by the NAHC, it would be greatly appreciated.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

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131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Jose Simon
Middletown Rancheria of Pomo Indians
P.O. Box 1035
Middletown, CA 95461

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Simon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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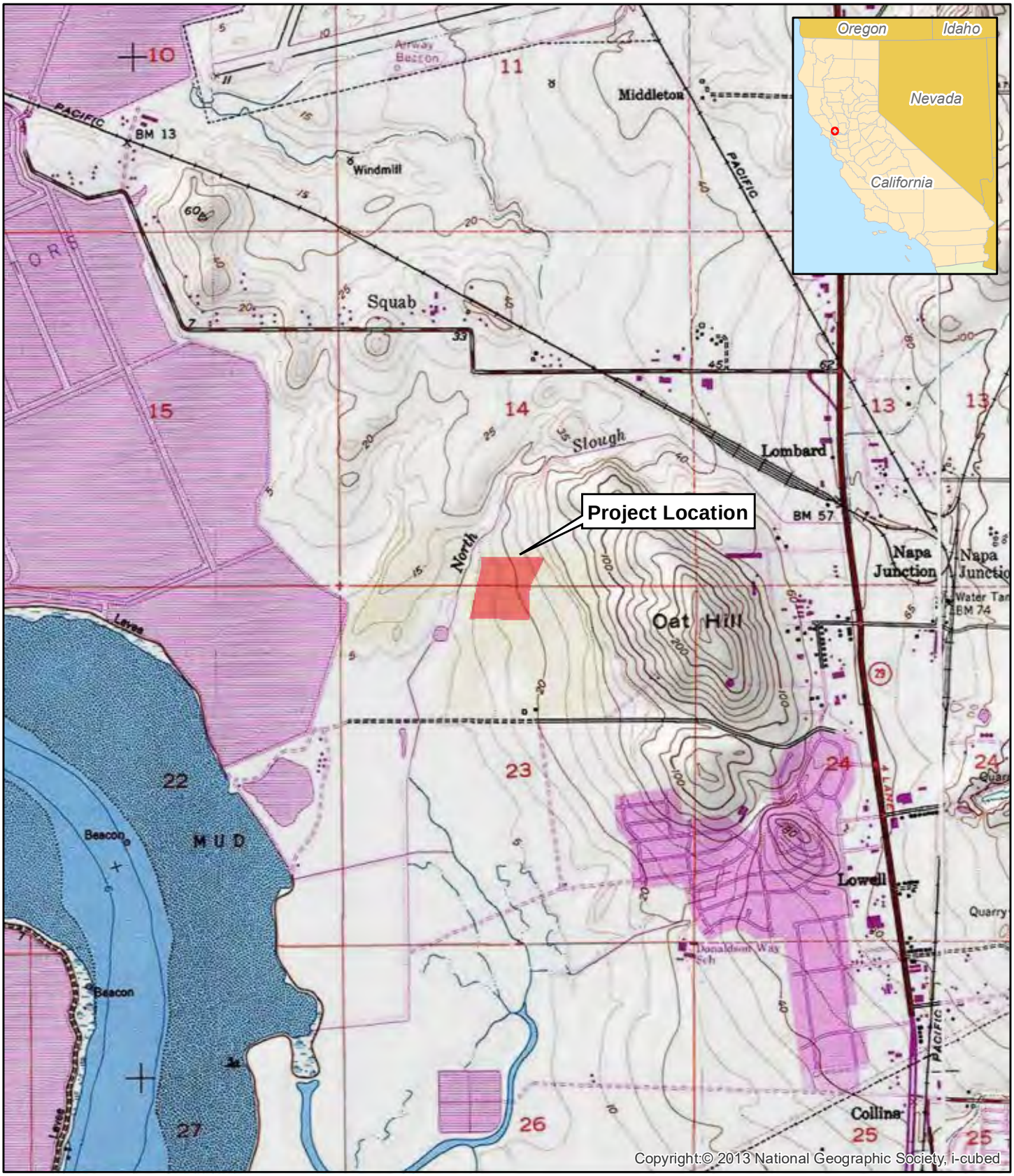
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

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131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Charlie Wright
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
P.O. Box 1630
Williams, CA 95987

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Wright:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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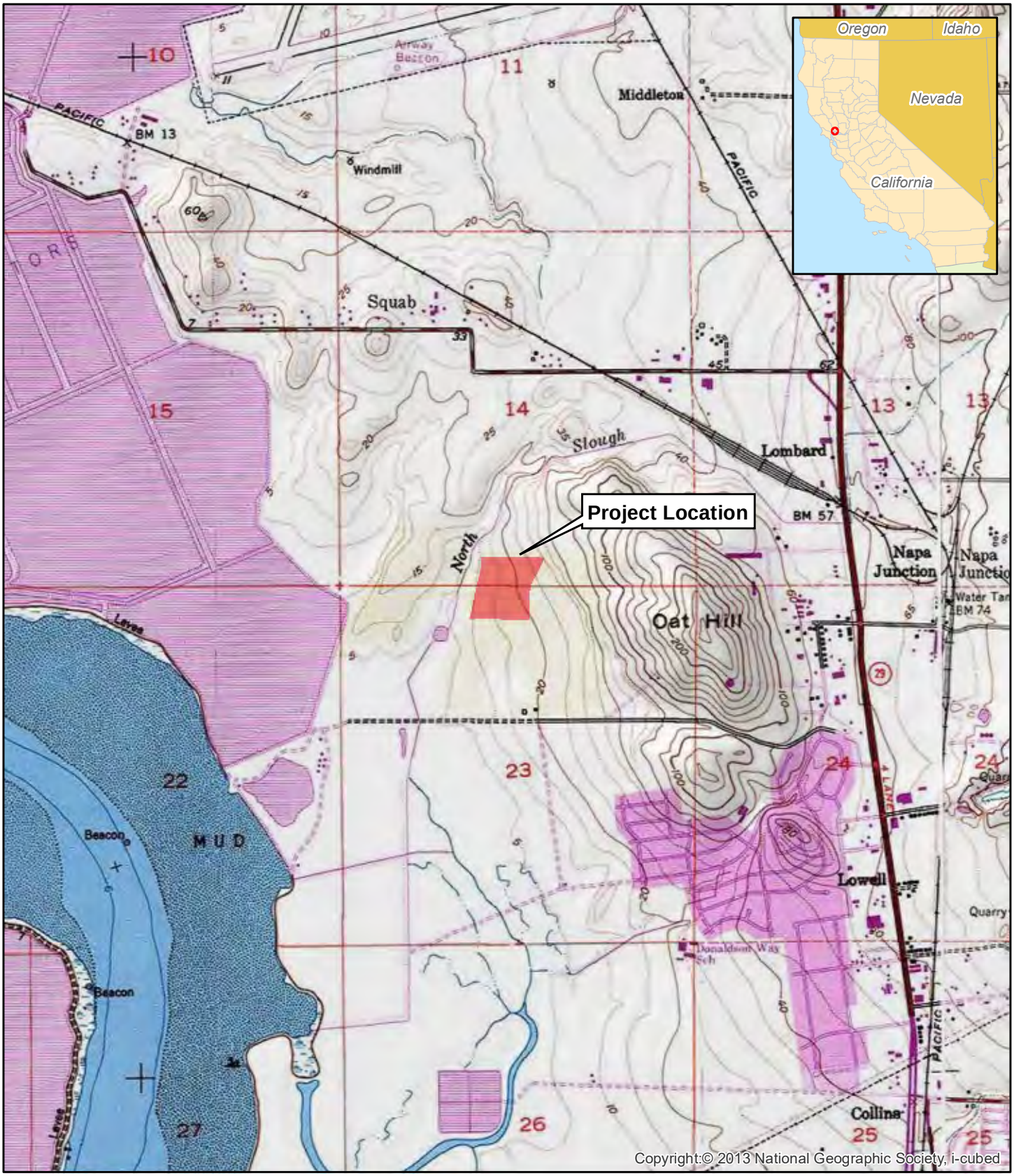
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

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Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

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131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Anthony Roberts
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA 95606

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Roberts:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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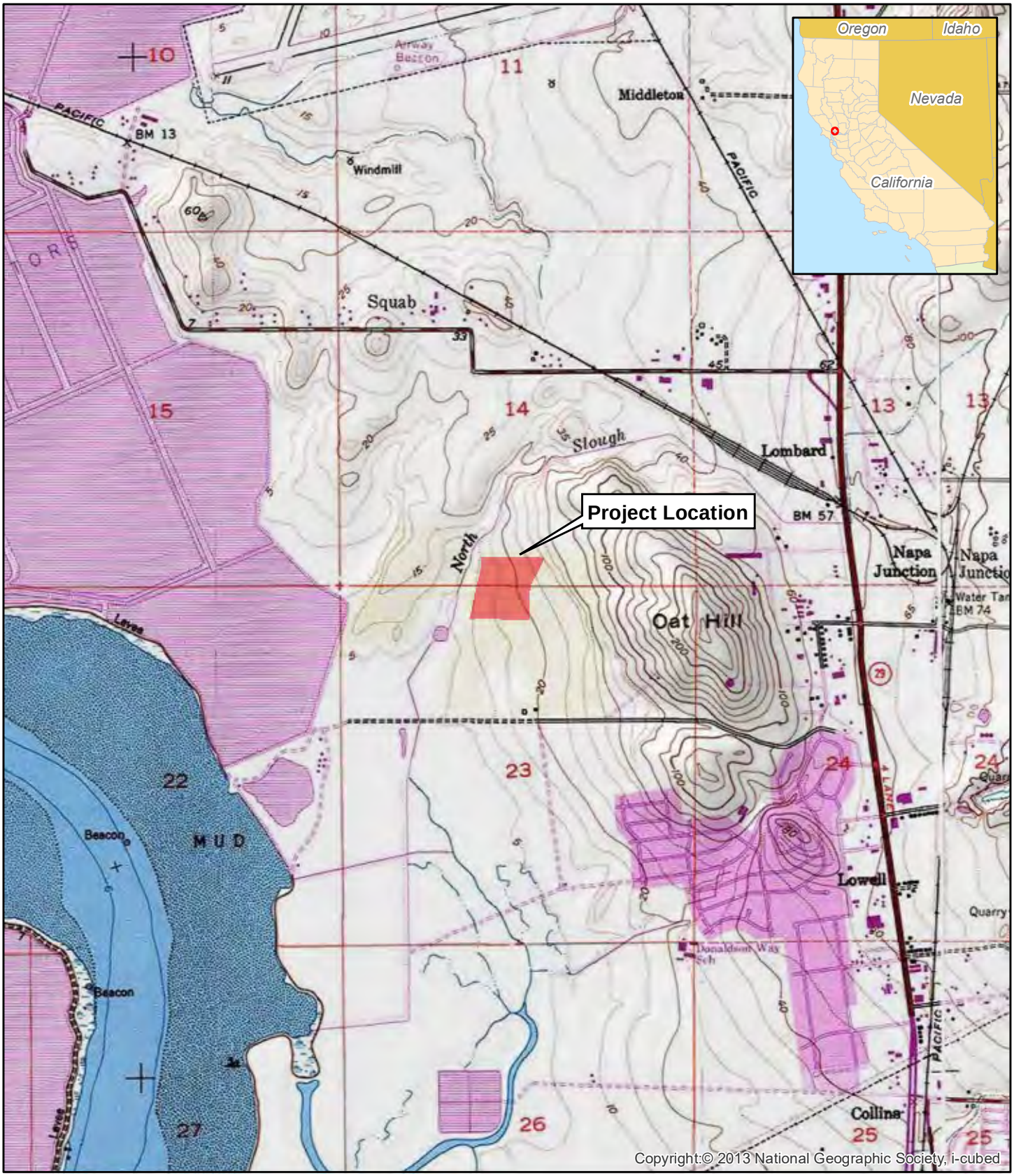
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

NATIVE AMERICAN CONSULTATION LOG FOR THE SDG COMMERCE 217 PROJECT, NAPA COUNTY, CALIFORNIA

SAS Contact: Brian Ludwig, Ph.D.

Native American Consultant	Date of Correspondence	Responses
Cortina Rancheria – Kletsel Dehe Band of Wintun Indians **Charlie Wright -** Chair	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message.
Guidiville Indian Rancheria - **Merlene Sanchez -** Chairperson	8-3-2020 8-17-1010 8-22-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message Received email from Mr. Ryan Peterson (Admin & Projects Coordinator). Mr. Ryan stated the project area was outside the Guidiville Rancheria's ancestral area of concern and suggested SAS contact Mr. Gabaldon of the Mishewal Wappo.
Middletown Rancheria of Pomo Indians **Jose Simon,** Chairperson	8-3-2020 8-17-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by email regarding the project Sally Peterson emailed stating that SAS request would be forwarded to the THPO department. Also provided updated contact information for the tribe which SAS forwarded to NAHC.
Mishewal-Wappo Tribe of Alexander Valley **Scott Gabaldon,** Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message regarding the project. No responses received
Yocha Dehe Wintun Nation **Anthony Roberts**, Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message concerning project - no responses received.

Appendix H

Will Serve Letters

April 17, 2020

Mr. Peter Stravinski
SDG Commerce 330, LLC
413 W. Yosemite Ave., Suite 105
Madera, CA 93637

SUBJECT: Request for Water Service "Will-Serve" Letter
SDG Commerce 217, LLC
1075 Commerce Court, American Canyon, CA 94503
(APN's 058-030-065)

Dear Mr. Stravinski:

The City of American Canyon has received your request as Property Owner for a Will-Serve letter for water service to the property located at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065); referred to herein as the "Property"). The City is also processing a Conditional Use Permit (PL18-0010) received on March 18, 2020 for the development of a 217,294 square foot warehouse to be used for the storage and distribution of wine and wine industry goods. Additionally, the City has received an application for a Tentative Parcel Map (PL18-0011) on February 28, 2019 (Planning Commission Resolution 2019-02) to divide this parcel into three separate parcels. After the Parcel Map is recorded the warehouse will reside on a 10.39 acre parcel shown as Lot 1 in the parcel map, with additional development on the remaining two parcels.

It is the City's understanding that the Property is located within its city limits and that a Will-Serve Letter for water service to the Property is required prior to issuance of any building permits. In general, the City reviews the impacts of such requests for service taking into account the overall demand within its system and known supplies available to meet this demand.

The City's understanding of the current request is based on water demand estimates attached to the Will-Serve Application dated April 7, 2020. At present, the land comprising 35.85 acres, and the future 10.39 acre legal parcel is vacant with no historical water demand.

As Table 1 below shows, the requested Average Daily Demand (ADD) is 142 gal/day. Table 2 details the requested Maximum Daily Demand (MDD) of 560

gal/day for the Property. Table 3 shows the anticipated recycled water demands for the Property.

Table 1 – Requested Average Day Demand

Average Daily Water Demand (ADD) in gallons per day:	
Domestic:	142 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	142 gpd

Table 2 – Requested Maximum Day Demand

Maximum Daily Water Demand (MDD) in gallons per day:

Domestic:	560 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	560 gpd

Table 3 – Anticipated Recycled Water Demand

ADD (gpd)	MDD (gpd)
541	2,736

The City's Zero Water Footprint (ZWF) Policy requires new development to offset all of its water demands in order to prevent reduction in the reliability of existing water supplies or increases in water rates to existing customers. In light of the information submitted in the Application the City has determined that the Property will not have a Zero Water Footprint because once complete, the Property's proposed ADD (142 gpd) will be greater than the established baseline ADD (0 gpd). Because the Owner is requesting service greater than the established baseline demand, the Property will potentially reduce the reliability of existing water supplies and increase costs to existing customers. In accordance with this Policy, because the Property has been determined to not have a Zero Water Footprint, a more detailed Water Supply Report has been prepared, and is attached hereto and made a part of this "Will-Serve" Letter. In order to comply with the ZWF Policy and offset the Property's demand, the applicant shall contribute to the City's ZWF Mitigation Fund whereby the City will continue to undertake water conservation efforts to

offset the requested ADD increase of 142 gpd. Such efforts will result in this Property achieving a net zero impact to the City's water system, therefore adhering to the ZWF Policy.

This Will-Serve Letter supersedes any other purported service commitments to the Property for any use. By way of this Will-Serve Letter, the City is offering to meet the water service demands shown in Tables 1 & 2. The City's offer is contingent upon the occurrence and/or satisfaction of the following conditions and the continued existence of the following described conditions:

1. Owner shall be subject to all City's rules and regulations, including all fees and charges.

2. At no cost to the City, the Owner shall construct all facilities necessary to serve the Property in accordance with all City standards.

3. As part of the application process, the owner/developer shall submit a Developer Deposit Project Setup Form and pay the required deposit of $2,000. The deposit will be retained and the owner will receive a monthly statement of charges for the cost of processing the application, including writing water will serve and water supply report, plan review and inspections. At the close of the project, the last statement will be deducted from the deposit and remainder will be refunded to the owner.

4. The City has experienced potential reduction and/or curtailment of its primary sources of water supply during times of drought. When these reductions occur, the City's demands may exceed available supplies. In an effort to reduce this undesirable imbalance, the City is taking steps to reduce customer demands while also seeking to acquire additional supplies. The cost of these additional supplies is unknown at this time, and is not included in the current City water rates. The City is considering implementing potential changes to its rate structure which would be applied in a uniform manner in order to acquire such supplies. The Owner agrees to waive any protest to changes to current City water rates necessary to acquire additional water supplies during their formulation, implementation and review under the California Environmental Quality Act, Public Resources Code section 21000 et seq. ("CEQA") as long as such changes are initiated during the term of this Will Serve Water Supply Agreement or any extension thereof. Moreover, the Owner acknowledges that the City, during dry years, may be unable to meet the Property's water service demands and that its water service may be uniformly reduced and/or curtailed entirely. Owner further agrees to indemnify, defend and hold harmless the City, its elected officials, officers, attorneys, employees or agents for any and all damages or claims of damages stemming from such uniform reductions or curtailments that may occur as long as they are directly related to the City's provision for water to the Property.

5. As a result of Vineyard Area Citizens for Responsible Growth v. Rancho Cordova (2007) 40 Cal.4th 412, the City, as lead agency pursuant to CEQA, prior to approval the project must, at a minimum during its environmental review:

   a. Presented sufficient facts to evaluate the pros and cons of supplying the water that the Project will need; and

   b. Presented analysis that assumes that all phases of the Project will be built and will need water, and includes an analysis to the extent reasonably possible of the consequences of the impacts of providing water to the entire project; and

   c. Where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of the environmental consequences of those impacts were presented.

6. The Owner agrees its financial obligation for water service is as follows:

   a. Monthly water service charges will be billed at the current rate of $6.59 per unit (1 unit = 748 gal). At present the estimated average monthly water service fee will be approximately $37.53[1], plus meter fees and any surcharges. Service charges will be billed at the rates in effect at the time of service and are subject to change.

   b. The water capacity fee for the Property will be $ 13,865.60[2] based on MDD of 560 gal.

   c. The ZWF Mitigation (offset) cost for the Property is $1,310.77[3]in order to achieve compliance with the ZWF Policy.

   d. Capacity fees and mitigation funds are due and payable prior to issuance of a building permit.

7. The Property shall incorporate the following water conservation best management practices:
   - Ultra-low-flow toilets in restrooms
   - Ultra-low-flow fixtures and appliances
   - On demand (Instahot) hot water heaters or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
   - Installation of ET Smart irrigation controllers

[1] (142 gpd/748) * 30 days * $6.59 = $37.53/month
[2] Calculation: 560 gpd x $24.76 = $ 13,865.60. This fee based on rates effective December 17, 2019. Actual fee to be based on rates in effect at time of payment.
[3] Calculation: 142 gpd/65 gpd x $600 = $1,310.77

- Use of recycled water for irrigation
- Education of employees regarding water conservation (offered both in English and in Spanish.

8. The City reserves the right to audit the site's water demand as deemed necessary in order to verify that the Owner's water use is in accordance with this Will-Serve letter.

9. Future changes to the Project with respect to the change in use or water demands shall require that a new Will-Serve Letter be issued.

10. Development of the remaining parcel(s) will require a separate Will-Serve Letter.

This Will-Serve Letter will remain valid until April 30, 2020. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and authorized or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Owner or to any third party on behalf of the City. The City does not make a determination as to land use entitlements required for the proposed project, and the issuance of this Will Serve letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development Property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will Serve letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

Richard Kaufman, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Susan Presto, Finance Manager
Utility Billing

ACCEPTANCE
of
City's Conditional Offer of Water Service for

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Numbers 058-030-065

I, _____, _____,
(Print Name) (Print Title)

accept the conditions set forth in this communication.

_____ Date: _____
(Signature)

CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

Prepared by:

Edison Bisnar Jr.
Development Services

Approved by:

Richard Kaufman, P.E.
Public Works Director/City Engineer

Date

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PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065) and is referred to herein as the "Property." The Property is zoned General Industrial (GI) and is located within the City's Corporate Boundary.

1.2 - Project Description

The project is a new 217,294 square foot warehouse building to be used for storage and distribution of case-good wines and wine industry goods. A Will-Serve and a Conditional Use Permit (PL20-0008) is under review by the City.

The project will incorporate the following water conservation best management practices:

- Ultra-low flow toilets in restrooms
- Ultra-low flow fixtures and appliances
- On demand hot water heaters for all lavatories & breakrooms or the plumbing of hot water return lines with a timed recirculation pump
- Installation of an ET Smart irrigation controllers
- Use of recycled water for landscaping
- Education of employees regarding water conservation (offered in both English and Spanish).

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property can be served by City recycled water.

1.4 - Will Serve Application

A Will-Serve Application was submitted by the Owner, Mr. Peter Stravinski on April 7, 2020. The application submitted details the anticipated and existing water demands for the project. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

1.5 - "Average-Day" Demand (ADD)

As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 142 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
142	0	0	142

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 560 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
560	0	0	560

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 - Baseline Water Footprint

The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 3 below, the Property's baseline water footprint is 0 gpd.

Table 3 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	N/A	0	0

2.2 - Zero Water Footprint Determination

Because the Property ADD (142 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's

water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.3 - Demand Offset

The City has established various programs intended offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $1,310.77[1] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 142 gpd, thereby offsetting the Property's new ADD.

2.4 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after the implementation of the ZWF Policy are determined to potentially have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.5 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it makes to the water capacity fee program in addition to the ZWF Mitigation fee it will make to mitigate 100% of the Property's new water demand.

2.6 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[2]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public

[1] Calculation: 142gpd/65 gpd x $600 = $1,310.77
[2] ACMC §13.14.070

Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[3], the Property shall pay a Water Capacity Fee is $13,865.60. This one-time fee is based on the rate of $24.76 per gallon per day (MDD) based on rates in effect December 17, 2020 rates. The actual fee will be based on rates effective at the time of payment.

3.2 – Service Charge

The Property is located within the City's Corporate Boundary and based on the American Canyon Water Rates and Connection Fee Ordinance[4], the Property shall pay a monthly service charge in the amount of $6.59/100 cubic feet, plus any rate surcharges and monthly meter fees. Based on the AADD, the estimated water service charge is approximately $37.53[5] per month. All service charges shall be based on actual use and rate schedule that is in place at time of billing.

3.3 - Reimbursable Improvements

The Property proposes no water or recycled system improvements that would be eligible for reimbursement by the City.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water

[3] ACMC §13.06.090
[4] ACMC §13.06.040
[5] (142 gpd/748) * 30 days * $6.59 = $37.53/month

supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts With Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,000 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,460 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "single-dry year scenarios". For single dry year scenarios only 2025 appears to have adequate supplies.

New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) were anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total AADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except "under single-dry water year conditions, the supply is generally sufficient until sometime after 2030 when shortfalls begin to appear." The Project will offset its new demand by paying a ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

I, _____, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated_____2020.

_____
(Print Name and Title)

Date: _____

_____ Date: _____
(Signature)

Appendix I

Draft COVID-19 Exposure Control Plan

COVID – 19

Exposure Control Plan (ECP)

DRAFT
4.6.2020

Industrial & Commercial Contractors, LP
413 W. Yosemite Ave, Suite 105
Madera, CA 93637
(559) 674-0906
License # 506265

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COVID-19 Exposure Control Plan for Construction

Industrial & Commercial Contractors, LP (ICC) takes the health and safety of our employees very seriously. With the spread of the coronavirus or "COVID-19," a respiratory disease caused by the SARS-CoV-2 virus, we all must remain vigilant in mitigating the outbreak. This is particularly true for the construction industry, which has been deemed "essential" during this Declared National Emergency. In order to be safe and maintain operations, we have developed this COVID-19 Exposure Prevention, Preparedness, and Response Plan to be implemented throughout ICC / Subcontractor and at all our jobsites. We have also identified a team of employees to monitor available U.S. Center for Disease Control and Prevention ("CDC") and Occupational Safety and Health Administration ("OSHA") guidance on the virus.

This Plan is based on currently available information from the CDC and OSHA and is subject to change based on further information provided by the CDC, OSHA, and other public officials.

ICC may also amend this Plan based on operational needs.

1. Responsibilities of Managers and Supervisors

All managers and supervisors must be familiar with this Plan and be ready to answer questions from employees. Managers and supervisors must always set a good example by following this Plan. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees.

2. Responsibilities of Employees / Subcontractors

We are asking every one of our employees and subcontractors to help with our prevention efforts while at work. In order to minimize the spread of COVID-19 at our jobsites, we all must play our part. As set forth below, ICC has instituted various housekeeping, social distancing, and other best practices at our jobsites. All employees / workers must follow these.

Everyone is a partner in insuring jobsite safety and if you observe a person or situation which is unsafe you should immediately notify your supervisor or safety personnel.

In addition, employees are expected to report to their managers or supervisors if they are experiencing signs or symptoms of COVID-19, as described below. If you have a specific question about this Plan or COVID-19, please ask your manager or supervisor. If they cannot answer the question, please contact ICC Safety Manager, Kevin Barnes at 559-674-0906.

OSHA and the CDC have provided the following control and preventative guidance to all workers, regardless of exposure risk:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Follow appropriate respiratory etiquette, which includes covering for coughs and sneezes.
- Avoid close contact with people who are sick.
- In addition, employees must familiarize themselves with the symptoms of COVID-19:
- Coughing, Fever; Shortness of breath, difficulty breathing; and early symptoms such as chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

If you develop a fever and symptoms of respiratory illness, such as cough or shortness of breath, DO NOT GO TO WORK and call your healthcare provider right away. Likewise, if you come into close contact with someone showing these symptoms, call your healthcare provider right away. If you do not go to work be sure to inform your direct supervisor in the usual manner.

3. Job Site Protective Measures

ICC has instituted the following protective measures at all jobsites.

A. General Safety Policies and Rules

- Any employee/contractor/visitor showing symptoms of COVID-19 will be asked to leave the jobsite and return home.
- Safety meetings will be by telephone, if possible. If safety meetings are conducted in-person, attendance will be collected verbally, and the foreman/superintendent will sign-in each attendee. Attendance will not be tracked through passed-around sign-in sheets or mobile devices. During any in-person safety meetings, avoid gathering in groups of more than 10 people and participants must remain at least six (6) feet apart.
- Employees must avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- All in-person meetings will be limited. To the extent possible, meetings will be conducted by

telephone.

- Employees will be encouraged to stagger breaks and lunches, if practicable, to reduce the size of any group at any one time to less than ten (10) people.

- ICC and Subcontractors understands that due to the nature of our work, access to running water for hand washing may be impracticable. In these situations, ICC / Subcontractor will provide, if available, alcohol-based hand sanitizers and/or wipes.

- Employees should limit the use of co-worker's tools and equipment. To the extent tools must be shared, Subcontractor will provide disinfectant to clean tools before and after use.

- Employees are encouraged to limit the need for N95 respirator use, by using engineering and work practice controls to minimize dust. Such controls include the use of water delivery and dust collection systems, as well as limiting exposure time.

- Employees shall avoid ride-share. While in vehicle, employees must ensure adequate ventilation.

- If practicable, employees should use/drive the same truck or piece of equipment every shift.

- In lieu of using a common source of drinking water, such as a cooler, employees should use individual water bottles.

B. Workers entering Occupied Building

- When employees perform construction and maintenance activities within occupied office buildings, and other establishments, these work locations present unique hazards with regards to COVID-19 exposures. All such workers should evaluate the specific hazards when determining best practices related to COVID-19.

- During this work, employees must sanitize the work areas upon arrival, throughout the workday, and immediately before departure. ICC / Subcontractor will provide alcohol-based wipes for this purpose.

- Employees should ask other occupants to keep a personal distance of six (6) feet at a minimum. Workers should wash or sanitize hands immediately before starting and after completing the work.

C. Job Site Visitors

- The number of visitors to the job site, including the trailer or office, will be limited to only those necessary for the work.

- All visitors will be screened in advance of arriving on the job site. If the visitor answers "yes" to

any of the following questions, he/she should not be permitted to access the jobsite:

- Have you been confirmed positive for COVID-19?
- Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath?
- Have you been in close contact with any persons who has been confirmed positive for COVID- 19?
- Have you been in close contact with any persons who have traveled and are also exhibiting acute respiratory illness symptoms?

- Site deliveries will be permitted but should be properly coordinated in line with the employer's minimal contact and cleaning protocols. Delivery personnel should remain in their vehicles if possible.

D. Personal Protective Equipment and Work Practice Controls

- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:

- Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Employees should avoid sharing gloves.

- Eye protection: Eye protection should always be worn while on-site.

- **NOTE:** The CDC is currently not recommending that healthy people wear N95 respirators to prevent the spread of COVID-19. Employees should wear N95 respirators if required by the work and if available.

- Due to the current shortage of N95 respirators, the following Work Practice Controls should be followed:

  - Keep dust down by using engineering and work practice controls, specifically using water delivery and dust collection systems.
  - Limit exposure time to the extent practicable.
  - Isolate workers in dusty operations by using a containment structure or distance to limit dust exposure to those employees who are conducting the tasks, thereby protecting nonessential workers and bystanders.

- Institute a rigorous housekeeping program to reduce dust levels on the jobsite.

4. Job Site Cleaning and Sanitation

- ICC and Subcontractors shall institute regular housekeeping practices, which includes cleaning and disinfecting frequently used tools and equipment, and other elements of the work environment, where possible. Employees should regularly do the same in their assigned work areas.

- Jobsite trailers and break/lunchroom areas will be cleaned at least once per day. Employees performing cleaning will be issued proper personal protective equipment ("PPE"), such as nitrile, latex, or vinyl gloves and mask as recommended by the CDC.

- Any trash collected from the jobsite must be changed frequently by someone wearing nitrile, latex, or vinyl gloves.

- Any portable jobsite toilets should be cleaned by the leasing company at least twice per week and disinfected on the inside. ICC / Subcontractor will ensure that hand sanitizer dispensers, where available, are always filled. Frequently touched items (i.e. door pulls and toilet seats) will be disinfected frequently.

- Stock additional toilet paper as needed.

- A designated worker shall check the facilities each morning or before each shift to assure the cleaning was performed at least twice a week. Check date on cleaning tag.

- Vehicles and equipment/tools should be cleaned at least once per day and before change in operator or rider.

- If an employee has tested positive for COVID-19, OSHA has indicated that there is typically no need to perform special cleaning or decontamination of work environments, unless those environments are visibly contaminated with blood or other bodily fluids. Notwithstanding this, ICC / Subcontractor will clean those areas of the jobsite that a confirmed-positive individual may have meet before employees can access that workspace again.

- ICC and Subcontractors will ensure that any disinfection shall be conducted using one of the following:

    - Common EPA-registered household disinfectant; or

    - Diluted household bleach solutions (these can be used if appropriate for the surface).

- ICC / Subcontractor will maintain Safety Data Sheets of all disinfectants used on site.

5. Jobsite Exposure Response Situations

- **Employee Exhibiting COVID-19 Symptoms**

  - ICC and Subcontractors will confirm with individual that they should not return to work until a doctor confirms it is safe. Currently, direction is at least 72 hours after the resolution of fever (below 100.4° F [37.8° C]), and respiratory symptoms, including cough, without employing fever-lowering medications or cough suppressants.

  - Confirm individual is receiving care they need.

  - Confirm areas and people the individual had contact with and during what time.

  - Try and determine if the individual knows when they might have been exposed.

  - Confirm that individual should not report to work and should self-quarantine to avoid contact with other people as much as possible to keep from spreading illness.

  - For employees who have tested positive, communicate all available resources and benefits available to them including that this time off will be considered sick leave and short-term disability for those who become eligible.

  - Subcontractor employees, should check with their employer to determine leave benefits.

  - If an individual receives notification of a positive diagnosis of COVID-19 while at the project or office, please isolate them in a separate room and provide them a mask to wear. The comfort and the care we show is important to everyone's mindset.

- **Employee Tests Positive for COVID-19**

  - An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least seven (7) days have passed since the date of his or her first positive test and have not had a subsequent illness. Employees that test positive and are directed to care for themselves at home may return to work when: (1) at least 72 hours (3 full days) have passed since recovery;[1] and (2) at least seven (7) days have passed since symptoms first appeared. Employees that test positive and have been hospitalized may return to work when directed to do so by their medical care provider. ICC will require an employee to a Subcontractor's employee to provide documentation clearing their return to work.

[1] Recovery is defined as: (1) resolution of fever with the use of fever-reducing medications; and (2) improvement in respiratory symptoms (e.g., cough, shortness of breath).

6. OSHA Recordkeeping

If a confirmed case of COVID-19 is reported, ICC / Subcontractor will determine if it meets the criteria for recordability and reportability under OSHA's recordkeeping rule. OSHA requires construction employers to record work-related injuries and illnesses that meet certain severity criteria on the OSHA 300 Log, as well as complete the OSHA Form 301 (or equivalent) upon the occurrence of these injuries. For purposes of COVID-19, OSHA also requires employers to report to OSHA any work-related illness that (1) results in a fatality, or (2) results in the in-patient hospitalization of one or more employee. "In-patient" hospitalization is defined as a formal admission to the in-patient service of a hospital or clinic for care or treatment.

OSHA has decided that COVID-19 should *not* be excluded from coverage of the rule – like the common cold or the seasonal flu – and, thus, OSHA is considering it an "illness." However, OSHA has stated that only confirmed cases of COVID-19 should be considered an illness under the rule. Thus, if an employee simply comes to work with symptoms consistent with COVID-19 (but not a confirmed diagnosis), the recordability analysis would not necessarily be triggered at that time.

If an employee has a confirmed case of COVID-19, ICC and Subcontractor will assess any workplace exposures to determine if the case is work-related. Work-relatedness is presumed for illnesses that result from events or exposures in the work environment, unless it meets certain exceptions. One of those exceptions is that the illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs *outside* of the work environment. Thus, if an employee develops COVID-19 *solely* from an exposure outside of the work environment, it would *not* be work-related, and thus not recordable.

The Company's assessment will consider the work environment itself, the type of work performed, risk of person-to-person transmission given the work environment, and other factors such as community spread. Further, if an employee has a confirmed case of COVID-19 that is considered work-related, ICC and Subcontractor will report the case to OSHA if it results in a fatality within 30 days or an in-patient hospitalization within 24-hours of the exposure incident occurring.

7. Essential Business

Several States and localities are issuing orders that prohibit work and travel, except for essential businesses. In general, construction work has been deemed essential and ICC is committed to continuing operations safely. If upon your travel to and from the worksite, you are stopped by State or local authorities, you will be provided a letter that you can show the authorities

indicating that you are employed in an “essential” industry and are commuting to and from work.

8. Confidentiality/Privacy

Except for circumstances in which ICC is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When it is required, the number of persons who will be informed of an employee’s condition will be kept at the minimum needed not only to comply with legally-required reporting, but also to assure proper care of the employee and to detect situations where the potential for transmission may increase. A sample notice to employees is attached to this Plan. ICC reserves the right to inform other employees that a co-worker (without disclosing the person’s name) has been diagnosed with COVID-19 if the other employees might have been exposed to the disease so the employees may take measures to protect their own health.

9. General Questions

Given the fast-developing nature of the COVID-19 outbreak, ICC may modify this Plan on a case by case basis. If you have any questions concerning this Plan, please contact ICC Safety Manager, Kevin Barnes.

What is COVID-19?

The novel coronavirus, COVID-19 is one of seven types of known human coronaviruses. COVID-19, like the MERS and SARS coronaviruses, likely evolved from a virus previously found in animals. The remaining known coronaviruses cause a significant percentage of colds in adults and children, and these are not a serious threat for otherwise healthy adults. Patients with confirmed COVID-19 infection have reportedly had mild to severe respiratory illness with symptoms such as fever, cough, and shortness of breath.

How is COVID-19 Spread?

COVID-19, like other viruses, can spread between people. Infected people can spread COVID-19 through their respiratory secretions, especially when they cough or sneeze. According to the CDC, spread from person-to-person is most likely among close contacts (about 6 feet). Person-to-person spread is thought to occur mainly *via* respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19, and investigations are ongoing.

COVID-19 Prevention and Work Practice Controls:

Worker Responsibilities

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.
- Avoid touching your eyes, nose, or mouth with unwashed hands. Avoid close contact with people who are sick.
- Notify your supervisor if you have symptoms (i.e., fever, cough, or shortness of breath) and stay home—DO NOT GO TO WORK.
- Avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- Avoid ride-sharing. While in vehicle, ensure adequate ventilation.
- If practicable, use/drive the same truck or piece of equipment every shift.
- In lieu of using a common source of drinking water, such as a cooler, use individual water bottles.
    - Maintain at least (6) feet of personal space while waiting to enter or exit the project.

General Job Site Practices

- Clean AND disinfect frequently touched objects and surfaces. Dirty surfaces can be cleaned with soap and water prior to disinfection.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
    - Clean and disinfect frequently used tools and equipment on a regular basis.
    - Clean shared spaces such as trailers and break/lunchrooms at least once per day.
    - Disinfect shared surfaces (door handles, machinery controls, etc.) on a regular basis.
    - Avoid sharing tools with co-workers if it can be avoided. If not, disinfect before and after each use.
    - Arrange for any portable job site toilets to be cleaned by the leasing company at least twice per week and disinfected on the inside.
    - Any trash collected from the jobsite must be changed frequently by someone wearing gloves.
    - In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:
        - Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Gloves should not be shared.
        - Eye protection: Eye protection should always be worn while on-site.

Appendix J

Mitigation Monitoring and Reporting Program

SDG Commerce 217 Project
Mitigation Monitoring and Reporting Program

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
BIOLOGICAL RESOURCES				
Mitigation Measure BIO-1: A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary. 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions: • From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.	1. A qualified biologist shall conduct a preconstruction burrowing owl survey per mitigation measure specifications and contact CDFG as necessary.	No more than 30 days prior to grading or land clearing operations	Community Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites. • No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.				
2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.	2. If the site has burrowing owls, applicant shall follow restricted activity dates and setback distances from burrows as specified in the mitigation.	No more than 14 days prior to grading or land clearing operations	Community Development Department	
3) If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys,	3. Applicant shall submit copies of preconstruction surveys and outcomes of any consultation with CDFG If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB. 3a. If burrowing owls are found on the site during preconstruction	Prior to grading or land clearing operations Prior to grading or land clearing		

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
notification shall also be submitted to the CNDDB.	surveys, passive relocation may occur as specified in the mitigation, upon CDFW approval. 3b. If the survey determines that the project site is actively being used by burrowing owls, then compensatory habitat mitigation shall be provided in accordance with the mitigation measure. The habitat mitigation/ compensation plan would be subject to approval of the CDFW. 3c. City mitigation monitor or designee shall perform site inspections.	operations Prior to grading Prior to grading or tree removal and ongoing during construction	 Community Development Department, CDFW Community Development Department	
Mitigation Measure BIO-2: If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the	1. A qualified biologist shall conduct preconstruction nesting Swainson's hawk surveys and contact CDFG as necessary. 2. If Swainson's hawks are found to be nesting on the project site or within a 1/4-mile of the project site, buffers shall be established by the qualified biologist who conducted the surveys. 3. Applicant shall submit	As specified in CDFW guidance document Between January 1st and August 1st, as specified in CDFW guidance document Prior to grading	Community Development Department Community Development Department Community	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.	copies of preconstruction surveys and outcomes of any consultation with CDFG. If Swainson's hawks are observed during surveys, notification shall also be submitted to the CNDDB. 4. City mitigation monitor or designee shall perform site inspections.	or land clearing operations Prior to grading or tree removal and ongoing during construction	Development Department, CDFG Community Development Department	
Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented: 1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site. 2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all	1. A qualified biologist shall conduct a preconstruction nesting bird survey. 2. If the site has trees with nesting birds a qualified biologist shall demarcate	No more than 14 days prior to grading or land clearing operations Between February 1st and August 31st Prior to grading or land clearing operations	Community Development Department Community Development Department Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.	setback areas around the trees.			
3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the	3. City mitigation monitor or designee shall perform site inspections.	Prior to grading or tree removal and ongoing during construction	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.				
Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified	1. A qualified biologist shall conduct a preconstruction nesting bird survey. 2. If the site has trees with nesting birds a qualified biologist shall demarcate setback areas around the trees. 3. City mitigation monitor or designee shall perform site inspections.	No more than 14 days prior to grading or land clearing operations Between February 1 and September 1 Prior to grading or land clearing operations Prior to grading or tree removal	Community Development Department Community Development Department Community Development Department Community Development	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.		and ongoing during construction	Department	
Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable	Preconstruction fencing plan to be prepared by qualified biologist and submitted to CDFW. Fencing to be installed by project contractor.	Fencing shall be installed prior to ground disturbance	Community Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities, and the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.				
CULTURAL RESOURCES				
Mitigation Measure CUL-1: Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be	1. Applicant shall incorporate cultural resources mitigation measures into site plan specifications and construction contract.	Prior to issuance of grading permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.				
***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if	2. A qualified cultural resources professional shall demarcate the no-construction area. 2a. The contractor or applicant shall provide written notification upon finding remains.	During construction During construction	Community Development Department Community Development Department;	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
there is accidental discovery of human remains, the following steps shall be taken: • There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.			County coroner; Native American Heritage Commission	
GEOLOGY & SOILS				
Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract. Applicant's geotechnical consultant shall review construction and	Prior to the issuance of grading, encroachment, and building permits Prior to the issuance of	Public Works Department Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.	grading plans and provide a written summary.	grading, encroachment, and building permits		
Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/ developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to: • Hydroseeding and/or establishment of appropriate plant materials/landscaping • Placement of straw wattles along slope contours and drainages • Lining of drop inlets with filter fabric/geotextile • Establishment of a single destination "wash-out" for construction subcontractors • Use of siltation fences • Use of sediment basins	Applicant shall submit erosion control plan to City Public Works department.	Prior to issuance of building or grading permits	Public Works Department	
Mitigation Measure GEO-3: The applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract.	Prior to the issuance of grading, encroachment,	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).	Applicant's geotechnical consultant shall review construction and grading plans and provide a written summary.	and building permits Prior to the issuance of grading, encroachment, and building permits	Public Works Department	
HYDROLOGY AND WATER QUALITY				
Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces shall be left without	1. Applicant shall provide copies of the NOP and SWPPP to the Public Works Department for review and approval.	Prior to excavation or grading	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation. • Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile. • Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.				
***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.	2. Applicant shall submit a storm drainage plan, which includes: • calculations of storm-water peak flows and facilities to handle the flow; • water quality/erosion control mitigations; • detailed plans for construction and maintenance of the seasonal detention basin.	Prior to excavation or grading	Public Works Department/City Engineer	
Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.	3. City mitigation monitor or designee shall perform site inspections to ensure that storm drainage plans are followed.	During construction of storm drainage facilities	Public Works Department	
Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the	4. Applicant (or successors-in-interest) shall maintain the detention and sediment basin(s)	Prior to issuance of building permit for the first year;	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.	and traps, and provide a bond for this maintenance.	thereafter, annually for the life of the project		
Mitigation Measure HYD-5: The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.	5. Applicant (or successors-in-interest) shall maintain the detention basin and pass annual inspections of the City Public Works Department.	Prior to issuance of building permit for the first year; thereafter, annually for the life of the project	Public Works Department	
NOISE				
Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite	The SDG Commerce 217 Project shall include all noise mitigation components and be reviewed and approved by Community	Prior to issuance of building permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
that would comply with the City of American Canyon's Noise limits for construction activities. All property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City also shall be pre-notified of nighttime construction.	Development Department.			
Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	Construction contracts shall specify use of noise-reduction features in equipment.	Prior to construction	Community Development Department	
TRANSPORTATION/TRAFFIC				
Mitigation Measure TRA-1: Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.	Applicant shall provide mitigation fee.	Prior to issuance of building permit	Public Works Department	
Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the approximately 300-foot gap in bike infrastructure between the cul-de-sac at the terminus of	Applicant shall construct the bikeway.	Prior to issuance of occupancy permit for building	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Commerce Court and the northern school driveway of the under-construction elementary school at the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.				
UTILITIES & SERVICE SYSTEMS				
Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water: • Reducing existing potable water demands onsite • Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area • Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or • Purchase new water supplies from other water providers. The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.	1. Applicant shall incorporate recycled water pipelines and hook-ups into construction plan specifications and make reference in construction contract.	Prior to building permits	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.	2. City mitigation monitor or designee shall verify that recycled water is provided to the site and that all storm-water is retained on-site.	Prior to building permits	Public Works Department	
Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.	3. Applicant shall provide funding for the City's water conservation program.	Prior to occupancy	Public Works Department	
Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.	4. Applicant shall comply with City regulations regarding changes in project use.	Prior to obtaining Use Permit for new use	Public Works Department	
Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape	5. Applicant's landscaping plan shall be submitted to the City for review/approval prior to issuance of building permits.	Prior to issuance of Building Permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to: • Drought-resistant vegetation • Irrigation systems employing the following features: o Drip irrigation o Low-precipitation-rate sprinklers o Bubbler/soaker systems o Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller) o Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system o Conservative sprinkler spacings that minimize overspray onto paved surfaces o Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
• Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
erosion control measure throughout the wet season. ***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy. ***Mitigation Measure HYD-3:*** Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City. ***Mitigation Measure HYD-4:*** The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
reports. ***Mitigation Measure HYD-5:*** The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.				
NOISE				
Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant.	The Subdivision Plan shall include all noise mitigation components and be reviewed and approved by City Planning and Building Department.	Prior to issuance of building permit	Planning and Building Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
The City also shall be pre-notified of nighttime construction. ***Mitigation Measure NOISE-2:*** All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	Construction contracts shall specify use of noise-reduction features in equipment.	Prior to construction	Planning and Building Department	
TRANSPORTATION/TRAFFIC				
Mitigation Measure TRA-1: Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.	Applicant shall provide mitigation fee.	Prior to issuance of building permit	Planning and Building Department	
Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.	Applicant shall construct the bikeway.	Prior to issuance of occupancy permit for building	Planning and Building Department	
UTILITIES & SERVICE SYSTEMS				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water: • Reducing existing potable water demands onsite • Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area • Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or • Purchase new water supplies from other water providers. The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements. ***Mitigation Measure UTIL-2:*** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.	Applicant shall incorporate recycled water pipelines and hook-ups into construction plan specifications and make reference in construction contract. City mitigation monitor or designee shall verify that recycled water is provided to the site and that all storm-water is retained on-site. Applicant shall provide funding for the City's water conservation program. Applicant shall comply with City regulations regarding changes in project use. Applicant's landscaping plan shall be submitted to the City for review/approval prior to issuance of building permits.	Prior to building permits Prior to building permits Prior to occupancy Prior to obtaining Use Permit for new use Prior to issuance of Building Permit	Planning and Building Department Planning and Building Department Planning and Building Department Planning and Building Department Planning and Building Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system. ***Mitigation Measure UTIL-4:*** Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts. ***Mitigation Measure UTIL-5:*** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to: • Drought-resistant vegetation • Irrigation systems employing the following features: o Drip irrigation				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
o Low-precipitation-rate sprinklers o Bubbler/soaker systems o Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller) o Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system o Conservative sprinkler spacings that minimize overspray onto paved surfaces o Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.				

Appendix K

State Clearinghouse Draft IS Circulation Documents

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

30 DAY NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
And NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration for the following described project in accordance with the California Environmental Quality Act (CEQA). The 30-day public comment period starts on December 18, 2020, and ends on January 18, 2021.

NOTICE IS FURTHER HEREBY GIVEN that the Planning Commission will hold a public hearing on **Thursday, January 28, 2021** at **6:30 p.m.,** at **4381 Broadway, Suite 201, American Canyon, CA 94503** (in the Council Chambers of the American Canyon City Hall), to consider the Initial Study Checklist and Mitigated Negative Declaration and the following applications:

Project Title:	SDG Commerce 217 Distribution Center
Project Number:	PL20-0008
Project Applicant:	SDG Commerce 217, LLC
Project Location:	West side of the Commerce Boulevard extension north of Eucalyptus Drive.
Assessor Parcel(s):	058-030-065
Project Description:	Conditional Use Permit for a new 217,294 square foot wine warehouse distribution center with parking and landscaping. The site is located in the Recreation (REC) zoning district.

The basis for proposing a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

Copies of all documents that relate to the above-described project and proposed MND and Initial Study Checklist may be examined on the City's website at: https://bit.ly/3gAjtEs.

Comments on the MND, sent in writing, must be received by 5:00 p.m. on January 19, 2021, at the following address:

William He, AICP, Associate Planner
City of American Canyon Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Oral or written comments may be provided to the Planning Commissioners at their meeting. All interested persons are invited to attend the meeting and be heard on this matter.

Public meetings/events sponsored or conducted by the City of American Canyon are held in accessible sites. Requests for accommodations may be made by calling (707) 647-4577 (voice) or 711 for the California Relay Service or by e-mailing the ADA Coordinator, Cherri Walton, at cwalton@cityofamericancanyon.org at least 72 hours in advance of the event. Copies of documents distributed at the meeting are available in alternative formats upon request.

_____

Cherri Walton, CMC, Interim City Clerk

Mailed Date: December 18, 2020
Publication Date: December 17, 2020

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: SDG Commerce 217 Distribution Center Project

Lead Agency: City of American Canyon | Contact Person: William He, Associate Planner

Mailing Address: 4381 Broadway Street, Suite 201 | Phone: (707) 647-4337

City: American Canyon | Zip: 94503 | County: Napa

Project Location: County: Napa | City/Nearest Community: American Canyon

Cross Streets: Commerce Court near Green Island Road | Zip Code: 94503

Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W | Total Acres: 10.39

Assessor's Parcel No.: 058-030-065 (partial) | Section: | Twp.: | Range: | Base:

Within 2 Miles: State Hwy #: 37 | Waterways: Napa River

Airports: Napa Airport | Railways: | Schools: Napa Junction Elementary

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other:

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☒ Commercial: Sq.ft. 217,000 Acres 10.39 Employees 50
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☐ Wetland/Riparian
☒ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☒ Other: tribal Cultural Resou

Present Land Use/Zoning/General Plan Designation:

Site is vacant/open space. General Plan: Commercial Recreation. Zoning: Recreation

Project Description: *(please use a separate page if necessary)*

The project proposes to develop a 217,219 square-foot wine distribution center on the 10.39-acre parcel. The building would be approximately 424 feet deep from north to south, and 780 feet wide from east to west. The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. A total of 134 car and 21 truck dock parking spaces would be provided for the building. As part of the proposed project, the parcel's storm water runoff would be directed into a detention/bioretention pond.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

_____	Air Resources Board	_____	Office of Historic Preservation
_____	Boating & Waterways, Department of	_____	Office of Public School Construction
_____	California Emergency Management Agency	_____	Parks & Recreation, Department of
_____	California Highway Patrol	_____	Pesticide Regulation, Department of
_____	Caltrans District # _____	_____	Public Utilities Commission
X	Caltrans Division of Aeronautics	X	Regional WQCB # 2
_____	Caltrans Planning	_____	Resources Agency
_____	Central Valley Flood Protection Board	_____	Resources Recycling and Recovery, Department of
_____	Coachella Valley Mtns. Conservancy	_____	S.F. Bay Conservation & Development Comm.
_____	Coastal Commission	_____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____	Colorado River Board	_____	San Joaquin River Conservancy
_____	Conservation, Department of	_____	Santa Monica Mtns. Conservancy
_____	Corrections, Department of	_____	State Lands Commission
_____	Delta Protection Commission	_____	SWRCB: Clean Water Grants
_____	Education, Department of	_____	SWRCB: Water Quality
_____	Energy Commission	_____	SWRCB: Water Rights
X	Fish & Game Region # 3	_____	Tahoe Regional Planning Agency
_____	Food & Agriculture, Department of	_____	Toxic Substances Control, Department of
_____	Forestry and Fire Protection, Department of	_____	Water Resources, Department of
_____	General Services, Department of		
_____	Health Services, Department of	_____	Other: _____
_____	Housing & Community Development	_____	Other: _____
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date November 29, 2018 Ending Date December 31, 2018

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: SDC Commerce 330 LLC
Address: 413 W. Yosemite Ave., Suite 105
City/State/Zip: Madera, CA 93637
Phone: (559) 674-0906

Signature of Lead Agency Representative: William He _____ **Date:** 12/16/2020

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Appendix L

Comments Received on Draft IS and Responses

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
michael@lozeaudrury.com

Via Email

January 19, 2021

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration

Dear Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project").

After reviewing the MND prepared for the Project along with our experts, we believe there is a fair argument that the Project may have significant adverse environmental impacts and that an environmental impact report ("EIR") should therefore be prepared pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000, et seq.

LIUNA submits herewith the expert comments of wildlife ecologist Dr. Shawn Smallwood. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit A. LIUNA also submits herewith comments on the Project's air and greenhouse gas emissions from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comments and the resumes of their consultants are attached hereto as Exhibit B.

PROJECT DESCRIPTION

The Project proposes to issue a conditional use permit to construct and operate a 217,294 square foot wine distribution center on a 10.39-acre parcel in close proximity to the Napa River and an area identified by the Audubon Society as an "Important Bird Area." In addition to the 10.39 acre building site, the Project also involves excavation and operation of a borrow area

covering most of the adjacent 10.17 acre parcel immediately to the south of the building site. The proposed building would be bordered by 134 parking stalls on the north edge of the building parcel and 21 truck docking bays on the north side of the proposed building. The building would be heavily insulated and refrigerated. Grading and filling will occur throughout the Project site as well as most of the adjacent borrow area parcel. During construction, about 17,000 cubic yards of stockpiled soil will be transported and another 21,000 cubic yards of soil will be excavated from the adjacent site. Construction of the project would be done in a single phase lasting approximately 9.5 months. Types of heavy diesel equipment to be used to construct the facility will include a self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. Operation of the Project is estimated to generate a total of 367 daily project trips and, prior to mitigation, increase the daily vehicle miles travelled ("VMT") in the area by 2,355 VMT. The closest residence is about 500 feet from the Project's borrow area.

LEGAL STANDARDS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["*CBE v. SCAQMD*"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens,* 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors,* 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (Pub. Resources Code, § 21080(d); see also *Pocket Protectors,* 124 Cal.App.4th at 927.) In limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs., § 15371 ["CEQA Guidelines"]), only if there is not even a "fair

argument" that the project will have a significant environmental effect. (Pub. Resources Code, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Public Resources Code §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a *reasonable possibility* of a significant effect on the environment. (Pub. Resources Code, §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors,* 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zischcke, *Practice Under CEQA*, §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in

original].)

As a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; see also CEQA Guidelines, § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.) In *Pocket Protectors*, the court explained how expert opinion is considered. The Court limited agencies and courts to weighing the admissibility of the evidence. (*Pocket Protectors,* 124 Cal.App.4th at 935.) In the context of reviewing a negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." (*Id*.) Where a disagreement arises regarding the validity of a negative declaration, the courts require an EIR. As the Court explained, "[i]t is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." (*Id*.)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines, § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ["*Save Our Peninsula*"].)

A threshold of significance may be useful to determine whether an environmental impact normally should be considered significant. (CEQA Guidelines, § 15064.7(a).) "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (*CBE v. California Resources* Agency, 103 Cal.App.4th at 111.)

"A threshold of significance is not conclusive, however, and does not relieve a public agency of the duty to consider the evidence under the fair argument standard." (*Mejia v. City of*

Los Angeles (2005) 130 Cal.App.4th 322, 342; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109; *CBE v. California Resources Agency*, 103 Cal.App.4th at 110-114; CEQA Guidelines, § 15064(b).) A public agency cannot, as the City does here, apply a threshold of significance or regulatory standard "in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect." (*CBE v. California Resources Agency*, 103 Cal.App.4th at 114.)

ANALYSIS

I. There is a Fair Argument That the Project May Have Significant Traffic and GHG Impacts Because the Purported Mitigation Measure for VMT is Not Supported by Substantial Evidence and Defies Common Sense.

The MND's analysis of the Project's VMT impacts is not based on substantial evidence because it relies upon entirely unrealistic assumptions about the distance a bike commuter would ride to and from work. The MND would have one believe that by constructing a 300 feet long Tier 1 bike lane down the street from the Project, 32 commuters would no longer drive an average of 34.6 miles to and from work, but would instead ***bike 34.6 miles*** to and from work. (MND, Appendix, GHD Draft Technical Memorandum, p. 6 (Nov. 19, 2020) ("VMT Memo").

The MND identifies a threshold of significance for assessing a Project's VMT-related impacts of requiring a 15 percent reduction in VMT for the Project "compared with current regional VMT generation for similar uses." (MND, p. 91.) Relying on an analysis conducted by GHD, the MND identifies that the "[c]ountywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT." (*Id*.) Based on these numbers, the MND states that the "average daily project trip length has been calculated to be 17.3 miles, with a total daily 2,355 VMT." (*Id*.) The MND identifies a baseline threshold of 1,354 VMT as the VMT level that is 15 percent less than the County's average VMT. (VMT Memo, p. 4.). Thus, in order to be consistent with the 15 percent reduction from the average VMT threshold, the MND states that the Project must reduce its estimated VMT of 2,355 by 1,001 VMT. (*Id*.)

1

GHD then recommends a single measure purporting to achieve this dramatic reduction in the Project's estimated VMT. GHD and the MND state that extending by a mere 300 feet the Class I bike path on Commerce Court, which currently runs past the existing SDG Commerce 330 warehouse, to connect to the northern driveway of the elementary school under construction would reduce the Project's VMT by 1,119 VMT. (*Id*., p. 6.) GHD's rationale for this assertion is based, in part, on an estimate of the number of new bike commuters that would be added to the City's bike network by the addition of the 300-foot connector lane. GHD estimates the new lane would entice 32 new bike commuters. (*Id*., p. 18.) GHD then claims that these 32 new bike commuters would take the place of 32 car commuters who otherwise would each have driven 34.6 miles to and from work. (*Id*.)

Assuming GHD's estimate of 32 new commuters biking to work as a result of constructing the 300-feet bike lane is correct, the car trip lengths that GHD claims those users' bike trips would replace are preposterous. There is no evidence that the new bike commuters

who would be enticed onto their bikes by the new 300-feet of bike lane would include any car commuter who currently travels 17.3 miles to and from their work. The 17.3 mile figure applied by GHD has nothing to do with the average length of bike commuter trips. Instead, that number is the average trip length for commuters traveling by ***automobile*** calculated for the project area. (*Id*., p. 4.)

The average length of a bike commuter trip is much lower than the average length of a commute by car. The California Air Resources Board ("CARB") has published a quantification methodology to estimate VMT reductions associated with bike facilities. (CARB, Quantification Methodology (Nov. 1, 2019) (attached as Exhibit C).) Equation 22 of that guidance provides a formula for estimating "VMT Reductions for Bicycle Facility or Walkway." (Id., p. 18.) GHD completely ignores this guidance in its analysis. Putting that aside, CARB's factors include its expert determination of the average bike trip length to be used in a VMT reduction calculation. CARB pins the "[a]verage length of auto trip replaced" at "1.5 miles for cycling." (*Id*. *See also* ITS Report, p. 5. *See id.*, p. 7 ("The trip length factor, L, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data") (attached as Exhibit D).)

1 (cont.)

Even assuming GHD's overly simplistic equation is otherwise correct, applying CARB's 1.5 mile average of auto trip replaced by a bike trip dramatically reduces the MND's inflated VMT reduction claim. Based on a realistic trip length for bicycles that would use the 300-feet lane, and according to GHD's truncated equation, the new 300-feet bike lane would only reduce VMT by 97.5 VMT (65 daily commute trips by new bike commuters x 1.5 bicycle trip length). Thus, GHD's claim that the 300-foot length of bike lane would miraculously remove 1,119 VMTs from Commerce Court is entirely without basis in evidence or common sense. Instead, that modest bike facility would only remove about 97.5 VMT, leaving the Project over 900 VMT short of the 15 percent reduction from the County average necessary to eliminate the Project's significant transportation impacts. As a result, the MND is inconsistent with the CEQA Guidelines, 14 Cal.Admin Code § 15064.3 which requires that "[a]ny assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project." Moreover, there is a fair argument that the Project may have significant transportation impacts requiring the preparation of a full EIR.

II. An EIR is Required because the Project will have Significant Impacts on Biological Resources.

A. THE MND Fails to Adequately Analyze Impacts to Biological Resources Because It Relies Upon an Incomplete Baseline and the Project May Have Adverse Impacts on Numerous Sensitive Species Currently Using the Site or Adjacent Areas.

2

On January 23, 2019 and January 5, 2021, Dr. Shawn Smallwood visited the site. (Smallwood Comments, p. 1.) His first-hand observations of wildlife at the site as well as his review of reliable bird sightings reported on eBird demonstrate that the MND relies upon a

truncated list of species present at the site and fails to address impacts on numerous sensitive species that currently use the site. Dr. Smallwood's observations and expert comments are substantial evidence that the Project may have significant biological impacts, including adverse impacts on bald eagles, northern harriers, peregrine falcons, Cooper's hawks, red-tailed hawks, great horned owls, Swainson's hawks, burrowing owls, Nuttall's woodpecker, and other bird species. (*Id*., p. 2.)

During his brief visit on January 23, 2019, Dr. Smallwood observed a bald eagle flying over and hunting the site and identified a northern harrier and Cooper's hawk foraging on the project site. (Smallwood Comments, pp. 2, 5.) He also observed numerous other bird species. (*Id*., pp. 2-9.) Many species were not just passing by the site but actively engaged in using the habitat available there. (*Id*., p. 2.) For example, Dr. Smallwood observed many species spending considerable time at the site and displaying courtship or territorial behaviors indicative of breeding. (*Id*.) Such species included red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. (*Id*.) He also observed a great-horned owl perched immediately adjacent to the site. (*Id*.)

Dr. Smallwood also has gathered information regarding numerous bird sightings in and around the site that are posted on a web-based service called eBird. (Smallwood Comments, pp. 13-16.) Dr. Smallwood's experience with this service indicates that it is reliable source of bird sighting information, being based on the observations of reputable birders. (*See id*., p. 16.) He also points out the limitations of the MND only relying upon the California Natural Diversity Data Base ("CNDDB") to document the potential presence of wildlife species at and around the Project site. (*Id*., pp. 11, 16.) Numerous additional sensitive species are identified near the site that are not addressed in the biological report or the MND, including the endangered Willow flycatcher and species of concern including the Oak titmouse, Loggerhead shrike, tricolored blackbirds and many others. (*Id*., pp. 13-15.)

② (cont.)

As a result of the omission of numerous sensitive species using the site and evidence of even more additional species in the immediate vicinity of the site, the MND's evaluation of the project's biological impacts is not supported by substantial evidence. Dr. Smallwood's observations and expert comment is substantial evidence of a fair argument that the project may have an adverse impact on bald eagles, various hawks, and other species currently utilizing the site for courtship, foraging habitat and for movement.

The MND does mention a number of species, including Swainson's hawks and burrowing owls. However, the biological report fails to disclose information that these species have been observed much closer to the project site than is indicated in the MND or the biological report. (Smallwood Comments, p. 16.) For example, the MND indicates that Swainson's hawks and burrowing owls are, respectively, 2.5 and 2.6 miles away from the project site. However, Dr. Smallwood identifies sightings of these two species within 0.2 miles of the site. As he states, this indicates a high likelihood that these species are using this open foraging area as well.

The MND is particularly unreliable regarding its treatment of another species of special concern, the Northern harrier. As Dr. Smallwood explains:

> Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

(Smallwood Comments, p. 16.)

Regarding impacts to burrowing owls, the MND improperly downplays potential impacts by claiming that, although the site contains many ground squirrel burrows that are frequently relied upon by burrowing owls, their significance is downplayed because Monk & Associates claims they are of "recent origin." (Smallwood Comments, p. 12.) Dr. Smallwood, relying on his own studies of burrowing owls, refutes the relevance of the age of ground squirrel burrows to their likely use by burrowing owls. (*Id*.)

Likewise, the MND relies on a claim that because the site was cleared of eucalyptus trees in 2012, that somehow that activity over eight years ago continues to affect the site's use by wildlife. The MND asserts that "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat." (MND, p. 33.) Dr. Smallwood discusses the scientific problems with this assertion, concluding that "[t]he [MND] misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today." (Smallwood Comments, p. 12.)

2 (cont.)

Dr. Smallwood notes the likely presence of bats utilizing the site for foraging and movement. (Smallwood Comments, p. 16.) The MND claims that the Project will not impact bats because the Project site "contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." (MND. p. 34.) However, as Dr. Smallwood points out, "Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground." (Smallwood Comments, p. 16.)

Dr. Smallwood notes that the MND and accompanying biological report fail to provide the information necessary to corroborate the level of effort and adequacy of the reconnaissance level survey done by the City's consultant. As Dr. Smallwood explains:

> Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

(Smallwood Comments, p. 10.) This exacerbates the absence of substantial evidence to justify the MND's wildlife baseline.

Dr. Smallwood also debunks the MND's effort to bolster the cursory biological

assessment with a so-called peer review. As Dr. Smallwood notes, no description of the peer-review nor any responses to review comments is provided in the MND and the date of the peer review appears inconsistent with the date of Monk & Associates site visit. (Smallwood Comments, p. 10.)

② (cont.)

The evidence of nearby sightings of numerous sensitive species and the flaws in the MND and accompanying biological report identified by Dr. Smallwood support a fair argument that the Project may have adverse impacts on their foraging and movement. For this reason and those discussed above, an EIR must be prepared to address impacts to these many sensitive bird and bat species.

B. The Project will have a Significant Impact on Wildlife Movement and Habitat Fragmentation.

The MND fails to adequately analyze the Project's impact on wildlife movement. Instead, the MND improperly dismisses the Project's potential to impact wildlife movement by claiming there needs to be a "corridor" on the site to effect wildlife movement, that other nearby areas are better movement areas, or otherwise asserting without evidence that this particular large warehouse would not disrupt wildlife movement. As Dr. Smallwood states:

③

> The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others.

(Smallwood Comments, p. 20.) Dr. Smallwood's direct observations and expert opinion are substantial evidence of a fair argument that the Project may have adverse impacts on wildlife movement at the site and in the vicinity.

C. The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

④

The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders. (Smallwood Comments, p. 20-21.) Regardless of whether these species live on site, these and other special status species must cross roadways that will experience increased traffic volume as a result of the Project. (*Id.*)

As Dr. Smallwood explains, "[i]ncreased use of existing roads will increase wildlife

fatalities…." (*Id*., p. 20.)

> The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23January 2019I saw two road-killed striped skunks on American Canyon Drive, and on 15 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road–a road likely to be used by trucks and cars servicing the project. California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the [MND] is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (Ambystoma californiense), and American badgers (Taxidea taxus) that, regardless of whether they live on the site, mustcross roadways that will experience increased traffic volume caused by this project.

④ (cont.)

(*Id*.) Given the fair argument of a threat to wildlife posed by existing traffic and additional traffic from the Project, as discussed by Dr. Smallwood, an EIR is necessary to evaluate the direct and cumulative impacts of the Project's vehicle collisions with wildlife.

D. The MND Fails to Analyze the Project's Impacts from the use of Pest Control Measures.

The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse. As a wine storage distribution facility, there will likely be steps taken to abate pests. There are many businesses that provide services for controlling stored products pests, perching birds, and rodents and other mammal pests within and around distribution warehouses. (Smallwood, p. 21.) These businesses advertise exclusion strategies and fumigation for stored products pests, glue boards for rodents, and other measures including anticoagulant poisons and acute toxicants. "[T]he use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging." (*Id*.) "[P]est control involving toxicants can result in the spread of toxicants beyond the project site." (*Id*.)

⑤

An EIR is needed to analyze the potential impacts of animal damage control associated with the proposed Project. Anticipated animal control strategies at the Project should be detailed, and impacts mitigated.

E. The Project will have Cumulative Impacts on Biological Resources.

Dr. Smallwood concludes that the Project will have a significant cumulative impact on biological resources. (Smallwood Comments, p. 22.) An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well.

⑥

III. The IS Utilized Unsubstantiated Input and Output Parameters to Estimate Project Emissions.

A. The MND fails to explain how the City Calculated the Project's Average Daily Construction Emissions of ROGs and NOx.

The MND and Appendix B fail to provide sufficient information for a reviewer to understand and corroborate how the average daily emissions during construction were derived. As SWAPE explains, it is entirely unclear where the emissions estimates reported in the MND come from, because the estimates do not match those provided in any of the CalEEMod output files. (SWAPE Comments, pp. 2-3.) The MND provides the Project's emissions estimates in pounds per day. (MND, p. 22.) This indicates that the estimates should have come from either the winter or summer output file. (SWAPE Comments, pp. 2-3.) However, reviewing both the summer and winter output files and the emissions estimates, SWAPE's review could not match either. Insufficient details are provided in the MND either to inform the reader of the full extent of the air pollution and impacts that will result from the Project or how the insignificant determination was calculated and derived. The MND does not disclose a valid average daily emission calculation. For this reason, there is a fair argument that the Project may have significant air quality impacts.

⑦

B. The MND Used Improper Modeling Inputs, Including for Water Use for Parking and Solid Waste Generation.

Review of the Project's CalEEMod output files also demonstrates that the Project Applicant fails to adequately support substantial reductions in several air quality modelling inputs. In particular, the input for water use rate is decreased by almost 100 percent from the default value of 50,248,312.50 gallons per year ("gpy") to a mere 768 gpy. (SWAPE Comments, p. 8.) However, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gpd or 249,295 gpy. Thus, the model underestimates the Project's total yearly water demand by approximately 239,186 gpy.

⑧

SWAPE also points out the lack of justification for the reduction in modeling inputs for solid waste generation by the Project. It is not explained how the Project would have dramatically lower solid waste rates than other typical projects. (SWAPE Comments, pp. 7-8.) Likewise, further corroboration that there would not be any weekend trips occurring at the facility or the lack of any potential for natural gas use by the Project should be further corroborated and explained in the MND. (*Id*., pp. 5-7.) Lastly, the modelling relies on surface watering and limited vehicle speeds among other BMPs identified by BAAQMD. However, nothing in the MND sets forth these measures as mandatory BMPs or conditions of the Project. (*Id*., pp. 9-11; MND, p. 23.) Because of the uncertainty resulting from inadequate justifications or miscalculation of annual water use, the MND's reliance on the CalEEMod analysis is not supported by substantial evidence that eliminates a fair argument that the Project may have significant air quality impacts.

IV. SWAPE's CalEEMod Modeling Run Indicates a Fair Argument That the Project May Have a Significant Air Quality Impact.

9 SWAPE reran the CalEEMod run for the Project adjusting for the deficiencies in the inputs that it identified. (SWAPE Comments, p. 11.) The resulting model result indicates that the Project may exceed the BAAQGM daily emission threshold of 54 lbs/day. This is substantial evidence of a fair argument that the Project may have a significant air quality impact.

V. The IS Inadequately Evaluates Emissions of Diesel Particulate Matter.

10 Diesel particulate matter ("DPM") is a known human carcinogen. The MND attempts to piggy-back on a health risk assessment performed for the nearby SDG Commerce 330 warehouse. (MND, p. 26.) This effort to borrow the HRA performed for that other project is problematic for a number of reasons.

A. The HRA Fails to Account for the Fact That the Nearest Sensitive Receptor to the Project's Emissions is Located Only 500 Feet From the Soil Borrow Site.

11 Although the MND notes that there is "one residence about 1,000 feet east of the site (on the Couch property)," this is referring to the site of the proposed warehouse building. (MND, p. 74.) In fact, the closest receptor is only 500-feet from the borrow pit portion of the Project. (*Id*., p. 77 (Table Noise-4).) For the SDG Commerce 330 project, the sensitive receptor distance was about 900 feet. Because the closest receptor to the Project's affected area is only 500 feet, a new health risk assessment specific to the Project must be prepared. (SWAPE Comments, pp. 12-14.) Based on the current MND, there remains a fair argument that the Project may have a significant health risk impact on the nearest sensitive receptor.

B. SWAPE's Analysis Provides Substantial Evidence of a Fair Argument that the Project may have Significant Health Risk Impacts from its Emissions of Toxic Air Contaminants.

Based on the limited information provided by the MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD
12 recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to adults, infants, children and nearby residents over the course of a 30-year residential lifetime of, respectively, 11 in one million, 86 in one million, 73 in one million, and 180 in one million, all in excess of BAAQMD's threshold. (SWAPE Comment, pp. 14-18.) Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

VI. There is a Fair Argument That the Project May Have Significant GHG Impacts.

SWAPE also reviewed the MND's discussion of the Project's potential GHG impacts. In addition to the deficiencies in the air modelling discussed above, a number of glaring problems with the analysis demonstrates that a fair argument remains that the Project may have significant GHG impacts.

A. The MND's Reliance on the 1,100 MT CO2e Per Year Threshold is Only Designed to Achieve the GHG Reductions Required by 2020 and is Insufficient to Align the Project With the State's 2030 GHG Reduction Targets.

As the BAAQMD states in its 2017 CEQA guidelines, BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. (BAAQMD CEQA Guidelines, p. D-16 (available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.) The threshold referenced in the MND is a bright-line threshold of 1,100 MT CO2e. (*Id.*, p. D-21. *See* SWAPE Comments, pp. 19-20.) That threshold was only intended to ensure compliance with AB 32's reduction goals required by 2020. (*Id.*) The 2020 GHG reduction goals sought to reduce business as usual GHG emissions to 1990 levels. In 2018, the Air Resources Board established the subsequent GHG reduction goal to reduce 1990 levels by another 40 percent by 2030. (California's 2017 Climate Change Scoping Plan, Executive Summary (Nov. 2017) (available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017_es.pdf).) That is the current goal with which the Project must ensure consistency order to claim no fair argument of a potential GHG impact. (13)

As SWAPE points out, the Association of Environmental Professionals ("AEP") has derived a threshold of significance that is consistent with achieving the 2030 GHG reduction goals for projects coming online after 2020. AEP and SWAPE identify a "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO2 equivalents per service population per year ("MT CO2e/SP/year") as a threshold of significance necessary for any specific project to be consistent with the 2030 reduction goals. As AEP states:

> Once the state has a full plan for 2030 (which is expected in 2017), and then a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target. A more conservative approach would be to apply a 2030 threshold based on SB 32 for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update.

(*Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016, p. 40 (available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf).)

Applying the Project's estimate that it will create 50 new jobs, SWAPE calculates the

2030 Land Use Efficiency Threshold for the project to be 11.80 MT CO2e/SP/year - well in excess of the calculated significance threshold of 2.6 MT CO2e/SP/year. (SWAPE Comments, pp. 20-21.) Based on this substantial evidence, there is a fair argument that the Project may have significant GHG impacts. (13) (cont.)

B. The Project's Failure to Reduce its Expected VMT and Its Levels of VMT Per Capita are Evidence of a Fair Argument That the Project May Have Significant GHG Emission Impacts.

In addition to failing to reduce its VMT by fifteen percent of the Project area average, as discussed above, the MND also is inconsistent with CARB's 2017 Scoping Plan's guidance on evaluating GHG impacts using a Project's VMT per capita calculations. CARB has provided County- and State-based VMT per capita baseline calculations and the necessary per capita reductions necessary to be consistent with the Scoping Plan's GHG reduction targets. (SWAPE Comments, p. 22, n. 44.) SWAPE has applied that guideline to calculate the Project's VMT per capita. (*Id.,* p. 22 & Attachment C.) Using the tables provided by CARB, SWAPE calculates that VMT per capita within Napa County must be reduced to 19.37 in order to be consistent with the 2030 GHG reduction target. (*Id*., p. 22.) SWAPE calculates the Project's daily VMT per capita to be 33.21, well in excess of the VMT per capita levels necessary to meet the State reduction goals for 2030. (*id*., p. 22.) As a result, the MND is incorrect in asserting that the Project is consistent with the 2017 Scoping Plan and AB 32. SWAPE's analysis is substantial evidence of a fair argument that the Project may have significant GHG emission impacts. (14)

CONCLUSION

For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. LIUNA reserves the right to supplement these comments in advance of and during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). Thank you for your attention to these comments. (15)

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Brent Cooper, Community Development Coordinator
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

14 January 2020

RE: SDG Commerce 217 Warehouse

Dear Mr. Cooper,

I write to comment on the biological resources study (Monk & Associates 2020) and Initial Study ("IS") (City of American Canyon 2020) prepared for the proposed SDG Commerce 217 Warehouse project at 1075 Commerce Court, which I understand would be 217,294 square feet of new distribution warehousing on 10.39 acres (11.23 acres according to 'For Sale' sign on property).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-five years, including at many proposed project sites. My CV is attached.

SITE VISIT

I visited the proposed project site on 5 January 2021 for 62 minutes starting at 08:23 hours. Prior to the construction of SDG Commerce 330, I had also visited the site on 23 January 2019 from 06:15 hours to 10:50 hours. Both times I walked along Commerce Way, the first time in cool, sunny weather and the second time in fog. During my first visit I detected 41 species of vertebrate wildlife within 155 minutes, and during my second visit I detected 9 species within 65 minutes (Table 1). I also walked a portion of the Napa River and Bay Trails south and west of the site for 125 minutes in 2021 and for an unrecorded time in 2019. At and near the site I detected 61 species of vertebrate wildlife between my two visits. Add my observations to those of Monk & Associates (2020), and the list grows to 86 vertebrate species of wildlife seen at or near the site

over only a few surveys in the last two years. The project area is rich in wildlife. Had I stayed longer, or had I visited during additional times of year and times of day, I would have seen many more species of wildlife. Given the abundance of roost sites amongst the surrounding eucalyptus groves, I expect multiple species of bats are present. An EIR needs to be prepared to address potential project impacts on wildlife.

In 2019, I saw a juvenile bald eagle fly over the project site (Photos 1 and 2). Bald eagles are protected by the Bald and Golden Eagle Protection Act and the California Endangered Species Act. In 2021, I saw a peregrine falcon just west of the project site, but it was too fast for me to photograph it. I saw a northern harrier (Photo 3) and Cooper's hawk (Photo 4) on the project site, both species of which have been assigned special-status in addition to the 'birds of prey' statute. I saw American kestrels (Photos 5 and 6), Anna's hummingbirds (Photo 7 and 8), pied-billed grebes (Photo 9), mourning doves (Photo 10), a house wren (Photo 11), golden-crowned sparrows (Photo 12), white-crowned sparrows (Photos 13 and 14), Say's phoebe (Photo 15), red-winged blackbirds (Photo 16), fox sparrows (Photo 17), and song sparrows (Photo 18).

Some animals flew over, including Canada geese, mallards, Herring gulls, ring-billed gulls, and swallows. Most, however, spent considerable time on and around the site. Some species displayed courtship or territorial behaviors indicative of breeding, including red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. In 2019, a juvenile bald eagle hunted the site by carefully using the Eucalyptus trees for cover, but numerous small birds raised a ruckus, alerting of the eagle's approach. Also foraging on site were the northern harrier and Cooper's hawk in 2019. In 2019, two American kestrels harassed a perched great-horned owl, who hooted for about 10 minutes after the kestrels relented.

PROJECT DESCRIPTION

The Napa River and Bay Trails wrap around the project from the south to the west. The site is next to an Audubon Society-designated Important Bird Area.

BASELINE ASSESSMENT

Project Description: The IS (page 6) did not reveal the nearness of Clark Ranch and Napa River and Bay Trails as surrounding land uses, instead attempting to cast the 300-foot distance as a mitigating buffer (*See, e.g.* IS, p. 34). Clark Ranch has been dedicated as open space. The Napa River and Bay Trails not only provide public access to wildlife viewing, but is also designated by Audubon Society as one of its Important Bird Areas ("IBA"). An EIR is needed to address project impacts on the IBA, Napa River and Bay Trails, and Clark Ranch.

Table 1. Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse. The offsite visit was made during my 2021 survey, and includes a walk along Napa River and Bay Trails just south and west of the project site.

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Canada goose	*Branta canadensis*		2019		
Mallard	*Anas platyrhynchos*		2019		
Northern shoveler	*Anas clypeata*				Yes
American coot	*Fulica americana*				Yes
Pied-billed grebe	*Podilymbus podiceps*				Yes
Black-necked stilt	*Himantopus mexicanus*				Yes
American avocet	*Recurvirostra americanus*				Yes
Long-billed dowitcher	*Limnodromus scolopaceus*				Yes
Least sandpiper	*Caladris minutilla*				Yes
California quail	*Callipepla californica*		2019		
Turkey vulture	*Cathartes aura*	FGC 3503.5			Yes
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, CE, CFP	2019		
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5	2019		
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5	2019	2021	Yes
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5			Yes
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	2019		Yes
American kestrel	*Falco sparverius*	FGC 3503.5.5	2019		Yes
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5			Yes
Herring gull	*Larus argentatus*		2019		Yes
Ring-billed gull	*Larus delawarensis*		2019		Yes
Mourning dove	*Zenaida macroura*		2019		Yes
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	2019		
Great-horned owl	*Bubo virginianus*	CDFW 3503.5	2019		
Black-chinned hummingbird	*Archilochus alexandri*		2019		
Anna's hummingbird	*Calypte anna*		2019	2021	Yes
Northern flicker	*Colaptes auratus*		2019	2021	Yes
Nuttall's woodpecker	*Picoides nuttallii*	BCC	2019		Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Say's phoebe	*Sayornis saya*		2019		Yes
Black phoebe	*Sayornis nigricans*		2019		Yes
Hutton's vireo	*Vireo huttoni*		2019		
Barn swallow	*Hirundo rustica*		2019		
Northern rough-winged swallow	*Stelgidopteryx serripennis*		2019		
Bushtit	*Psatriparus minimus*		2019	2021	
House wren	*Troglodytes aedon*		2019		
Marsh wren	*Cistothorus palustris*				Yes
California scrub-jay	*Aphelocoma californica*		2019		
Common raven	*Corvus corax*		2019		Yes
American crow	*Corvus brachyrhynchos*		2019	2021	
Western bluebird	*Sialia mexicana*		2019		
Northern mockingbird	*Mimus polyglottos*		2019		Yes
European starling	*Sturnus vulgaris*	Non-native	2019	2021	Yes
Yellow-rumped warbler	*Setophaga coronata*		2019	2021	Yes
California towhee	*Pipilo crissalis*		2019		Yes
Song sparrow	*Melospiza melodia*				Yes
Lincoln's sparrow	*Melospiza lincolnii*				Yes
White-crowned sparrow	*Zonotrichia leucophrys*		2019		Yes
Golden-crowned sparrow	*Zonotrichia atricapilla*		2019		Yes
Fox sparrow	*Passerella iliaca*				Yes
Dark-eyed junco	*Junco hyemalis*		2019	2021	Yes
Western meadowlark	*Sturnella neglecta*		2019		
Red-winged blackbird	*Agelaius phoeniceus*		2019		Yes
Brown-headed cowbird	*Molothrus ater*				Yes
Brewer's blackbird	*Euphagus cyanocephalus*		2019		Yes
American goldfinch	*Carduelis tristis*		2019		
Lesser goldfinch	*Carduelis psaltria*				Yes
House finch	*Carpodacus mexicanus*		2019		Yes
Sierran treefrog	*Pseudacris sierra*		2019		Yes
Botta's pocket gopher	*Thomomys bottae*				Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
California ground squirrel	*Otospermophilus beecheyi*				Yes
Raccoon	*Procyon lotor*			2021	

[1] Listed as BGEPA = federal Bald and Golden Eagle Protection Act, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), SSC3 = California Species of Special Concern priority level 3, TWL = Taxa to Watch List (Shuford and Gardali 2008).





Photos 1 and 2. A bald eagle flew along the eucalyptus trees surrounding the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area this winter.





Photos 3 and 4. Cooper's hawk (left) and northern harrier (right) fly over the project site, 23 January 2019.





Photos 5 and 6. American kestrel perches on a Eucalyptus branch on southern boundary of proposed project site, 23 January 2019 (left) and on a pole just south of the project site on 5 January 2021 (right).





Photos 7 and 8, right. Anna's hummingbird perched next to the site of the proposed project on a foggy day, 5 January 2021.





Photos 9 and 10. Pied-billed grebe (left) and mourning dove (right) next to the site of the proposed project, 5 January 2021.



Photo 11, left. House wren next to the site of the proposed project, 23 January 2019.



Photo 12, right. Golden-crowned sparrow next to the site of the proposed project, 5 January 2021.

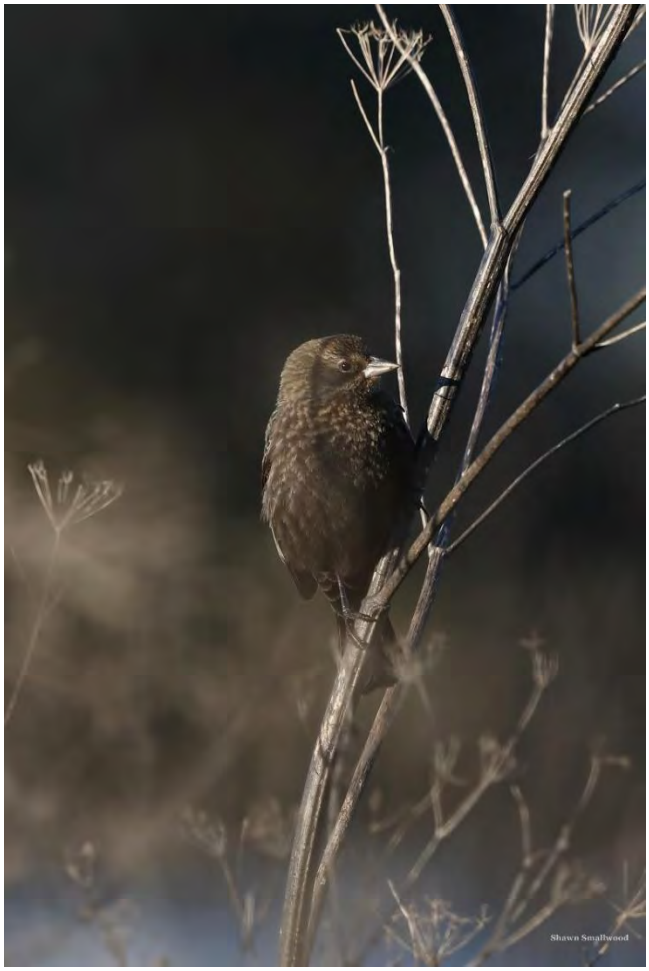




Photos 13 and 14. Male and female white-crowned sparrows next to the site of the proposed project, 5 January 2021.

Photos 15 and 16. Say's phoebe (left), triumphant after driving out a black phoebe, and red-winged blackbird (right) at the project site, 23 January 2019.









Photos 17 and 18. Fox sparrow (left) and song sparrow (right) next to the site of the proposed project, 5 January 2021.

Reconnaissance surveys: Monk & Associates (2020) performed surveys on the site on 19 and 27 December 2019. However, Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

Peer review: The IS (page 29) assures that Monk & Associates (2020) was peer reviewed. However, the date of the site visit in support of the peer review was 10 August 2018, which was prior to the Monk & Associates surveys of 2019. and prior to their 2020 report. If the date was correct for the peer-review site visit, then it is unclear what was peer-reviewed.

In claiming Monk & Associates (2020) was peer reviewed, the IS misapplies a process routinely used by scientists to improve their work. The purpose of peer review is to (1) improve the reporting of scientific research results, and (2) contribute to an editor's decision over whether to accept or reject a manuscript, or to require minor or major revisions before making the decision to accept or reject. The conclusions of peer reviewers are not necessarily right while the authors' conclusions are wrong. Peer review comments contribute to the scientific process by adding additional perspectives that the authors can use to improve their product, despite whether the product was rejected by the institution administering the peer review. Peer reviews also assess manuscripts according to scientific standards and to written guidelines maintained by the organization to which the manuscript was submitted. Peer review comments are supposed to be constructive. The important point here is that a "peer review" provided by Vollmar Natural Lands Consulting would have contributed nothing to Monk & Associates (2020) unless it resulted in constructive revisions to the report. Perhaps improvements were made to the report, but the reader cannot tell because the IS provides no report of the peer-review nor any responses to review comments.

To qualify as independent peer review, the administrator of the peer review as well as the reviewers themselves must not benefit financially or professionally from the outcome of the review. There must not be any hint of bias for a review to be considered independent. Another qualification is that the reviewers must be the authors' peers, meaning that reviewers possess sufficient experience performing research on the same or similar topic area as the authors, and that the reviewers understand the theoretical foundation of the topic at hand and the research challenges faced by the authors. In my experience, targeted reviews are prone to bias because the paid reviewer understands the desired outcome; it is in the reviewer's financial interest to review the client's work product favorably if the reviewer is to acquire repeat business. City of American Canyon needs to explain its relationship with Vollmar Natural Lands Consulting and between Vollmar Natural Lands Consulting and Monk & Associates.

Determinations of occurrence likelihoods: Monk & Associates (2020) mostly relied on California Natural Diversity Data Base (CNDDB) records to assess the likelihood of occurrence of special-status wildlife species whose geographic range maps

overlap the project site. Whereas consulting CNDDB is fine for confirming presence of a species, it is inappropriate for determining absence and hence narrowing a list of potentially occurring species. CNDDB is voluntary and not based on scientific sampling or equal access to properties. The limitations of CNDDB are well-known, and they are summarized in a warning presented by CDFW on the CNDDB web site (https://www.wildlife.ca.gov/Data/CNDDB/About): "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers...*" Therefore, the foundation of many conclusions in the is consists partly of a misapplication of CNDDB and needs to be replaced by a sound methodology in an EIR.

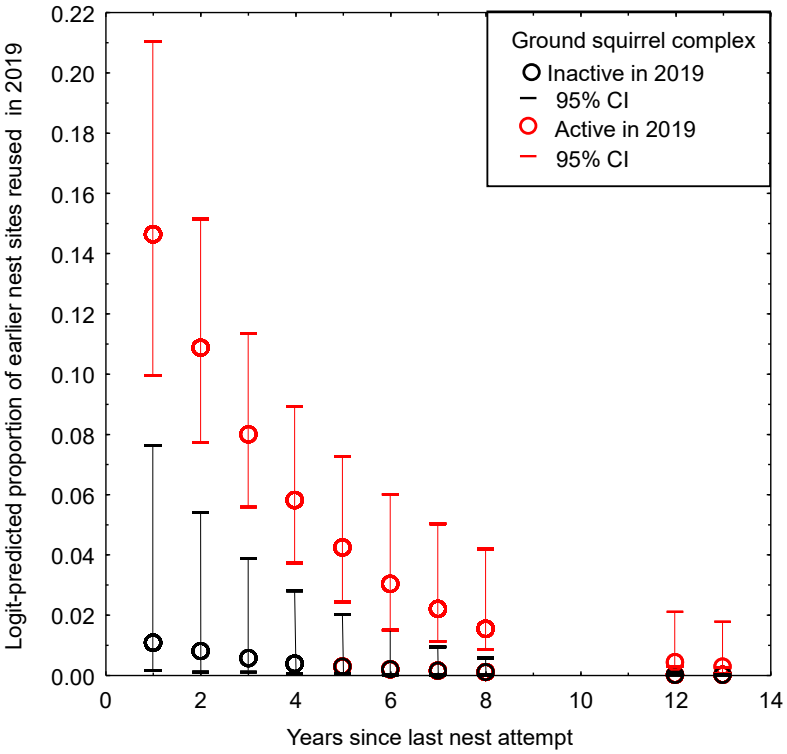
Consulting eBird reveals many sightings of special-status species near the project site (Table 2), many of which Monk & Associates (2020) conclude are less likely to occur at the site due to distant nearest-CNDDB records. My review of eBird and iNaturalist reveals 66 special-status species of vertebrate wildlife likely to rely on the site at one time or another, 15 of which have been confirmed at or near the site during surveys performed by Monk & Associates (2020) and myself (Table 2). The IS, on the other hand, identifies only 3 such species as unlikely to occur at the site, including northern harrier which I saw on site, and Swainson's hawk and burrowing owl which have both been reported nearby in eBird. The IS falls grossly short of a comprehensive and accurate assessment of occurrence likelihoods of special-status species.

The inadequacy of IS's assessment of species occurrences stems mostly from two fallacious arguments: (1) that the site is unsuitable for nesting, and (2) the site was previously disturbed by the removal of a eucalyptus grove. The first fallacy is that habitat can be divided distinctly by functionality. Specific to this project, the IS distinguishes nesting habitat as the only type of habitat to be concerned about. But no animals can breed without finding sufficient forage, cover and stopover opportunities; no species can breed without surviving both the breeding and nonbreeding seasons. There is no clear distinction between types of habitat, as every portion of an animal's habitat is critical to its survival and its productivity.

The second fallacy is that some previous disturbance – the removal of a eucalyptus grove in this case – diminishes or destroys habitat of a species today. CEQA reviews are supposed to be based on existing conditions, rather than to some past event that a project proponent can claim without evidence to have prevented the site from ever again being used by a species. This CEQA standard noted, I must add that the scientific literature is full of examples of wildlife populating places that have been severely disturbed, such as the slopes of Mount St. Helens following the 1980 eruption, and wildlife reinhabiting the forests surrounding Ukraine's Chernobyl Nuclear Plant since its meltdown and massive radioactive release. Multiple scientific journals focus on habitat restoration, which involves deliberate, major disturbances to generate new complexes of

vegetation intended to benefit wildlife. The IS misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today. The IS (page 32) further misleads that only ground squirrel burrows of ancient origin are useful to burrowing owls. Specifically, the IS claims burrowing owls are unlikely because "...ground squirrel burrows are few and of recent origin (Monk & Associates 2020)." The IS cites no evidence in support of this notion. It is also inconsistent with my research experience. For example, in a revisit to nearly 800 burrowing owl nest sites I had mapped over 9 years in the Altamont Pass Wind Resource Area, I found reuse of the nest sites in 2019 to have been much greater within actively used ground squirrel burrows previously used more recently (Figure 1). Further misleading is the IS's argument that "Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys." This is misleading because negative findings cannot be supported in the absence of detection surveys such as those recommended by CDFW (2012). It does not matter that Monk & Associates found no evidence of burrowing owls because they did not perform the appropriate detection surveys.

Figure 1. Proportion of revisited burrows that were either actively or inactively used by ground squirrels and where burrowing owls attempted re-nesting in 2019 declined quickly with years since the previous nest attempt.



The IS (page 33) claims that the loss of foraging habitat of northern harrier is "not considered substantial." However, the IS provides no evidence in support this conclusion. By what measure is the loss of foraging habitat judged substantial? Further, this conclusion neglects the possibility that the site is used by northern harrier for nesting as well as foraging. I saw a northern harrier fly over the site – the same site where the IS also says northern harriers would be unlikely to occur. The IS's analysis of potential impacts to northern harrier is flawed.

Table 2. Species reported on eBird (https://eBird.org) or iNaturalist on or near the proposed project site, where those in bold font were also seen on or near the site by myself or Monk & Associates (2020).

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Western pond turtle	*Actinemys marmorata*	SSC	None	Nearby
Pallid bat	*Antrozous pallidus*	SSC, WBWG H		Nearby
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG H		Nearby
Western red bat	*Lasiurus blossevillii*	SSC, WBWG H		In region
Fringed myotis	*Myotis thysanodes*	SSC, WBWG H		In region
Yuma myotis	*Myotis yumanensis*	SSC, WBWG LM		In region
Long-eared myotis	*Myotis evotis*	WBWG M		In region
Small-footed myotis	*Myotis cililabrum*	WBWG M		In region
American badger	*Taxidea taxus*	SSC		In region
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	TWL		Nearby
Redhead	*Aythya americana*	SSC2		Very close
American white pelican	*Pelecanus erythrorhynchos*	SSC1		Very close
Double-crested cormorant	*Phalacrocorax auritus*	TWL		Very close
White-faced ibis	*Plegadis chihi*	TWL		Very close
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC3		Very close
Marbled godwit	*Limosa fedua*	BCC		Very close
Snowy plover	*Charadrius alexandrinus*	SSC3		Very close
Long-billed curlew	*Numenius americanus*	BCC, TWL		Very close
Whimbrel	*Numenius phaeopus*	BCC		Very close
California gull	*Larus californicus*	TWL		Very close
Caspian tern	*Hydroprogne caspia*	TWL		Very close
Black tern	*Chlidonias niger*	SSC2		Nearby
California least tern	*Sterna antillarum browni*	FE, CE		Very close
Turkey vulture	*Cathartes aura*	FGC 3503.5		Very close
Osprey	*Pandion haliaetus*	TWL, FGC 3503.5		Very close
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE		Very close
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP		Very close

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5		Very close
Rough-legged hawk	*Buteo regalis*	FGC 3503.5		Nearby
Ferruginous hawk	*Buteo regalis*	TWL, FGC 3503.5	None	Very close
Swainson's hawk	*Buteo swainsoni*	BCC, CT, FGC 3503.5	Unlikely	Very close
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5		Very close
Sharp-shinned hawk	*Accipiter striatus*	TWL, FGC 3503.5		Very close
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5		Very close
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	Unlikely	Very close
White-tailed kite	*Elanus leucurus*	CFP, TWL		Very close
American kestrel	*Falco sparverius*	FGC 3503.5		Very close
Merlin	*Falco columbarius*	TWL, FGC 3503.5		Very close
Prairie falcon	*Falco mexicanus*	TWL, FGC 3503.5		Very close
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5	None	Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2	Unlikely	Nearby
Great-horned owl	*Bubo virginianus*	FGC 3503.5		Very close
Long-eared owl	*Asio otus*	SSC3, FGC 3503.5		Nearby
Short-eared owl	*Asio flammeus*	SSC3, FGC 3503.5		Nearby
Barn owl	*Tyto alba*	FGC 3503.5,		Very close
Western screech-owl	*Megascops kennicotti*	FGC 3503.5		Nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
Lewis's woodpecker	*Melanerpes lewis*	BCC		Nearby
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Vaux's swift	*Chaetura vauxi*	SCC2		Very close
Willow flycatcher	*Empidonax traillii extimus*	FE, CE		Very close
Olive-sided flycatcher	*Contopus cooperi*	SSC2		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2		Very close
Horned lark	*Eremophila alpestris*	TWL		Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		Nearby
Purple martin	*Progne subis*	SSC2		Nearby

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Yellow warbler	*Setophaga petechia*	SSC2		Very close
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3	None	Very close
Savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2		Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	None	Very close
Summer tanager	*Piranga rubra*	SSC1		Very close
Tricolored blackbird	*Agelaius tricolor*	CT	None	Very close
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close

[1] Listed as FT & FE = federal threatened and endangered, BGEPA = Bald and Golden Eagle Protection Act, BCC = U.S. Fish and Wildlife Service Bird species of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CT & CE = California threatened and endangered, CFP = California Fully Protected (FGC Code 3511), FGC 3503.5 = California Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008), WBWG = Western Bat Working Group with low, medium and high conservation priorities.

The IS (page 34) is also wrong in its conclusion of no impact to bats. The argument is that the site "...contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground.

By relying solely on CNDDB for determining occurrence likelihoods, the IS overlooks occurrences reported in other data bases. For example, whereas nearest CNDDB records have Swainson's hawks and burrowing owls 2.5 and 2.6 miles away from the project site, eBird records show these species much closer. According to eBird, a Swainson's hawk was seen only 0.2 miles from the project site. Given the space used by Swainson's hawks, there should be no doubt that a Swainson's hawk 0.2 miles away would have also used the project site. Burrowing owls were seen by multiple observers only 0.2 miles from the project site. One of the observers is a good bird observer with whom I have worked for many years; his observation was as trustworthy.

Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

Additional special-status species neglected by Monk & Associates include peregrine falcon and loggerhead shrike, both of which have been reported multiple times on eBird as having been seen near the project site. I saw a peregrine falcon right next to the site. And there are multiple others in addition to these species. I assert that Monk & Associates (2020) inadequately assessed potential project impacts to wildlife. Relying on CNDDB was inappropriate and inadequate. And after making multiple site visits, the number of wildlife species detected by Monk & Associates numbered only 25, whereas mine numbered more than twice as many.

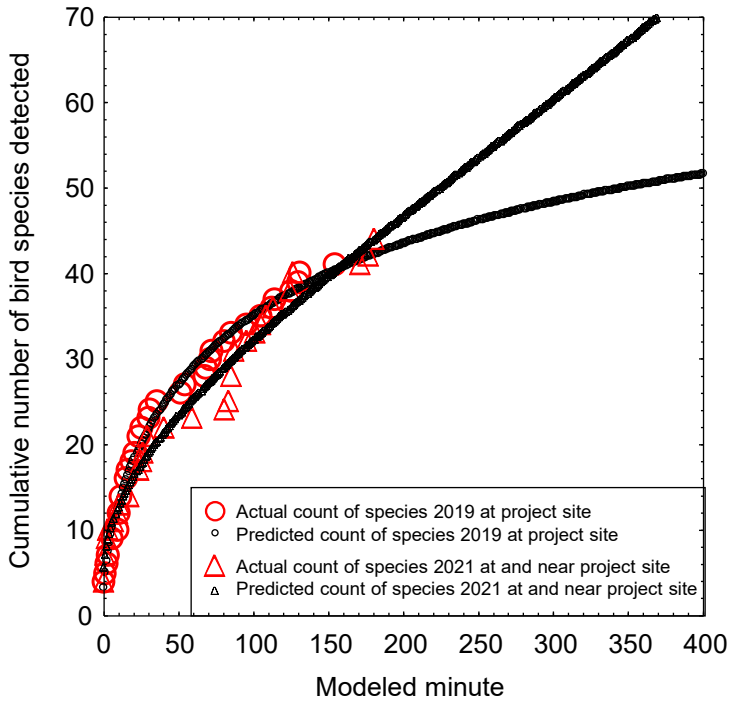
That the environmental setting has yet to be accurately characterized is further supported by known trends in species detections with survey effort. Figure 2 shows my counts of species detected at the site with time into each of my two surveys – it simply shows the cumulative number of species detected with increasing survey time. Just as I have seen for many other survey efforts, nonlinear regression models fit the data very well, explaining 97% of the variation in the data in 2021 and nearly 100% of the variation in the data in 2019, and for both surveys they showed progress towards the inevitable asymptotes of the nonlinear prediction curve where the same survey methods will eventually detect no more species. I note that the 2019 count of species was specific to the project site, whereas my 2021 count of species included areas around the project site. One model shows that had I continued doing what I was doing on 23 January 2019, I would have eventually detected about 55 species of terrestrial vertebrate wildlife on the project site, or more than double the number detected by Monk & Associates (2020). The other model shows that had I continued doing what I was doing on 5 January 2021, I would eventually have detected hundreds of terrestrial vertebrate

wildlife in the project area, confirming the wisdom of Audubon Society's designation of an IBA there.

Figure 2. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scan on 23 January 2019 and 5 January 2021. Note that the relationships would differ if the surveys were based on another method, another time of day, or during another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.

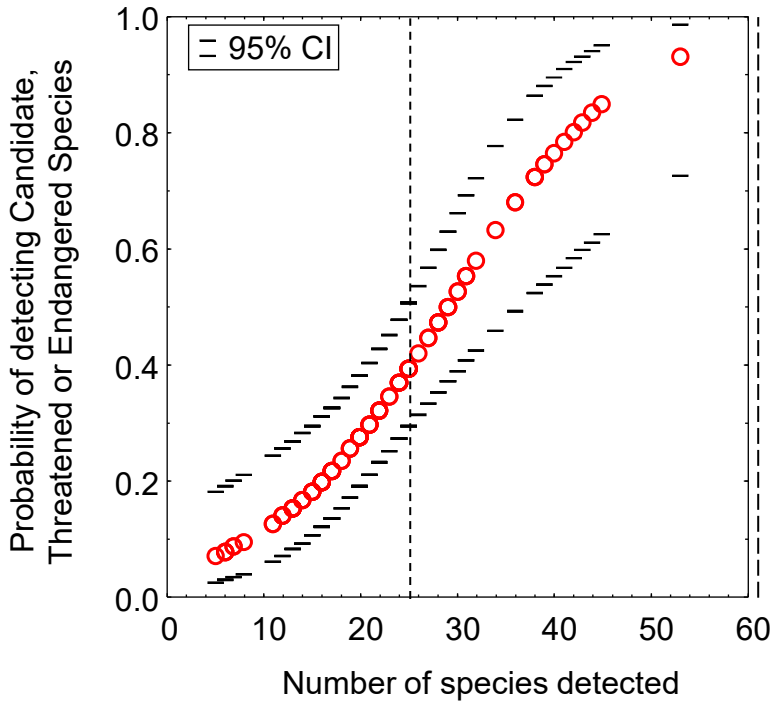
$$Y_{2019} = \frac{1}{0.012704 + 0.287312 \times 0.235363^{log_{10}(X+1)}}$$ r^2 = 1.00, loss = 39.9

$$Y_{2021} = \frac{1}{-0.023262 + 0.2019 \times 0.519485^{log_{10}(X+1)}}$$ r^2 = 0.97, loss = 97.6



The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by the fact that special-status species tend to be rarer than common species. Special-status species also tend to be more cryptic, fossorial, or active during nocturnal periods when general biological surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of increasing number of vertebrate wildlife species detected (Figure 3). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As demonstrated in Figure 2, the number of species detected is a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected. The survey effort committed to the project site by City of American Canyon carried a 40% chance of detecting a listed species, whereas the effort committed by myself carried a nearly 100% chance of detecting a listed species. In fact, I detected 2 listed species, one on site and one just offsite, so my model prediction was accurate. Monk & Associates beat the odds by detecting white-tailed kite – a California Fully Protected species. Had we surveyed longer or using different methods, we would have detected more listed species. A fair argument can be made for the need to prepare an EIR to more comprehensive and more carefully analyze baseline conditions and potential project impacts to wildlife.

Figure 3. Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 106 site visits throughout California. The vertical short-dashed line represents the number of species detected by Monk & Associates (2020), whereas the vertical short-dashed line depicts the number I detected between two site visits.



Habitat Loss

A recent study documented a 29% decline in overall bird abundance across North America over the last 48 years – a decline driven by multiple factors including habitat loss and habitat fragmentation (Rosenberg et al. 2019). Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity. For example, studies in grassland/wetland/woodland complexes documented total bird nesting densities of 32.8 nests per acre (Young 1948) and 35.8 nests per acre (Yahner 1982), averaged at 34.3 nests per acre. Assuming the project site in the absence of wetlands immediately on site, would support a third of the total nesting density measured by Young (1948) and Yahner (1982), a density of 11.4 nests per acre multiplied against the project's take of 11.23 acres would predict the loss of 128 bird nest sites. After 100 years and further assuming an average bird generation time of 5 years, and assuming an average 2.9 chicks fledged per nest (Young 1948), the lost capacity of both breeders and annual fledgling production would total 42,240 {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years per generation)}. These predicted losses would be substantial, and would qualify as significant impacts that have yet to be addressed by City of American Canyon. A fair argument can be made for the need to prepare an EIR to analyze the impacts of habitat destruction.

Habitat fragmentation, which is the reduction of connectivity of remaining habitat patches on a landscape, can further diminish the productive capacity of a site

(Smallwood 2015). Habitat fragmentation is one of the cumulative effects of this project that needs to be analyzed in an EIR.

Wildlife Movement

The IS accurately defines the concept of a wildlife corridor as a connector between already-fragmented habitat patches (see Smallwood 2015), but then inaccurately asserts that significant impacts to wildlife movement in a region can only happen with the interference of an existing wildlife corridor. One problem with this assertion is that a finding of significance would first require that habitat in the project area had already been fragmented and then a corridor constructed to reduce the effects of fragmentation. The assertion precludes a finding of significance where habitat has not been fragmented and no corridor constructed. The IS asserts a false CEQA standard for determining whether a project would interfere with wildlife movement in the region.

The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The existence of a wildlife corridor is unnecessary for a project to interfere with wildlife movement in the region.

The IS (page 35) also speculates that the site's history of disturbance in the form of tree removal somehow precludes any possible project interference with wildlife movement. This speculation, however, is vulnerable to abuse, because it could be extended to any earlier site condition when terrestrial wildlife might not have been able to move across it, such as when it might have been under the sea. The site's use for movement by wildlife needs to be analyzed based on conditions existing at the time of the environmental review, consistent with CEQA's standard.

The IS (page 35) further speculates that wildlife movement in the region is prevented by "...continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south." Paint ball facilities do not prevent wildlife movement. I have recorded many wildlife observations at a paint ball facility near where I live, and have noticed no effect on bird activity. Northern harriers, white-tailed kites, American kestrels, Swanson's hawks, and many other species perch on site, using it for foraging, territory patrol and stopover habitat. The IS cites no evidence that paintball facilities interfere with wildlife movement or would do so on adjacent properties.

The IS (page 35) speculates even further by claiming, "The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife..." But without evidence that a eucalyptus grove is more valuable to wildlife movement, this claim is nothing more than

convenient speculation. I can agree that the marsh would be more valuable for wetland-adapted species, but not for all species.

The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others. A fair argument can be made for the need to prepare an EIR to analyze the project's impacts on wildlife movement in the region.

Traffic Impacts on Wildlife

According to City of American Canyon (2020:88), the project would generate 367 daily vehicle trips. No analysis is provided in the IS of this traffic's impacts to wildlife in the area. The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23 January 2019 I saw two road-killed striped skunks on American Canyon Drive, and on 5 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road – a road likely to be used by trucks and cars servicing the project. California red-legged frogs (*Rana draytonii*), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the IS is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*) that, regardless of whether they live on the site, must cross roadways that will experience increased traffic volume caused by this project.

Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

In a recent study of traffic-caused wildlife mortality, investigators found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches along a 2.5 mile stretch of Vasco Road in Contra Costa County, California (Mendelsohn et al. 2009). Using carcass detection trials performed on land immediately adjacent to the traffic mortality study (Brown et al. 2016) to adjust the found fatalities for the proportion of fatalities not found due to scavenger removal and searcher error, the

estimated traffic-caused fatalities was 12,187. This fatality estimate translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads to and from the project site would similarly result in intense local impacts on wildlife.

Wildlife roadkill is not randomly distributed, so can be predicted. Causal factors include types of roadway, human population density, and temperature (Chen and Wu 2014), as well as time of day and adjacency and extent of vegetation cover (Chen and Wu 2014, Bartonička et al. 2018), and intersections with streams and riparian vegetation (Bartonička et al. 2018). For example, species of mammalian Carnivora are killed by vehicle traffic within 0.1 miles of stream crossings >40 times other than expected (K. S. Smallwood, 1989-2018 unpublished data). These factors also point the way toward mitigation measures, which should be formulated in an EIR.

Pest Control and Target and Non-target Mortality

As I understand it, the proposed project would store and distribute wine. The Initial Study did not mention the likelihood that pest control would be needed to protect stored products. Because multiple businesses advertise their services on the internet for controlling stored products pests, perching birds, and rodent and other mammal pests within and around warehousing and food processing buildings (e.g., https://www.catseyepest.com/pest-control/ commercial-pest-control/warehouse-and-distribution-facilities, http://advancedipm .com /commercial/ commercial-pest-management-for-warehouses-and-distribution-centers/, https://www.terminix.com/blog/commercial/how-pests-impact-warehouses/, I assume pest control would be necessary. These types of businesses advertise exclusion strategies, as well as fumigation for stored products pests, glue boards for rodents, and 'other measures.' Having a background in animal damage control, I am familiar with 'other methods,' including the use of anticoagulant poisons and acute toxicants such as strychnine. In my experience, the use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging (also see Gabriel et al. 2012). In other words, pest control involving toxicants can result in the spread of toxicants beyond the project site.

I reviewed the scientific literature on animal damage control associated with distribution warehousing. Little to no serious scientific attention has been directed toward animal damage control in these settings. That businesses are advertising their animal damage control services in these settings indicates either an awareness or an assumption that damage from wildlife is an issue. It is important, therefore, that an EIR be prepared to address the potential impacts of animal damage control associated with this proposed project. Industry practices related to animal damage control should be detailed, as well as anticipated practices at this project. Potential impacts caused by these practices need to be assessed, and suitable mitigation measures formulated along with assurances that they will be implemented.

Cumulative Impacts

City of American Canyon (2019:97) concludes the project will result in no cumulative impacts because only one other new project is planned. The cumulative impacts analysis is flawed by considering only the single new project, and none of those under construction or already built. Had City of American Canyon listed all projects -- past, present and reasonably foreseeable projects -- then the need for a serious cumulative effects analysis would emerge as obvious. City of American Canyon has sprawled across nearly all of the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west, leaving a fragmented mosaic of fields and woodlots as stop-over habitat for use by birds and bats. The project would also obviously be seen as adding more traffic extending the project's and the region's impacts far beyond their respective footprints.

When it comes to wildlife, cumulative effects can often be interpreted as effects on the numerical capacity (Smallwood 2015), breeding success, genetic diversity, or other population performance metrics expressed at the regional scale. In the case of migrating birds, the project's cumulative effects could be measured as numerical reductions of breeding birds at far-off breeding sites, as migrating adults and next-year's recruits lose access to stop-over habitat. These effects could be predicted and measured. If birds were to lose all stop-over habitat across City of American Canyon, then the numerical capacity of migration might decline for multiple species. Unfortunately, little is known about stop-over habitat requirements, such as how often migrants lose their lives for lack of stop-over habitat. Nevertheless, crude assessments are possible and imperative.

An EIR needs to be prepared to appropriately analyze the project's contribution to cumulative impacts. It also needs to present mitigation measures to minimize impacts, or to compensate for cumulative impacts. An EIR should assess the combined impacts of all projects, including this one. An EIR is needed to formulate appropriate mitigation for cumulative traffic-caused wildlife mortality.

MITIGATION MEASURES

MM BIO-1 I concur that preconstruction surveys are needed for burrowing owls. However, a preconstruction survey cannot serve as a surrogate for detection surveys. Preconstruction surveys have a specific purpose, which is take-avoidance salvage of readily detectable individuals in immediate jeopardy of harm just prior to construction. The purposes of detection surveys are to detect the species if it is present, to support determinations of absence, and to inform the CEQA review, preconstruction surveys about where the species is likely to be found on the project site, and the formulation of mitigation. To be consistent with the CDFW (2012) guidelines on burrowing owl mitigation, detection surveys are needed for burrowing owls and they need to be performed according to the guidelines. After the detection surveys are completed, then an impacts analysis is needed, and so is the formulation of mitigation measures, which might include compensatory mitigation. Based on the outcome of

detection surveys, an EIR should be prepared to adequately address impacts and mitigation related to burrowing owls.

MM BIO-2 I concur that preconstruction surveys are needed for Swainson's hawks. However, detection surveys are also needed. It is already established on eBird that Swainson's hawks are in the area and that at minimum the project would remove foraging habitat. This impact needs to be analyzed in an EIR and mitigated.

MM BIO-3 I concur that preconstruction surveys are needed for nesting raptors. However, detection surveys are needed first. Preconstruction surveys are intended to buffer or salvage nests immediately threatened by the tractor blade, but they do not inform of how many nests will be taken. The magnitude of the impact must be known or estimated in order to formulate appropriate minimization and compensatory mitigation. Detection surveys are needed to inform an EIR, which is needed to analyze potential impacts to nesting raptors.

MM BIO-4 I concur that preconstruction surveys are needed for nesting passerine birds. However, detection surveys are needed first. The same issues apply here as those I raised in MM BIO-1 through MM BIO-3. I will add that additional bird species might nest on the project site other than raptors and passerines. Killdeer might nest there, in addition to others. Detection surveys are needed for nests of all species protected by both the California and federal Migratory Bird Treaty Acts.

Additional Comments on Mitigation

The IS provides no mitigation for adverse impacts on regional movement of wildlife, nor for cumulative impacts on wildlife or even for direct impacts. At a minimum, an EIR needs to include substantial compensatory mitigation in response to the project's impacts on habitat loss and wildlife movement, including impacts to birds using the site as stop-over or staging during migration.

Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding of research to identify fatality patterns and effective impact reduction measures.

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by the increased trip generation of cars and trucks. Many animals need treatment caused by collision injuries and an increasing number appear to be injured by the turbulence of passing trucks.

Mitigation measures are also needed for management of vertebrate pests on the project site. The project site is adjacent to Clark Ranch and to Napa River and Bay Trails, so any pest control on site needs to be prevented from spilling over into designated open spaces.

The IS (page 11) says, "The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation…" I suggest the building, if constructed, should include PV solar panels to the extent the roof can sustain. The project would use electrical energy, which if not generated on site will likely come from renewable energy sources. Utility-scale renewable energy is known to kill many members of many species of birds and bats. Onsite generation would kill many fewer birds and bats, if any (no fatalities have been documented to date as a result of collisions with rooftop solar).

Thank you for your attention,



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Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in
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Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 665 professional publications, including:
- 88 peer reviewed publications
- 24 in non-reviewed proceedings
- 551 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science*, U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

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- Stockton Avenue Hotel and Condominiums Project Tiering to EIR, San Jose (2020; 19);
- Cityline Sub-block 3 South Staff Report, Sunyvale (2020; 22);
- Station East Residential/Mixed Use EIR, Union City (2020; 21);
- Multi-Sport Complex & Southeast Industrial Annexation Suppl. EIR, Elk Grove (2020; 24);
- Sun Lakes Village North EIR Amendment 5, Banning, Riverside County (2020; 27);
- 2nd comments on 1296 Lawrence Station Road, Sunnyvale (2020; 4);
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- Mesa Wind Project EA, Desert Hot Springs (2020; 31);
- 11th Street Development Project IS/MND, City of Upland (2020; 17);
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- Lots 4-12 Oddstad Way Project IS/MND, Pacifica (2020; 16);
- Declaration on DDG Visalia Warehouse project (2020; 5);
- Terraces of Lafayette EIR Addendum (2020; 24);
- AMG Industrial Annex IS/MND, Los Banos (2020; 15);
- Replies to responses on Casmalia and Linden Warehouse (2020; 15);
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- Replies to responses on 3721 Mt. Diablo Boulevard Staff Report (2020; 5);
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- Steeno Warehouse IS/MND, Hesperia (2020; 19);
- UCSF Comprehensive Parnassus Heights Plan EIR (2020; 24);
- North Pointe Business Center MND, Fresno (2020; 14);
- Casmalia and Linden Warehouse IS, Fontana (2020; 15);
- Rubidoux Commerce Center Project IS/MND, Jurupa Valley (2020; 27);
- Haun and Holland Mixed Use Center MND, Menifee (2020; 23);
- First Industrial Logistics Center II, Moreno Valley IS/MND (2020; 23);
- GLP Store Warehouse Project Staff Report (2020; 15);
- Replies on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 29);
- 2nd comments on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 34);
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- Levine-Fricke Softball Field Improvement Addendum, UC Berkeley (2020; 16);
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- 1180 Main Street Office Project MND, Redwood City (2019; 19:
- Summit Ridge Wind Farm Request for Amendment 4, Oregon (2019; 46);
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- Park & Broadway Design Review, San Diego (2019; 19);
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- Hageman Warehouse IS/MND, Bakersfield (2019; 13);
- Oakley Logistics Center EIR, Antioch (2019; 22);
- 27 South First Street IS, San Jose (2019; 23);
- 2nd replies on Times Mirror Square Project EIR, Los Angeles (2020; 11);
- Replies on Times Mirror Square Project EIR, Los Angeles (2020; 13);
- Times Mirror Square Project EIR, Los Angeles (2019; 18);
- East Monte Vista & Aviator General Plan Amend EIR Addendum, Vacaville (2019; 22);
- Hillcrest LRDP EIR, La Jolla (2019; 36);
- 555 Portola Road CUP, Portola Valley (2019; 11);
- Johnson Drive Economic Development Zone SEIR, Pleasanton (2019; 27);
- 1750 Broadway Project CEQA Exemption, Oakland (2019; 19);
- Mor Furniture Project MND, Murietta Hot Springs (2019; 27);
- Harbor View Project EIR, Redwood City (2019; 26);
- Visalia Logistics Center (2019; 13);
- Cordelia Industrial Buildings MND (2019; 14);
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- Olympic Holdings Inland Center Warehouse Project MND, Rancho Cucamonga (2019; 14);
- Replies to responses on Lawrence Equipment Industrial Warehouse, Banning (2019; 19);
- PARS Global Storage MND, Murietta (2019; 13);
- Slover Warehouse EIR Addendum, Fontana (2019; 16);
- Seefried Warehouse Project IS/MND, Lathrop (2019; 19)
- World Logistics Center Site Visit, Moreno Valley (2019; 19);
- Merced Landfill Gas-To-Energy Project IS/MND (2019; 12);
- West Village Expansion FEIR, UC Davis (2019; 11);
- Site visit, Doheny Ocean Desalination EIR, Dana Point (2019; 11);
- Replies to responses on Avalon West Valley Expansion EIR, San Jose (2019; 10);
- Avalon West Valley Expansion EIR, San Jose (2019; 22);
- Sunroad – Otay 50 EIR Addendum, San Diego (2019; 26);

- Del Rey Pointe Residential Project IS/MND, Los Angeles (2019; 34);
- 1 AMD Redevelopment EIR, Sunnyvale (2019; 22);
- Lawrence Equipment Industrial Warehouse IS/MND, Banning (2019; 14);
- SDG Commerce 330 Warehouse IS, American Canyon (2019; 21);
- PAMA Business Center IS/MND, Moreno Valley (2019; 23);
- Cupertino Village Hotel IS (2019; 24);
- Lake House IS/ND, Lodi (2019; 33);
- Campo Wind Project DEIS, San Diego County (DEIS, (2019; 14);
- Stirling Warehouse MND site visit, Victorville (2019; 7);
- Green Valley II Mixed-Use Project EIR, Fairfield (2019; 36);
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- LDK Warehouse MND, Vacaville (2018; 30);
- Gateway Crossings FEIR, Santa Clara (2018; 23);
- South Hayward Development IS/MND (2018; 9);
- CBU Specific Plan Amendment, Riverside (2018; 27);
- 2nd replies to responses on Dove Hill Road Assisted Living Project MND (2018; 11);
- Replies to responses on Dove Hill Road Assisted Living Project MND (2018; 7);
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- Deer Ridge/Shadow Lakes Golf Course EIR, Brentwood (2018; 21);
- Pyramid Asphalt BLM Finding of No Significance, Imperial County (2018; 22);
- Amáre Apartments IS/MND, Martinez (2018; 15);
- Petaluma Hill Road Cannabis MND, Santa Rosa (2018; 21);
- 2nd comments on Zeiss Innovation Center IS/MND, Dublin (2018: 12);
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- San Bernardino Logistics Center IS (2018; 19);
- CUP2017-16, Costco IS/MND, Clovis (2018; 11);
- Desert Land Ventures Specific Plan EIR, Desert Hot Springs (2018; 18);
- Ventura Hilton IS/MND (2018; 30);
- North of California Street Master Plan Project IS, Mountain View (2018: 11);
- Tamarind Warehouse MND, Fontana (2018; 16);
- Lathrop Gateway Business Park EIR Addendum (2018; 23);
- Centerpointe Commerce Center IS, Moreno Valley (2019; 18);
- Amazon Warehouse Notice of Exemption, Bakersfield (2018; 13);
- CenterPoint Building 3 project Staff Report, Manteca (2018; 23);
- Cessna & Aviator Warehouse IS/MND, Vacaville (2018; 24);
- Napa Airport Corporate Center EIR, American Canyon (2018, 15);
- 800 Opal Warehouse Initial Study, Mentone, San Bernardino County (2018; 18);
- 2695 W. Winton Ave Industrial Project IS, Hayward (2018; 22);
- Trinity Cannabis Cultivation and Manufacturing Facility DEIR, Calexico (2018; 15);
- Shoe Palace Expansion IS/MND, Morgan Hill (2018; 21);
- Newark Warehouse at Morton Salt Plant Staff Report (2018; 15);
- Northlake Specific Plan FEIR “Peer Review”, Los Angeles County (2018; 9);
- Replies to responses on Northlake Specific Plan SEIR, Los Angeles County (2018; 13);
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- Bogle Wind Turbine DEIR, east Yolo County (2017; 48);
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- Data Needed for Assessing Trail Management Impacts on Northern Spotted Owl, Marin County (2017; 5);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4);
- Pyramid Asphalt IS, Imperial County (Declaration) (2017; 5);
- San Gorgonio Crossings EIR, Riverside County (2017; 22);
- Replies to responses on Jupiter Project IS and MND, Apple Valley (2017; 12);
- Proposed World Logistics Center Mitigation Measures, Moreno Valley (2017, 2019; 12);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12);
- PG&E Company Bay Area Operations and Maintenance HCP (2017; 45);
- Central SoMa Plan DEIR (2017; 14);
- Suggested mitigation for trail impacts on northern spotted owl, Marin County (2016; 5);
- Colony Commerce Center Specific Plan DEIR, Ontario (2016; 16);
- Fairway Trails Improvements MND, Marin County (2016; 13);
- Review of Avian-Solar Science Plan (2016; 28);
- Replies on Pyramid Asphalt IS, Imperial County (2016; 5);

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- Santa Anita Warehouse MND, Rancho Cucamonga (2016; 12);
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- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9);
- Replies on 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6);
- Willow Springs Solar Photovoltaic Project DEIR, Rosamond (2015; 28);
- Sierra Lakes Commerce Center Project DEIR, Fontana (2015, 9);
- Columbia Business Center MND, Riverside (2015; 8);
- West Valley Logistics Center Specific Plan DEIR, Fontana (2015, 10);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10);
- World Logistic Center Specific Plan FEIR, Moreno Valley (2015, 12);
- Elkhorn Valley Wind Power Project Impacts, Oregon (2015; 143);
- Bay Delta Conservation Plan EIR/EIS, Sacramento (2014, 21);
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- Replies on the Addison Wind Energy Project DEIR, Mojave (2014, 15);
- Addison and Rising Tree Wind Energy Project FEIR, Mojave (2014, 12);
- Palen Solar Electric Generating System FSA (CEC), Blythe (2014, 20);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9);
- Seven Mile Hill and Glenrock/Rolling Hills impacts + Addendum, Wyoming (2014; 105);
- Rising Tree Wind Energy Project DEIR, Mojave (2014, 32);
- Replies on the Rising Tree Wind Energy Project DEIR, Mojave (2014, 15);
- Soitec Solar Development Project PEIR, Boulevard, San Diego County (2014, 18);

- Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3);
- Alta East Wind Energy Project FEIS, Tehachapi Pass (2013, 23);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16);
- Clearwater and Yakima Solar Projects DEIR, Kern County (2013, 9);
- West Antelope Solar Energy Project IS/MND, Antelope Valley (2013, 18);
- Cuyama Solar Project DEIR, Carrizo Plain (2014, 19);
- Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49);
- Kingbird Solar Photovoltaic Project EIR, Kern County (2013, 19);
- Lucerne Valley Solar Project IS/MND, San Bernardino County (2013, 12);
- Tule Wind project FEIR/FEIS (Declaration) (2013; 31);
- Sunlight Partners LANDPRO Solar Project MND (2013; 11);
- Declaration in opposition to BLM fracking (2013; 5);
- Blythe Energy Project (solar) CEC Staff Assessment (2013;16);
- Rosamond Solar Project EIR Addendum, Kern County (2013; 13);
- Pioneer Green Solar Project EIR, Bakersfield (2013; 13);
- Replies on Soccer Center Solar Project MND (2013; 6);
- Soccer Center Solar Project MND, Lancaster (2013; 10);
- Plainview Solar Works MND, Lancaster (2013; 10);
- Alamo Solar Project MND, Mojave Desert (2013; 15);
- Replies on Imperial Valley Solar Company 2 Project (2013; 10);
- Imperial Valley Solar Company 2 Project (2013; 13);
- FRV Orion Solar Project DEIR, Kern County (PP12232) (2013; 9);
- Casa Diablo IV Geothermal Development Project (2013; 6);
- Reply on Casa Diablo IV Geothermal Development Project (2013; 8);
- Alta East Wind Project FEIS, Tehachapi Pass (2013; 23);
- Metropolitan Air Park DEIR, City of San Diego (2013;);
- Davidon Homes Tentative Subdivision Rezoning Project DEIR, Petaluma (2013; 9);
- Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10);
- Campo Verde Solar project FEIR, Imperial Valley (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8);
- North Steens Transmission Line FEIS, Oregon (Declaration) (2012; 62);
- Summer Solar and Springtime Solar Projects Ism Lancaster (2012; 8);
- J&J Ranch, 24 Adobe Lane Environmental Review, Orinda (2012; 14);
- Replies on Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 8);
- Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 9);
- Desert Harvest Solar Project EIS, near Joshua Tree (2012; 15);
- Solar Gen 2 Array Project DEIR, El Centro (2012; 16);
- Ocotillo Sol Project EIS, Imperial Valley (2012; 4);
- Beacon Photovoltaic Project DEIR, Kern County (2012; 5);
- Butte Water District 2012 Water Transfer Program IS/MND (2012; 11);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16);
- City of Elk Grove Sphere of Influence EIR (2011; 28);
- Sutter Landing Park Solar Photovoltaic Project MND, Sacramento (2011; 9);

- Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4);
- Ivanpah Solar Electric Generating System (ISEGS) (Declaration) (2011; 9);
- Draft Eagle Conservation Plan Guidance, USFWS (2011; 13);
- Niles Canyon Safety Improvement Project EIR/EA (2011; 16);
- Route 84 Safety Improvement Project (Declaration) (2011; 7);
- Rebuttal on Whistling Ridge Wind Energy Power DEIS, Skamania County, (2010; 6);
- Whistling Ridge Wind Energy Power DEIS, Skamania County, Washington (2010; 41);
- Klickitat County's Decisions on Windy Flats West Wind Energy Project (2010; 17);
- St. John's Church Project DEIR, Orinda (2010; 14);
- Results Radio Zone File #2009-001 IS/MND, Conaway site, Davis (2010; 20);
- Rio del Oro Specific Plan Project FEIR, Rancho Cordova (2010;12);
- Results Radio Zone File #2009-001, Mace Blvd site, Davis (2009; 10);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Second Declaration) (2008; 17);
- Draft 1A Summary Report to CAISO (2008; 10);
- Hilton Manor Project Categorical Exemption, County of Placer (2009; 9);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142);
- Delta Shores Project EIR, south Sacramento (2009; 11 + addendum 2);
- Declaration in Support of Care's Petition to Modify D.07-09-040 (2008; 3);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Declaration) (2008; 16);
- Colusa Generating Station, California Energy Commission PSA (2007; 24);
- Rio del Oro Specific Plan Project Recirculated DEIR, Mather (2008: 66);
- Replies on Regional University Specific Plan EIR, Roseville (2008; 20);
- Regional University Specific Plan EIR, Roseville (2008: 33);
- Clark Precast, LLC's "Sugarland" project, ND, Woodland (2008: 15);
- Cape Wind Project DEIS, Nantucket (2008; 157);
- Yuba Highlands Specific Plan EIR, Spenceville, Yuba County (2006; 37);
- Replies to responses on North Table Mountain MND, Butte County (2006; 5);
- North Table Mountain MND, Butte County (2006; 15);
- Windy Point Wind Farm EIS (2006; 14 and Powerpoint slide replies);
- Shiloh I Wind Power Project EIR, Rio Vista (2005; 18);

- Buena Vista Wind Energy Project NOP, Byron (2004; 15);
- Callahan Estates Subdivision ND, Winters (2004; 11);
- Winters Highlands Subdivision IS/ND (2004; 9);
- Winters Highlands Subdivision IS/ND (2004; 13);
- Creekside Highlands Project, Tract 7270 ND (2004; 21);
- Petition to California Fish and Game Commission to list Burrowing Owl (2003; 10);
- Altamont Pass Wind Resource Area CUP renewals, Alameda County (2003; 41);
- UC Davis Long Range Development Plan: Neighborhood Master Plan (2003; 23);
- Anderson Marketplace Draft Environmental Impact Report (2003; 18);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003; 6);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002; 23);
- Replies on East Altamont Energy Center evidentiary hearing (2002; 9);
- Revised Draft Environmental Impact Report, The Promenade (2002; 7);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002; 3);
- UC Merced -- Declaration (2002; 5);
- Replies on Atwood Ranch Unit III Subdivision FEIR (2003; 22);
- Atwood Ranch Unit III Subdivision EIR (2002; 19);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002; 20);
- Silver Bend Apartments IS/MND, Placer County (2002; 13);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001; 26);
- Colusa County Power Plant IS, Maxwell (2001; 6);
- Dog Park at Catlin Park, Folsom, California (2001; 5);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000; 10);
- Metcalf Energy Center, California Energy Commission FSA (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000; 4);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9).
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Sunset Skyranch Airport Use Permit IS/MND (1999);
- Ballona West Bluffs Project Environmental Impact Report (1999; oral presentation);
- Draft Recovery Plan for Giant Garter Snake (Fed. Reg. 64(176): 49497-49498) (1999; 8);
- Draft Recovery Plan for Arroyo Southwestern Toad (1998);
- Pacific Lumber Co. (Headwaters) HCP & EIR, Fortuna (1998; 28);
- Natomas Basin HCP Permit Amendment, Sacramento (1998);
- San Diego Multi-Species Conservation Program FEIS/FEIR (1997; 10);

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8);
- Covell Village PEIR, Davis (2005; 19);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping (2003; 7.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Dog detections of bat and bird fatalities at wind farms in the Altamont Pass Wind Resource Area. East Bay Regional Park District 2019 Stewardship Seminar, Oakland, California, 13 November 2019.

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat

Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh,

Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19,

2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.

Journal	Journal
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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January 19, 2021

Michael R. Lozeau
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Subject: Comments on SDG Commerce 217 Distribution Center Project (SCH No. 2020120302)

Dear Mr. Lozeau,

We have reviewed the December 2020 Draft Initial Study/Mitigated Negative Declaration ("IS/MND") for the SDG Commerce 217 Distribution Center Project ("Project") located in the City of American Canyon ("City"). The Project proposes to construct a 217,294-SF wine distribution center, including 4,350-SF of office space, as well as 134 vehicle and 21 truck dock parking spaces, on the 10.39-acre site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Incorrect Analysis of Construction Emissions

The Bay Area Air Quality Management District ("BAAQMD") provides significance thresholds to evaluate air pollutant emissions in the form of pounds per day ("lbs/day") and tons per year ("tons/year"). CalEEMod provides three types of output files – winter, summer, and annual. Specifically, the CalEEMod User's Guide states:

> "CalEEMod provides a simple platform to calculate both construction emissions and operational emissions from a land use project. It can calculate both the ***daily*** maximum and ***annual*** average for criteria pollutants as well as annual greenhouse gas (GHG) emissions" (emphasis added).[1]

While the annual output files provide ***annual*** emissions in tons/year, both the winter and summer output files provide ***daily*** emissions estimates in lbs/day. As such, the IS/MND should have relied upon the emissions estimates provided by the Project's summer and winter output files in order to determine the significance of the Project's air quality impact. However, review of the IS/MND and CalEEMod output files, provided in Appendix B-3 to the IS/MND, demonstrates that the emissions estimates purported by the IS/MND are inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files.

Specifically, the IS/MND estimates that the Project would result in construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 13.6-, 24.6-, 1.0-, 0.9-, and 19.5-lbs/day, respectively (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, review of the "SDG Commerce 217 Wine Storage Project" winter output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.64-, 40.55-, 2.05-, 1.88-, and 22.64-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 72).

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1.

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6355	40.5472	22.6449	0.0540	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6355**	**40.5472**	**22.6449**	**0.0540**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

Similarly, review of the "SDG Commerce 217 Wine Storage Project" summer output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.63-, 40.54-, 2.05-, 1.88-, and 22.55-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 46).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As you can see in the excerpts above, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. This is incorrect, as CEQA requires disclosure of the full extent of a project's impacts prior to mitigation in order to accurately disclose the severity of an impact. By relying on incorrect and underestimated emissions estimates, the IS/MND's air quality analysis is incorrect, and the subsequent less-than-significant air quality impact conclusion should not be relied upon.

Failure to Identify Significant Air Quality Impact

The IS/MND concludes that the Project would not result in a significant impact due to mitigated construction-related ROG emissions (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, as previously discussed, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. As a result, in order to correctly evaluate the Project's estimated daily emissions based on the BAAQMD threshold in lbs/day, we reviewed the IS/MND's winter CalEEMod output file, which estimates *daily* ROG emissions of approximately 156 lbs/day (see excerpt below) (Appendix B-3, pp. 72).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As the above excerpt demonstrates, the *daily* construction-related ROG emissions estimate provided by the "SDG Commerce 217 Wine Storage Project" winter output file clearly exceeds the BAAQMD threshold of 54 lbs/day, contrary to what is stated in the IS/MND. Thus, the IS/MND's conclusion that the Project's construction-related ROG emissions would result in a less-than-significant air quality impact is incorrect. An EIR should be prepared to adequately evaluate and mitigate the Project's significant construction-related ROG emissions.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 22).[2] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project

[2] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[4]

When reviewing the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reductions to Saturday and Sunday Trip Rates

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default Saturday and Sunday operational vehicle trip rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00

As you can see in the excerpt above, the model assumes the Project's Saturday and Sunday operational vehicle trip rate would be zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Monday Thru Friday Operations" (Appendix B-3, pp. 14, 44, 70). However, the IS/MND fails to mention or substantiate the claim that the Project will only be operational Monday through Friday. Furthermore, the Air Quality Calculations ("AQ Calculations"), provided as Appendix B-2 to the IS/MND, state:

> "It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours *a day* during the peak season" (emphasis added) (Appendix B-2, pp. 10).

As the excerpt above demonstrates, the AQ Calculations fail to specify that Project operations will only occur on weekdays. As such, we cannot verify the revised Saturday and Sunday trip rates. These unsubstantiated reductions present an issue, as CalEEMod uses vehicle trip rates to calculate the

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.
[4] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.
[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

Project's emissions associated with operational motor vehicle emissions.[6] By including unsubstantiated reductions to the Project's Saturday and Sunday operational vehicle trip rates, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Energy Use Values

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default energy use values (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00

As you can see in the excerpt above, the lighting energy electricity ("LightingElect"), the non-Title 24 electricity energy intensity ("NT24E"), the non-Title 24 natural gas energy intensity ("NT24NG"), and the Title 24 natural gas energy intensity ("T24NG") values were each reduced to 0 kilowatt hours per land use size per year ("KWhr/size/year"). Furthermore, the Title 24 electricity energy intensity ("T24E") was increased to 3 KWhr/size/year. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[7] According to the User Entered Comments and Non-Default Data table, the justification provided for these changes is: "Energy use scaled down from SDG Commerce 330 Project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the AQ Calculations state:

> "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.
>
> CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices" (pp. 11).

However, these justifications are insufficient. The AQ Calculations cannot claim that "[t]he SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings" without providing sufficient calculations or an adequate source. Similarly, the AQ Calculations cannot simply state that natural gas usage was adjusted to zero without providing an adequate source or additional information. According to the CalEEMod User's Guide:

[6] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 28.
[7] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[8]

Here, however, the IS/MND fails to provide *substantial evidence* for the revised energy use values, and as a result, the changes are unsubstantiated.

These unsubstantiated reductions present an issue, as CalEEMod uses the energy use values to calculate the Project's emissions associated with building electricity and non-hearth natural gas usage.[9] By including unsubstantiated changes to the Project's energy use values, the model may underestimate the Project's energy-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Solid Waste Generation Rate

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes a manual reduction to the Project's default solid generation rate (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00

As you can see in the excerpt above, the solid waste generation rate is decreased by approximately 99%, from the default value of 204.25- to 2.00-tons per year ("tons/year"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "minimal solid waste generated" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon" (p. 100).

However, these justifications are insufficient for two reasons. First, while the IS/MND indicates that "[t]he warehouses project would produce small quantities solid waste," the IS/MND fails to provide an estimate of how much solid waste the warehouses would produce (p. 100). Second, the IS/MND fails to mention or provide a source for the 99% reduction to the solid waste generation rate. As such, we cannot verify the revised solid waste generation rate.

This unsubstantiated reduction presents an issue, as CalEEMod uses the solid waste generation rates to calculate the Project's operation greenhouse gas ("GHG") emissions associated with the disposal of solid

[8] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.
[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43
[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

waste into landfills.[11] Thus, by including an unsubstantiated reduction to the Project's solid waste generation rate, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Indoor Water Use Rate

Review of the CalEEMod output files demonstrates the "SDG Commerce 217 Wine Storage Project" model includes manual changes to the default indoor and outdoor water use rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

As you can see in the excerpt above, the indoor water use rate was decreased by nearly 100%, from the default value of 50,248,312.50- to 768-gallons per year ("gpy"), while the outdoor water use rate was increased by 9,341 gpy. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Water use scaled down from SDG Commerce 330 project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "[T]he proposed project is estimated to have an average potable *water daily demand of 142 gallons/day (gpd)*, and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. *In addition, it will use about 541 gpd of recycled water*" (emphasis added) (p. 100).

As the above excerpt demonstrates, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gallons per day ("gpd"),[13] or 249,295 gpy.[14] Thus, the model underestimates the Project's total daily water demand by approximately 239,186 gpy.[15] As a result, the indoor and outdoor water use rates inputted into the model are underestimated and inconsistent with the information provided by the IS/MND.

This underestimation presents an issue, as CalEEMod uses the water use rates to calculate the Project's GHG emissions associated with the supply and treatment of water.[16] Thus, by including underestimated

[11] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 46.
[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[13] Calculated by: (142 gallons per day) + (541 recycled gallons per day) = 683 total gpd.
[14] Calculated by: (683 gallons per day) * (365 days) = 249,295 gallons per year.
[15] (249,295 gallons per year) – (768 indoor gallons per year) – (9,341 outdoor gallons per year) = 239,186 gallons per year.
[16] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 44-45.

indoor and outdoor water use rates, the model underestimates the Project's operational emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes the following construction-related mitigation measures: "Water Exposed Area" and "Reduce Vehicle Speed on Unpaved Roads" (see excerpt below) (Appendix B-3, pp. 21, 51, 77).

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Furthermore, the model includes a 15 miles per hour ("MPH") vehicle speed (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[17] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "BAAQMD basic fugitive dust measures" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
> - All haul trucks transporting soil, sand, or other loose material off site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
> - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
> - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
> - A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency

[17] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

contact information shall also be visible to ensure compliance with applicable regulations…

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***" (p. 23).

However, these justifications are insufficient for three reasons.

First, simply because the IS/MND states the Project would implement the BAAQMD's best management practices ("BMPs") does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[18]

As you can see in the excerpt above, mitigation measures "are not part of the original project design" and are intended to go "above-and-beyond" existing regulatory requirements. As such, the inclusion of these measures, based on the Project's compliance with the BAAQMD's BMPs, is unsubstantiated.

Second, regarding these BMPs, BAAQMD guidance states:

> "For fugitive dust emissions, staff *recommends* following the current best management practices approach which has been a pragmatic and effective approach to the control of fugitive dust emissions" (emphasis added).[19]

As you can see in the excerpt above, while these BMPs are recommended, they are not explicitly required by the BAAQMD. As a result, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site.

Third, AEP guidance states:

> "While not 'mitigation', a good practice is *to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP)*. Often the

[18] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.
[19] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-47.

> MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, *it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact*" (emphasis added).[20]

As you can see in the excerpts above, *project design features are not mitigation measures and may be eliminated from the Project's design*. Thus, as the above-mentioned construction-related mitigation measures are not *formally* included as mitigation measures, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the above-mentioned construction-related mitigation measures is incorrect, and the model should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to determine the construction-related and operational emissions associated with the Project, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/MND. In our updated model, we omitted the unsubstantiated changes to the Saturday and Sunday operational vehicle trip rates, energy use values, and solid waste generation rates; corrected the indoor and outdoor water use rates; and excluded the unsubstantiated construction-related mitigation measures. Our updated analysis demonstrates that the NO_x emissions associated with Project construction exceed the 54-lbs/day threshold set by the BAAQMD, as referenced by Appendix B to the IS/MND (see table below) (Appendix B-1, pp. 7).

Construction Model	**NO_X**
SWAPE	61.54
IS/MND	40.55
% Increase	52%
BAAQMD Regional Threshold (lbs/day)	**54**
Threshold Exceeded?	***Yes***

As you can see in the excerpt above, when modeled correctly, the Project's construction-related NO_x emissions increase by approximately 52% and exceed the BAAQMD significance threshold. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/MND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

[20] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the proposed Project would result in a less-than-significant health risk impact, without conducting a quantified construction or operational health risk assessment ("HRA") (p. 26). Specifically, the IS/MND states:

> "Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD" (p. 26).

Furthermore, the IS/MND states:

> "A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation" (p. 26).

Finally, the IS/MND concludes:

> "The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***" (p. 26).

However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the IS/MND's claim that health risk impacts would be less than significant, because construction activities would be located approximately 1,500 feet from the nearest school, is incorrect. According to BAAQMD guidelines, "BAAQMD recommends that all receptors located within a 1,000 foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks or hazards from the proposed new source."[21] Here, the IS/MND states that there is "one residence about 1,000 feet east of the site" (p. 26). Moreover, further review of IS/MND demonstrates that the Project's borrow pit and stockpile hauling area is only 500 feet from the nearest residence (see excerpt below) (p. 77, Table Noise-4).

[21] "Assessing and Mitigating Local Community Risk and Hazard Impacts." BAAQMD, May 2011, *available at:* https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx, p. 5-7.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

As you can see in the excerpt above, the nearest sensitive receptor is only 500 feet from the Project. As such, pursuant to BAAQMD guidelines, the IS/MND should have prepared a quantified HRA evaluating the potential health risk impacts posed to nearby sensitive receptors.

Second, the IS/MND makes the qualitative claims that an HRA prepared for the SDG 330 project, which is "a larger project generating more vehicle trips than the proposed project," found a less-than-significant health risk impact, and "TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site" (p. 26). However, these qualitative claims are insufficient in justifying the omission of a construction and operational HRA. Simply because an HRA was prepared for a completely different project that found less-than-significant health risk impacts, does not guarantee that the health risk impacts posed by the proposed Project would be less than significant. Rather, construction of the Project will produce emissions of diesel particulate matter ("DPM"), a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 9.5 months (IS/MND, p. 12). Furthermore, the IS/MND indicates that Project operation would generate 367 daily weekday vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 45). As such, without making a reasonable effort to connect the Project's construction-related and operational TAC emissions and the potential health risks posed to nearby receptors, the IS/MND should not conclude that the Project's TAC emissions would be less than significant.

Third, by failing to prepare a construction HRA, the Project is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California. OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015.[22] This guidance document describes the types of projects that warrant the preparation of an HRA. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[23] As the Project's proposed 9.5-month construction duration vastly exceeds the 2-month requirement set forth by OEHHA, it is clear that the

[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html.
[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18.

Project meets the threshold requiring a quantified HRA under OEHHA guidance. Thus, we recommend that health risk impacts from Project construction be evaluated in an EIR, per OEHHA guidelines, in order to determine the nature and extent of the Project's health risk impacts.

Fourth, by failing to prepare an operational HRA, the Project is inconsistent with the most recent guidance published by OEHHA. Specifically, the OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[24] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent state health risk policies, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Fifth, by claiming that the Project would result in a less-than-significant health risk impact without conducting a quantified construction or operational HRA, the IS/MND fails to compare the Project's estimated excess cancer risk to the BAAQMD's specific numeric threshold of 10 in one million, as referenced by the IS/MND (p. 26).[25] Thus, the IS/MND cannot conclude that Project construction and operation would result in a less-than-significant health risk impact without quantifying the resulting cancer risk to compare to the proper threshold. As a result, the IS/MND's less-than-significant health risk impact conclusion should not be relied upon.

Screening-Level Analysis Demonstrates Significant Impacts

In an effort to demonstrate the potential health risk impacts posed by Project construction and operation to nearby, existing sensitive receptors utilizing site-specific emissions estimates, we prepared a screening-level HRA. The results of our assessment, as described below, demonstrate that the proposed Project may result in a significant impact not previously identified or addressed by the IS/MND.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the

[24] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

[25] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

[26] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

OEHHA[27] and the California Air Pollution Control Officers Associated ("CAPCOA")[28] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's incorrect and unsubstantiated air model. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The CalEEMod output files indicate that construction activities will generate 204 pounds of DPM over the 291-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{204\ lbs}{291\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00368\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.000368 grams per second ("g/s"). Subtracting the 291-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 29.2 years, approximately. The CalEEMod output files indicate that operational activities will generate 188 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{188\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00270\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00270 g/s. Construction and operational activity was simulated as a 10.39-acre rectangular area source in AERSCREEN with dimensions of 296 by 142 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

[27] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[28] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[29] According to the IS/MND, the nearest sensitive receptor is a single-family residence located approximately 500 feet, or approximately 152 meters, from the Project site (p. 77). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 3.827 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.3827 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 2.812 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2812 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule utilized in the IS/MND's CalEEMod model, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 0.55 years of the infantile stage of life (0 – 2 years). The annualized averaged concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remaining 1.45 years of the infantile stage of life, the entire child stage of life (2 – 16 years), and the entire adult stage of life (16 – 30 years).

Consistent with OEHHA, as recommended by SCAQMD, BAAQMD, and SJVAPCD guidance, and referenced by the IS/MND, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[30, 31, 32, 33] According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA,

[29] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: https://www3.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 4-36.

[30] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[31] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[32] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[33] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

we used the 95th percentile breathing rates for infants.[34] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[35] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Closest Exposed Individual at an Existing Residential Receptor

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.3827	361	4.4E-07	10	4.4E-06
3rd Trimester Duration	***0.25***			***4.4E-07***	***3rd Trimester Exposure***	***4.4E-06***
Construction	0.55	0.3827	1090	2.9E-06	10	2.9E-05
Operation	1.45	0.2812	1090	5.7E-06	10	5.7E-05
Infant Exposure Duration	***2.00***			***8.6E-06***	***Infant Exposure***	***8.6E-05***
Operation	14.00	0.2812	572	2.4E-05	3	7.3E-05
Child Exposure Duration	***14.00***			***2.4E-05***	***Child Exposure***	***7.3E-05***
Operation	14.00	0.2812	261	1.1E-05	1	1.1E-05
Adult Exposure Duration	***14.00***			***1.1E-05***	***Adult Exposure***	***1.1E-05***
Lifetime Exposure Duration	**30.00**			**4.5E-05**	**Lifetime Exposure**	**1.8E-04**

* We, along with CARB and BAAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project operation, utilizing age sensitivity factors, are approximately 11, 73, 86, and 4.4 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 180 in one million. The infant, child, adult, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and reflects recommendations from the air district. Results without age sensitivity factors are presented in the table

[34] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[35] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 11, 24, 8.6, and 0.44 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), without age sensitivity factors, is approximately 45 in one million. The adult, child, and lifetime cancer risk, without age sensitivity factors, exceeds the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. While we recommend the use of age sensitivity factors, health risk impacts exceed the BAAQMD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [36] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare an EIR with an HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 590 metric tons of CO_2 equivalents per year ("MT CO_2e/year"), which would not exceed the BAAQMD threshold of 1,100 MT CO_2e/year (see excerpt below) (p. 52, Table GHG-1).

[36] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

Furthermore, the IS/MND states:

> "The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's Climate Change Scoping Plan and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant impact***" (p. 52).

As you can see in the excerpt above, the IS/MND relies upon qualitative analyses of the Project's consistency with the SB 32 and CARB's 2017 *Scoping Plan* to determine the significance of the Project's GHG impact (p. 52). However, the IS/MND'S GHG analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

(1) The IS/MND's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The IS/MND's GHG analysis relies upon an outdated threshold;
(3) The IS/MND fails to identify a potentially significant GHG impact; and
(4) The IS/MND fails to demonstrate that the Project would be consistent with CARB's *Scoping Plan*.

(1) Incorrect and Unsubstantiated Quantitative GHG Analysis

As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). However, the IS/MND's quantitative GHG analysis should not be relied upon, as it relies upon an unsubstantiated air model. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several of the values inputted into the model are not consistent with information disclosed in the IS/MND and associated documents. As a result, the model underestimates the Project's GHG emissions, and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

(2) Incorrect Reliance on an Outdated Threshold

As discussed above, the IS/MND relies upon the BAAQMD's bright-line threshold of 1,100 MT CO_2e/year. However, this threshold is outdated and inapplicable to the proposed Project, as it was developed for the air district's planned reductions for 2020, based on AB 32.[37] Thus, this threshold only applies to projects that will become operational by the year 2020. Given that it is January 2021, and the Project has not yet been approved, the Project will not become operational until *after the year 2020*. As such, the BAAQMD's 2020 bright-line threshold of 1,100 MT CO_2e/year is inapplicable to the proposed Project. Rather, we recommend that the Project apply the AEP "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO_2 equivalents per service population per year ("MT CO_2e/SP/year").[38] In support of this threshold for projects with a horizon year beyond 2020, AEP guidance states:

> "Once the state has a full plan for 2030 (which is expected in 2017), and then *a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target*. A more conservative approach would be to apply a 2030 threshold *based on SB 32* for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update" (emphasis added).[39]

As the California Air Resources Board ("CARB") adopted *California's 2017 Climate Change Scoping Plan* in November of 2017, the proposed Project "should be evaluated based on a threshold using the 2030 target," according to the relevant guidance referenced above. As such, we recommend that an EIR be prepared, including an updated air model and comparing the Project's estimated GHG emissions to the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year.

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[37] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-20 – D-22.

[38] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

[39] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

(3) Failure to Identify a Potentially Significant GHG Impact

The IS/MND's incorrect and unsubstantiated air model indicates a potentially significant GHG impact, when applying the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year. As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). Furthermore, according to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[40] The IS/MND estimates that the Project would employ approximately 50 people (p. 82). As the Project does not contain any residential land uses, we estimate a service population of 50 people.[41] Dividing the Project's GHG emissions, as estimated by the IS/MND, by a service population of 50 people, we find that the Project would emit approximately 11.80 MT CO_2e/SP/year (see table below).[42]

IS/MND Service Population Efficiency	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**590**
Service Population	50
Service Population Efficiency	**11.80**
Threshold	2.6
Exceed?	***Yes***

As demonstrated above, when we compare the Project's service population efficiency value to the AEP "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the IS/MND. Therefore, an EIR should be prepared and recirculated for the Project, and mitigation should be implemented where necessary.

(4) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the IS/MND relies upon the Project's consistency with CARB's 2017 *Scoping Plan* to determine Project GHG significance (p. 52). However, this is incorrect, as the IS/MND fails to consider performance-based measures proposed by CARB.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[43] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation

[40] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[41] Calculated: 50 employees + 0 residents = 50 people.
[42] Calculated: (590 MT CO_2e/year) / (50 service population) = (11.80 MT CO_2e/SP/year).
[43] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[44] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2022 (Project operational year), and 2030 (target years under SB 32) (see table below and Attachment B).

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

The below table compares the 2017 *Scoping Plan* daily VMT per capita values against the daily VMT per capita values for the Project based on the IS/MND's modeling (see table below and Attachment C).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**Project**
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

As shown above, the IS/MND's modeling shows that the Project exceeds the CARB 2017 *Scoping Plan* projections for 2010, 2022, and 2030. Because the exceeds the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the Project conflicts with the CARB 2017 *Scoping Plan* and SB 375. As such, the IS/MND's claim that the proposed Project would not conflict with the CARB 2017

[44] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

Scoping Plan is incorrect and unsubstantiated. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less than significant GHG impacts.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project's air quality, health risk, and GHG emissions may result in significant impacts and should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*.[45] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[46]
Measures – Energy
Building Energy Use
Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code)
Install Programmable Thermostat Timers
Obtain Third-party HVAC Commissioning and Verification of Energy Savings
Install Energy Efficient Appliances
Install Energy Efficient Boilers
Lighting
Install Higher Efficacy Public Street and Area Lighting
Limit Outdoor Lighting Requirements
Replace Traffic Lights with LED Traffic Lights
Alternative Energy Generation
Establish Onsite Renewable or Carbon-Neutral Energy Systems
Establish Onsite Renewable Energy System – Solar Power
Establish Onsite Renewable Energy System – Wind Power
Utilize a Combined Heat and Power System
Establish Methane Recovery in Landfills
Establish Methane Recovery in Wastewater Treatment Plants
Measures – Transportation
Land Use/Location
Increase Density
Increase Location Efficiency

[45] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[46] "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

Increase Diversity of Urban and Suburban Developments (Mixed Use)
Increase Destination Accessibility
Increase Transit Accessibility
Integrate Affordable and Below Market Rate Housing
Orient Project Toward Non-Auto Corridor
Locate Project near Bike Path/Bike Lane
Neighborhood/Site Enhancements
Provide Pedestrian Network Improvements, such as: • Compact, mixed-use communities • Interconnected street network • Narrower roadways and shorter block lengths • Sidewalks • Accessibility to transit and transit shelters • Traffic calming measures and street trees • Parks and public spaces • Minimize pedestrian barriers
Provide Traffic Calming Measures, such as: • Marked crosswalks • Count-down signal timers • Curb extensions • Speed tables • Raised crosswalks • Raised intersections • Median islands • Tight corner radii • Roundabouts or mini-circles • On-street parking • Planter strips with trees • Chicanes/chokers
Implement a Neighborhood Electric Vehicle (NEV) Network.
Create Urban Non-Motorized Zones
Incorporate Bike Lane Street Design (on-site)
Provide Bike Parking in Non-Residential Projects
Provide Bike Parking with Multi-Unit Residential Projects
Provide Electric Vehicle Parking
Dedicate Land for Bike Trails
Parking Policy/Pricing
Limit Parking Supply through: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements

• Provision of shared parking
Unbundle Parking Costs from Property Cost
Implement Market Price Public Parking (On-Street)
Require Residential Area Parking Permits
Commute Trip Reduction Programs
Implement Commute Trip Reduction (CTR) Program – Voluntary • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) • New employee orientation of trip reduction and alternative mode options • Event promotions and publications • Flexible work schedule for employees • Transit subsidies • Parking cash-out or priced parking • Shuttles • Emergency ride home
Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring • Established performance standards (e.g. trip reduction requirements) • Required implementation • Regular monitoring and reporting
Provide Ride-Sharing Programs • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement.
Implement Subsidized or Discounted Transit Program
Provide Ent of Trip Facilities, including: • Showers • Secure bicycle lockers • Changing spaces
Encourage Telecommuting and Alternative Work Schedules, such as: • Staggered starting times • Flexible schedules • Compressed work weeks
Implement Commute Trip Reduction Marketing, such as: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications

Implement Preferential Parking Permit Program
Implement Car-Sharing Program
Implement School Pool Program
Provide Employer-Sponsored Vanpool/Shuttle
Implement Bike-Sharing Programs
Implement School Bus Program
Price Workplace Parking, such as: • Explicitly charging for parking for its employees; • Implementing above market rate pricing; • Validating parking only for invited guests; • Not providing employee parking and transportation allowances; and • Educating employees about available alternatives.
Implement Employee Parking "Cash-Out"
Transit System Improvements
Transit System Improvements, including: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.
Implement Transit Access Improvements, such as: • Sidewalk/crosswalk safety enhancements • Bus shelter improvements
Expand Transit Network
Increase Transit Service Frequency/Speed
Provide Bike Parking Near Transit
Provide Local Shuttles
Road Pricing/Management
Implement Area or Cordon Pricing
Improve Traffic Flow, such as: • Signalization improvements to reduce delay; • Incident management to increase response time to breakdowns and collisions; • Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and

• Speed management to reduce high free-flow speeds.
Required Project Contributions to Transportation Infrastructure Improvement Projects
Install Park-and-Ride Lots
Vehicles
Electrify Loading Docs and/or Require Idling-Reduction Systems
Utilize Alternative Fueled Vehicles, such as: • Biodiesel (B20) • Liquefied Natural Gas (LNG) • Compressed Natural Gas (CNG)
Utilize Electric or Hybrid Vehicles
Measures – Water
Water Supply
Use Reclaimed Water
Use Gray Water
Use Locally Sourced Water Supply
Water Use
Install Low-Flow Water Fixtures
Adopt a Water Conservation strategy
Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as: • Reducing lawn sizes; • Planting vegetation with minimal water needs, such as native species; • Choosing vegetation appropriate for the climate of the project site; • Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.
Use Water-Efficient Landscape Irrigation Systems (“Smart” irrigation control systems)
Reduce Turf in Landscapes and Lawns
Plant Native or Drought-Resistant Trees and Vegetation
Measures – Area Landscaping
Landscaping Equipment
Prohibit Gas Powered Landscape Equipment
Implement Lawnmower Exchange Program
Electric Yard Equipment Compatibility
Measures – Solid Waste
Solid Waste
Institute Recycling and Composting Services
Recycle Demolished Construction Material

Measures – Vegetation
Vegetation
Urban Tree Planting
Create New Vegetated Open Space
Measures – Construction
Construction
Use Alternative Fuels for Construction Equipment
Urban Tree Planting
Use Electric and Hybrid Construction Equipment
Limit Construction Equipment Idling Beyond Regulation Requirements
Institute a Heavy-Duty Off-Road Vehicle Plan, including: • Construction vehicle inventory tracking system; • Requiring hour meters on equipment; • Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and • Daily logging of the operating hours of the equipment.
Implement a Construction Vehicle Inventory Tracking System
Measures – Miscellaneous
Miscellaneous
Establish a Carbon Sequestration Project, such as: • Geologic sequestration or carbon capture and storage techniques, in which CO_2 from point sources is captured and injected underground; • Terrestrial sequestration in which ecosystems are established or preserved to serve as CO_2 sinks; • Novel techniques involving advanced chemical or biological pathways; or • Technologies yet to be discovered.
Establish Off-Site Mitigation
Use Local and Sustainable Building Materials
Require best Management Practices in Agriculture and Animal Operations
Require Environmentally Responsible Purchasing, such as: • Purchasing products with sustainable packaging; • Purchasing post-consumer recycled copier paper, paper towels, and stationary; • Purchasing and stocking communal kitchens with reusable dishes and utensils; • Choosing sustainable cleaning supplies; • Leasing equipment from manufacturers who will recycle the components at their end of life; • Choosing ENERGY STAR appliances and Water Sense-certified water fixtures; • Choosing electronic appliances with built in sleep-mode timers; • Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and • Choosing locally-made and distributed products.
Implement an Innovative Strategy for GHG Mitigation

Measures – General Plans
General Plans
Fund Incentives for Energy Efficiency, such as: • Retrofitting or designing new buildings, parking lots, streets, and public areas with energy-efficient lighting; • Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances; • Retrofitting or purchasing new low-emissions equipment; • Purchasing electric or hybrid vehicles; • Investing in renewable energy systems
Establish a Local Farmer's Market
Establish Community Gardens
Plant Urban Shade Trees
Implement Strategies to Reduce Urban Heat-Island Effect, such as: • Planting urban shade trees; • Installing reflective roofs; and • Using light-colored or high-albedo pavements and surfaces.

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project from NEDC's *Diesel Emission Controls in Construction Projects.*[47] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

NEDC's *Diesel Emission Controls in Construction Projects*[48]
Measures – Diesel Emission Control Technology
a. Diesel Onroad Vehicles All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
b. Diesel Generators All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
c. Diesel Nonroad Construction Equipment i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site

[47] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

[48] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines 50hp and greater and by a minimum of 20% for engines less than 50hp.
d. Upon confirming that the diesel vehicle, construction equipment, or generator has either an engine meeting Tier 4 non road emission standards or emission control technology, as specified above, installed and functioning, the developer will issue a compliance sticker. All diesel vehicles, construction equipment, and generators on site shall display the compliance sticker in a visible, external location as designated by the developer.
e. Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[49] approved by the original engine manufacturer with sulfur content of 15 ppm or less.
Measures – Idling Requirements
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized and shall not exceed the time allowed under state and local laws.
Measures – Additional Diesel Requirements
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
Reporting

[49] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes: i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number. ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level. iii. The Certification Statement signed and printed on the contractor's letterhead.
b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date. ii. Any problems with the equipment or emission controls. iii. Certified copies of fuel deliveries for the time period that identify: 1. Source of supply 2. Quantity of fuel 3. Quality of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include an updated health risk and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachments A-C:	SWAPE GHG and VMT Calculations
Attachment D:	SWAPE Project CalEEMod Modeling
Attachment E:	SWAPE Project AERSCREEN Modeling
Attachment F:	Paul Rosenfeld CV
Attachment G:	Matt Hagemann CV

GHG CALCULATIONS: IS/MND Modeling

Line (L)	Value	Unit
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
1	765,788	Project Total VMT (CalEEMod Annual Output, Tbl. 4.2 Trip Summary)
2	79.15%	Passenger and Light-Duty VMT Fleet Mix (CalEEMod Annual Output, Tbl. 4.4 Fleet Mix)
3	606,115	VMT from Passenger & Light-Duty Vehicles [Calc: (L1*L2)]
4	1,661	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L3/365)]
5	50.00	Service Population [0 residents + 50 long-term jobs]
6	33.21	Daily VMT Per Capita [(Calc: L4/L5)]

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**Project**
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

SDG Commerce 217 Wine Storage Project

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2378	2.4411	1.8763	4.5000e-003	0.3263	0.0945	0.4208	0.1396	0.0882	0.2278	0.0000	405.0842	405.0842	0.0669	0.0000	406.7570
2022	1.1831	0.1227	0.1686	2.8000e-004	3.0200e-003	6.3100e-003	9.3300e-003	8.0000e-004	5.8600e-003	6.6600e-003	0.0000	24.3706	24.3706	6.6600e-003	0.0000	24.5372
Maximum	**1.1831**	**2.4411**	**1.8763**	**4.5000e-003**	**0.3263**	**0.0945**	**0.4208**	**0.1396**	**0.0882**	**0.2278**	**0.0000**	**405.0842**	**405.0842**	**0.0669**	**0.0000**	**406.7570**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2378	2.4411	1.8763	4.5000e-003	0.3263	0.0945	0.4208	0.1396	0.0882	0.2278	0.0000	405.0840	405.0840	0.0669	0.0000	406.7568
2022	1.1831	0.1227	0.1686	2.8000e-004	3.0200e-003	6.3100e-003	9.3300e-003	8.0000e-004	5.8600e-003	6.6600e-003	0.0000	24.3706	24.3706	6.6600e-003	0.0000	24.5371
Maximum	**1.1831**	**2.4411**	**1.8763**	**4.5000e-003**	**0.3263**	**0.0945**	**0.4208**	**0.1396**	**0.0882**	**0.2278**	**0.0000**	**405.0840**	**405.0840**	**0.0669**	**0.0000**	**406.7568**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	1.1555	1.1555
2	6-1-2021	8-31-2021	0.8846	0.8846
3	9-1-2021	11-30-2021	0.6373	0.6373
5	3-1-2022	5-31-2022	1.3057	1.3057
		Highest	1.3057	1.3057

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	325.4885	325.4885	0.0290	6.6300e-003	328.1894
Mobile	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Offroad	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Waste						0.0000	0.0000		0.0000	0.0000	41.4609	0.0000	41.4609	2.4503	0.0000	102.7176
Water						0.0000	0.0000		0.0000	0.0000	0.0761	0.1751	0.2512	7.8400e-003	1.9000e-004	0.5032
Total	**1.2388**	**2.0945**	**2.8911**	**6.9700e-003**	**0.3988**	**0.0988**	**0.4976**	**0.1071**	**0.0912**	**0.1983**	**41.5370**	**936.5438**	**978.0809**	**2.5607**	**6.8200e-003**	**1,044.1313**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	325.4885	325.4885	0.0290	6.6300e-003	328.1894
Mobile	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Offroad	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Waste						0.0000	0.0000		0.0000	0.0000	41.4609	0.0000	41.4609	2.4503	0.0000	102.7176
Water						0.0000	0.0000		0.0000	0.0000	0.0761	0.1751	0.2512	7.8400e-003	1.9000e-004	0.5032
Total	**1.2388**	**2.0945**	**2.8911**	**6.9700e-003**	**0.3988**	**0.0988**	**0.4976**	**0.1071**	**0.0912**	**0.1983**	**41.5370**	**936.5438**	**978.0809**	**2.5607**	**6.8200e-003**	**1,044.1313**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0994**	**0.0102**	**0.1096**	**0.0506**	**9.4000e-003**	**0.0600**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0994**	**0.0102**	**0.1096**	**0.0506**	**9.4000e-003**	**0.0600**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5940	45.5940	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.1185**	**0.0203**	**0.1388**	**0.0595**	**0.0187**	**0.0782**	**0.0000**	**45.5940**	**45.5940**	**0.0148**	**0.0000**	**45.9626**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5939	45.5939	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.1185**	**0.0203**	**0.1388**	**0.0595**	**0.0187**	**0.0782**	**0.0000**	**45.5939**	**45.5939**	**0.0148**	**0.0000**	**45.9626**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.1662**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.1662**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420
Unmitigated	0.1106	0.6758	1.3456	4.7300e-003	0.3988	4.4100e-003	0.4032	0.1071	4.1400e-003	0.1112	0.0000	435.4204	435.4204	0.0169	0.0000	435.8420

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	281.5411	281.5411	0.0282	5.8200e-003	283.9808
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	281.5411	281.5411	0.0282	5.8200e-003	283.9808
NaturalGas Mitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
NaturalGas Unmitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	823544	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**43.9475**	**43.9475**	**8.4000e-004**	**8.1000e-004**	**44.2086**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	823544	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	43.9475	43.9475	8.4000e-004	8.1000e-004	44.2086
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**43.9475**	**43.9475**	**8.4000e-004**	**8.1000e-004**	**44.2086**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	2.11862e+006	278.6866	0.0279	5.7700e-003	281.1016
Total		**281.5411**	**0.0282**	**5.8300e-003**	**283.9808**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	2.11862e+006	278.6866	0.0279	5.7700e-003	281.1016
Total		**281.5411**	**0.0282**	**5.8300e-003**	**283.9808**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Unmitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2512	7.8400e-003	1.9000e-004	0.5032
Unmitigated	0.2512	7.8400e-003	1.9000e-004	0.5032

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.239954 / 0.009341	0.2512	7.8400e-003	1.9000e-004	0.5032
Total		**0.2512**	**7.8400e-003**	**1.9000e-004**	**0.5032**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.239954 / 0.009341	0.2512	7.8400e-003	1.9000e-004	0.5032
Total		**0.2512**	**7.8400e-003**	**1.9000e-004**	**0.5032**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.4609	2.4503	0.0000	102.7176
Unmitigated	41.4609	2.4503	0.0000	102.7176

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	204.25	41.4609	2.4503	0.0000	102.7176
Total		**41.4609**	**2.4503**	**0.0000**	**102.7176**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	204.25	41.4609	2.4503	0.0000	102.7176
Total		**41.4609**	**2.4503**	**0.0000**	**102.7176**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1484	1.3782	1.5074	2.0000e-003		0.0913	0.0913		0.0840	0.0840	0.0000	175.4516	175.4516	0.0567	0.0000	176.8702
Total	**0.1484**	**1.3782**	**1.5074**	**2.0000e-003**		**0.0913**	**0.0913**		**0.0840**	**0.0840**	**0.0000**	**175.4516**	**175.4516**	**0.0567**	**0.0000**	**176.8702**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.2515	61.8015	40.3160	0.1004	20.0170	2.1495	22.0624	10.1646	1.9977	12.0464	0.0000	9,996.8945	9,996.8945	1.8722	0.0000	10,043.7005
2022	155.6070	11.1543	14.9681	0.0239	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,319.9089	2,319.9089	0.7167	0.0000	2,337.8264
Maximum	**155.6070**	**61.8015**	**40.3160**	**0.1004**	**20.0170**	**2.1495**	**22.0624**	**10.1646**	**1.9977**	**12.0464**	**0.0000**	**9,996.8945**	**9,996.8945**	**1.8722**	**0.0000**	**10,043.7005**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.2515	61.8015	40.3160	0.1004	20.0170	2.1495	22.0624	10.1646	1.9977	12.0464	0.0000	9,996.8945	9,996.8945	1.8722	0.0000	10,043.7005
2022	155.6070	11.1543	14.9681	0.0239	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,319.9089	2,319.9089	0.7167	0.0000	2,337.8264
Maximum	**155.6070**	**61.8015**	**40.3160**	**0.1004**	**20.0170**	**2.1495**	**22.0624**	**10.1646**	**1.9977**	**12.0464**	**0.0000**	**9,996.8945**	**9,996.8945**	**1.8722**	**0.0000**	**10,043.7005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1994**	**14.4225**	**19.5197**	**0.0441**	**2.2804**	**0.7435**	**3.0238**	**0.6102**	**0.6858**	**1.2960**		**4,528.4091**	**4,528.4091**	**0.5892**	**4.8700e-003**	**4,544.5887**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1994**	**14.4225**	**19.5197**	**0.0441**	**2.2804**	**0.7435**	**3.0238**	**0.6102**	**0.6858**	**1.2960**		**4,528.4091**	**4,528.4091**	**0.5892**	**4.8700e-003**	**4,544.5887**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Unmitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
NaturalGas Unmitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2256.29	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.25629	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**1.1417**	**10.6017**	**11.5952**	**0.0154**		**0.7023**	**0.7023**		**0.6461**	**0.6461**		**1,487.7099**	**1,487.7099**	**0.4812**		**1,499.7387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/MND's model.

Land Use - Consistent with the IS/MND's model.

Construction Phase - Consistent with the IS/MND's model.

Grading - Consistent with the IS/MND's model.

Trips and VMT - Consistent with the IS/MND's model.

Vehicle Trips - Weekday trip rate consistent with the IS/MND's model. See SWAPE comment regarding Saturday and Sunday trip rates.

Energy Use - See SWAPE comment regarding energy use values.

Water And Wastewater - See SWAPE comment regarding to water use rates.

Solid Waste - See SWAPE comment regarding solid waste generation rate,

Operational Off-Road Equipment - Consistent with the IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	5/20/2022	5/13/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	11/5/2021
tblConstructionPhase	PhaseEndDate	5/7/2021	5/28/2021
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	239,954.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.3254	61.5419	41.0487	0.0974	20.0170	2.1521	22.0624	10.1646	2.0002	12.0464	0.0000	9,676.6805	9,676.6805	1.9073	0.0000	9,724.3627
2022	155.6125	11.1623	14.9532	0.0238	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,311.4860	2,311.4860	0.7166	0.0000	2,329.3999
Maximum	**155.6125**	**61.5419**	**41.0487**	**0.0974**	**20.0170**	**2.1521**	**22.0624**	**10.1646**	**2.0002**	**12.0464**	**0.0000**	**9,676.6805**	**9,676.6805**	**1.9073**	**0.0000**	**9,724.3627**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.3254	61.5419	41.0487	0.0974	20.0170	2.1521	22.0624	10.1646	2.0002	12.0464	0.0000	9,676.6805	9,676.6805	1.9073	0.0000	9,724.3627
2022	155.6125	11.1623	14.9532	0.0238	0.2547	0.5687	0.6919	0.0676	0.5232	0.5559	0.0000	2,311.4860	2,311.4860	0.7166	0.0000	2,329.3999
Maximum	**155.6125**	**61.5419**	**41.0487**	**0.0974**	**20.0170**	**2.1521**	**22.0624**	**10.1646**	**2.0002**	**12.0464**	**0.0000**	**9,676.6805**	**9,676.6805**	**1.9073**	**0.0000**	**9,724.3627**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1124**	**14.6198**	**19.6422**	**0.0425**	**2.2804**	**0.7437**	**3.0240**	**0.6102**	**0.6860**	**1.2962**		**4,368.1759**	**4,368.1759**	**0.5919**	**4.8700e-003**	**4,384.4239**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**7.1124**	**14.6198**	**19.6422**	**0.0425**	**2.2804**	**0.7437**	**3.0240**	**0.6102**	**0.6860**	**1.2962**		**4,368.1759**	**4,368.1759**	**0.5919**	**4.8700e-003**	**4,384.4239**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

SDG Commerce 217 Wine Storage Project - Napa County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
2	Grading	Grading	4/10/2021	5/28/2021	5	35	
3	Building Construction	Building Construction	5/8/2021	11/5/2021	5	130	
4	Paving	Paving	3/26/2022	4/22/2022	5	20	
5	Architectural Coating	Architectural Coating	4/23/2022	5/13/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**155.4988**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Unmitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	365.05	365.05	1,070,291	1,070,291
Total	367.22	365.05	365.05	1,070,291	1,070,291

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
NaturalGas Unmitigated	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2256.29	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.25629	0.0243	0.2212	0.1858	1.3300e-003		0.0168	0.0168		0.0168	0.0168		265.4454	265.4454	5.0900e-003	4.8700e-003	267.0228
Total		**0.0243**	**0.2212**	**0.1858**	**1.3300e-003**		**0.0168**	**0.0168**		**0.0168**	**0.0168**		**265.4454**	**265.4454**	**5.0900e-003**	**4.8700e-003**	**267.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1417	10.6017	11.5952	0.0154		0.7023	0.7023		0.6461	0.6461		1,487.7099	1,487.7099	0.4812		1,499.7387
Total	**1.1417**	**10.6017**	**11.5952**	**0.0154**		**0.7023**	**0.7023**		**0.6461**	**0.6461**		**1,487.7099**	**1,487.7099**	**0.4812**		**1,499.7387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Start date and time 01/12/21 12:34:14

AERSCREEN 16216

SDG Commerce 217 Construction

SDG Commerce 217 Construction

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.368E-02 g/s	0.292E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	296.00 meters	971.13 feet
Area Source Width:	142.00 meters	465.88 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	20359	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters

 Dominant Surface Profile: Urban

 Dominant Climate Type:    Average Moisture

 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON



 AERSCREEN output file:

 2021.01.12_SDGCommerce217_Construction.out



 *** AERSCREEN Run is Ready to Begin



 No terrain used, AERMAP will not be run
**************************************************

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture
Season              Albedo     Bo       zo
Winter               0.35     1.50     1.000
Spring               0.14     1.00     1.000
Summer               0.16     2.00     1.000
Autumn               0.18     2.00     1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR   started 01/12/21 12:35:31
 ****************************************

  Running AERMOD
 Processing Winter

Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
```

```
**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *******************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 ****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

FLOWSECTOR   ended 01/12/21 12:35:46


REFINE       started 01/12/21 12:35:46


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


REFINE       ended 01/12/21 12:35:48


 *********************************************

 AERSCREEN Finished Successfully

 But with Warnings

 Check log file for details

 *********************************************


 Ending date and time  01/12/21 12:35:50
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.28843E+01         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30847E+01        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32687E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34322E+01        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35779E+01       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37104E+01       125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38271E+01       150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.38304E+01       151.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31267E+01       175.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24599E+01       200.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20819E+01       225.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18360E+01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16503E+01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14940E+01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13625E+01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12489E+01       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.11506E+01       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10646E+01       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98884E+00       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92250E+00       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86262E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80956E+00       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76136E+00       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71849E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67922E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64332E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61090E+00       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58103E+00       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55355E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52843E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50513E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48341E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46317E+00       775.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44445E+00       800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42709E+00       825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41094E+00       850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39586E+00       875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38151E+00       900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36795E+00       925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35525E+00       950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34332E+00       975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33210E+00      1000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32153E+00      1025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31157E+00      1050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30208E+00      1075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29301E+00      1100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28442E+00      1125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27628E+00      1150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26854E+00      1175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

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   0.26115E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25408E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24735E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24094E+00      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23481E+00      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22896E+00      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22337E+00      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21796E+00      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21277E+00      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20779E+00      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20301E+00      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19843E+00      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19403E+00      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18980E+00      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18573E+00      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18181E+00      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17804E+00      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.17440E+00      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17090E+00      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16750E+00      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16421E+00      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16102E+00      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15795E+00      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15498E+00      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15210E+00      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14932E+00      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14661E+00      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14397E+00      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14142E+00      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13894E+00      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13654E+00      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13421E+00      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13195E+00      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12975E+00      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12762E+00      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12556E+00      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12355E+00      2100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12160E+00      2125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11969E+00      2150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11784E+00      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11603E+00      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11428E+00      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11257E+00      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11090E+00      2275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10929E+00      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10771E+00      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10617E+00      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10467E+00      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10320E+00      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10178E+00      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.10038E+00      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99022E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97694E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96397E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95130E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93884E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92667E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91477E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91544E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90375E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89231E-01      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88113E-01      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87018E-01      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85947E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84898E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83872E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82866E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.81882E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80917E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79972E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79046E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78139E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.77249E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76377E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75521E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74682E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73860E-01      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73052E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72260E-01      3150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71483E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70720E-01      3200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69970E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69235E-01      3250.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68513E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67804E-01      3300.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67107E-01      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66423E-01      3350.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65751E-01      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65090E-01      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64441E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63803E-01      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63176E-01      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62559E-01      3500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61953E-01      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61357E-01      3550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60771E-01      3575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60194E-01      3600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59627E-01      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59069E-01      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58520E-01      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.57980E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57448E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56925E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56410E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55903E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55404E-01      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54912E-01      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54428E-01      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53951E-01      3900.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53482E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53019E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52564E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52115E-01      4000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51673E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51237E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50807E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50384E-01      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.49967E-01      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49556E-01      4150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49150E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48751E-01      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48356E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47968E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47585E-01      4275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47206E-01      4300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46834E-01      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46466E-01      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46103E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45745E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45392E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45044E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44700E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44361E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44026E-01      4525.00      0.00   5.0        Winter       0-360   10011001
```

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43695E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43369E-01      4575.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43047E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42729E-01      4625.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42415E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42105E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41800E-01      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41497E-01      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41199E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40904E-01      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40613E-01      4800.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40326E-01      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40151E-01      4850.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.40006E-01      4875.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39863E-01      4900.00      0.00   5.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39721E-01      4925.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

```
   0.39580E-01      4950.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39441E-01      4975.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.39302E-01      5000.00      0.00   5.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

Start date and time 01/08/21 14:23:57

AERSCREEN 16216

SDG Commerce

SDG Commerce

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.270E-02 g/s	0.215E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	296.00 meters	971.13 feet
Area Source Width:	142.00 meters	465.88 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	20359	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters

 Dominant Surface Profile: Urban
 Dominant Climate Type:    Average Moisture

 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON




 AERSCREEN output file:
 2021.01.08_SDG_Operation.out



 *** AERSCREEN Run is Ready to Begin




 No terrain used, AERMAP will not be run
**************************************************

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/08/21 14:24:56
 ****************************************


  Running AERMOD
 Processing Winter


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
```

```
**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *******************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 ****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************
```

```
Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP
 *****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30


    ********   WARNING MESSAGES   ********

 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP

FLOWSECTOR   ended 01/08/21 14:25:16


REFINE       started 01/08/21 14:25:16


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********
```

```
 CO W320      36       URBOPT: Input Parameter May Be Out-of-Range for Parameter
  URB-POP


REFINE       ended 01/08/21 14:25:18


 ********************************************

 AERSCREEN Finished Successfully

 But with Warnings

 Check log file for details

 ********************************************


 Ending date and time  01/08/21 14:25:20
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.21194E+01         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22666E+01        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24018E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25219E+01        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26290E+01       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27264E+01       125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28121E+01       150.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.28145E+01       151.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22975E+01       175.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18075E+01       200.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15297E+01       225.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13490E+01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12126E+01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10978E+01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10012E+01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91770E+00       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.84543E+00       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78221E+00       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72658E+00       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67784E+00       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63383E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59484E+00       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55943E+00       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52793E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49907E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47270E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44888E+00       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42693E+00       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40674E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38828E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37116E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35520E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34033E+00       775.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32657E+00       800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31382E+00       825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30195E+00       850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29087E+00       875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28032E+00       900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27036E+00       925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26103E+00       950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25226E+00       975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24402E+00      1000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23626E+00      1025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22893E+00      1050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22196E+00      1075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21530E+00      1100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20899E+00      1125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20300E+00      1150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19732E+00      1175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.19189E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18669E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18175E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17704E+00      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17254E+00      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16824E+00      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16413E+00      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16015E+00      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15634E+00      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15268E+00      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14917E+00      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14580E+00      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14257E+00      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13946E+00      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13647E+00      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13359E+00      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13082E+00      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.12815E+00      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12557E+00      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12308E+00      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12066E+00      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11832E+00      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11606E+00      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11388E+00      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11176E+00      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10972E+00      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10773E+00      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10579E+00      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10391E+00      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10209E+00      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10033E+00      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98613E-01      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96951E-01      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95339E-01      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93773E-01      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92259E-01      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90784E-01      2100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89347E-01      2125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87948E-01      2150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86585E-01      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85258E-01      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83967E-01      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82713E-01      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81491E-01      2275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80301E-01      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79141E-01      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78010E-01      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76908E-01      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75832E-01      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74783E-01      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.73759E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72759E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71783E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70830E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69899E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68984E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68090E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67216E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67264E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66405E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65565E-01      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64743E-01      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63939E-01      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63152E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62382E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61627E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60889E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.60165E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59457E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58762E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58082E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57415E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56761E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56120E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55491E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54875E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54270E-01      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53677E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53095E-01      3150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52524E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51963E-01      3200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51413E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50873E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50342E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.49821E-01   3300.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.49309E-01   3325.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.48806E-01   3350.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.48312E-01   3375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.47827E-01   3400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.47350E-01   3425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.46881E-01   3450.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.46420E-01   3475.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.45967E-01   3500.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.45522E-01   3525.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.45084E-01   3550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.44653E-01   3575.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.44229E-01   3600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43813E-01   3625.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43403E-01   3650.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.42999E-01   3675.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.42602E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42212E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41827E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41449E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41076E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40709E-01      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40348E-01      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39993E-01      3875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39642E-01      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39297E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38957E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38623E-01      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38293E-01      4000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37968E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37648E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37332E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37021E-01      4100.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.36715E-01      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36412E-01      4149.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36115E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35821E-01      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35531E-01      4225.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35246E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34964E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34686E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34412E-01      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34142E-01      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33876E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33613E-01      4400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33353E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33097E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32845E-01      4475.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32595E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32349E-01      4525.00      0.00  10.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32107E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31867E-01      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31630E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31397E-01      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31166E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30938E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30714E-01      4700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30491E-01      4725.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30272E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30056E-01      4775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29842E-01      4800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29631E-01      4825.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29502E-01      4850.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29396E-01      4875.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29290E-01      4900.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.29186E-01      4924.99      0.00  15.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
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   0.29083E-01      4950.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.28980E-01      4975.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
   0.28878E-01      5000.00      0.00   0.0        Winter       0-360   10010612
7.12  0.119  0.300  0.020  130.   95.    -20.5 1.000   1.50   0.35    0.50   10.0
280.0    2.0
```

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association.* Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The Southern District of Illinois
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 3:19-cv-00302-SMY-GCS
Rosenfeld Deposition. 2-19-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

EXHIBIT C

California Air Resources Board

Quantification Methodology

Strategic Growth Council
Affordable Housing and Sustainable Communities Program

California Climate Investments

November 1, 2019

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List of Acronyms and Abbreviations

Acronym	Term
AHSC	Affordable Housing and Sustainable Communities
CARB	California Air Resources Board
CMAQ	Congestion Mitigation and Air Quality
Diesel PM_{10}	diesel particulate matter with a diameter less than 10 micrometers
DC	direct current
g	grams
gal	gallons
GGRF	Greenhouse Gas Reduction Fund
GHG	greenhouse gas
ICP	Integrated Connectivity Project Area
kg	kilograms
kWh	kilowatt hours
lbs	pounds
$MTCO_2e$	metric tons of carbon dioxide equivalent
NO_x	nitrous oxide
$PM_{2.5}$	particulate matter with a diameter less than 2.5 micrometers
PV	photovoltaic
RIPA	Rural Innovation Project Area
ROG	reactive organic gas
scf	standard cubic feet
SGC	Strategic Growth Council
TOD	Transit Oriented Development Project Area
VMT	vehicle miles traveled

Section A. Introduction

California Climate Investments is a statewide initiative that puts billions of Cap-and-Trade dollars to work facilitating GHG emission reductions; strengthening the economy; improving public health and the environment; and providing benefits to residents of disadvantaged communities, low-income communities, and low-income households, collectively referred to as "priority populations." Where applicable and to the extent feasible, California Climate Investments must maximize economic, environmental, and public health co-benefits to the State.

CARB is responsible for providing guidance on estimating the GHG emission reductions and co-benefits from projects receiving monies from the GGRF. This guidance includes quantification methodologies, co-benefit assessment methodologies, and benefit calculator tools. CARB develops these methodologies and tools based on the project components eligible for funding by each administering agency, as reflected in the program expenditure records available at: www.arb.ca.gov/cci-expenditurerecords.

For the SGC AHSC Program, CARB and SGC developed this AHSC Quantification Methodology to provide guidance for estimating the GHG emission reductions and selected co-benefits of each proposed project type. This methodology uses calculations to estimate GHG emission reductions from avoided passenger VMT as a result of land use, housing, and transportation strategies to support infill, compact, and affordable housing development projects, in addition to GHG emission reductions from solar PV electricity generation.

The AHSC Benefits Calculator Tool automates methods described in this document, provides a link to a step-by-step user guide with a project example, and outlines documentation requirements. Applicants will estimate and SGC will report the total project GHG emission reductions and co-benefits estimated using the AHSC Benefits Calculator Tool, as well as the total project GHG emission reductions per dollar of GGRF funds requested. The AHSC Benefits Calculator Tool is available for download at: www.arb.ca.gov/cci-resources.

Using many of the same inputs required to estimate GHG emission reductions, the AHSC Benefits Calculator Tool estimates the following co-benefits and key variables from AHSC projects:

- Passenger VMT reductions (miles);
- Net density (dwelling units per acre);
- Renewable energy generation (kWh);
- Local and remote ROG emission reductions (lbs);
- Local and remote NO_x emission reductions (lbs);
- Local and remote $PM_{2.5}$ emission reductions (lbs);
- Local diesel PM_{10} emission reductions (lbs);

- Fossil fuel use reductions (gallons);
- Travel cost savings ($); and
- Energy and fuel cost savings ($).

Additional co benefits for which CARB assessment methodologies were not incorporated into the Benefits Calculator Tool may also be applicable to the project. Applicants should consult the AHSC Guidelines[1], solicitation materials, and agreements to ensure they meet AHSC requirements. All CARB co-benefit assessment methodologies are available at: www.arb.ca.gov/cci-cobenefits.

Methodology Development

CARB and SGC developed this Quantification Methodology consistent with the guiding principles of California Climate Investments, including ensuring transparency and accountability.[2] CARB developed this AHSC Quantification Methodology to be used to estimate the outcomes of proposed projects, inform project selection, and track results of funded projects. The implementing principles ensure that the methodology would:

- Apply at the project level;
- Provide uniform methods to be applied statewide and be accessible by all applicants;
- Use existing and proven tools and methods, where available and appropriate;
- Use project-level data, where available and appropriate; and
- Result in GHG emission reduction estimates that are conservative and supported by empirical literature.

CARB assessed peer-reviewed literature and tools and consulted with experts, as needed, to determine methods appropriate for the AHSC project types. CARB also consulted with SGC to determine the project-level inputs available. The methods were developed to provide estimates that are as accurate as possible with data readily available at the project level. CARB released the Draft AHSC Quantification Methodology and Draft AHSC Benefits Calculator Tool for public comment in August 2019. This Final AHSC Quantification Methodology and accompanying AHSC Benefits Calculator Tool have been updated to address public comments, where appropriate, and for consistency with updates to the AHSC Guidelines.

The "Methods to Find the Cost-effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee Projects and Congestion Mitigation and Air Quality Improvement Projects" were the basis for developing the GHG emission reduction estimates for transit and connectivity project features.[3] The CMAQ

[1] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html
[2] California Air Resources Board. www.arb.ca.gov/cci-fundingguidelines
[3] California Air Resources Board and California Department of Transportation. *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee*

Methods are equations for evaluating the cost-effectiveness of certain types of transportation projects, such as bicycle paths, vanpools, and new bus services. CARB and the California Department of Transportation developed the CMAQ Methods, which are used statewide by transportation agencies to assess criteria and toxic pollutant emission reductions from transportation projects competing for State motor vehicle fee and federal CMAQ funding. All of the CMAQ Methods equations and assumptions needed for this quantification method are included in this document, and some assumptions have been modified as necessary. Therefore, the equations presented in this Quantification Methodology are referred to as Transit and Connectivity Methods. The CMAQ Methods Guide is available at: www.arb.ca.gov/planning/tsaq/eval/eval.htm.

To develop VMT reduction estimates for projects that include affordable housing developments, the AHSC Benefits Calculator Tool uses information from the California Statewide Travel Demand Model,[4] metropolitan planning organizations,[5] the Institute of Transportation Engineers Trip Generation Manual[6] and Parking Generation Manual,[7] and the California Air Pollution Control Officers Association "Quantifying Greenhouse Gas Mitigation Measures" report[8] and California Emissions Estimator Model®.[9] The AHSC Benefits Calculator Tool adapts a methodology from this model for ease of use and alignment with the specific requirements of the AHSC Program.

In addition, the University of California, Berkeley, in collaboration with CARB, developed assessment methodologies for a variety of co-benefits such as providing cost savings, lessening the impacts and effects of climate change, and strengthening community engagement. Co-benefit assessment methodologies are posted at: www.arb.ca.gov/cci-cobenefits.

The AHSC Quantification Methodology and AHSC Benefits Calculator Tool are applicable only to AHSC project types and should not be used to estimate GHG

Projects and Congestion Mitigation and Air Quality Improvement Projects. May 2005. www.arb.ca.gov/planning/tsaq/eval/eval.htm.

[4] California Department of Transportation. *California Statewide Travel Demand Model.* 2016. https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling

[5] The Association of Monterey Bay Area Governments, Butte County Association of Governments, Metropolitan Transportation Commission, Sacramento Area Council of Governments, San Luis Obispo Council of Governments, and Southern California Association of Governments provided trip length data for this AHSC Quantification Methodology.

[6] Institute of Transportation Engineers. *Trip Generation Manual, 10th Edition.* 2017. https://www.ite.org/technical-resources/topics/trip-and-parking-generation/trip-generation-10th-edition-formats/

[7] Institute of Transportation Engineers. *Parking Generation Manual, 4th Edition.* 2010. https://www.ite.org/technical-resources/topics/trip-and-parking-generation/

[8] California Air Pollution Control Officers Association. *Quantifying Greenhouse Gas Mitigation Measures.* 2010. www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[9] California Air Pollution Control Officers Association. *California Emissions Estimator Model, version 2016.3.2.* 2017. www.caleemod.com.

emission reductions or co-benefits for any projects which do not meet AHSC Program requirements.

Tools

The AHSC Benefits Calculator Tool relies on project-specific outputs from the National Renewable Energy Laboratory PVWatts® Calculator, a web-based tool that estimates the electricity production of grid-connected roof- or ground-mounted solar PV systems. PVWatts calculates estimated values for the proposed system's monthly and annual electricity production. For projects that include solar PV systems, the AHSC Benefits Calculator Tool relies on estimates of solar PV electricity generation from PVWatts. PVWatts is publicly available to anyone with internet access, free of charge, and subject to regular updates to incorporate new information. The tool can be accessed at: http://pvwatts.nrel.gov/.

In addition to PVWatts, the AHSC Benefits Calculator Tool relies on CARB-developed emission factors. CARB has established a single repository for emission factors used in CARB benefits calculator tools, referred to as the California Climate Investments Quantification Methodology Emission Factor Database, available at: http://www.arb.ca.gov/cci-resources. The Emission Factor Database Documentation explains how emission factors used in CARB benefits calculator tools are developed and updated.

Applicants must use the AHSC Benefits Calculator Tool to estimate the GHG emission reductions and co-benefits of the proposed project. The AHSC Benefits Calculator Tool and User Guide can be downloaded from: http://www.arb.ca.gov/cci-resources.

Updates

CARB staff periodically review each quantification methodology to evaluate its effectiveness and update methodologies to make them more robust, user-friendly, and appropriate to the projects being quantified. CARB updated the AHSC Quantification Methodology and AHSC Benefits Calculator Tool from the previous versions[10] to enhance the analysis and provide additional clarity, including the following additions:

- Equations to estimate avoided VMT from affordable housing developments;
- Home-based trip length information from metropolitan planning organizations and the California Statewide Travel Demand Model;

[10] California Air Resources Board. November 2018. https://ww2.arb.ca.gov/our-work/programs/california-climate-investments/cci-archived-quantification-materials

- Trip generation rates from 10th Edition Institute of Transportation Engineers Trip Generation Manual, including "Senior Adult Housing (Attached)" trip rates for age-restricted housing rather than "Retirement Community" trip rates;
- Compound degradation for solar PV electricity generation estimates;
- Calculations of criteria and toxic air pollutant emission reductions from transit and active transportation components past 2050;
- Passenger auto and transit vehicle emission factors derived from EMFAC2017;
- Updated default trip lengths for transit and active transportation components;
- Equations to estimate GHG emission reductions and co-benefits from electric bike share;
- Updated costs for energy, fuel, and transportation;
- Descriptions of additional data sources used; and
- An expanded project example and additional guidance to clarify frequently asked questions.

Section B. Methods

The following section provides details on the methods supporting emission reductions in the AHSC Benefits Calculator Tool.

Project Components

SGC developed five categories of eligible costs that meet the objectives of the AHSC Program.[11] For quantification purposes, CARB defined project components within those eligible costs for which there are methods to quantify GHG emission reductions.

Other project features may be eligible for funding under the AHSC Program; however, each project requesting GGRF funding must include at least one of the project components listed in Table 1 below.

Table 1. Project Components by Eligible Cost

Eligible Cost	Project Component
Affordable Housing Development; Housing-related Infrastructure	Construction or substantial rehabilitation of affordable housing, including mixed-use development, and related infrastructure
	Grid-connected solar PV system
Sustainable Transportation Infrastructure; Transportation-related Amenities	New bicycle facility (Class I bike path, Class II bike lane, or Class IV separated bikeway)
	New walkway
	New bike share equipment[12]
	New or expanded transit service (bus, cable car, ferry, heavy rail, light rail, streetcar, shuttle, trolley bus, or vanpool)
	Capital improvement that encourages mode shift
Program	Transit passes for residents
	New bike share operations[12]

[11] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html

[12] Bike share infrastructure and fleets are eligible Sustainable Transportation Infrastructure costs according to the AHSC Guidelines, while bike share operations are eligible Active Transportation Program costs. Quantification of the benefits of new bike share infrastructure, fleets, or operations is equivalent regardless of the funding type requested.

General Approach

This section describes the methods used in the AHSC Benefits Calculator Tool to estimate GHG emission reductions and air pollutant emission co-benefits by project component. These methods account for emission reductions from avoided passenger VMT and the generation of solar PV electricity.

In general, the GHG and air pollutant emission reductions are estimated in the AHSC Benefits Calculator Tool using the quantification approaches by project component outlined in Table 2 below.

Table 2. General Approach to Quantification by Project Component

Project Component	Emission Reductions Estimated
Affordable housing development or residential transit subsidy	Emissions from avoided passenger VMT
Solar PV electricity generation	Emissions from avoided grid electricity production
New bicycle facility, walkway, or bike share	Emissions from displaced autos (less emissions from electric bikes, if applicable)
New or expanded transit service	Emissions from displaced autos less emissions from new service vehicle
Capital improvements	Emissions from displaced autos

A. Affordable Housing Developments and Residential Transit Subsidies

The emission reductions from affordable housing developments and residential transit subsidies are calculated as the emission reductions from avoided passenger VMT compared to a baseline scenario lacking VMT reduction measures. Equations 1 through 4 are used to estimate unmitigated VMT for the baseline scenario.[13]

Equation 1: Average Daily Trips per Dwelling Unit

$$Average\ Daily\ Trips = \frac{(Weekday\ Trips * 5) + Saturday\ Trips + Sunday\ Trips}{7\ days}$$

Where,			Units
Average Daily Trips	=	Average daily trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit-day
Weekday Trips	=	Average weekday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit
Saturday Trips	=	Average Saturday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit
Sunday Trips	=	Average Sunday trip rate per dwelling unit for applicable dwelling type	trips/ dwelling unit

[13] Equations 1 through 4 use a methodology and trip type and link percentages described in Appendices A and D of the *User's Guide for CalEEMod Version 2016.3.2*.
http://www.aqmd.gov/caleemod/user's-guide
Trip rates are derived from the *Trip Generation Manual, 10th Edition*.
https://www.ite.org/technical-resources/topics/trip-and-parking-generation/trip-generation-10th-edition-formats/
Trip lengths not provided by metropolitan planning organizations are calculated for multi-county regions from the California Statewide Travel Demand Model.
https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling

Equation 2: Primary Trip Length

$$Primary\ Trip\ Length = (H\text{-}W\ Length * H\text{-}W\ Share) + (H\text{-}S\ Length * H\text{-}S\ Share) + (H\text{-}O\ Length * H\text{-}O\ Share)$$

Where,			Units
Primary Trip Length	=	County-specific average length of urban or rural primary home-based trip	miles
H-W Length	=	County-specific average length of urban or rural trip between home and work	miles
H-W Share	=	Statewide default percentage of primary home-based trips which are between home and work (42.3%)	%
H-S Length	=	County-specific average length of urban or rural trip between home and shopping	miles
H-S Share	=	Statewide default percentage of primary home-based trips which are between home and shopping (19.6%)	%
H-O Length	=	County-specific average length of urban or rural trip between home and locations other than work or shopping	miles
H-O Share	=	Statewide default percentage of primary home-based trips which are between home and other locations (38.1%)	%

Equation 3: Overall Trip Length

$$Overall\ Trip\ Length = (Primary\ Trip\ Length * Primary\ Share) + (Primary\ Trip\ Length * 25\% * Diverted\ Share) + (0.1\ miles * Pass\text{-}by\ Share)$$

Where,			Units
Overall Trip Length	=	County-specific average length of urban or rural overall home-based trip	miles
Primary Trip Length	=	County-specific average length of urban or rural primary home-based trip, from Equation 2	miles
Primary Share	=	Statewide average percentage of home-based trips which are primary (86%)	%
Diverted Share	=	Statewide average percentage of home-based trips which are diverted (11%)	%
Pass-by Share	=	Statewide average percentage of home-based trips which are pass-by (3%)	%

Equation 4: Annual Unmitigated VMT

$$Annual\ Unmitigated\ VMT = Average\ Daily\ Trips * Overall\ Trip\ Length * Total\ Units * 365\ days$$

Where,			Units
Annual Unmitigated VMT	=	Annual VMT by residents of housing development without VMT mitigation measures	miles/year
Average Daily Trips	=	Average daily trip rate per dwelling unit for applicable dwelling type, from Equation 1	trips/ dwelling unit*day
Overall Trip Length	=	County-specific average length of urban or rural overall home-based trip, from Equation 3	miles
Total Units	=	Number of dwelling units in affordable housing development	dwelling units

Equations 5 through 17 are used to calculate the expected percent reductions in passenger VMT resulting from the characteristics of the affordable housing development.[14]

Equation 5: VMT Reductions from Increased Density

$$Density\ VMT\ Reductions = \left(\frac{Density - Required\ Density}{Required\ Density}\right) * 7\%$$

Where,			Units
Density VMT Reductions	=	VMT reductions associated with increased net density over required baseline, capped at 30%	%
Density	=	Net density of affordable housing development	dwelling units/acre
Required Density	=	Required baseline net density per Project Area Type, defined by the AHSC Guidelines (see Table 3)	dwelling units/acre

[14] Equations 5 through 17 use methodologies and elasticities described in the *Quantifying Greenhouse Gas Mitigation Measures* report.
www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Table 3. Minimum Net Density by Project Area Type

Project Area Type	Minimum Net Density (dwelling units per acre)[15]
TOD	30
ICP	20
RIPA	15

Equations 6 and 7 are applicable to mixed-use developments only.

Equation 6: Land Use Index

$$Land\ Use\ Index = -\left[\frac{4 * (0.01 * \ln 0.01) + \left(\left(\frac{RS}{RS+MS}\right) * \ln\left(\frac{RS}{RS+MS}\right)\right) + \left(\left(\frac{MS}{RS+MS}\right) * \ln\left(\frac{MS}{RS+MS}\right)\right)}{\ln 6}\right]$$

Where,			Units
Land Use Index	=	Measure of diversity of land use in mixed-use development	unitless
RS	=	Space for residential uses in mixed-use development	square feet
MS	=	Publically accessible space for commercial or social services uses in mixed-use development	square feet

Equation 7: VMT Reductions from Increased Land Use Diversity

$$Diversity\ VMT\ Reductions = \left(\frac{Land\ Use\ Index - 0.15}{0.15}\right) * 9\%$$

Where,			Units
Diversity VMT Reductions	=	VMT reductions associated with increased land use diversity over baseline, capped at 30%, with increase in land use diversity capped at 500%	%
Land Use Index	=	Measure of diversity of land use in mixed-use development, from Equation 6	unitless

[15] Strategic Growth Council. http://sgc.ca.gov/programs/ahsc/resources/guidelines.html

Equation 8: VMT Reductions from Increased Destination Accessibility

$$Accessibility\ VMT\ Reductions = \left(\frac{12\ miles - Distance}{12\ miles}\right) * 20\%$$

Where,		Units
Accessibility VMT Reductions	= VMT reductions associated with increased destination accessibility, capped at 20%	%
Distance	= Distance from affordable housing development to nearest central business district	miles

Equation 9: VMT Reductions from Integration of Affordable Housing

$$Affordability\ VMT\ Reductions = \left(\frac{Affordable\ Units}{Total\ Units}\right) * 4\%$$

Where,		Units
Affordability VMT Reductions	= VMT reductions associated with integration of affordable dwelling units into housing development, capped at 4%	%
Affordable Units	= Number of affordable dwelling units in affordable housing development	dwelling units
Total Units	= Number of dwelling units in affordable housing development	dwelling units

Equation 10: Total VMT Reductions from Land Use Measures

$$Land\ Use\ VMT\ Reductions = 1 - (1 - Density\ VMT\ Reductions) * (1 - Diversity\ VMT\ Reductions) * (1 - Accessibility\ VMT\ Reductions) * (1 - Affordability\ VMT\ Reductions)$$

Where,		Units
Land Use VMT Reductions	= VMT reductions associated with all land use measures, capped according to Project Area Type (see Table 4)	%
Density VMT Reductions	= VMT reductions associated with increased density over required baseline, capped at 35%, from Equation 5	%
Diversity VMT Reductions	= VMT reductions associated with increased land use diversity over baseline, capped at 30%, from Equation 7	%
Accessibility VMT Reductions	= VMT reductions associated with increased destination accessibility, capped at 20%, from Equation 8	%
Affordability VMT Reductions	= VMT reductions associated with integration of affordable dwelling units into housing development, capped at 4%, from Equation 9	%

Table 4. Maximum VMT Reductions by Project Area Type[16]

Project Area Type	Land Use Measures	Land Use, Parking, and Traffic Calming Measures	Total
TOD	65%	70%	75%
ICP	30%	35%	40%
RIPA	5%	10%	15%

Equation 11: VMT Reductions from Limited Parking Supply

$$Parking\ Supply\ VMT\ Reductions = \left(\frac{Total\ Units * Parking\ Rate - Parking\ Spaces}{Total\ Units * Parking\ Rate}\right) * 50\%$$

Where,			Units
Parking Supply VMT Reductions	=	VMT reductions associated with limited residential parking supply, capped at 12.5%	%
Total Units	=	Number of dwelling units in affordable housing development	dwelling units
Parking Rate	=	Average peak parking demand per dwelling unit for applicable dwelling type	vehicles/ unit
Parking Spaces	=	Number of residential parking spaces in affordable housing development	parking spaces

Equation 12: VMT Reductions from Unbundled Parking Cost

$$Unbundled\ Parking\ VMT\ Reductions = Unbundled\ Cost * \left(\frac{12\ months}{\$4{,}000}\right) * 0.4 * 85\%$$

Where,			Units
Unbundled Parking VMT Reductions	=	VMT reductions associated with unbundled residential parking cost, capped at 20%	%
Unbundled Cost	=	Monthly unbundled cost for on-site residential parking	$/month

[16] VMT reduction caps are aligned with the "urban" location type from the *Quantifying Greenhouse Gas Mitigation Measures* report for TOD, "compact infill" for ICP, and "suburban" for RIPA. www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Equation 13: VMT Reductions from Increased On-street Parking Price

$$Street\ Parking\ VMT\ Reductions = Street\ Cost * 0.11$$

Where,			Units
Street Parking VMT Reductions	=	VMT reductions associated with increased price of on-street parking, capped at 5.5%	%
Street Cost	=	Percent increase in on-street parking price above baseline within ½ mile of affordable housing development	%

Equation 14: Total VMT Reductions from Parking Measures

$$Parking\ VMT\ Reductions = 1 - (1 - Parking\ Supply\ VMT\ Reductions) * (1 - Unbundled\ Parking\ VMT\ Reductions) * (1 - Street\ Parking\ VMT\ Reductions)$$

Where,			Units
Parking VMT Reductions	=	VMT reductions associated with all parking measures, capped at 20%	%
Parking Supply VMT Reductions	=	VMT reductions associated with limited residential parking supply, capped at 12.5%, from Equation 11	%
Unbundled Parking VMT Reductions	=	VMT reductions associated with unbundled residential parking cost, capped at 20%, from Equation 12	%
Street Parking VMT Reductions	=	VMT reductions associated with increased price of on-street parking, capped at 5.5%, from Equation 13	%

Equation 15: VMT Reductions from Traffic Calming Measures

$$Traffic\ Calming\ VMT\ Reductions = 1\%$$

Where,			Units
Traffic Calming VMT Reductions	=	VMT reductions associated with traffic calming measures within ½ mile of affordable housing development	%

Equation 16: VMT Reductions from Residential Transit Subsidy

$$Subsidy\ VMT\ Reductions = Elasticity * \frac{Recipients}{Total\ Units} * \frac{Duration}{30\ years}$$

Where,			Units
Subsidy VMT Reductions	=	VMT reductions associated with transit passes for residents, capped at 20%	%
Elasticity	=	Elasticity of VMT specific to annual value of transit passes to residents and urban or rural project setting	unitless
Recipients	=	Number of dwelling units receiving transit passes in affordable housing development	dwelling units
Total Units	=	Number of dwelling units in affordable housing development	dwelling units
Duration	=	Number of years for which transit passes are funded	years

Equation 17: Total VMT Reductions

$$Total\ VMT\ Reductions = Land\ Use\ VMT\ Reductions + Parking\ VMT\ Reductions + Traffic\ Calming\ VMT\ Reductions + Subsidy\ VMT\ Reductions$$

Where,			Units
Total VMT Reductions	=	VMT reductions associated with all mitigation measures, capped according to Project Area Type (see Table 3)	%
Land Use VMT Reductions	=	VMT reductions associated with all land use measures, capped according to Project Area Type, from Equation 10	%
Parking VMT Reductions	=	VMT reductions associated with all parking measures, capped at 20%, from Equation 14	%
Traffic Calming VMT Reductions	=	VMT reductions associated with traffic calming measures within ½ mile of affordable housing development, from Equation 15	%
Subsidy VMT Reductions	=	VMT reductions associated with transit passes for residents, capped at 20%, from Equation 16	%

Equations 18 and 19 are used to apply the expected percent reductions in VMT to estimate avoided VMT from the affordable housing development.

Equation 18: Annual Avoided VMT

$$Annual\ Avoided\ VMT = Annual\ Unmitigated\ VMT * Total\ VMT\ Reductions$$

Where,			Units
Annual Avoided VMT	=	Annual reductions in baseline residential VMT	miles/year
Annual Unmitigated VMT	=	Annual VMT by residents of housing development without VMT mitigation measures, from Equation 4	miles/year
Total VMT Reductions	=	VMT reductions associated with all mitigation measures, from Equation 17	%

Equation 19: Total Avoided VMT

$$Total\ Avoided\ VMT = Annual\ Avoided\ VMT * 30\ years$$

Where,			Units
Total Avoided VMT	=	Reductions in baseline residential VMT for quantification period of affordable housing development (30 years)	miles
Annual Avoided VMT	=	Annual reductions in baseline residential VMT	miles/year

Equation 20: Auto Emission Reductions from Affordable Housing Development and Residential Transit Subsidies

$$Emission\ Reductions = \left(\frac{Annual\ Avoided\ VMT * EF_{Yr1} + Annual\ Avoided\ VMT * EF_{YrF}}{2}\right) * 30\ years * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of affordable housing development (30 years)	$MTCO_2e$ or lbs
Annual Avoided VMT	=	Annual reductions in baseline residential VMT, from Equation 18	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of project life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of project life	g/mile
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

B. Solar PV Electricity Generation

The emission reductions from grid-connected solar PV projects are calculated as the emission reductions from avoided fossil-fuel-based electricity generation.[17]

Equation 21: Emission Reductions from Solar PV

$$Emission\ Reductions = \sum_{n=1}^{30} (1 - Degradation)^{n-1} * Production * EF$$

Where,			Units
Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for useful life of solar PV system (30 years)	$MTCO_2e$ or lbs
Degradation	=	Annual rate of system degradation (0.5%)	%/year
Production	=	Annual electricity generation estimated using PVWatts Calculator	kWh/year
EF	=	Emission factor for California grid electricity	$MTCO_2e$/ kWh or lbs/kWh

[17] The 30-year useful life was obtained from the National Renewable Energy Laboratory "Life Cycle Greenhouse Gas Emissions from Solar Photovoltaics" fact sheet. www.nrel.gov/docs/fy13osti/56487.pdf
The estimated rate of system degradation was obtained from the National Renewable Energy Laboratory Technical Report "Photovoltaic Degradation Rates – An Analytical Review." 2012. www.nrel.gov/docs/fy12osti/51664.pdf

C. New Bicycle Facility or Walkway

The emission reductions from new bicycle facilities or walkways are calculated as the emission reductions from displaced autos.

Equation 22: VMT Reductions from Bicycle Facility or Walkway

$$VMT\ Displaced = D * ADT * (A + C) * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips	miles/year
D	=	Default annual days of use of new facility (200 days)	days/year
ADT	=	Average two-way daily traffic on road parallel to facility	vehicle trips/day
A	=	Adjustment factor for active transportation (see Table 5)	unitless
C	=	Credit for Key Destinations near facility (see Table 6)	unitless
L	=	Average length of auto trip replaced (1.5 miles for cycling; 0.3 miles for walking)	miles

Table 5. Active Transportation Adjustment Factors

Average Daily Traffic (vehicle trips per day)	One-way Facility Length[18] (miles)	Adjustment Factor for Population > 250,000 or Non-university Town with Population < 250,000	Adjustment Factor University Town with Population < 250,000
1 to 12,000	≤ 1	0.0019	0.0104
	1.01 to 2	0.0029	0.0155
	> 2	0.0038	0.0207
12,001 to 24,000	≤ 1	0.0014	0.0073
	1.01 to 2	0.0020	0.0109
	> 2	0.0027	0.0145
24,001 to 30,000	≤ 1	0.0010	0.0052
	1.01 to 2	0.0014	0.0078
	> 2	0.0019	0.0104

[18] The length of bicycle facilities and walkways should be measured in one direction because average daily traffic accounts for two-way traffic volume. Crosswalks should not be included in the length of sidewalks since they are accounted for as traffic calming measures.

Table 6. Key Destination Credits

Number of Key Destinations	Credit Within ½ Mile of Facility	Credit Within ¼ Mile of Facility
0 to 2	0	0
3	0.0005	0.001
4 to 6	0.0010	0.002
≥ 7	0.0015	0.003

Equation 23: Auto Emission Reductions from Bicycle Facility or Walkway

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bicycle facility or walkway	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips, from Equation 22	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of useful life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of useful life	g/mile
UL	=	Useful life of bicycle facility or walkway (20 years for Class I bike path or walkway; 15 years for Class II bike lane or Class IV separated bikeway)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

D. New or Expanded Bike Share

The emission reductions from bike share components that result in an increase in bike trips are calculated as the emission reductions from displaced autos less the emissions from electric bicycles, if applicable.

Equation 24: VMT Reductions from Bike Share

$$VMT\ Displaced = T * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by bike share trips	miles/year
T	=	Total number of trips using bike share expected in first year of service	trips/year
A	=	Adjustment factor to account for induced demand and recreational bike share use (0.5)	unitless
L	=	Average length of auto trip replaced (1.5 miles)	miles

Equation 25: Auto Emission Reductions from Bike Share

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * 10\ years * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bike share (10 years)	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by bike share trips, from Equation 24	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equations 26 and 27 apply to electric bike share only.

Equation 26: Emissions from Electric Bike Share

$$Electric\ Bicycle\ Emissions = T * L * EC * EF * 10\ years$$

Where,			Units
Electric Bicycle Emissions	=	Electric bicycle GHG or criteria and toxic air pollutant emissions for useful life of bike share (10 years)	$MTCO_2e$ or lbs
T	=	Total number of trips using bike share expected in first year of service	trips
L	=	Average length of auto trip replaced (1.5 miles)	miles
EC	=	Energy consumption per mile for electric bicycles	kWh/mile
EF	=	Emission factor for California grid electricity	$MTCO_2e$/ kWh or lbs/kWh

Equation 27: Net Emission Reductions from Electric Bike Share

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Electric\ Bicycle\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for useful life of electric bike share (10 years)	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bike share, from Equation 25	$MTCO_2e$ or lbs
Electric Bicycle Emissions	=	Electric bicycle GHG or criteria and toxic air pollutant emissions for useful life of bike share, from Equation 26	$MTCO_2e$ or lbs

E. New or Expanded Bus, Cable Car, Rail, Streetcar, Shuttle, Trolley Bus, or Vanpool Service

The emission reductions from new or expanded transit service are calculated as the emission reductions from displaced autos less the new emissions from transit vehicles.

Equation 28: VMT Reductions from New or Expanded Transit Service

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by transit trips	miles/year
D	=	Annual days of operation of transit service	days/year
R	=	Increase in daily transit ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip replaced (default or user-defined; see Table 7)	miles

Table 7. Default Trip Lengths and Adjustment Factors by Mode

Mode	Statewide Average Trip Length (miles)[19]	Default Adjustment Factor
Bus rapid transit	6.56	0.542
Cable car	1.26	0.479
Commuter rail	25.69	0.867
Ferry	10.85	1.000
Heavy rail	11.48	0.794
Light rail	5.44	0.685
Local bus	3.77	0.561
Long-distance commuter bus	17.57	0.705
Shuttle	9.08	0.585
Streetcar	1.43	0.479
Trolley bus	1.48	0.479
Vanpool	42.28	0.879

[19] Federal Transit Administration. National Transit Database. 2017. https://www.transit.dot.gov/ntd. Caltrans calculated the statewide average trip lengths by mode as passenger miles traveled divided by unlinked passenger trips, using 2017 annual data.

Equation 29: Auto Emission Reductions from New or Expanded Transit Service

$$Auto\ Emission\ Reductions = \frac{(VMT\ Displaced_{Yr1} * EF_{Yr1}) + (VMT\ Displaced_{YrF} * EF_{YrF})}{2} * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service	$MTCO_2e$ or lbs
$VMT\ Displaced_{Yr1}$	=	Annual passenger VMT replaced by transit trips in first year of service, from Equation 28	miles/year
$VMT\ Displaced_{YrF}$	=	Annual passenger VMT replaced by transit trips in final year of service, from Equation 28	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for transit service, not to exceed maximum useful life per capital type (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

The quantification period for a transit component is the number of years for which there are enforceable committed funds to operate the new or expanded service. The quantification period may not exceed the maximum useful life defined per capital type by the Federal Transit Administration guidelines.[20]

Table 8. Maximum Useful Life by Capital Type

Capital Type	Maximum Useful Life (years)
Bus	12
Ferry	25
Rail vehicle	25
Shuttle	10
Structure	40
Van	4

[20] Federal Transit Administration. Circular FTA C 5010.1E. July 2018. www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e

Equation 30: Transit Vehicle Emissions

$$Transit\ Vehicle\ Emissions\ =\ Transit\ VMT * EF_{YrM} * UL * U^{-1}$$

Where,			Units
Transit Vehicle Emissions	=	Transit vehicle GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service	$MTCO_2e$ or lbs
Transit VMT	=	Annual VMT of transit vehicles to operate new or expanded service	miles/year
EF_{YrM}	=	Transit vehicle emission factor for middle year of service	g/mile
UL	=	Quantification period for transit service, not to exceed maximum useful life per capital type (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equation 31: Net Emission Reductions from New or Expanded Transit Service

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Transit\ Vehicle\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded transit service	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service, from Equation 29	$MTCO_2e$ or lbs
Transit Vehicle Emissions	=	Transit vehicle GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service, from Equation 30	$MTCO_2e$ or lbs

F. New or Expanded Ferry Service

The emission reductions from new or expanded ferry service are calculated as the emission reductions from displaced autos less the new emissions from the ferry.

Equation 32: VMT Reductions from New or Expanded Ferry Service

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by ferry trips	miles/year
D	=	Annual days of operation of ferry service	days/year
R	=	Increase in daily ferry ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip replaced (default or user-defined; see Table 7)	miles

Equation 33: Auto Emission Reductions from New or Expanded Ferry Service

$$Auto\ Emission\ Reductions = \frac{(VMT\ Displaced_{Yr1} * EF_{Yr1}) + (VMT\ Displaced_{YrF} * EF_{YrF})}{2} * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service	$MTCO_2e$ or lbs
$VMT\ Displaced_{Yr1}$	=	Annual passenger VMT replaced by ferry trips in first year of service, from Equation 32	miles/year
$VMT\ Displaced_{YrF}$	=	Annual passenger VMT replaced by ferry trips in final year of service, from Equation 32	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for ferry service, not to exceed 25 years (see Table 8)	years

Equation 34: Ferry Emissions

$$Ferry\ Emissions = Fuel\ Consumption * EF * UL * U^{-1}$$

Where,			Units
Ferry Emissions	=	Ferry GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service	$MTCO_2e$ or lbs
Fuel Consumption	=	Annual quantity of fuel consumed by ferry to operate new or expanded service	gal, scf, kWh, or kg
EF	=	Fuel-specific carbon intensity emission factor for ferry	g/unit of fuel
UL	=	Quantification period for ferry service, not to exceed 25 years (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Equation 35: Net Emission Reductions from New or Expanded Ferry Service

$$Net\ Emission\ Reductions = Auto\ Emission\ Reductions - Ferry\ Emissions$$

Where,			Units
Net Emission Reductions	=	GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded ferry service	$MTCO_2e$ or lbs
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of new or expanded service, from Equation 33	$MTCO_2e$ or lbs
Ferry Emissions	=	Ferry GHG or criteria and toxic air pollutant emissions for quantification period of new or expanded service, from Equation 34	$MTCO_2e$ or lbs

G. Capital Improvements

The emission reductions from capital improvements that result in mode shift to transit are calculated as the emission reductions from displaced autos.

Equation 36: VMT Reductions from Capital Improvements

$$VMT\ Displaced = D * R * A * L$$

Where,			Units
VMT Displaced	=	Annual passenger VMT replaced by transit trips	miles/year
D	=	Annual days of operation of transit service utilizing capital improvement	days/year
R	=	Increase in daily transit ridership in first or last year of service	trips/day
A	=	Adjustment factor for transit dependency (default or user-defined; see Table 7)	unitless
L	=	Length of average auto trip reduced (default or user-defined; see Table 7)	miles

Equation 37: Auto Emission Reductions from Capital Improvements

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced_{Yr1} * EF_{Yr1} + VMT\ Displaced_{YrF} * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for quantification period of capital improvement	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by transit trips, from Equation 36	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of service	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of service	g/mile
UL	=	Quantification period for transit utilizing capital improvement service, not to exceed 40 years (see Table 8)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

Section C. References

The following references were used in the development of this Quantification Methodology and the AHSC Benefits Calculator Tool.

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EXHIBIT D

Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks

Summary Report

California Climate Investments Quantification Methods Assessment
California Air Resources Board
Agreement #16TTD004

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Background

Under California's Cap-and-Trade program, the State's portion of the proceeds from Cap-and-Trade auctions is deposited in the Greenhouse Gas Reduction Fund (GGRF). The Legislature and Governor enact budget appropriations from the GGRF for State agencies to invest in projects that help achieve the State's climate goals. These investments are collectively called California Climate Investments. Senate Bill (SB) 862 requires the California Air Resources Board (CARB) to develop guidance on reporting and quantification methods for all State agencies that receive appropriations from the GGRF. CARB may review and update quantification methodologies, as needed.

To date, multiple California Climate Investments programs have offered funding for new bicycle paths or lanes[1] (CARB, 2016, 2017, 2018, 2019). CARB developed quantification methodologies to provide project-level greenhouse gas (GHG) emission reduction and co-benefit estimates for administering agencies to use when selecting projects for funding. To measure GHG emission reductions from new bike paths and lanes, CARB relies on a method it published with the California Department of Transportation (Caltrans) in 2005 for evaluating motor vehicle fee registration projects and congestion mitigation and air quality improvement (CMAQ) projects (CARB, 2016, 2018, 2019; CARB & Caltrans, 2005).

This report summarizes outcomes from a literature review to determine whether and how the CMAQ methods could be modified to better reflect emerging data and methods for estimating reductions in vehicle miles traveled (VMT) from new bike facilities, the first step in estimating GHG emission reductions.[2] The report also proposes an alternative VMT reduction quantification method based on existing bicyclist counts along the project corridor.

The current VMT reduction estimation equation uses five inputs: (1) days per year of facility use, (2) average annual two-way daily vehicular traffic on a road parallel to the proposed facility, (3) an adjustment factor, (4) an activity center credit, and (5) bike trip length. Our report reviews only those inputs—or the components of inputs—whose values are clearly derived in the methodology documentation, specifically the facility use factor, bike trip length, and the mode share and facility-level bicycle ridership change values used to calculate the adjustment factors. The report also reviews the merits of correcting for bike trip type—utilitarian versus recreational. The report does not probe the activity center credit values because it is unclear how they were derived.

[1] The new bike paths and lanes category of projects includes "Bicycle paths (Class I), bicycle lanes (Class II), or separated bikeways (Class IV) that are targeted to reduce commute VMT and other auto travel," with emissions "reduced by replacing auto trips with bicycle trips" (CARB, 2016).
[2] The full list of literature reviewed is provided in the section I of the accompanying technical documentation.

Summary of Current Quantification Method

CARB's current method estimates VMT reductions from new Class I (bike path), II (bike lane) and IV (cycle track) bicycle facilities (CARB, 2016, 2018, 2019). CARB does not currently include Class III facilities (bicycle boulevards) in its VMT reduction quantification method, or distinguish Class IV facilities that replace auto travel lanes or parking from those that replace existing Class II bike lanes. CARB's current method estimates the annual VMT reductions from new bicycle facilities using Equation 1 (CARB, 2016 [B-1], 2018 [26], 2019 [16]):

Equation 1: Auto VMT Reductions (current method)

$$Auto\ VMT\ Reduced = (D) * (ADT) * (A + C) * (L)$$

Where,			Units
D	=	days of use per year (default is 200 days)	Days
ADT	=	annual average two-way daily vehicular traffic on parallel road (project-specific data, with a maximum of 30,000)	Trips/day
A	=	adjustment factor (table lookup value)	-
C	=	activity center credit (table lookup value)	-
L	=	bike trip length (1.8 miles/trip in one direction)	Miles/trip

The multi-component adjustment factor uses mode share and facility-level bicycle ridership change data and assumptions to estimate how much of the measured ADT would be converted to bicycle trips after bicycle facility installation. The adjustment factors "were derived from a limited set of bicycle commute mode split data for cities and university towns in the southern and western United States,"[3] then multiplied by 0.7 to "estimate potential auto travel diverted to bikes," and again by a 0.65 "growth factor" to "estimate the growth in bicycle trips from construction of the bike facility" (CARB & Caltrans, 2005 [31]). However, it is unclear from the method documentation what portion of the cited mode split data was used to calculate the adjustment factors, and how it was used to create different factors by ADT and bicycle facility length.

The activity center credit is an accessibility proxy that increases the adjustment factor for bike facilities that are closer to more "activity centers," like banks, churches, hospitals, light rail stations, office parks, post offices, public libraries, shopping areas, grocery stores, or schools and universities (CARB, 2016 [B-2], 2018 [28], 2019 [17]). It is unclear how the activity center credits were derived, as there is no documentation for this component of the method.

[3] As compiled by the Federal Highway Administration in its 1992 National Bicycling and Walking Study.

Key Report Findings

The literature reviewed in the report indicates a need to update multiple factors in CARB's existing equation for estimating VMT reductions from new bicycle facilities. The report findings include:

- The 0.65 "growth rate" for cycling trips following new facility construction that the current quantification method uses may be low. Recent research indicates the growth rate may be closer to 1.0 for Class I bike paths, Class II bike lanes, and Class IV cycle tracks that do not replace existing Class II facilities. However, the growth rates may be lower for Class IV facilities that replace existing bike lanes (possibly closer to 0.6) and Class III bike boulevards (possibly closer to 0.3 or 0.4) (City of Toronto, 2001; Cohen et al., 2008; Dill et al., 2014; Fitzhugh et al., 2010; Goodno et al., 2013; Gudz et al., 2016; Matute et al., 2016; Monsere et al., 2014; Sallaberry, 2000).

- Methods exist for more accurately accounting for temporal variation in cycling levels than by assuming a new bicycle facility would be used a limited number of days per year (National Bicycle and Pedestrian Documentation Project, 2009; Nordback & Sellinger, 2014).

- The average bicycle trip length for all trips could be updated from the baseline 1.8 miles used in the current quantification method, based on more recent and/or California-specific data (Caltrans, 2013).

- Most of the cyclists riding on new facilities who did not take the same route prior to facility installation switch from other bicycle routes rather than from other travel modes. The available data indicate an overall stated substitution rate (from any non-cycling travel mode) of between 0.2 and 0.3, and an auto substitution rate of about 0.1, meaning that about 10 percent of the new bicycle trips replaced driving trips (Matute et al., 2016; Monsere et al., 2014; Thakuriah, Metaxatos, Lin, & Jensen, 2012).

- Nearly half of bicycle trips nationally are made for recreational purposes (Kuzmyak & Dill, 2012). The current quantification method does not fully exclude recreational trips from its VMT reduction calculus. And at least one recent study indicates that bike facilities do influence people's choice to bicycle instead of drive for recreational purposes (Matute et al., 2016). Nonetheless, if desired, decrementing the VMT reduction estimate by the percentage of recreational trips provides a more conservative estimate.

- A possible method is presented to project VMT reductions from new bicycle facilities based on existing bicycle counts, without using vehicular ADT. One reason to rely on bicycling count data rather than vehicular ADT is that using vehicular ADT assumes that higher auto volumes correlate to higher bicycling volumes, which is often not the case. Another reason is that

pre-facility-installation bicycle counts appear to be a reasonably reliable predictor of post-installation counts (Matute et al., 2016). In addition, there is a growing body of literature on the auto substitution rate for cyclists using a new facility and route, as well as average bicycle trip lengths.

Table 1 summarizes the values used in the current quantification method that could be directly updated based on the literature reviewed in the report. The next section presents the alternative quantification method.

Table 1. Summary of Potential Updates to Current Quantification Method Values

Method Input	Current Value	Updated Value
Bicycle Trip Growth Rate	0.65	1.0
Bicycle Trip Length	1.8 miles	1.5 miles
Auto-Bike Substitution Rate	0.7	0.1[4]

Alternative Quantification Method

Estimating VMT reductions from new bicycle facilities without vehicular ADT begins with obtaining bike counts on the route for the proposed facility (or an adjacent route, if no road or path currently exists where the facility is proposed to run). The short-duration ridership counts must then be converted to average annual daily bike trips using a temporal and seasonal adjustment factor. Post-installation bike ridership can then be estimated from that initial adjusted count using a growth factor based on ridership studies. The growth factor can be adjusted based on facility type and length, although more facility-specific data is needed. Multiplying that new ridership estimate by an average trip length yields new bicycle miles traveled from adding a bike facility. Not all of those new bicycle trips replace vehicle trips, however. Further adjustment is needed, including an auto-bicycle substitution rate, a carpool factor (not every vehicle trip has just one occupant) and, to be conservative, a trip type factor (recreational bike trips may be less likely than utilitarian bike trips to replace auto trips).

Equation 2 is one potential bicycle-count-based method.

[4] This could be adjusted to correct for carpooling (not all bicyclists who would have made the same trip by car would have done it alone) by dividing the substitution rate (or total number of substituted trips) by the average vehicle occupancy rate (average number of people per auto) used by Caltrans (1.15) (Caltrans, 2016).

Equation 2: Auto VMT Reductions (alternative method)

$$Auto\ VMT\ Reduced = (D) * (BC) * (S) * (GF) * (AS) * (C) * (T) * (L)$$

Where,			Units
D	=	days of use per year (default is 365 days, since counts can be adjusted seasonally)	Days/year
BC	=	average hourly (or daily) bicycle count (counts taken on the street to be improved with the bike facility, or, in the case of a facility not on an existing street, a parallel street)	Trips/day
S	=	seasonal adjustment factor (adjusts bicycle count to annual average daily bicycle trips)	-
GF	=	growth factor (expected rate of increase in bicycle count, e.g. 1.0 for a 100% increase in trips on the route)	-
AS	=	automobile substitution rate (expected rate at which cyclists who did not bike on the same route prior to bicycle facility installation switched from driving, or being driven in, an automobile to cycling)	-
C	=	carpool factor (default is 1/1.15, to reflect the California average number of vehicle trips per person trips by personal auto)	-
T	=	trip type factor (optional inclusion for conservative estimates; default is 0.506)	-
L	=	bike trip length (default is 1.5 miles/trip in one direction)	Miles/trip

Values for the first two variables, *D* and *BC*, would be provided by the funding applicant. *D* would have a default of 365, but it could be changed based on local conditions and the type of seasonable adjustment factor used.

The seasonal adjustment factor, *S*, could use local data where available. But to ensure continuity in application across California, the National Bicycle and Pedestrian Documentation Project's adjustment factors can be used in the interim (National Bicycle and Pedestrian Documentation Project, 2009).

The growth factor, *GF*, could be approximated based on the findings from the count-based studies reviewed in the full report. As discussed, it appears from the literature that a uniform, facility-agnostic growth rate around 1.0 could be appropriate. The literature also indicates at least some correlation between facility length and ridership increases (at least for Class IV cycle tracks), but more research is needed to clarify the facility length-ridership relationship.

The auto substitution factor, *AS*, could be based on the available data discussed above, which indicate an auto substitution rate of about 0.1. However, the auto substitution factor should be adjusted to account for carpooling (not all bicyclists who would have made the same trip by car would have done it alone).

The carpool factor, *C*, corrects for that, by dividing the total number of substituted trips by the average vehicle occupancy rate (average number of people per auto) used by Caltrans (1.15) (Caltrans, 2016).

The (optional) trip type factor, *T*, is included to correct for the fact that bike trips that are purely for exercise, sport or recreation are not as likely to substitute for auto trips as utilitarian bike trips. The default value for *T* is based on the combined share (49.4%) of bicycle trips made for "vacation" (2.1%) or "other social or recreational" (47.3%) purposes, taken from the 2009 National Household Travel Survey (Kuzmyak & Dill, 2012). The default value is the percentage of all other (non-vacation, social or recreational) trips, calculated as 1-0.494 (=0.506). This approximation of commute and utilitarian trip share is likely conservative, however. Furthermore, the auto substitution factor already accounts for recreational ridership (Matute et al., 2016; Monsere et al., 2014; Thakuriah et al., 2012).

The trip length factor, *L*, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data.

Ease of Applying the Alternative Quantification Method

To gauge how easy it would be to use the alternative quantification method, jurisdictions' housing projects that received funding from the Affordable Housing and Sustainable Communities program or Active Transportation Program were surveyed about the type, timing and location of their bicycle and vehicular counts, and who conducted the counts. The bicycle and vehicular count information available online for the jurisdictions was also reviewed. The results, along with the insights from the case study presented in the technical documentation, indicate that the alternative quantification method would be at least as easy to use as the existing method, for at least two reasons.

First, once a funding applicant has the requisite hourly (or daily) bicycle count data or vehicular ADT, the alternative quantification method can be applied more quickly than the existing method. Default values are available for all other factors in the alternative method besides the bike count. The existing method, on the other hand, requires the potentially time-consuming identification and documentation of all the "activity centers" within ½-mile and ¼-mile buffers of the planned bicycle facility.

Second, in many jurisdictions it may be just as easy for a funding applicant to obtain the requisite hourly bicycle count data as the necessary vehicular ADT. Most of the jurisdictions for which information was obtained about their bike and auto traffic data collect bike counts at dozens of locations, most updated at least annually. Multiple jurisdictions also collect at least some bike count data using continuous counters, while multiple others are planning to either expand or initiate continuous bike count programs. And many of the surveyed jurisdictions have bike count data for nearly as many locations as automobile counts.

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I. RESPONSES TO LOZEAU DRURY DRAFT IS/MND COMMENT LETTER, JANUARY 19, 2021

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury LLP comment letter. The comment letter is included as Attachment A to this appendix. Responses are keyed to comments in the attorneys' cover letter, however the underlying technical studies have been reviewed by the IS preparers and additional relevant items in those studies also have been addressed in these responses. Responses to the biological resources comments have been prepared by Monk and Associates, with peer review by Jake Schweitzer of Vollmar Natural Lands Consulting (VNLC). Responses to air quality/GHG comments have been prepared for the City by The RCH Group. Responses to VMT comments have been prepared by GHD, with City staff peer review.

Comment 1: There is a fair argument that the project may have significant traffic and GHG impacts because the purported mitigation measure for VMT is not supported by substantial evidence and defies common sense.

Response: The VMT reduction (bicycle commute mode share) included in the original technical memorandum and analysis by GHD was based on the average commute length of Napa County residents, as established using Streetlight Data (approximately 17 miles). The comment letter questions the use of the existing average commute length (based on automobile travel mode) as the basis for estimating potential bicycle commute trip length, following anticipated mode shift once the proposed bicycle trail connection is complete. The methodology used by GHD is consistent with typical application of the bicycle commute mode shift analysis process outlined in the nationally recognized publication (NCHRP 552). GHD has, however, refined the analysis to use an average bicycle commute trip length of 5.2 miles which results in a conservative analysis. This trip length was established in *Understanding and Measuring Bicycling Behavior: A Focus on Travel Time and Route Choice* (OTREC-RR-08-03, December 2008) and was utilized irrespective of existing commute lengths in Napa County.

Upon review of the trip length assumptions questioned in the comment letter, GHD reviewed its analytical basis for establishing average trip lengths in Napa County and for the Project Area, and in turn the basis for establishing a trip length baseline and threshold (15% below baseline) and the basis for establishing an average commute length for the proposed Project. Upon further review of data provided by the applicant, indicating a roughly 11-mile one-way commute length, GHD revisited the available sources and found compelling evidence for using an average of three data sources (Streetlight Data, Census Longitudinal Employer-Household Dynamics, and the California Statewide Travel Demand Model). This additional analysis and supporting evidence for using an average of the available data sources, is provided in GHD's updated memorandum (Section 3), which is included in the Final IS/MND Traffic Appendices. Based on the refined analysis, the proposed Project's net VMT over the calculated threshold level was determined to be 729 daily VMT, as opposed to the previously reported 1,001.

The applicant had previously proposed a 300-foot bicycle trail project to help reduce VMT in the project area by inducing existing and future employee commutes using bicycles instead of

automobiles. The bicycle trail provides significant ancillary benefits outside the question of VMT reduction, including closing a significant gap in the regional bicycle network. Since preparing the prior analysis, the applicant has indicated that a previously-assumed bike trail along the frontage of a new school, south of the proposed project, is no longer being constructed. Thus, the applicant has proposed to nonetheless close the bicycle network gap by funding the construction of the bike trail along the school's frontage as well, extending the length of the proposed bike trail from about 300 to about 800 feet. This bike trail will close the gap between the Class II bikeways on Commerce Court and the existing bike trail along Wetlands Edge Road that currently terminates at Eucalyptus Drive. The prior analysis underrepresented the potential bicycle commute mode shift of the gap closure. Upon further review of the methodology used to estimate induced bicycle commutes, GHD has developed a refined methodology that better captures the anticipated benefits of the closure in the bicycle network gap.

Estimating the benefits of the 800-foot bike trail on its own assumes the bicycle commute potential of the existing trail on Wetlands Edge Road is already fully realized. Due to the isolation of this existing trail, however, this assumption is not realistic. Existing residents along Wetlands Edge Road, and those within a reasonable access buffer, would currently need to navigate State Route 29, which lacks bicycle facilities, to arrive at any significant employment destinations. Only the most experienced and fearless bicyclists would venture this journey to work (this finding is consistent with the industry-standard level-of-traffic-stress, or LTS, ranking of bikeways relative to potential user groups). Therefore, using only the proposed 800-foot bike trail is insufficient in estimating the potential bicycle commute mode shift that could reasonably be anticipated through closure of the gap in the regional bicycle network. GHD also estimated the bicycle mode shift reduction using the entirety of the existing Wetlands Edge Road bike trail in addition to the proposed 800-foot gap closure. This assessment implicitly assumes zero utilization of the existing Wetlands Edge Road bike trail. Although this assumption is likely closer to common-sense estimation of bicycle commute use of the existing trail, GHD used an average of both scenarios to estimate the potential bicycle mode shift of closing the gap in the regional bicycle network, between the existing bike trail on Wetlands Edge Road, and the bike lanes on Commerce Court. GHD has revised the analysis and now estimates an average of 96.5 daily commuters, including existing commuters and commuters to the proposed Project, can be assumed to utilize the available bicycle network to commute in lieu of automotive travel.

The cited data from CARB is misconstrued in the comment letter. The CARB report recommends assuming a bicycle commute length of 1.5 miles only in the absence of better data, and for the purpose of generating a conservative assessment. CARB's own report presents a table that shows a 2016 intercept survey in Los Angeles that presents an average 7-mile trip length. The CARB report also presents a 2.3-mile bicycle trip length from a 2012 National Household Travel Survey. The 1.5-mile bicycle trip length is from a 2013 California Household Travel Survey. The sample sizes for household travel surveys are notoriously small, and the data relative to trip length by mode are not specific to trip type (i.e. commute trip length). The 5.2-mile bicycle trip length applied in this study, from the cited *Understanding and Measuring Bicycling Behavior: A Focus on Travel Time and Route Choice* is more conservative than the 7-mile bicycle trip length from the 2016 intercept survey in Los Angeles. Both sources are of actual bicycle commuters.

The cited household travel surveys, besides the sample size issues, blend all trip purposes rather than focusing on commute trips. Other trip purposes, such as home-based-school and home-based-shopping trips are demonstrably shorter on average than commutes. Commutes are, on average, the longest distance regular household trips. CARB's recommendation is overly conservative in this case, in which our analysis is focused on home-based-work commute trips.

Evidence of potential commuters that could use the proposed bike trail has been further shown in the revised memorandum, through demonstration of significant commute patterns between the proposed Project vicinity and residential communities in American Canyon, in particular along Wetlands Edge Road. Data from Census Transportation Planning Products (CTPP) and Census Longitudinal Employer-Household Dynamics (LEHD) show several hundred commute pairs between these geographies. In the future, the utility of additional proposed and funded bicycle infrastructure along Green Island Road and Devlin Road, will be greatly increased with the closure of the gap in bicycle infrastructure between Eucalyptus Drive and Commerce Court. These indirect cumulative benefits are not included in this analysis. Additionally, non-commute trips are not included in the VMT reduction benefit assessment of the bicycle trail gap closure. The added non-commute bicycle trip inducement of the trail, including safe access to the new school, health benefit of recreational use, and VMT reduction of other non-commute trip mode shift will combine to result in significant societal benefits not included in the GHD analysis.

At an average one-way distance of 5.2 miles, the estimated 96.5 bike commuters calculated to be generated by the proposed 800-foot bike path extension mitigation would reduce VMT by approximately 1004 miles. This would more than offset the un-mitigated project's 729 VMT exceedance of the 15% VMT reduction significance threshold.

The VMT analysis in Item XVII.b, in the Final IS/MND, as well as Mitigation Measure TRA-2 (in the IS/MND and MMRP) have been updated to incorporate this more conservative analysis and the additional length of the path to be constructed by the applicant. The impact significance is not changed.

Comment 2: The MND fails to adequately analyze impacts to biological resources because it relies upon an incomplete baseline and the project may have adverse impacts on numerous sensitive species currently using the site or adjacent areas.

Response: The IS/MND identifies potential impacts to special-status birds, nesting raptors, passerine birds, the western pond turtle, and requires mitigation (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5). The required mitigation (as modified in response to the CDFW comment letter and included in the Final IS/MND and MMRP) reduces impacts to these species to a less-than-significant level. The information provided in the comment letter does not change that conclusion. With respect to the adequacy of the baseline, as noted in Monk & Associates, Inc. (M&A) March 2020 *Biological Resources Analysis* report that was provided to the City of American Canyon's consultant for peer review and incorporation into the Mitigated Negative Declaration, M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel, of which the approximately 10-acre project site is a part. M&A

biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the U.S. Army Corps of Engineers in 2012 and reverified by this agency in 2017. During the site surveys and wetland delineation, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The peer review, conducted for the City's consultants by biologist Jake Schweitzer of Vollmar Natural Lands Consulting, confirmed these conditions.

California Environmental Quality Act (CEQA) Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project site. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project...

In order to perform an impact analysis, it is necessary for one to "fix" the baseline conditions of the project site because this enables the lead agency to determine how the site conditions would be changed as a result of the proposed project. The intent of CEQA Guidelines Section 15125 is to provide guidance to lead agencies as to when to "fix" the baseline conditions of the project site.

The environmental "baseline" is the combined circumstances existing at the time the CEQA document is published, which in the case of M&A's Biological Resources Analysis is March 2020, which preceded an application submittal to the City of American Canyon for the proposed project. Consequently, past surveys and past species sightings by M&A in past years were not discussed for the currently proposed project. Note that the proposed project site is 10 acres of the original 35-acre parcel that M&A surveyed in 2006, 2011, and 2012, 2017, 2018, and 2019. M&A's Biological Resources Analysis report for this project also discusses wildlife habitats and species observed onsite during the current (2020) baseline survey that was used to prepare that report, and acknowledges that many other bird species likely nest in the eucalyptus trees adjacent to the project site to the west, north and south. Finally, CEQA does not require an exhaustive list of all bird species that could occur on a project site, only an analysis of potential

impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance, which M&A's Biological Resources Analysis addressed.

Dr. Smallwood stated that M&A did not consult eBird, the web-based list server that birders use to report their bird sightings. He also states that M&A "mostly relied" on the California Department of Fish and Wildlife's (CDFW) RareFind database (CNDDB) which provides records of special-status species nesting, breeding, or permanently residing in the area. CDFW's CNDDB is extremely useful because it documents nesting records and documents breeding "habitats" as opposed to an incidental sighting of a species (which is what eBird data are). Many of the nesting/breeding/permanent species habitat records in the CNDDB are reported by professional biologists, such as M&A biologists, who hold federal Recovery Permits (10(a)(1)(A) permits) with the U.S. Fish and Wildlife Service (USFWS) and/or a State Memorandum of Understanding (MOU) with the CDFW that allows us to work with specific federal and/or state listed wildlife species. Reporting these listed species sightings to the CNDDB is a *requirement* of these permits. In other words, the biologists making their reports to the CNDDB are experienced, qualified biologists who have been vetted by the federal and state government agencies in order to receive these federal and state permits. Whereas anyone can report their incidental bird sightings to eBird without any way to confirm the qualifications of the observer. Also, since the data reported to the CNDDB is a known occurrence of a nesting or breeding habitat (and not just an incidental flyover), this is relevant for assessing a development project's impacts in that geographic area.

It is important to note that merely observing sensitive birds flying over a property (as Dr. Smallwood reported), or foraging over the site, or using the habitat on the site in the month of January (the non-nesting season), does not warrant reporting to the CNDDB as these sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species, as Dr. Smallwood reported, do not necessarily translate into a "potentially significant biological impact" under CEQA.

While it is interesting to record birds flying overhead on their way to other more suitable habitats, observing a "flyover" bird or a bird resting in a tree adjacent to or on a project site does not necessarily translate into the project site providing "suitable habitat" or that development of that project site would cause a "significant adverse impact" to that species that warrants any special measures to reduce the significance of the potential impacts to a level regarded as less than significant under CEQA. Therefore, loss of *foraging habitat* that may occur on the project site for birds mentioned by Dr. Smallwood such as the red-tailed hawk, great horned owl (*Bubo virginianus*), Nuttall's woodpecker (*Picoides nuttallii*), Cooper's hawk (*Accipiter cooperii*), American kestrel (*Falco sparverius*), red-winged blackbird (*Agelaius phoeniceus*), Say's phoebe (*Sayornis saya*), and other wildlife species *is not necessarily a potentially significant impact.* Indeed, there is a plethora of such foraging habitats throughout the City of American Canyon and throughout this area of Napa County. The project site does not provide unique foraging habitat and the loss of this habitat is not significant relative to the amount of readily available similar foraging habitats located both locally and regionally.

Therefore, impacts to foraging or flyover habitat in most cases do not result in significant biological impacts that require mitigation. The project's impact to foraging habitat is therefore considered to be less-than-significant and does not warrant recirculation of the IS/MND or preparation of an EIR under Public Resources Code Section 21151.

As discussed above, the comment incorrectly states that M&A mostly relied on CNDDB RareFind records to make our biological impacts assessment. M&A biologists have extensive experience conducting biological surveys in the City of American Canyon and in southern Napa County. Also, as stated earlier in this response letter, M&A biologists have years of experience on this project site. It was this breadth of knowledge about the biological resources in American Canyon and on this particular project site that allowed M&A to determine which special-status species could be affected by the proposed development project, and therefore, which species warrant avoidance and minimization measures as necessary to address potentially significant adverse impacts. As noted previously M&A's findings were peer reviewed by an independent biologist under contract to the City's CEQA Consultant.

Comment 3: The Project will have a significant impact on wildlife movement and habitat fragmentation.

Response: The March 2020 *Biological Resources Analysis* prepared by Monk & Associates concluded that the proposed project would not interfere with the movement of native wildlife. The project site has a history of disturbance starting with eucalyptus tree removal in 2012, continued disturbance associated with the paintball facility located immediately to the southeast, and the recent construction of the SDG Commerce 330 Distribution Center distribution center to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

Regional wildlife corridors that have significant values include, well known and agency-recognized deer herd or elk herd migration corridors or any other regionally recognized wildlife corridor. The project site is not recognized by the CDFW or the USFWS as providing regionally or locally important wildlife corridors. Other than a wildlife movement area for an occasional Virginia opossum (*Didelphis virginiana*) or perhaps a striped skunk (*Mephitis mephitis*), or an occasional Columbian black-tailed deer (*Odocoileus hemionus columbianus*), the project site likely has little to no value as a local wildlife corridor at best. Impacts to this localized use area would not be considered significant pursuant to CEQA.

Comment 4: The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

Response: The comment states that: "The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders." "Regardless of whether these species live on site, these and other special status species must cross roadways that will

experience increased traffic volume as a result of the Project." The commenter continues "California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project."

California red-legged frogs (*Rana draytonii*) and California tiger salamanders (*Ambystoma californiense*) do not occur onsite. In the American Canyon/Napa area, there are no records for the California red-legged frog west of Highway 29 (aka State Route 29) where the project site is located. Rather all known records are east of State Route 29. Thus, if this frog is not known on the west side of State Route 29, the commenter's statement that this frog will cross roads used by vehicles servicing the project is not logical; any amphibian trying to cross Highway 29 to reach the project site would be squashed by traffic. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896), east of State Route 29, a major geographic barrier to movements of the California red-legged frog to the west of this highway. It is noteworthy that M&A biologists have surveyed tributaries of the Napa River west of State Route 29 many times over numerous years and have yet to find this frog west of Highway 29. M&A biologists were the first biologists to identify the California red-legged frog east of Highway 29 in Napa County in 1996. Accordingly, they are qualified to assess potential impacts to this species. M&A concluded that increased traffic associated with the project west of State Route 29 would not affect the California red-legged frog.

There are no records for the California tiger salamander in Napa County. The closest known California tiger salamander occurrence is in Solano County located approximately 17 miles east of the project site (CNDDB Occurrence No. 485). M&A biologists carry both federal and state permits that allow us to work directly with the California tiger salamander. Mr. Monk has worked with this salamander throughout its known range in California. Indeed, Mr. Monk was on the scientific advisory panel for the recently completed USFWS Santa Rosa Plain California Tiger Salamander Recovery Plan (USFWS 2016)[1]. M&A concludes that increased traffic associated with the project will not affect the California tiger salamander.

Common wildlife road kill, such as the commenter has observed in the project area, of species associated with man and residential developments, Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*), is not considered a significant impact pursuant to CEQA. There are no regulations that protect common wildlife species that could be killed by vehicular traffic. While it is unfortunate that wildlife is killed on roadways by vehicular traffic, and we wish this was not the case, this is not a direct or cumulative impact that rises to a level that would be regarded as an impact that significantly affects a species or that requires mitigation pursuant to CEQA. Therefore, an EIR is not necessary to evaluate the

[1] USFWS (U.S. Fish and Wildlife Service). 2016. Recovery Plan for the Santa Rosa Plain: *Blennosperma bakeri* (Sonoma sunshine)*; Lasthenia burkei* (Burke's goldfields)*; Limnanthes vinculans* (Sebastopol meadowfoam); California Tiger Salamander Sonoma County Distinct Population Segment (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi + 128 pp. June 20, 2016. Federal Register. Pages: 39945-39946.

direct and cumulative impacts of the project's vehicle collisions with common wildlife species under Public Resources Code Section 21151.

Comment 5: The MND fails to analyze the project's impacts from the use of pest control measures.

Response: The comment states that "The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse." The applicant would employ a pest control company that implements an Integrated Pest Management program. Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. IPM is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

The project warehouse would be built to current code and through building design, would exclude rodents from the facility and would not provide an attractive nuisance. Other exclusion strategies would be incorporated into the design of the façade of the warehouse building, specifically the gables, eaves, overhangs, to prevent or discourage birds from establishing nests, or exclude birds from perching or nesting by using nets. In addition, the applicant uses Bird Gard Pro Plus, which is a sonic bird control system that uses a variety of naturally recorded bird distress calls to frighten, confuse and disorient birds in the immediate area. This has proven to be an effective way to discourage swallows from establishing nests on other warehouse buildings in the City of American Canyon owned by the applicant. Pesticides that would be routinely sprayed around the warehouse include Suspend SC and Essentria® G Granule Insecticide. Suspend is used for insect control on commercial and residential turf and landscape areas. The active ingredient is Deltamethrin (4.75%). Essentria® G Granule Insecticide is an environmentally friendly insecticide derived from essential oils. Essentria® G Granular Insecticide is a natural insecticide formulation for treatments in sensitive areas. Active ingredients include Eugenol (Clove Oil) 2.90% and Thyme Oil 0.60%. This insecticide is used to control ants, centipedes, chinch bugs, clover mites, cockroaches, crickets, earwigs, fleas, leafhoppers, millipedes, and other insect pests in landscape, turf, and perimeters around residential and commercial areas. These products do not result in harm to non-target wildlife. Instead of using an anticoagulant rodenticide to control rodents on this project site, the applicant is proposing to use a multi-use PROTECTA bait station, monitoring device and snap trap holder to capture rodents without the use of poison. The attractant used will be non-toxic, in combination with Trapper T Rex Rat Traps (snap traps) or Catchmaster Glue Traps inside the bait station. This would eliminate the potential risk of secondary poisoning of non-target animals through direct exposure and indirect exposure via predation and scavenging of affected pest animals. Consequently, there is no anticipated use of rodenticides for this project at this time, but if there was a rat or mice infestation of the warehouse grounds, the applicant would use CONTRAC rodenticide, which is considered to be less toxic to non-target animals, in both primary and secondary poisoning situations, than other single-feeding anticoagulants. The

applicant would continue to follow all state and federal laws regarding the use of anticoagulant rodenticides.

Comment 6: The project will have cumulative impacts on biological resources.

Response: The comment concludes that "the Project will have a significant cumulative impact on biological resources. An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well." The commenter states that the "City of American Canyon has sprawled across nearly all the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west…" Over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, many open space preserves and parks have been established to preserve and protect open space habitats within the City limits and in this region. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. Closer to the project site, the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that are preserved in perpetuity. Therefore, conversion of approximately 10 acres of ruderal habitat on the project site to commercial development would be a less-than-significant contribution to the overall cumulative impact, given the extent of preserved open space in this region.

Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the City, the mitigation measures prescribed in the MND would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. The mitigation measures identified in the MND (as modified in response to the CDFW comment letter, below) would be required to be adopted by the applicant upon project approval, and appropriately addresses potential impacts to western burrowing owl, Swainson's hawk, nesting raptors and nesting passerine birds, and reduce those impacts to a less-than-significant level in both the project and cumulative contexts. Therefore, no additional cumulative impacts assessment is required in the MND.

Comment 7: The IS utilized unsubstantiated input and output parameters to estimate project emissions. Specifically, The MND fails to explain how the City calculated the project's average daily construction emissions of ROGs and NOx.

Response: The daily construction emissions provided in Table AQ-1 on page 22 of the MND do not match the daily emissions estimates from the CalEEMod output files provided in Appendix B-3 because CalEEMod output files report construction emissions as maximum daily emissions and Table AQ-1 on page 22 of the MND reports average daily construction emissions, consistent with the BAAQMD's *CEQA Guidelines*. This is explained on page 22 of the MND, "As the

construction phases (i.e., grading, paving, building construction, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds."

For instance, average daily construction emissions of ROG and NOx were calculated to be 13.6 and 24.6 lbs/day, respectively (See Table AQ-1 on page 22 of MND). This was calculated by taking the annual emissions estimates for ROG (1.4226 tons/year) and NOx (2.5827 tons/year) from the CalEEMod annual output files in Appendix B-3, converting them to pounds (2,000 lbs/ton), and dividing them by the number of construction days (210 days) as shown in the construction schedule provided in the CalEEMod output files in Appendix B-3 and the air quality calculations supporting information in Appendix B-2. The average daily emissions calculations for ROG and NOx are the following:

- ROG: (1.4226 tons/ year) x (2,000 lbs/ton) x (210 days) = 13.6 average annual lbs/day of ROG
- NOx: (2.5827 tons/ year) x (2,000 lbs/ton) x (210 days) = 24.6 average annual lbs/day of NOx

As demonstrated by the calculations above, the average daily construction emissions shown in Table AQ-1 on page 22 of the MND are valid and were calculated in accordance with BAAQMD's *CEQA Guidelines*. As stated on page 22 of the MND, "All construction-related emissions would be below the BAAQMD significance thresholds." Therefore, project construction activities would result in a less-than-significant impact.

Comment 8: The MND used improper modeling inputs, including for water use for parking and solid waste generation.

Response: The water demand assumptions input into CalEEMod were based on the approved SDG 330 Warehouse project, but was scaled down proportionally to the building square footage of the proposed project. As stated on page 100 of the MND, the project's water use would be "approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use." Furthermore, water use does not generate air quality emissions under CalEEMod (as detailed in the CalEEMod annual output files in Appendix B-3), water use only generates GHG emissions under the CalEEMod. Adjusting CalEEMod to a total daily water demand of 683 gallons per day or 249,295 gallons per year would result in no increased local air quality emissions and less than one additional metric ton of CO_2e per year. Therefore, the proposed project water use results in negligible emissions and adjustments to that level of water use would not change the air quality emissions or conclusions of the MND.

CalEEMod default values for solid waste generation were not used because the proposed project would generate very little solid waste. Solid waste generation was based on the approved SDG 330 Warehouse project, but was scaled down proportionally to the square footage of the proposed project. As stated on page 100 of the MND, "The warehouses project

would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon." Therefore, the solid waste generation assumptions input into the CalEEMod accurately reflect the estimated solid waste generation of the proposed project.

Similar to the operation of the approved SDG 330 Warehouse project, the proposed project was assumed to only generate trips Monday through Friday and would not need to bring natural gas to the warehouse building since there is no need for natural gas for the warehousing operations. The City of American Canyon considers the best management practices (BMPs) to reduce emissions of dust and particulates to be required and the BMPs would be implemented as part of the proposed project. As stated on page 24 of the MND, "Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's CEQA Air Quality Guidelines. Therefore, project impacts from construction emissions would be less than significant."

Comment 9: SWAPE's CalEEMod modeling run indicates a fair argument that the project may have a significant air quality impact.

Response: The comment is comparing maximum daily emissions estimated by CalEEMod to BAAQMD's **average daily** emissions significance thresholds. SWAPE's comments state that their CalEEMod re-run caused NOx to exceed BAAQMD's average daily significance threshold of 54 lbs/day. However, their CalEEMod re-run actually resulted in lower NOx emissions compared to the CalEEMod modeling for the MND provided in Appendix B-3 (2.58 vs. 2.56 tons of NOx during the entire construction period). Both CalEEMod runs result in average daily NOx emissions of approximately 25 lbs/day, which is less than 50% of BAAQMD's significance threshold of 54 lbs/day for NOx emissions during construction (See Response III.A. for how to calculate average daily construction emissions). Therefore, average daily construction emissions would be below BAAQMD's significance thresholds and project impacts from construction emissions would be less than significant.

Comments 10, 11, 12: The IS inadequately evaluates emissions of diesel particulate matter. Specifically, The HRA fails to account for the fact that the nearest sensitive receptor to the project's emissions is located only 500 feet from the soil borrow site. SWAPE's analysis provides substantial evidence of a fair argument that the project may have significant health risk impacts from its emissions of toxic air contaminants.

Response: The Draft IS acknowledges that a single residence is located within 500 feet of the project site. However, impacts to a single house are not considered potentially significant as CEQA does not consider the impacts on a few particular persons, but on the environment of persons in general. *See, Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 734; *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58

Cal.App.3d 188, 195. There are no other sensitive receptors within 1,000 feet of the project site.

A review of the SWAPE HRA also found a number of deficiencies in that document that skewed its results:

1. SWAPE 's HRA uses maximum daily emissions for DPM instead of using the annual emissions to calculate an emission rate.
2. SWAPE's HRA assumes all of the proposed project construction occurs 500 feet from the one residence, but only approximately 35 days of construction occurs that close (because grading activities are borrowing soil from the property to the south). All other construction activities are roughly 1,000 feet away.
3. SWAPE's HRA assumes that operation of the project occurs 500 feet away from the one residence, but the project site is roughly 1,000 feet away.
4. SWAPE uses AERSCREEN modeling. AERSCREEN modeling is a screening tool which determines the maximum hourly concentrations based on worst-case meteorological and land use conditions. That maximum hourly concentration is then multiplied by a factor of 10 percent to estimate the wind direction variability over a year. Regardless it still uses that worst-case meteorological condition for each hour within that 10 percent period. These worst-case meteorological include wind speeds of about 1 mph and generally stable atmospheric conditions which tend to occur during overnight hours. In this case, construction occurs primarily during the daytime except for the concrete pour. The area does have a high percentage of calm winds but also a moderate percentage of winds greater than 5.5 mph. Also, the SWAPE analysis uses a land use of "urban" to determine meteorological land use parameters of Bowen Ratio, albedo, and surface roughness. These parameters are used to produce the worst-case meteorological conditions. The surrounding land uses to the project site are a combination of open space and one/two story buildings. By using the screening approach, their model greatly overstates the construction and operational health impacts.
5. The majority of operational PM2.5 exhaust emissions calculated in the CalEEMod model are incorrectly calculated from electric forklifts. CalEEMod incorrectly ascribes combustion emissions for the electric forklifts. Electric forklifts do not have engines and therefore do no produce exhaust or generate PM2.5. The project would use only electric forklifts. Therefore, project operational emissions would be negligible and would occur approximately 1,000 feet from the nearest residence.

Comment 13: There is a fair argument that the project may have significant GHG impacts. The MND's reliance on the 1,100 MT CO2e per year threshold is only designed to achieve the GHG reductions required by 2020 and is insufficient to align the project with the State's 2030 GHG Reduction Targets.

Response: The BAAQMD adopted a "bright line" and "efficiency" GHG threshold because some projects have a very low service population, like the proposed project. Applying an efficiency metric for GHG emissions for projects like the proposed project is not appropriate, which is why BAAQMD's "bright line" threshold was used in the MND. As stated by the Commenter, "BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. California's 2030 GHG reduction goals (outlined in SB 32) require a 40% reduction in the State's GHG emissions from the 2020 reduction goal level (1990 levels). Thus, a 40% reduction from BAAQMD's 1,100 metric tons of CO_2e per year threshold or 660 metric tons of CO_2e per year would ensure a project is in line with the State's 2030 GHG reduction goals. As shown in Table GHG-1 on page 52 of the MND, the proposed project would generate 590 metric tons of CO_2e per year (amortized construction emissions plus operational emissions) for the first year of operations assumed to be year 2022, which is well below 660 metric tons of CO_2e per year. Furthermore, proposed project emissions would continue to decrease each year of operation as engine technology gets cleaner, fuels achieve reduced carbon intensity, and electricity generation utilizes more renewable and lower carbon sources. Therefore, the proposed project would have less-than-significant impacts on GHG emissions.

Comment 14: The project's failure to reduce its expected VMT and its levels of VMT per capita are evidence of a fair argument that the project may have significant GHG emission impacts.

Response: Please see response to comment 1, above.

Comment 15: For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts.

Response: As detailed in the responses to the comments presented above, no new or substantially increased impacts have been identified in the comments, and no substantive revisions are required to the Draft IS/MND in response to these comments. Therefore, the impacts remain mitigated to a less-than-significant level and an EIR is not required.

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CHARLTON H. BONHAM, Director

January 11, 2021

Mr. William He, Associate Planner
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Subject: SDG Commerce 217 Distribution Center Project, Mitigated Negative Declaration, SCH No. 2020120302, Napa County

Dear Mr. He:

The California Department of Fish and Wildlife (CDFW) reviewed the Mitigated Negative Declaration (MND) for the SDG Commerce 217 Distribution Center Project (Project) and is submitting the following comments on the MND to inform the City of American Canyon, as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) and is responsible for the conservation, protection, and management of the State's biological resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as a California Endangered Species Act (CESA) Permit, Native Plant Protection Act Permit, Lake and Streambed Alteration (LSA) Agreement, and other provisions of the Fish and Game Code that afford protection to California's (State's) fish and wildlife trust resources.

Project Description

The proposed Project will develop a 217,294 square-foot wine distribution center, associated parking areas, a detention/bioretention pond, and will utilize a soil borrow area immediately north of the SDG Commerce 330 Distribution Center.

Project Location and Environmental Setting

The Project site is located at 1075 Commerce Court (previously Commerce Boulevard) in the City of American Canyon, Napa County, and is centered at approximately 38.187092 latitude, -122.273383 longitude. Access to the Project site is from State Route 29 via Green Island Road to Commerce Court. The Project will occur on a 10.39-acre parcel comprised of annual grassland habitat surrounded by blue gum eucalyptus (*Eucalyptus globulus*). The Project site also includes an approximately 46,700 cubic-yard soil borrow area within the parcel between the Project parcel and the southernmost

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parcel where the nearly completed wine distribution center (i.e., SDG Commerce 330 Distribution Center) occurs. North Slough, a tributary to the Napa River, occurs immediately west of the Project site and is separated from it by a dense stand of eucalyptus. Industrial buildings occur to the north. The recently completed Commerce Court road extension borders the eastern side of the Project.

Comments and Recommendations

Swainson's hawk (Buteo swainsoni)

Mitigation Measure BIO-2 would not reduce potential impact to Swainson's hawk, a State listed as threatened species, to less-than-significant. CDFW recommends that surveys be conducted within a 0.5-mile radius as stated in the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (May 31, 2000) available on CDFW's webpage at https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds. CDFW recommends that Mitigation Measure BIO-2 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~)*:*

1

> ***If Project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting protocol-level surveys for Swainson's hawk with detections) shall conduct p****~~P~~**re-construction surveys for nesting Swainson's hawks **within** ~~shall be conducted for~~ a **half**~~quarter~~-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.*
>
> *If Swainson's hawks are found to be nesting on the project site or within a* ~~¼~~***0.5****-mile of the project site,* ***the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5 miles of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.*** ~~*consultation with CDFW shall be conducted. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.*~~

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Western burrowing owl (Athene cunicularia)

Mitigation Measure BIO-1 in the MND would not reduce potential impacts to burrowing owl, a California Species of Special Concern, to less-than-significant because conducting a single survey within 14 days of the start of Project activities would be unlikely to detect burrowing owls. Burrowing owls may use the Project site and adjacent habitat for foraging, overwintering, and/or nesting habitat.

CDFW recommends that Mitigation Measure BIO-1 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~):

② *A **qualified biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.*** ~~*preconstruction survey for burrowing owls shall be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence.*~~ *If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.*

~~*1)Burrowing owl surveys shall be conducted by walking the entire project site. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be seven meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approximately 160 feet) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.*~~

1) *If burrowing owls are detected on **or adjacent to** the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012)*

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*shall be implemented**, unless reduced buffers are accepted by CDFW in writing based on site specific conditions**:*

- *From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities **shall** have a 500-meter buffer from occupied nests **and wintering sites**.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests **and wintering sites**.*
- *No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones **shall be marked with high visibility fencing or flagging** ~~should be fenced as well. If burrowing owls are found in the project area, a qualified biologist shall delineate the extent of burrowing owl habitat on the site.~~*

② (cont.)

2**) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site **and adjacent habitat** using CDFW-**accepted**~~approved~~ methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW **acceptance**~~approval~~. **If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

***3**) If the survey determines that the project site is actively being used by burrowing owl, **or any owls are passively relocated as described above**, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan **shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan.** ~~would be subject to approval of the CDFW.~~ If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database **(CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data)**.*

Nesting Raptors and Other Birds

③ CDFW is concerned with the language in Mitigation Measures BIO-3 and BIO-4, particularly that surveys would be conducted within 30 days of the start of Project activities. Surveys should be completed as close to the start of Project activities as

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possible to minimize the likelihood of raptors and other birds nesting on or adjacent to the Project site between the time of the survey and the start of Project activities. CDFW recommends Mitigation Measures BIO-3 and BIO-4 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~)*:*

To ensure that impacts to ~~tree or ground~~ nesting raptors and other birds are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified ~~raptor~~ biologist ***(i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections)*** *prior to commencing with earth-moving or construction work, if this work would commence between February 1st and August 31st. The survey shall be conducted within* ***7 days*** *~~the 30- day period~~ prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures, within* ***500****~~200~~ feet of the project site.*

③ (cont.)

2) If nesting raptors are identified during the surveys, ***a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with*** *~~the dripline of the nest tree or ground-nesting site shall be fenced with~~ orange construction fencing ~~(provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site shall be staked with orange construction fencing~~****, or similar****. If the tree or* ***other*** *nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site.* ***If nesting white-tailed kites are found during surveys, a minimum 300-foot no-disturbance buffer shall be established. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site for a minimum of one consecutive week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying potential nest-disturbance behavior, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist and/or project proponent shall consult with CDFW regarding appropriate avoidance and minimization measures; and project activities shall not resume without CDFW's written permission. No-disturbance buffers shall remain in place until the nests are no longer active, as determined by a qualified biologist.*** *~~The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid~~*

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~~project construction zones. This typically occurs by August 1st. This date may be earlier or later, and shall be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers shall be maintained in place through the month of August and work within the buffer can commence on September 1st.~~

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest ***site*** *until the qualified ~~raptor~~ biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified raptor biologist that* ***the nest is no longer active****. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.*

③ (cont.)

To ensure that impacts to nesting passerine birds are avoided, a ***qualified biologist*** *~~nesting survey~~ shall ~~be~~ conduct~~ed~~* ***a survey*** *within* ***7~~15~~*** *days prior to commencing construction/grading or tree removal activities if this work would commence between* ***February*** *~~March~~ 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on* ***or adjacent to*** *the project site* ***within 200 feet****,* ***a qualified biologist shall determine appropriate, species-specific*** *~~a non~~-disturbance buffer****s for all nests. The no-disturbance buffers shall be clearly demarcated in the field with*** *~~of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with~~ orange construction fencing****, or similar, prior to the start of project activities****. Disturbance within the buffer shall be postponed until* ***a qualified biologist determines*** *~~it is determined by a qualified ornithologist~~ that the young have fledged and have attained sufficient flight skills to leave the area,* ***and*** *that the nesting cycle has otherwise completed.* ***To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site for a minimum of one consecutive week and then weekly during construction. If the qualified biologist observes any nesting bird displaying potential nest-disturbance behavior, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist and/or project proponent shall consult with CDFW regarding appropriate avoidance and minimization measures; and project activities shall not resume without CDFW's written permission.*** *~~Typically, most passerine birds in the region of the~~*

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③ (cont.)

~~project site are expected to complete nesting by August 1st. Many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until September 1 unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to September 1, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before September 1.~~

Western Pond Turtle (Emys marmorata)

The CNDDB shows an occurrence of western pond turtle from 2002 within 0.28 miles north of the Project site within North Slough. Western pond turtle is a California Species of Special Concern and impacts to this species would be potentially significant. Western pond turtles travel over land to reach nesting locations and may breed year-round. CDFW recommends the following mitigation measure:

④

A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle with detections) shall submit a wildlife exclusion fencing plan to CDFW for review and approval prior to starting construction. Exclusion fencing shall be installed along the western perimeter of the project site preventing the species from traveling from North Slough onto the project site during construction. A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests or evidence of their presence is found, CDFW shall be consulted with, prior to starting project activities, regarding appropriate avoidance and minimization measures, such as delaying project activities until the nest is no longer active, as determined by a qualified biologist. In this event, project activities shall not begin without CDFW's written permission.

Filing Fees

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

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CDFW appreciates the opportunity to provide comments on the MND for the proposed Project and is available to meet with you to further discuss our concerns. If you have any questions, please contact Mr. Garrett Allen, Environmental Scientist, at Garrett.Allen@wildlife.ca.gov; or Ms. Melanie Day, Acting Senior Environmental Scientist (Supervisory), at Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Gregg Erickson
BE74D4C93C604EA...

Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

II. RESPONSES TO CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DRAFT IS/MND COMMENT LETTER, JANUARY 11, 2021

New or revised IS text resulting from the following responses are identified in underline (added text) or strike through (deleted text). The updated mitigation measures are included in the Final IS text as well as the MMRP.

Comment 1: Adequacy of Swainson's Hawk mitigation

Response: The Final Initial Study has been revised to incorporate all of CDFW's suggested language into the Swainson's hawk mitigation measure, as follows (new language shown in underline). This mitigation measure would assure that impacts to the Swainson's hawk are reduced to a less-than-significant level because it meets or exceeds all standard resource agency requirements for this species, and is consistent with professionally accepted approaches to mitigating impacts to this species.

> ***Mitigation Measure BIO-2:*** <u>If project activities must occur during the Swainson's hawk nesting season (*i.e.*, typically March 1 through September 15), a qualified biologist (*i.e.*, a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile</u> radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.
>
> If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, <u>the project proponent shall either: a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.</u>

Comment 2: Adequacy of Western Burrowing Owl mitigation

Response: The suggested burrowing owl mitigation language provided by CDFW that was incorporated into the mitigation measure is shown in underline/strike through below. We did not incorporate all of CDFW's changes into the mitigation measure because some of the new language CDFW suggested is not standard mitigation that an applicant is typically held to for the presence of a wintering or transient owl observed spending a day or a week on a project site as it is passing through the area in the non-nesting season. Regardless, the mitigation

measure as revised is equally protective of the burrowing owl as CDFW's language, and meets the substantive protective goals of their suggested language.

> ***Mitigation Measure BIO-1:*** A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone or approximately 200-500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.
>
> 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:
>
> • From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
>
> • From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.
>
> • No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.
>
> 2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.
>
> 3) If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted, set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for

protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

This mitigation measure would reduce impacts to the western burrowing owl to a less than significant level because it meets or exceeds all standard resource agency requirements for this species, and is consistent with professionally accepted approaches to mitigating impacts to this species.

Comment 3: Adequacy of mitigation for nesting raptors and other birds

Response: CDFW's suggested mitigation language nesting raptors and nesting passerine birds has been added to Mitigation Measures BIO-3 and BIO-4, below.

Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site.

2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable no-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be

established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protection measures as determined in the field.

These revised mitigation measures would reduce impacts to nesting raptors and passerines to a less-than-significant level because they meet or exceed all standard resource agency requirements for nesting raptors, and are consistent with professionally accepted approaches to mitigating impacts to nesting raptors and passerines.

Comment 4: Adequacy of Western Pond Turtle mitigation

Response: The Draft IS/MND did not include a mitigation measure for the western pond turtle. However, upon reviewing CDFW's comment letter, we agree that it is appropriate to include a mitigation measure for this special-status species given the proximity of North Slough and western pond turtle sightings to the project site. Below we include CDFW's mitigation language

and bolster that language with additional measures that have proven effective on other projects with pond turtle populations.

The following has been added as the second paragraph on p. 32 of the Final IS/MND:

> The western pond turtle (*Emys marmorata*) is a California "species of special concern." In April of 2015, the USFWS issued a 90-day finding on a petition to list this species under FESA. In September 2016, M&A spoke with USFWS' Sacramento Field Office and was told that they "hope to finish a 12-month finding in the fiscal year of 2021" (G. Tarr, USFWS, Sacramento Field Office, pers. comm. with S. Lynch of M&A, September 21, 2016). Until the western pond turtle is formally listed it is not afforded the protections of FESA.
>
> The western pond turtle is a habitat generalist, inhabiting a wide range of fresh and brackish, permanent and intermittent water bodies from sea level to about 4,500 feet above sea level (USFWS 1992). Typically, this species is found in ponds, marshes, ditches, streams, and rivers that have rocky or muddy bottoms. This turtle is most often found in aquatic environments with plant communities dominated by watercress, cattail, and other aquatic vegetation. It is a truly aquatic turtle that usually only leaves the aquatic site to reproduce and to overwinter. Recent field work has demonstrated that western pond turtles may overwinter on land or in water, or may remain active in water during the winter season; this pattern may vary considerably with latitude, water temperature, and habitat type and remains poorly understood (Jennings and Hayes 1994).
>
> The pond turtle also requires upland areas for burrowing habitat where it digs nests and buries its eggs. These nests can extend from 52 feet to 1,219 feet from watercourses (Jennings and Hayes 1992), however most pond turtles nest in uplands within 250 meters of water (Bury, unpublished). Upland nest sites are usually found in areas with sparse vegetation. Sunny, barren, and undisturbed (not disked) land provides optimal habitat, while shady riparian habitat and planted agricultural fields do not provide suitable habitat (op. cit.). Eggs are typically laid from March to August (Zeiner et. al. 1988), with most eggs being laid in May and June. Hatchlings will stay in the nest until the following April (Bury, unpublished). Predators of juvenile pond turtles include the non-native bullfrog (*Lithobates catesbeiana*) and Centrarchid fish (sunfish). This turtle is most visible between April and July when it can be observed basking in the sun. In areas where the water is very warm during these months, however, it will bask in the warm water and will be more difficult to observe. It eats plants, insects, worms, fish and carrion (Stebbins 2003).
>
> According to the CDFW's CNDDB there is a 2002 record of this turtle in North Slough approximately 0.28-mile to 0.45-mile north of the project site. There is no aquatic habitat onsite and the upland habitat onsite appears to be most unsuitable for nesting turtles as it is a former eucalyptus forest that now, though devoid of trees, has

undulating topography from past land disturbance including from eucalyptus tree removal that took place in 2012. While it appears to be a most unlikely area for turtles to haul out and nest, in an abundance of caution that there is a possibility of turtles nesting onsite, impacts to western pond turtles from the proposed project are considered ***potentially significant***. Mitigation Measure BIO-5 would reduce this impact to a ***less-than-significant*** level.

The following mitigation measure has been added to the Biological Resources mitigation measures:

> ***Mitigation Measure BIO-5:*** A qualified biologist (*i.e.*, a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtles or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities, and the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

Implementation of this mitigation measure reduces the project's impact to western pond turtle to a less than significant level because it meets or exceeds all standard resource agency requirements for this species, and is consistent with professionally accepted approaches to mitigating impacts to this species.

III. CALTRANS INQUIRY EMAILS AND RESPONSES

The City received an email inquiry on the Draft IS/MND from Caltrans staff, which was satisfied in correspondence. No formal comments on the IS/MND were received from that agency. The email chain is presented below.

From: Luo, Yunsheng@DOT <Yunsheng.Luo@dot.ca.gov>
Sent: Wednesday, January 6, 2021 4:37 PM
To: Todd Tregenza <Todd.Tregenza@ghd.com>; Brian Doswald <bdoswald@icc-stravinski.com>; Kamesh Vedula <Kamesh.Vedula@ghd.com>
Cc: Emily Krause <ekrause@icc-stravinski.com>; Carol Guillen <cguillen@icc-stravinski.com>; Diana Gutierrez <dgutierrez@icc-stravinski.com>; John Wojtas <jwojtas@icc-stravinski.com>; Neil S. Thompson <nsthompson@icc-stravinski.com>; William He <whe@cityofamericancanyon.org>; Edison Bisnar <Ebisnar@cityofamericancanyon.org>; Brent Cooper <bcooper@cityofamericancanyon.org>; gencons@aol.com
Subject: RE: [External] SDG Commerce 217 Distribution Center project

I see. Thanks for the additional explanation. And good luck with the project!

Yunsheng Luo
Caltrans, District 4
Cell: 626-673-7057

From: Todd Tregenza <Todd.Tregenza@ghd.com<mailto:Todd.Tregenza@ghd.com>>
Sent: Wednesday, January 6, 2021 3:57 PM
To: Luo, Yunsheng@DOT <Yunsheng.Luo@dot.ca.gov<mailto:Yunsheng.Luo@dot.ca.gov
Subject: RE: SDG Commerce 217 Distribution Center project

Yunsheng,

Good question - I should have clarified. The project is not a public-facing retail building, with very little "customer" traffic. In this case, the non-commute trips are either trucks (excluded from SB 743 analysis for reasons described below) or other work-based non-commute trips (small deliveries, lunch trips, etc.) Therefore, the average worker commute trip (home-based work) was used to make the VMT assessment, as it is directly comparable to the home-based work commute trip of other employment destinations in the region.

Thanks,

Todd

From: Luo, Yunsheng@DOT <Yunsheng.Luo@dot.ca.gov<mailto:Yunsheng.Luo@dot.ca.gov>>
Sent: Wednesday, January 6, 2021 3:44 PM
To: Todd Tregenza <Todd.Tregenza@ghd.com<mailto:Todd.Tregenza@ghd.com

Subject: RE: SDG Commerce 217 Distribution Center project

Good afternoon Todd,

Thanks for sharing the information and the detailed explanation with me. We respect the city's preference in choosing the proper methodology for the VMT analysis. It is more for the discussion purpose for us to understand better about why/how the city does the VMT analysis in CEQA. Can I ask a follow-up question: because the employee trips only account for 1/3 of the total trips, while the visitor trips account for 2/3. Why in this case, the employee trips, instead of the visitor trips, were considered as the primary traffic generator of this project, since this is not a typical office project?

Thank you for your time.

Yunsheng Luo
Caltrans, District 4
Cell: 626-673-7057

Attachment 1, Exhibit A:
Air Quality and GHG
Referenced Section

Appendix B

Air Quality and GHG Emissions Data and Supporting Information

B-1: Air Quality Setting

B-2: Air Quality Calculations

B-3: CalEEMod Output Files

B-4: Greenhouse Gas Setting

Appendix B-1

Air Quality Setting and Regulatory Context

The project site is located within the San Francisco Bay Area Air Basin (Air Basin), which encompasses Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties. The Air Basin is characterized by complex terrain which distorts normal wind flow patterns, consisting of coastal mountain ranges, inland valleys, and bays.

Regional Meteorology

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, stability, and air temperature, in combination with local surface topography (i.e., geographic features such as mountains, valleys, and San Francisco Bay), determine the effect of air pollutant emissions on local air quality.

The climate of the greater San Francisco Bay Area, including Napa County, is a Mediterranean-type climate characterized by warm, dry summers and mild, wet winters. The climate is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. In winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, air emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as sulfates and nitrates.

The proposed project site lies in the Napa Valley climatological sub-region of the Bay Area. The Napa Valley is between the Mayacamas Mountains to the west and the Vaca Mountains to the east. These mountains, with an average ridge line height of about 2,000 feet, are effective barriers to the prevailing northwesterlies. The valley is 27 miles long with Napa and Calistoga defining its southern and northern ends, respectively. [1]

An upvalley wind frequently develops during warm summer afternoons drawing from air flowing through the San Pablo Bay. During the evening, especially in the winter, downvalley drainage flow can occur. The prevailing winds are upvalley, southwest through south southeasterly, and occur approximately 50 percent of the time. The second most common winds are down valley drainage winds, north northwesterly through northeasterly, which occur approximately 25 percent of the time. Wind speeds are low with almost 50 percent of the winds between calm and four miles per hour (mph) and an average speed of about five mph. Only five

[1] BAAQMD. Climate, Physiography, And Air Pollution Potential – Bay Area and Its Subregions http://hank.baaqmd.gov/dst/papers/bay_area_climate.pdf

percent of the winds are between 16 and 18 mph which represent strong summer time up valley winds and winter storm winds. Summer average maximum temperatures at the southern end of the valley are in the low 80's with extremes in the high 80's, and at the northern end are in the low 90's with extremes in the high 90's. Winter high temperatures are in the high 50's and low 60's with low temperatures in the high to mid-30's. Sunshine is plentiful and annual average precipitation is 24 inches at Napa.

Summer and fall prevailing winds can transport non-local and locally generated ozone precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows setup by the surrounding mountains may also recirculate pollutants adding to the total burden. Also, the high frequency of light winds and associated stable conditions during the late fall and winter, contributes to the buildup of particulates and carbon monoxide (CO) from automobiles, agricultural burning, and fireplace burning.

Local Air Quality

The Bay Area Air Quality Management District (BAAQMD) maintains a network of monitoring stations within the Air Basin that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to and most representative of the project site is in Napa (Jefferson Street), approximately ten miles north of the proposed project site; where levels of ozone (O_3), particulate matter less than 10 micrometers (coarse or PM10), particulate matter less than 2.5 micrometers (fine or PM2.5), CO, and nitrogen dioxide (NO_2) are recorded. In April 2018, the Napa (Jefferson Street) monitoring station was discontinued and air monitoring began at Napa Valley College. Thus, 2018 data shown in **Table 1** is from the Napa Valley College monitoring station (and annual average data is not available for 2018).

Table 1 summarizes the most recent three years of data (2016 through 2018) from the Napa (2016-2017) and Napa Valley College (2018) air monitoring stations. No State or federal standards were exceeded in 2016. The State ozone standard (24-hour) was exceeded once in 2017 and the federal ozone standard (8-hour) was exceeded twice in 2017. The federal PM2.5 24-hour standard was exceeded 13 times in 2017 and 12 times in 2018. The state annual average PM2.5 standard was exceeded in 2017. No other State or federal air quality standards were exceeded during the three-year period.

The Bay Area is currently designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Bay Area is designated "attainment" or "unclassifiable" with respect to the other ambient air quality standards.

Table 1
Air Quality Data Summary (2016 through 2018)

Pollutant	Standard[a]	Monitoring Data by Year 2016	2017	2018
Ozone				
Highest 1 Hour Average (ppm)[b]	0.09	0.080	**0.098**	0.083
Days over State Standard		0	**1**	0
Highest 8 Hour Average (ppm)[b]	0.070	0.067	**0.084**	0.068
Days over National Standard		0	**2**	0
Nitrogen Dioxide (NO_2)				
Highest 1 Hour Average (ppm)[b]	0.180	0.039	0.053	0.043
Days over State Standard		0	0	0
Annual Average ($\mu g/m^3$)[b]	0.030/0.053	0.007	0.007	--
Carbon Monoxide (CO)				
Highest 1 Hour Average (ppm)[b]	9.0	2.2	5.6	1.4
Days over State Standard		0	0	0
Highest 8 Hour Average (ppm)[b]	20	1.5	4.7	1.1
Days over State Standard		0	0	0
Coarse Particulate Matter (PM10)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	50	33	--	26
Days over State Standard		0	0	0
State Annual Average ($\mu g/m^3$)[b]	20	16.6	--	--
Fine Particulate Matter (PM2.5)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	35	24.3	**199.1**	**117.9**
Days over National Standard		0	**13**	**12**
State Annual Average ($\mu g/m^3$)[b]	12	8.5	**13.7**	--

*NOTES: Values in **bold** are in excess of at least one applicable standard.*
Generally, state standards and national standards are not to be exceeded more than once per year.
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. A "—" denotes no information available.

Source: BAAQMD, Air Quality Summary Reports, May 24, 2019. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for

CARB's diesel regulations. Overall, cancer risk from toxic air contaminants (TAC) dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[2]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

The proposed project is within the city of American Canyon, which is not part of the seven CARE program impacted communities in the Bay Area. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, is approximately 160 cancer risk per million persons, while in American Canyon, the health impact is approximately 98 cancer risk per million persons.[3]

Nearby Sensitive Receptors

BAAQMD considers the relevant zone of influence for an assessment of air quality health risks to be within 1,000 feet of a project site. The project site is generally bound by a warehouse to the north, a eucalyptus tree grove to the west, a vacant parcel and the Commerce 330 warehouse to the south, and a 68-foot wide City Public Access and Utility Easement to the east. There is one residence approximately 1,000 feet from the project site boundary (to the southeast) and a residential neighborhood approximately 2,000 feet from the project site boundary (to the southeast). There are no schools or daycare centers within 1,000 feet of the proposed project.

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[2] BAAQMD. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective & Path Forward (2004 – 2013). April 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

[3] BAAQMD. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Air Quality Significance Thresholds

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G, and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant air quality impacts if it were to:

A. Conflict with or obstruct implementation of the applicable air quality plan;

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

C. Expose sensitive receptors to substantial pollutant concentrations; or

D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The air quality analysis follows the methodology presented in the BAAQMD 2017 CEQA Guidelines. The thresholds of significance applied to assess project-level air quality impacts are:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10;
- Average daily operation emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM2.5 or 15 tons per year of PM10;
- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers; or
- Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Assessment of a significant cumulative impact if it would result in:

- Exposure of persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs during either construction or operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 $\mu g/m^3$.

The BAAQMD air quality significance thresholds are found in **Table 2**.

The BAAQMD *CEQA Air Quality Guidelines* identify a project-specific threshold of either 1,100 metric tons of carbon dioxide equivalent (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development), which is also considered a cumulatively considerable contribution to the

global GHG burden and, therefore, a significant cumulative impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion to proposed project GHG emissions.

Table 2

BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Daily Operational Thresholds	Annual Operational Thresholds
Criteria Air Pollutants			
Reactive Organic Compounds (ROG)	54	54	10
Nitrogen Oxides (NOx)	54	54	10
Coarse Particulate matter (PM10)	82	82	15
Fine Particulate Matter (PM2.5)	54	54	10
Carbon Monoxide (CO)	NA	9.0 ppm (8-hour) and 20.0 ppm (1-hour)	
Fugitive Dust	Best Management Practices	NA	
Project Health Risk and Hazards			
Excess Cancer Risk	10 per million	10 per million	
Chronic Hazard Index	1.0	1.0	
Acute Hazard Index	1.0	1.0	
Incremental Annual Average PM2.5	0.3 $\mu g/m^3$	0.3 $\mu g/m^3$	
Cumulative Health Risk and Hazards			
Excess Cancer Risk	100 per million	100 per million	
Chronic Hazard Index	10.0	10.0	
Acute Hazard Index	10.0	10.0	
Incremental Annual Average PM2.5	0.8 $\mu g/m^3$	0.8 $\mu g/m^3$	
Greenhouse Gas Emissions			
Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		

SOURCE: BAAQMD *2017 CEQA Guidelines*

Appendix B-2

Air Quality Calculations

Construction Activities

Construction activities are expected to commence in March 2021 with site preparation and grading occurring for approximately nine weeks. Paving, building construction and architectural coating would follow through the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately nine and one half months. **Table 3** provides the estimated construction schedule for each phase:

Table 3

Estimated Construction Schedule

Phase	Description	Start	End	Working Days
1	Site Preparation	03/01/2021	03/12/2021	10
2	Grading	03/13/2021	04/30/2021	35
3	Paving	05/01/2021	05/28/2021	20
4	Building Construction	05/28/2021	11/25/2021	130
5	Architectural Coating	11/26/2021	12/16/2021	15

SOURCE: CalEEMod Version 2016.3.2.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. CalEEMod output worksheets are included in **Appendix B-3**.

The estimated construction equipment associated with the proposed project along with the number of pieces of equipment, daily hours of operation, horsepower (hp), and load factor (i.e., percent of full throttle) are shown in **Table 4**.

Table 4

Estimated Project Construction Equipment Usage

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

SOURCE: CalEEMod Version 2016.3.2.

Based on CalEEMod, a total of 4,750 haul truck one-way trips (based on a 16 cubic yard haul truck capacity) were estimated as a result of the 38,000 cubic yards of soil import required for grading/earthwork, however all soil import would come from the existing stockpile and grading of the parcel adjacent to the south of the project site (estimated trip length of 0.25 mile). Based on CalEEMod, a total of approximately 60 vendor truck one-way trips were estimated during building construction. During the construction, approximately 12 to 24 workers would be at the site, with a maximum near 80 workers. **Table 5** provides a list of the expected trips and trip lengths by construction phase of vendors and construction workers.

Table 5

Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Site Preparation	18	0	0	10.8	7.3	20.0
Grading	15	0	4,750	10.8	7.3	0.25
Building Construction	155	60	0	10.8	7.3	20.0
Paving	15	0	0	10.8	7.3	20.0
Architectural Coating	31	0	0	10.8	7.3	20.0

SOURCE: CalEEMod Version 2013.2.2.

The emissions generated from these construction activities include:

- Dust (including PM10 and PM2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces;
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM10, and PM2.5) primarily from operation of heavy off-road construction equipment and construction worker automobile trips (primarily gasoline-operated); and
- VOC emissions from coating.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles, screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

Operations

The proposed project would consist of a 217,294 square foot wine storage warehouse on the 10.39-acre project site. It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours a day during the peak season. Approximately 2 to 4 vehicles trips per day would be from clients or visitors to the site.

A total of 134 car and 21 truck dock parking spaces would be provided for the building. Of these parking stalls, 4 stalls would be designated for Clean Air Vehicle parking. The project's traffic demands would be 367 weekday daily project trips (1.69 trips per 1,000 SF).[1]

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated. The proposed project would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the refrigeration system. This reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

In many climates, night temperatures are cool even when daytime temperatures exceed economizer limits. Taking advantage of this resource, the air handler and economizer can flush the building with night air to cool down the building mass. The cool mass then acts as a heat sink the following day.

[1] GHD. *Traffic Impact Analysis Memorandum*. May 8, 2020.

Setting controls for night precooling can save a significant amount of energy, depending on location. Studies indicate cost savings range from five percent in Phoenix, Arizona, to 18 percent in Denver, Colorado, for a typical office building. Night precooling also reduces peak demand. Simulation analyses show that precooling a 100,000 square foot three-story building in Sacramento, California, would reduce energy use by 12.6 percent and cause a peak demand reduction of 31.3 percent.[2]

Interior lighting for the proposed project would be designed to meet Title 24 standards; however, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion sensor lighting for areas within the warehouse would be installed. This is beneficial as it reduces energy bills and reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current Pacific Gas & Electric incentives would be investigated and all attempts to incorporate them into the design would be made.

The fork lifts (estimated at 10) used within the warehouse would be powered by electricity instead of the typical natural gas powered fork lifts. This reduces the GHG emitted by the fork lift and is more efficient and less impactful on the air within the building. The building would have bike racks to accommodate up to a total of 12 bicycles, five more than the required seven stalls.

CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project[3] but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.

CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices.

GHG emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric's projected 2020 (year in which project becomes operational) CO_2 intensity rate. This intensity rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641 pounds of CO_2 per megawatt of electricity produced. The Pacific Gas & Electric's projected 2020 CO_2 intensity rate is 290 pounds of CO_2 per megawatt of electricity produced.[4]

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[2] Energy Star Building Upgrade Manual, Chapter 9, Revised January 2008, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/energy-star

[3] City of American Canyon. Initial Study for the SDG Green Island 258 Warehouse Project (PL 15-0019). January 25, 2016.

[4] Greenhouse Gas Emission Factors: Guidance for PG&E Customers, November 2015.

Appendix B-3

CalEEMod Output Files

- Annual
- Summer
- Winter

SDG Commerce 217 Wine Storage Project

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 Projected CO2 Intensity Factor, PG&E, 2015.

Land Use - The remaining approximately 1.92 acres of the site would be landscaping and undisturbed.

Construction Phase - Approximately 9.5 months of construction

Trips and VMT - Import from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy).

Grading - 38,000 cy of import all from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy). 17 total acres graded (9.9 for warehouse site and approximately 7 acres graded of borrow site to south).

Vehicle Trips - Monday Thru Friday Operations

Energy Use - Energy use scaled down from SDG Commerce 330 Project.

Water And Wastewater - Water use scaled down from SDG Commerce 330 project

Solid Waste - minimal solid waste generated

Construction Off-road Equipment Mitigation - BAAQMD basic fugitive dust measures

Operational Off-Road Equipment - Electric forklifts for operations

Fleet Mix -

SDG Commerce 217 Wine Storage Project - Napa County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.4226	2.5827	2.0465	4.7800e-003	0.3293	0.1020	0.4313	0.1404	0.0952	0.2356	0.0000	429.5430	429.5430	0.0736	0.0000	431.3826
Maximum	**1.4226**	**2.5827**	**2.0465**	**4.7800e-003**	**0.3293**	**0.1020**	**0.4313**	**0.1404**	**0.0952**	**0.2356**	**0.0000**	**429.5430**	**429.5430**	**0.0736**	**0.0000**	**431.3826**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.4226	2.5827	2.0465	4.7800e-003	0.2095	0.1020	0.3115	0.0798	0.0952	0.1750	0.0000	429.5427	429.5427	0.0736	0.0000	431.3823
Maximum	**1.4226**	**2.5827**	**2.0465**	**4.7800e-003**	**0.2095**	**0.1020**	**0.3115**	**0.0798**	**0.0952**	**0.1750**	**0.0000**	**429.5427**	**429.5427**	**0.0736**	**0.0000**	**431.3823**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**36.38**	**0.00**	**27.78**	**43.15**	**0.00**	**25.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	1.0663	1.0663
2	6-1-2021	8-31-2021	0.8846	0.8846
3	9-1-2021	9-30-2021	0.2885	0.2885
		Highest	1.0663	1.0663

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	88.6042	88.6042	8.8600e-003	1.8300e-003	89.3720
Mobile	0.0791	0.4836	0.9627	3.3800e-003	0.2854	3.1500e-003	0.2885	0.0766	2.9600e-003	0.0796	0.0000	311.5412	311.5412	0.0121	0.0000	311.8429
Offroad	0.1477	1.3714	1.4999	1.9900e-003		0.0908	0.0908		0.0836	0.0836	0.0000	174.5787	174.5787	0.0565	0.0000	175.9903
Waste						0.0000	0.0000		0.0000	0.0000	0.4060	0.0000	0.4060	0.0240	0.0000	1.0058
Water						0.0000	0.0000		0.0000	0.0000	2.4000e-004	4.8500e-003	5.0900e-003	3.0000e-005	0.0000	5.9300e-003
Total	**1.2021**	**1.8550**	**2.4669**	**5.3700e-003**	**0.2854**	**0.0940**	**0.3794**	**0.0766**	**0.0866**	**0.1632**	**0.4062**	**574.7372**	**575.1434**	**0.1014**	**1.8300e-003**	**578.2257**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	88.6042	88.6042	8.8600e-003	1.8300e-003	89.3720
Mobile	0.0791	0.4836	0.9627	3.3800e-003	0.2854	3.1500e-003	0.2885	0.0766	2.9600e-003	0.0796	0.0000	311.5412	311.5412	0.0121	0.0000	311.8429
Offroad	0.1477	1.3714	1.4999	1.9900e-003		0.0908	0.0908		0.0836	0.0836	0.0000	174.5787	174.5787	0.0565	0.0000	175.9903
Waste						0.0000	0.0000		0.0000	0.0000	0.4060	0.0000	0.4060	0.0240	0.0000	1.0058
Water						0.0000	0.0000		0.0000	0.0000	2.4000e-004	4.8500e-003	5.0900e-003	3.0000e-005	0.0000	5.9300e-003
Total	**1.2021**	**1.8550**	**2.4669**	**5.3700e-003**	**0.2854**	**0.0940**	**0.3794**	**0.0766**	**0.0866**	**0.1632**	**0.4062**	**574.7372**	**575.1434**	**0.1014**	**1.8300e-003**	**578.2257**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/30/2021	5	35	
3	Paving	Paving	5/1/2021	5/28/2021	5	20	
4	Building Construction	Building Construction	5/29/2021	11/26/2021	5	130	
5	Architectural Coating	Architectural Coating	11/27/2021	12/17/2021	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0994**	**0.0102**	**0.1096**	**0.0506**	**9.4000e-003**	**0.0600**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0447	0.0000	0.0447	0.0228	0.0000	0.0228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0447**	**0.0102**	**0.0549**	**0.0228**	**9.4000e-003**	**0.0322**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5930	0.5930	2.0000e-005	0.0000	0.5934
Total	**3.2000e-004**	**2.2000e-004**	**2.3600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5930**	**0.5930**	**2.0000e-005**	**0.0000**	**0.5934**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5940	45.5940	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.1185**	**0.0203**	**0.1388**	**0.0595**	**0.0187**	**0.0782**	**0.0000**	**45.5940**	**45.5940**	**0.0148**	**0.0000**	**45.9626**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0533	0.0000	0.0533	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4329	0.2775	5.2000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	45.5939	45.5939	0.0148	0.0000	45.9626
Total	**0.0401**	**0.4329**	**0.2775**	**5.2000e-004**	**0.0533**	**0.0203**	**0.0736**	**0.0268**	**0.0187**	**0.0455**	**0.0000**	**45.5939**	**45.5939**	**0.0148**	**0.0000**	**45.9626**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-003	0.2208	0.0309	2.4000e-004	5.5000e-004	1.4000e-004	6.9000e-004	1.6000e-004	1.4000e-004	2.9000e-004	0.0000	23.1121	23.1121	3.5300e-003	0.0000	23.2004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.6000e-004	6.8900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7296	1.7296	5.0000e-005	0.0000	1.7308
Total	**5.0400e-003**	**0.2214**	**0.0378**	**2.6000e-004**	**2.6200e-003**	**1.5000e-004**	**2.7800e-003**	**7.1000e-004**	**1.5000e-004**	**8.5000e-004**	**0.0000**	**24.8418**	**24.8418**	**3.5800e-003**	**0.0000**	**24.9312**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0171**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	3.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9884	0.9884	3.0000e-005	0.0000	0.9890
Total	**5.4000e-004**	**3.7000e-004**	**3.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9884**	**0.9884**	**3.0000e-005**	**0.0000**	**0.9890**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0171**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	3.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9884	0.9884	3.0000e-005	0.0000	0.9890
Total	**5.4000e-004**	**3.7000e-004**	**3.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9884**	**0.9884**	**3.0000e-005**	**0.0000**	**0.9890**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.4258	0.1112	1.0500e-003	0.0256	9.7000e-004	0.0265	7.3900e-003	9.3000e-004	8.3100e-003	0.0000	100.3882	100.3882	5.1100e-003	0.0000	100.5160
Worker	0.0360	0.0252	0.2643	7.3000e-004	0.0796	5.4000e-004	0.0802	0.0212	4.9000e-004	0.0217	0.0000	66.3852	66.3852	1.7300e-003	0.0000	66.4284
Total	**0.0493**	**0.4509**	**0.3755**	**1.7800e-003**	**0.1052**	**1.5100e-003**	**0.1067**	**0.0286**	**1.4200e-003**	**0.0300**	**0.0000**	**166.7734**	**166.7734**	**6.8400e-003**	**0.0000**	**166.9444**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**1.1664**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5320	1.5320	4.0000e-005	0.0000	1.5330
Total	**8.3000e-004**	**5.8000e-004**	**6.1000e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5320**	**1.5320**	**4.0000e-005**	**0.0000**	**1.5330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**1.1664**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5320	1.5320	4.0000e-005	0.0000	1.5330
Total	**8.3000e-004**	**5.8000e-004**	**6.1000e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5320**	**1.5320**	**4.0000e-005**	**0.0000**	**1.5330**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0791	0.4836	0.9627	3.3800e-003	0.2854	3.1500e-003	0.2885	0.0766	2.9600e-003	0.0796	0.0000	311.5412	311.5412	0.0121	0.0000	311.8429
Unmitigated	0.0791	0.4836	0.9627	3.3800e-003	0.2854	3.1500e-003	0.2885	0.0766	2.9600e-003	0.0796	0.0000	311.5412	311.5412	0.0121	0.0000	311.8429

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Parking Lot	0.00	0.00	0.00		
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	88.6042	88.6042	8.8600e-003	1.8300e-003	89.3720
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	88.6042	88.6042	8.8600e-003	1.8300e-003	89.3720
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	651882	85.7497	8.5700e-003	1.7700e-003	86.4928
Total		**88.6042**	**8.8600e-003**	**1.8300e-003**	**89.3720**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.8545	2.9000e-004	6.0000e-005	2.8792
Refrigerated Warehouse-No Rail	651882	85.7497	8.5700e-003	1.7700e-003	86.4928
Total		**88.6042**	**8.8600e-003**	**1.8300e-003**	**89.3720**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Unmitigated	0.9753	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9753**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.0900e-003	3.0000e-005	0.0000	5.9300e-003
Unmitigated	5.0900e-003	3.0000e-005	0.0000	5.9300e-003

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.000768 / 0.009341	5.0900e-003	3.0000e-005	0.0000	5.9300e-003
Total		**5.0900e-003**	**3.0000e-005**	**0.0000**	**5.9300e-003**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.000768 / 0.009341	5.0900e-003	3.0000e-005	0.0000	5.9300e-003
Total		**5.0900e-003**	**3.0000e-005**	**0.0000**	**5.9300e-003**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4060	0.0240	0.0000	1.0058
Unmitigated	0.4060	0.0240	0.0000	1.0058

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2	0.4060	0.0240	0.0000	1.0058
Total		**0.4060**	**0.0240**	**0.0000**	**1.0058**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2	0.4060	0.0240	0.0000	1.0058
Total		**0.4060**	**0.0240**	**0.0000**	**1.0058**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1477	1.3714	1.4999	1.9900e-003		0.0908	0.0908		0.0836	0.0836	0.0000	174.5787	174.5787	0.0565	0.0000	175.9903
Total	**0.1477**	**1.3714**	**1.4999**	**1.9900e-003**		**0.0908**	**0.0908**		**0.0836**	**0.0836**	**0.0000**	**174.5787**	**174.5787**	**0.0565**	**0.0000**	**175.9903**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 Projected CO2 Intensity Factor, PG&E, 2015.

Land Use - The remaining approximately 1.92 acres of the site would be landscaping and undisturbed.

Construction Phase - Approximately 9.5 months of construction

Trips and VMT - Import from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy).

Grading - 38,000 cy of import all from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy). 17 total acres graded (9.9 for warehouse site and approximately 7 acres graded of borrow site to south).

Vehicle Trips - Monday Thru Friday Operations

Energy Use - Energy use scaled down from SDG Commerce 330 Project.

Water And Wastewater - Water use scaled down from SDG Commerce 330 project

Solid Waste - minimal solid waste generated

Construction Off-road Equipment Mitigation - BAAQMD basic fugitive dust measures

Operational Off-Road Equipment - Electric forklifts for operations

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	155.6296	40.5366	22.5509	0.0553	20.0170	2.0454	22.0624	10.1646	1.8818	12.0464	0.0000	5,477.1174	5,477.1174	1.1956	0.0000	5,495.3845
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**20.0170**	**2.0454**	**22.0624**	**10.1646**	**1.8818**	**12.0464**	**0.0000**	**5,477.1174**	**5,477.1174**	**1.1956**	**0.0000**	**5,495.3845**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774	0.0000	5,477.1174	5,477.1174	1.1956	0.0000	5,495.3845
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**	**0.0000**	**5,477.1174**	**5,477.1174**	**1.1956**	**0.0000**	**5,495.3845**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**54.59**	**0.00**	**49.53**	**54.79**	**0.00**	**46.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**7.1694**	**14.1485**	**19.2762**	**0.0427**	**2.2804**	**0.7232**	**3.0035**	**0.6102**	**0.6658**	**1.2760**		**4,255.5622**	**4,255.5622**	**0.5817**	**0.0000**	**4,270.1045**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Offroad	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**7.1694**	**14.1485**	**19.2762**	**0.0427**	**2.2804**	**0.7232**	**3.0035**	**0.6102**	**0.6658**	**1.2760**		**4,255.5622**	**4,255.5622**	**0.5817**	**0.0000**	**4,270.1045**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/30/2021	5	35	
3	Paving	Paving	5/1/2021	5/28/2021	5	20	
4	Building Construction	Building Construction	5/29/2021	11/26/2021	5	130	
5	Architectural Coating	Architectural Coating	11/27/2021	12/17/2021	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9411	0.0000	8.9411	4.5564	0.0000	4.5564			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.9411**	**2.0445**	**10.9856**	**4.5564**	**1.8809**	**6.4373**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0395	0.5078	1.4000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		139.8138	139.8138	3.6200e-003		139.9042
Total	**0.0676**	**0.0395**	**0.5078**	**1.4000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**139.8138**	**139.8138**	**3.6200e-003**		**139.9042**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0465	0.0000	3.0465	1.5305	0.0000	1.5305			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**3.0465**	**1.1599**	**4.2065**	**1.5305**	**1.0671**	**2.5976**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2217	12.7917	1.4845	0.0144	0.0324	7.2700e-003	0.0397	9.1200e-003	6.9500e-003	0.0161		1,531.3371	1,531.3371	0.2097		1,536.5797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.2780**	**12.8246**	**1.9076**	**0.0155**	**0.1556**	**8.0700e-003**	**0.1637**	**0.0418**	**7.6900e-003**	**0.0495**		**1,647.8486**	**1,647.8486**	**0.2127**		**1,653.1665**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.0563**	**0.0329**	**0.4232**	**1.1700e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**116.5115**	**116.5115**	**3.0100e-003**		**116.5868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0563	0.0329	0.4232	1.1700e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		116.5115	116.5115	3.0100e-003		116.5868
Total	**0.0563**	**0.0329**	**0.4232**	**1.1700e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**116.5115**	**116.5115**	**3.0100e-003**		**116.5868**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2001	6.4679	1.6028	0.0163	0.4057	0.0147	0.4204	0.1168	0.0140	0.1308		1,719.8015	1,719.8015	0.0835		1,721.8898
Worker	0.5821	0.3401	4.3729	0.0121	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,203.9520	1,203.9520	0.0311		1,204.7304
Total	**0.7822**	**6.8081**	**5.9757**	**0.0283**	**1.6790**	**0.0229**	**1.7019**	**0.4545**	**0.0216**	**0.4761**		**2,923.7535**	**2,923.7535**	**0.1147**		**2,926.6203**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**155.5132**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1164	0.0680	0.8746	2.4200e-003	0.2547	1.6500e-003	0.2563	0.0676	1.5200e-003	0.0691		240.7904	240.7904	6.2300e-003		240.9461
Total	**0.1164**	**0.0680**	**0.8746**	**2.4200e-003**	**0.2547**	**1.6500e-003**	**0.2563**	**0.0676**	**1.5200e-003**	**0.0691**		**240.7904**	**240.7904**	**6.2300e-003**		**240.9461**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**155.5132**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1164	0.0680	0.8746	2.4200e-003	0.2547	1.6500e-003	0.2563	0.0676	1.5200e-003	0.0691		240.7904	240.7904	6.2300e-003		240.9461
Total	**0.1164**	**0.0680**	**0.8746**	**2.4200e-003**	**0.2547**	**1.6500e-003**	**0.2563**	**0.0676**	**1.5200e-003**	**0.0691**		**240.7904**	**240.7904**	**6.2300e-003**		**240.9461**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194
Unmitigated	0.6870	3.5991	7.6915	0.0274	2.2804	0.0242	2.3046	0.6102	0.0227	0.6329		2,775.1527	2,775.1527	0.1027		2,777.7194

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Parking Lot	0.00	0.00	0.00		
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**1.1360**	**10.5490**	**11.5375**	**0.0153**		**0.6988**	**0.6988**		**0.6429**	**0.6429**		**1,480.3083**	**1,480.3083**	**0.4788**		**1,492.2774**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 Projected CO2 Intensity Factor, PG&E, 2015.

Land Use - The remaining approximately 1.92 acres of the site would be landscaping and undisturbed.

Construction Phase - Approximately 9.5 months of construction

Trips and VMT - Import from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy).

Grading - 38,000 cy of import all from existing stockpile (17,000 cy) and grading of parcel adjacent to this parcel to the south (+/- 21,000 cy). 17 total acres graded (9.9 for warehouse site and approximately 7 acres graded of borrow site to south).

Vehicle Trips - Monday Thru Friday Operations

Energy Use - Energy use scaled down from SDG Commerce 330 Project.

Water And Wastewater - Water use scaled down from SDG Commerce 330 project

Solid Waste - minimal solid waste generated

Construction Off-road Equipment Mitigation - BAAQMD basic fugitive dust measures

Operational Off-Road Equipment - Electric forklifts for operations

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	155.6355	40.5473	22.6449	0.0540	20.0170	2.0454	22.0624	10.1646	1.8818	12.0464	0.0000	5,345.4653	5,345.4653	1.1955	0.0000	5,363.8718
Maximum	**155.6355**	**40.5473**	**22.6449**	**0.0540**	**20.0170**	**2.0454**	**22.0624**	**10.1646**	**1.8818**	**12.0464**	**0.0000**	**5,345.4653**	**5,345.4653**	**1.1955**	**0.0000**	**5,363.8718**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	155.6355	40.5472	22.6449	0.0540	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774	0.0000	5,345.4653	5,345.4653	1.1955	0.0000	5,363.8717
Maximum	**155.6355**	**40.5472**	**22.6449**	**0.0540**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**	**0.0000**	**5,345.4653**	**5,345.4653**	**1.1955**	**0.0000**	**5,363.8717**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**54.59**	**0.00**	**49.53**	**54.79**	**0.00**	**46.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**7.0824**	**14.3458**	**19.3987**	**0.0411**	**2.2804**	**0.7234**	**3.0037**	**0.6102**	**0.6660**	**1.2762**		**4,095.3290**	**4,095.3290**	**0.5844**	**0.0000**	**4,109.9397**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Offroad	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**7.0824**	**14.3458**	**19.3987**	**0.0411**	**2.2804**	**0.7234**	**3.0037**	**0.6102**	**0.6660**	**1.2762**		**4,095.3290**	**4,095.3290**	**0.5844**	**0.0000**	**4,109.9397**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

SDG Commerce 217 Wine Storage Project - Napa County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/30/2021	5	35	
3	Paving	Paving	5/1/2021	5/28/2021	5	20	
4	Building Construction	Building Construction	5/29/2021	11/26/2021	5	130	
5	Architectural Coating	Architectural Coating	11/27/2021	12/17/2021	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.8691**	**2.0445**	**21.9136**	**10.1254**	**1.8809**	**12.0063**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9411	0.0000	8.9411	4.5564	0.0000	4.5564			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.9411**	**2.0445**	**10.9856**	**4.5564**	**1.8809**	**6.4373**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0710	0.0502	0.4903	1.3000e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		129.3211	129.3211	3.4300e-003		129.4070
Total	**0.0710**	**0.0502**	**0.4903**	**1.3000e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**129.3211**	**129.3211**	**3.4300e-003**		**129.4070**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.7701**	**1.1599**	**7.9300**	**3.4011**	**1.0671**	**4.4682**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0465	0.0000	3.0465	1.5305	0.0000	1.5305			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**3.0465**	**1.1599**	**4.2065**	**1.5305**	**1.0671**	**2.5976**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2512	12.3547	2.1377	0.0127	0.0324	9.3600e-003	0.0417	9.1200e-003	8.9500e-003	0.0181		1,351.5191	1,351.5191	0.2393		1,357.5023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.3103**	**12.3965**	**2.5463**	**0.0138**	**0.1556**	**0.0102**	**0.1658**	**0.0418**	**9.6900e-003**	**0.0515**		**1,459.2867**	**1,459.2867**	**0.2422**		**1,465.3415**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.0592**	**0.0418**	**0.4086**	**1.0800e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**107.7676**	**107.7676**	**2.8600e-003**		**107.8391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0592	0.0418	0.4086	1.0800e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		107.7676	107.7676	2.8600e-003		107.8391
Total	**0.0592**	**0.0418**	**0.4086**	**1.0800e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**107.7676**	**107.7676**	**2.8600e-003**		**107.8391**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2124	6.5448	1.8478	0.0159	0.4057	0.0152	0.4209	0.1168	0.0145	0.1313		1,678.5027	1,678.5027	0.0907		1,680.7698
Worker	0.6114	0.4319	4.2220	0.0112	1.2733	8.2500e-003	1.2815	0.3377	7.6000e-003	0.3453		1,113.5987	1,113.5987	0.0296		1,114.3376
Total	**0.8238**	**6.9766**	**6.0697**	**0.0271**	**1.6790**	**0.0234**	**1.7024**	**0.4545**	**0.0221**	**0.4766**		**2,792.1014**	**2,792.1014**	**0.1203**		**2,795.1075**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**155.5132**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1223	0.0864	0.8444	2.2400e-003	0.2547	1.6500e-003	0.2563	0.0676	1.5200e-003	0.0691		222.7197	222.7197	5.9100e-003		222.8675
Total	**0.1223**	**0.0864**	**0.8444**	**2.2400e-003**	**0.2547**	**1.6500e-003**	**0.2563**	**0.0676**	**1.5200e-003**	**0.0691**		**222.7197**	**222.7197**	**5.9100e-003**		**222.8675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	155.2943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**155.5132**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1223	0.0864	0.8444	2.2400e-003	0.2547	1.6500e-003	0.2563	0.0676	1.5200e-003	0.0691		222.7197	222.7197	5.9100e-003		222.8675
Total	**0.1223**	**0.0864**	**0.8444**	**2.2400e-003**	**0.2547**	**1.6500e-003**	**0.2563**	**0.0676**	**1.5200e-003**	**0.0691**		**222.7197**	**222.7197**	**5.9100e-003**		**222.8675**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546
Unmitigated	0.6000	3.7964	7.8140	0.0258	2.2804	0.0244	2.3048	0.6102	0.0229	0.6331		2,614.9196	2,614.9196	0.1054		2,617.5546

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Parking Lot	0.00	0.00	0.00		
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Refrigerated Warehouse-No Rail	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988
Parking Lot	0.586522	0.036345	0.168625	0.112459	0.022729	0.006000	0.017299	0.036828	0.003880	0.001801	0.005497	0.001027	0.000988

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.3464	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6382					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3900e-003	4.3000e-004	0.0473	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.3464**	**4.3000e-004**	**0.0473**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	1.1360	10.5490	11.5375	0.0153		0.6988	0.6988		0.6429	0.6429		1,480.3083	1,480.3083	0.4788		1,492.2774
Total	**1.1360**	**10.5490**	**11.5375**	**0.0153**		**0.6988**	**0.6988**		**0.6429**	**0.6429**		**1,480.3083**	**1,480.3083**	**0.4788**		**1,492.2774**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B-4

Greenhouse Gas Setting and Regulatory Context

"Global warming" and "global climate change" are the terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century and its projected continuation. Warming of the climate system is now considered to be unequivocal (IPCC, 2007), with global surface temperature increasing approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase global average temperature between 2 and 11°F over the next 100 years.

Natural processes and human actions have been identified as the causes of this warming. The International Panel on Climate Change (IPCC) concludes that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward. After 1950, however, increasing GHG concentrations resulting from human activity such as fossil fuel burning and deforestation have been responsible for most of the observed temperature increase. These basic conclusions have been endorsed by more than 45 scientific societies and academies of science, including all of the national academies of science of the major industrialized countries. Since 2007, no scientific body of national or international standing has maintained a dissenting opinion.

Increases in GHG concentrations in the earth's atmosphere are thought to be the main cause of human-induced climate change. GHGs naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space. Some GHGs occur naturally and are necessary for keeping the earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have decreased the amount of solar radiation that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Gases that trap heat in the atmosphere are referred to as GHGs because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, CO_2, CH_4, and N_2O are also emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur

hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in "carbon dioxide-equivalent" measures (CO_2e).[1]

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.[2]

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On December 30, 2009, the Natural Resources Agency adopted amendments to the CEQA Guidelines, as required by SB 97. These CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Assembly Bill 1493

In 2002, Assembly Bill (AB) 1493 was passed, which required the CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, the CARB approved amendments to the California Code of Regulations (CCR) in 2004, adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1), require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight [GVW] rating of less than 10,000 pounds and that is designed primarily for the transportation of persons), beginning with model year 2009. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for model year 2016 are approximately 37 percent

[1] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

[2] 2006 Final Climate Action Team Report to the Governor and Legislature. March 2006. http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

lower than the limits for the first year of the regulations, model year 2009. For light-duty trucks with an LVW of 3,751 pounds to a GVW of 8,500 pounds, as well as for medium-duty passenger vehicles, GHG emissions will be reduced approximately 24 percent between 2009 and 2016.

Because the Pavley standards (named for the bill's author, state Senator Fran Pavley) would impose stricter standards than those under the Federal CAA, California applied to the USEPA for a waiver under the Federal CAA. This waiver was initially denied in 2008. In 2009, however, the USEPA granted the waiver.

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established Executive Order S-3-05, which sets forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations to achieve reductions in GHG to meet the 1990 emissions cap by 2020.

Climate Change Scoping Plan

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHG to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008 and must be updated every five years. The initial AB 32 Scoping Plan contains the main strategies California will use to reduce the GHG that cause climate change. The initial Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 program implementation fee regulation to fund the program. In August 2011, the initial Scoping Plan was approved by CARB.

The 2013 Scoping Plan Update builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The 2013 Update defines CARB climate change priorities for the next five years and sets the groundwork to reach California's long-term climate goals set forth in Executive Orders S-3-05 and B-16-2012. The 2013 Update highlights California progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. In the 2013 Update, nine key focus areas were identified (energy, transportation, agriculture, water, waste management, and natural and working lands), along with short-lived climate pollutants, green buildings, and the cap-and-trade program. On May 22, 2014, the First Update to the Climate Change Scoping Plan was approved by the Board, along with the finalized environmental documents.

Executive Order No. B-30-15

On April 29, 2015, Executive Order No. B-30-15 was issued to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Executive Order No. B-30-15 sets a new, interim, 2030 reduction goal intended to provide a smooth transition to the existing ultimate 2050 reduction goal set by Executive Order No. S-3-05 (signed by Governor Schwarzenegger in June 2005). It is designed so State agencies do not fall behind the pace of reductions necessary to reach the existing 2050 reduction goal. Executive Order No. B-30-15 orders "All State agencies with jurisdiction over sources of GHG emissions shall implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 targets." The Executive Order also states that "CARB shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent." CARB's second update to the Climate Change Scoping Plan (The 2017 Scoping Plan") reflects the 2030 reduction target and is described below.

Senate Bill 32

In September of 2016, Governor Brown signed Senate Bill (SB) 32 into law, which extended the goals of AB32 and set a goal 2030 goal of reducing GHG emissions 40 percent below 1990 levels by 2030. With SB 32, the Legislature passed companion legislation AB 197, which provided additional direction for developing the Scoping Plan.

In December of 2017, CARB adopted the second update to the Climate Change Scoping Plan, the 2017 Scoping Plan. The 2017 Scoping Plan provides a framework for achieving the 2030 target. The 2017 Scoping Plan Update builds upon the successful framework established by the initial Scoping Plan and the first update (the 2013 Update), while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The 2017 Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constraints and reduces emissions at covered sources. The 2017 Plan also noted that the Recycling and Waste Sector generates two percent of California's total GHG emissions.

California Green Building Standards Code

The 2016 California Green (CALGreen) Building Standards Code (California Code Regulations, Title 24, Part 11) is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. The 2019 Standards were effective January 1, 2020.

CALGreen does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. CALGreen also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, CALGreen is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impacts during and after construction.

CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. The following provides examples of CALGreen requirements:

- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles.

- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.

- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

- **Wastewater reduction.** Each building shall reduce the generation of wastewater by installation of water-conserving fixtures or using nonpotable water systems.

- **Water use savings.** 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40-percent reductions.

- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.

- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas.

- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

- **Building commissioning.** Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Greenhouse Gas Regional Emission Estimates

In 2016, the United States emitted about 6,511 million metric tons of CO_2. Total U.S. emissions have increased by 2.4 percent from 1990 to 2016, and emissions decreased from 2015 to 2016 by 1.9 percent (126.8 million metric tons of CO_2). The decrease in total GHG emissions between 2015 and 2016 was driven in large part by a decrease in CO_2 emissions from fossil fuel combustion. The decrease in CO_2 emissions from fossil fuel combustion was a result of multiple factors, including substitution from coal to natural gas and other non-fossil energy sources in the electric power sector; and warmer winter conditions in 2016 resulting in a decreased demand for heating fuel in the residential and commercial sectors. Of the five major sectors nationwide — residential and commercial, industrial, agriculture, transportation, and electricity— electricity accounts for the highest fraction of GHG emissions (approximately 28 percent), closely followed by transportation (approximately 28 percent) and by industry (approximately 22 percent).[3]

[3] United States Environmental Protections Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, April 2018, https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2016

In 2016, California emitted approximately 429.4 million tons of CO_2e. This represents approximately 6.6 percent of total U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. California's gross emissions of GHGs decreased by 9.26 percent from 466.3 million metric tons of CO_2e in 2000, with a maximum of 492.7 million metric tons in 2004.[4] In 2016, the composition of GHG emissions in California (expressed as CO_2e) were as follows:

- CO_2 accounted for 83 percent;
- CH_4 accounted for 9 percent;
- N_2O accounted for 3 percent; and
- Fluorinated gases (hydrofluorocarbons (HFCs), perfluorinated compounds (PFCs), and sulfur hexafluoride (SF_6)) accounted for 5 percent.

Of these gases, the transportation is the source of approximately 41 percent of the State's GHG emissions, followed by industrial sources at 23 percent and electricity generation (both in-State and out-of-State) at 16 percent. Agriculture is the source of approximately 8 percent, residential activity is the source of about 7 percent, and commercial activities make up 5 percent.[5]

The majority of GHG emissions in the Bay Area come from transportation (39.7 percent), followed by industrial/commercial sources (35.7 percent) and electricity generation (14.0 percent). Construction equipment and other off-road equipment contribute 1.5 percent of the total GHG emissions.[6]

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[4] California Air Resources Board, *Emissions Trends Report 2000-2016*, July 11, 2018, https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf

[5] California Air Resources Board, *Emissions Trends Report 2000-2016*, July 11, 2018, https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf

[6] Bay Area Air Quality Management District, *Bay Area Emissions Inventory, Summary Report: Greenhouse Gases, Base Year 2011*, Table F: 2011 Bay Area GHG Emissions by Sector, updated January 2015.

Attachment 1, Exhibit A:
Phase I Report



PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF

SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN CANYON, CALIFORNIA 94503

ATC PROJECT NO. 118EM01173

JUNE 6, 2018

Prepared by:

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1.0 EXECUTIVE SUMMARY

1.1 General Information

Project Information:
SDG Commerce 330 Distribution Center
118EM01173

Consultant Information:
ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, California 94583
Telephone: (925) 460-5300
Fax: (925) 328-1090
Reconnaissance Date: April 5, 2018
Site Assessor: Gyan Rusconi-Rodrigues
Senior Reviewer: Bryan Campbell
Environmental Professional: Bryan Campbell

Site Information:
SDG Commerce 330 Distribution Center
Commerce Boulevard
American Canyon, California 94503
Napa County

Site Access Contact:
Mr. Brian Doswald
Stravinski Development Group

Client Information:
Stravinski Development Group
Mr. Brian Doswald
413 East Yosemite Avenue, Suite 105
Madera, California 93637
Phone: (559) 674-0906
Fax: (559) 661-7506

Environmental Professional Statement:
I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in § 312.10 part of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Gyan Rusconi-Rodrigues, Project Scientist
Site Assessor/Report Author



Bryan Campbell, EP
Senior Reviewer



Bryan Campbell, PG, GHG, Project Manager
Branch Manager

1.2 Findings and Conclusions Summary

ATC has performed this Phase I Environmental Site Assessment (ESA) of the property in conformance with the scope and limitations of ASTM Standard Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property, except as noted in the summary of report findings and conclusions below.

FINDINGS AND CONCLUSIONS SUMMARY							
Report Section		Further Action?	De minimis Condition	REC and/or CREC	Historical REC	ASTM Non-Scope Condition	Description
4.0	User Provided Information	No					
5.1.1	Federal Database Findings	No					
5.1.2	State and Tribal Database Findings	No					
5.1.3	Local Environmental Record Sources	No					
5.3	Historical Records Sources	Yes	X	X	X		Refer to Note 1, 2, and 3
6.2	Hazardous Substance Use, Storage and Disposal	No					
6.3	Underground Storage Tanks	No					
6.4	Aboveground Storage Tanks	No					
6.5	Other Petroleum Products	No					
6.6	Polychlorinated Biphenyls (PCBs)	No					
6.7	Unidentified Substance Containers	No					
6.8	Nonhazardous Solid Waste	No					
6.9	Wastewater	No					
6.10	Waste Pits, Ponds and Lagoons	No					
6.11	Sumps	No					
6.12	Septic Systems	No					
6.13	Stormwater Management System	No					
6.14	Wells	No					
7.0	Subsurface Vapor Migration	No					
8.0	Interviews	No					
9.1	Asbestos-Containing Material (ACM)	No					
9.2	Radon	No					
9.3	Lead in Drinking Water	No					
9.4	Lead-Based Paint (LBP)	No					
9.5	Mold Screening	No					
9.6	Additional User Requested Services	No					

Note 1) A Phase I Environmental Site Assessment was conducted by Environmental Science Associates in 2004. The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former underground storage tanks (USTs), and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners. Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*.

Note 2) A Phase II Soil Investigation by Kleinfelder dated July 25, 2005. The investigation was conducted in response to several r*ecognized environmental conditions* which were noted in the report by Environmental Science Associates. The investigation was conducted in March through May 2005 and

consisted of nine Hollow-stem auger borings, four hand auger borings, and two test pits. A total of 34 soil samples were submitted for analysis. Groundwater was not sampled or analyzed during this investigation. Analytical tables were referenced in the report but no tables were included in the copy of the report obtained by ATC. Although this investigation was conducted on the approximately 106-acre Couch Property, only borings B-4 through B-12 (Appendix B) were advanced on the 35.85-acre property which is the subject of this report. The concentration of Chromium in B-12 at 15 feet bgs was noted at 130 milligrams per kilogram (mg/kg) which was noted above the screening levels used. However, concentrations of chromium in two samples collected at shallower levels from the same boring were noted below this level and, therefore, Kleinfelder determined the elevated concentration of chromium at 15 feet bgs was not due to a significant release. It should be noted that although the concentration of chromium noted above in boring B-12 at 130 mg/kg is above the 2005 ESLs, the concentration is below the current version of the February 2016 ESLs. As such the noted levels of chromium is considered an *historical recognized environmental concern*.

Note 3) Based on Kleinfelder's Phase I investigation completed in 2009, the Concentrated Area was reportedly previously occupied by a trailer and a methamphetamine lab in 2000. EPA guidelines note that soil sampling in areas of methamphetamine labs may be warranted if the ground is visibly stained or otherwise affected (e.g., odors burn piles, dead vegetation, or remnants of reaction waste. ATC did not observe evidence of dead vegetation or discarded waste on the day of the site reconnaissance (refer to Section 6.0). Thus, ATC considers the previous methamphetamine lab site to be a *de minimus condition* to the property.

1.3 Significant Data Gap Summary

Data gaps may have been encountered during the performance of this Phase I ESA and are discussed within the section of the report where they were encountered. However, according to ASTM Standard Practice E1527-13, data gaps are only significant if "other information and/or professional experience raise reasonable concerns involving the data gap." The following is a summary of *significant data gaps* identified in this report.

SIGNIFICANT DATA GAP SUMMARY		
Report Section		**Description**
3.5	**Current Uses of Adjoining Properties**	No *significant data gap* identified.
4.2	**Environmental Liens or Activity and Use Limitations (AULs)**	No *significant data gap* identified.
5.1	**Standard Environmental Records**	No *significant data gap* identified.
5.2	**Physical Setting Sources**	No *significant data gap* identified.
5.3	**Historical Records Sources**	No *significant data gap* identified.
6.1	**Methodology and Limiting Conditions**	No *significant data gap* identified.
7.0	**Interviews**	No *significant data gap* identified.

1.4 Recommendations

Based on information collected from the Phase I ESA, ATC offers the following recommendations:

- A Phase I Environmental Site Assessment was conducted by Environmental Science Associates in 2004. The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former USTs, and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners. Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*. Therefore, ATC recommends a Phase II ESA for the property.

- If the property is to be developed, ATC recommends that a soil management plan be implemented. The plan would include contingencies for impacted areas. Also, if any septic systems and/or heating oil USTs are uncovered, they should be removed and disposed of per applicable regulations. In addition, if any wells are uncovered during development, it should be properly abandoned per applicable regulations.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to identify recognized environmental conditions in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of ASTM Standard Practice E1527-13 as listed below. This report documents the findings, opinions and conclusions of the Phase I ESA.

2.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to ASTM Standard Practice E1527-13 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.

- Usage of the property, adjoining properties and surrounding area through a review of referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.

- Observations and interviews regarding current property usage and conditions including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.

- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties in, on or at the property.

- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the property.

- Potential for subsurface vapor migration in, on or at the property as described in Section 7.0.

The scope of the assessment also included consideration of the following potential environmental issues or conditions that are beyond the scope of ASTM Standard Practice E1527-13:

- Radon document review, consisting of the review of published radon data with regard to the potential for elevated levels of radon gas in the surrounding area of the property. No radon sampling was conducted.

- Lead in Drinking Water Data review, consisting of contacting the water supplier for information regarding whether or not the potable water provided to the property meets the drinking water standards for lead.

- Wetlands document review, consisting of a review of a current National Wetlands Inventory map of the surrounding area to note if the property is identified as having a wetland.

- Flood plain document review, consisting of a review of a reasonably ascertainable flood plain map of the surrounding area to note if the property is identified as being located within a flood plain.

- Regulatory Agency File and Records Review, consisting of conducting a file review (i.e., via Freedom of Information Act (FOIA) request or alternative method/source) for the property and/or one adjoining property at one regulatory agency, as warranted by the findings of the ESA.

2.3 Significant Assumption

The assumptions in this report were not considered as having significant impact on the determination of *recognized environmental conditions* associated with the property.

2.4 Limitations and Exceptions

ATC has prepared this Phase I ESA report using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products in, on or at the property. Findings contained within this report are based on information collected from observations made on the day(s) of the site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E1527-13 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- *Uncertainty Not Eliminated* – A Phase I ESA cannot completely eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with any property.

- *Not Exhaustive* – A Phase I ESA is not an exhaustive investigation of the property and environmental conditions on such property.

- *Past Uses of the Property* – Phase I requirements only require review of standard historical sources at five year intervals. Therefore, past uses of property at less than five year intervals may not be discovered.

Users of this report may refer to ASTM Standard Practice E1527-13 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

ATC makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, ATC is not responsible for consequences or conditions arising from facts not fully disclosed to ATC during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search

distances and is assumed to be correct and complete unless obviously contradicted by ATC's observations or other credible referenced sources reviewed during the assessment. ATC shall not be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report.

ATC used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of ATC.

ATC is not a professional title insurance or land surveyor firm and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The statement is intended to document ATC's opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the *Environmental Professional* were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E1527-13 and the scope of work for this assessment.

Per ASTM Standard Practice E1527-13, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). ATC makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

In accordance with the ASTM Standard Practice E1527-13, this report is presumed to be valid for a six month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge and (5) environmental liens search. Reports older than one year may not meet the ASTM Standard PracticE1527-13 and therefore, the entire report must be updated to reflect current conditions and property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by, Stravinski Development Group, LLC, Peter T. Stravinski and any affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The property address has not been established at this time. However, the property is located on Commerce Boulevard, American Canyon, California 94503. The Site Vicinity Map is located in Appendix A. The Site Plan is located in Appendix B. Site Photographs are provided in Appendix C. According to information obtained from the Napa County Property Assessor's office, the property is identified as Assessor's Parcel Number (APN); 058-030-065-000.

3.2 Surrounding Area General Characteristics

The property is located within the northern section of the City of American Canyon in an area characterized by industrial uses and undeveloped land. Surface topography across the property and in the surrounding area is relatively flat with a slope towards the west. Specific adjacent and abutting properties are summarized in Section 3.5.

3.3 Current Use of the Property

The property consists of one parcel totaling approximately 35.85 acres of undeveloped land. The property is located to the north of Eucalyptus Drive and to the west of the city utility access road. At the time of the site visit, the property was undeveloped land.

A Site Plan is included in Appendix B.

3.4 Description of Property Improvements

The following table provides general descriptions of the property improvements.

PROPERTY IMPROVEMENTS	
Size of Property (approximate)	35.85 acres
General Topography of Property	Relatively flat with a slope towards the west.
Adjoining and/or Access/Egress Roads	A city utility access road to the east.
Paved or Concrete Areas (including parking)	None
Unimproved Areas	The property is unimproved.
Landscaped Areas	None
Surface Water	None
Potable Water Source	None
Sanitary Sewer Utility	None
Storm Sewer Utility	None
Electrical Utility	None
Natural Gas Utility	None
Current Occupancy Status	The property is unoccupied.
Unoccupied Buildings/Spaces/Structures	Not applicable (N/A)
Number of Occupied Buildings	N/A

Building Name or General Building Description	N/A
Number of Floors	N/A
Total Square Feet of Space (approximate)	N/A
Construction Completion Date (year)	N/A
Construction Type	N/A
Interior Finishes Description	N/A
Exterior Finishes Description	N/A
Cooling System Type	N/A
Heating System Type	N/A
Emergency Power	None

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

Direction from Property	Address	Occupant(s) Name	Current Use	Potential Environmental Conditions
North	1155 Commerce Boulevard	Western Carriers Inc	Industrial	None
South	N/A	Clark Ranch	City owned open space	None
East, beyond the city utility access road	2 Eucalyptus Drive	American Canyon Paintball	Commercial	Refer to Section 5.1
West	N/A	Undeveloped Land	Undeveloped	None

4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by Stravinski Development Group (User) with regard to the Phase I ESA. Documentation may be found in Appendix D or where referenced in this report.

4.1 Title Records

The User provided no title records information.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding property environmental liens or activity and use limitations (AULs). ATC contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut to perform an environmental lien search for the property. According to the environmental lien and AUL search report the property, APN 058-030-065-000 is vested in the American Canyon Flatland Co Inc and the Deed is dated December 12, 2016. The EDR environmental lien search did not identify any environmental liens or AULs associated with the property.

A copy of the report is included in Appendix L.

4.3 Specialized Knowledge or Experience of the User

The User provided no specialized knowledge regarding *recognized environmental conditions* associated with the property.

4.4 Significant Valuation Reduction for Environmental Issues

The User provided no information regarding a significant valuation reduction for environmental issues associated with the property.

4.5 Owner, Property Manager and Occupant Information

The User identified the property as one vacant parcel located on Commerce Boulevard, American Canyon, California. The owner was specified as SDG Commerce 330, LLC.

4.6 Reason for Performing Phase I ESA

According to information provided by the User, this Phase I ESA will be used in connection with a commercial real estate transaction to identify *recognized environmental conditions* associated with the property.

4.7 Other User Provided Documents

The User provided no other documents as described in the ASTM Standard Practice E1527-13. Copies of these documents are provided in Appendix H and are described in Section 5.3.9.

It should be noted that these documents relate to what is known as the “Couch Property” which is an approximately 106-acre property which includes the 35.85-acre property which is the subject of this report. Refer to the Site Plan which is located in Appendix B for the outline of both the Couch Property and the property which is the subject of this report.

OTHER USER PROVIDED DOCUMENTS		
Title	**Date (if known)**	**Author and/or Source (if known)**
Couch Property Phase I Environmental Site Assessment	October 14, 2004	Environmental Science Associates
Phase II Soil Investigation	July 25, 2005	Kleinfelder
Phase I Environmental Site Assessment	March 16, 2006	Innovative & Creative Environmental Solutions (ICES)
Phase I Environmental Site Assessment 2 Eucalyptus Drive American Canyon, California	December 22, 2009	Kleinfelder
Limited Site Investigation	April 19, 2010	ICES

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by EDR, was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient for *recognized environmental condition (REC)*, *controlled recognized environmental condition (CREC)*, *historical recognized environmental condition (HREC)* or *de minimis condition* determinations without conducting supplemental agency file reviews. ATC also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unmappable site that was identified by ATC as being within the approximate minimum search distance from the property, based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report may be found in Appendix E.

The following is a summary of the findings of the database review.

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	**Approx. Minimum Search Distance**	**Property Listed?**	**# Sites Listed**
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL	½ mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	½ mile	No	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP)	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (CORRACTS)	1 mile	No	0
Federal RCRIS non- CORRACTS Treatment, Storage, and Disposal Facilities (TSD)	½ mile	No	0
Federal RCRA Generators	Property & Adjoining	No	2
Federal Institutional Control/Engineering Control Registry	Property	No	0
Federal Emergency Response Notification System (ERNS) list	Property	No	0
National Pollutant Discharge Elimination System (NPDES)	Property	**Yes**	1
State and Tribal NPL (ENVIROSTOR)	1 mile	No	0
State and Tribal CERCLIS	½ mile	No	2
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	1
State and Tribal Leaking Underground Storage Tanks (LUST)	½ mile	Yes	2
State and Tribal Registered Underground Storage Tanks (UST)	Property & Adjoining	No	2
California Spills, Leaks, and Incident Clean-Up (CA SLIC)	½ mile	No	0
State and Tribal Institutional Control/Engineering Control Registry	Property	No	0
State and Tribal Voluntary Cleanup Site	½ mile	No	0
State and Tribal Brownfield Sites	½ mile	No	0
Hazardous Waste Manifests (HAZNET)	½ mile	No	0

5.1.1 Federal Agency Database Findings

The property was identified within the federal agency databases searched as part of the Couch Property. Listings for the Couch Property are discussed below. State database listings, corresponding to these federal database listings, are also discussed below.

Couch Property
2 Eucalyptus Drive
Databases: NPDES, Napa County LUST
Approximate Distance from the Property: Includes the property and east adjacent site, beyond Commerce Boulevard
Assumed Groundwater Gradient: Up-gradient
Regulatory Data Summary: The Couch Property is a 100+ acres site which includes the property. Listings for the Couch Property include a National Pollutant Discharge Elimination System (NPDES) permit issued in 2012. However, no other details are provided by EDR. Upon review of aerial photographs, the listing is in relation to the removal of the eucalyptus grove on the property.

The site is listed as a closed leaking underground storage tank (LUST) site. No details are provided by EDR. However, correspondence letters provided by the Napa County Planning Building and Environmental Services (NCPBES) indicated three USTs sitting on top of the ground and several 55-gallon drums. All but five drums were empty, two 10,000-gallon tanks were empty and one 3,000-gallon tank was partially full of an oily liquid. The tanks were noted to be in Area 5 of the Couch Property which is adjacent to the east of the property. Samples were collected from the five drums and the storage tank containing oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis (refer to Section 5.3.9 for further discussion).

In a 2009 Phase I Environmental Assessment, Kleinfelder mapped the areas in which contamination occurred (refer to the Appendix B Site Plan). According to the map, the tanks and dumping occurred east of the property beyond the government utility access road. No other leaks or violations were reported. Refer to Section 5.3.9 for additional information.
Discussion: Based on the offsite location (Area 5 beyond the government utility access road), the LUST listings are not considered to represent a *recognized environmental condition* to the property at this time

5.1.2 State and Tribal Database Findings

State and tribal database listings for the Couch Property, which includes the property, were previously discussed in Section 5.1.1.

Based on distance, topography, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the other sites listed in the federal agency databases searched are considered to represent a likely past, present or material threat of release in, on, or at the property.

5.1.3 Local Environmental Records Sources

Local Health Department

ATC contacted the NCPBES Department to review available information regarding the property. Mr. John Kara of the NCPBES responded via email on April 2, 2018 and stated a soil boring permit (Permit # E18-00161) was issued on March 2, 2018.

In addition, Mr. Brian Clerici of the NCPBES sent files to ATC via email on April 13, 2018 for the Couch Property (2 Eucalyptus Drive) as summarized below. The Couch Property is a 100+ acre site which includes the property. The NCPBES records summarized below were issued for the entire Couch Property site therefore it is unknown which records are specific to the property portion of the site.

On November 15, 1973, an application was submitted by Mr. Robert Couch to build a domestic well at the Couch Property. On July 18, 1979, a second application was submitted to add an additional domestic well to the Couch Property. According to the site maps, neither of the domestic wells are located on the property.

On November 16, 1990, Napa County issued an Inspection Warrant for the Couch Property in order to perform observations, take photographs, and sample materials. The exact locations of the violations were not specified in the document due to tremendous amounts of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps, concrete rubble, and three tanks and a railroad car.

In a correspondence from Napa County dated November 19, 1990, the results of the inspection of the Couch Property by Napa County indicated the following:

- The presence of people living on the Couch Property.
- A box containing six cardboard tubes labeled “GAMMA-FLAME” was found.
- Scattered throughout were used batteries and unmarked containers containing what appeared to be used oil and antifreeze.
- Many 55-gallon drums were found onsite and only five were full or partially-full.
- There were at least three tanks on the property; two are 10,000 gallons and empty. The third was a three-thousand gallon tank partially filled with an oily liquid.
- Compressed gas cylinders were found in a deteriorated condition with rust and corrosion forming on them
- In general, the hazardous wastes fell into four categories; oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners, and solvents, unknowns in small containers, and automobile batteries.

Also recorded on November 19, 1990, a hazmat team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District collected a total of six liquid samples. Five of the samples were taken from five 55-gallon drums and one sample from the three-thousand gallon tank. One sample was found on the south portion of the property which lies on the subject property and the other five were collect on the north portion of the east adjacent site. The gas cylinders in deteriorated condition and cylinders of hydrogen were noted to be the objects of most concern. One 55-drum showed leakage from the top rim and was heavily staining the wood pallet it was resting on.

The NCPBES concluded that the soil piles, asphalt piles, debris piles, hazardous materials, petroleum products, and abandoned automobiles indicated that the Couch Property owners allowed unpermitted dumping to take place on site. No records indicating soil or groundwater testing at the site were provided

On April 30, 2003, Napa County received a bid from Kroeker, Inc. of Fresno, California for the removal, cleaning, and grubbing for the Couch Property. The scope of work included demolishing all structures and animal pens, removal of all miscellaneous debris and garbage, removal of two 10,000-gallon fuel tanks presumed to be non-hazardous, and all trees and stumps within the site.

In a correspondence letter dated January 25, 2005, the Deputy County Counsel stated there were numerous tasks listed in a Stipulated Order that still needed to be completed. Some of the main unaddressed concerns included removal of the five trailers, removal of formerly excavated USTs, all scrap metal, motor vehicle tires and dismantled motor vehicles onsite. Itis unclear in the letter if the unaddressed tasks pertained to the property.

According to a site plan map in Kleinfelder's 2009 Phase I ESA, the illegal dumping occurred east of the property across the city utility access road (refer to Section 5.3.9 for additional details). During ATC's site reconnaissance on April 5, 2018, none of the materials noted above were observed. Based on the offsite location of the illegal dumping, the former use of the Couch Property as an unpermitted dumping site is not considered to represent an *recognized environmental concern* to the property.

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)

ATC contacted the DTSC and requested available files for the property. Ms. Ruth Saroian of the DTSC responded on April 2, 2018 and stated that no files exist for the property.

According to the DTSC EnviroStor website, http://www.envirostor.dtsc.ca.gov/public, the DTSC has no files for the property.

Regional Water Quality Control Board (RWQCB)

ATC contacted the RWQCB, San Francisco Regional Office and requested available files for the property. Ms. Margie Saldana of the RWQCB responded on March 29, 2018 and stated the department is no longer able to perform searches by APN. Since no physical address has been assigned to the property, the RWQCB could not perform a records search for the property.

According to the RWQCB GeoTracker website, http://geotracker.swrcb.ca.gov, no LUST sites or Spills, Leaks, Investigations and Clean-Up (SLIC) sites are located on the property.

Bay Area Air Quality Management District

ATC contacted the Bay Area Air Quality Management District (BAAQMD) to review available information regarding the property. The BAAQMD has not provided a response to ATC's request as of the date of this report. If information becomes available to ATC that alters the conclusions and/or recommendations presented herein, an addendum will be submitted.

Local Fire Department

ATC contacted then American Canyon Fire Department (ACFD) to review available information regarding the property. The ACFD has not provided a response to ATC's request as of the date of this report. If information becomes available to ATC that alters the conclusions and/or recommendations presented herein, an addendum will be submitted.

Department of Planning and Zoning

According to the City of American Canyon Planning Department (ACPD), the property is zoned *Recreation (REC).*

Building Department

ATC contacted the American Canyon Building Department (ACBD) to review available historical building department records for information regarding past uses of the property. Mr. William He of the ACBD responded on April 3, 2018 and stated that no building permits exist. However, Mr. He reported the department had communicated with the developer regarding a prospective warehouse, but no applications for the design permit have been submitted.

Electrical Utility Company

ATC confirmed the electrical utility for the surrounding area is provided by PG&E.

Water Utility

The City of American Canyon provides potable water utilities to the surrounding area.

Sewer Utility

The City of American Canyon provides municipal sewage utilities to the surrounding area.

Other Local Environmental Records Sources

No additional local environmental records sources were reviewed.

5.2 Physical Setting Sources

5.2.1 Topography

Based on the United States Geological Survey (USGS) 7.5-Minute Topographic Maps, *Cuttings Wharf, California, and Cordelia, California Quadrangles,* dated 2012, the property is located approximately 19 feet above mean sea level (MSL) and has a sloping topography towards the west.

A copy of the topographic map is included in Appendix A.

5.2.2 Geology

Based on the California Department of Conservation, *California Geological Survey, Preliminary geologic map of Solano County and Parts of Napa, Contra Costa, Marin, and Yolo Counties*, the property is primarily underlain by Older Alluvium, consisting of mainly flood-plain and alluvial-fan deposits adjacent to mountainous areas; sand, gravel, silt, and clay irregularly interstratified, commonly unconsolidated. This series is of the Quaternary era.

5.2.3 Soils

According to ATC's review of the United States Department of Agriculture Soil Conservation Service *Web-Based Soil Survey,* the property is underlain by Clear Lake Clay with zero to two percent slope (1%) and Haire Loam with two to nine percent slope (99%). Both Clear Lake Clay and Haire Loam consist of alluvium derived sedimentary rock.

A copy of the soil map is included in Appendix L.

5.2.4 Hydrology

Considering the surface topography for the property area, as interpreted from the *Cuttings Wharf, California, and Cordelia, California* topographic quadrangles, local groundwater would be expected to flow towards the west. Therefore, in assessing potential off-site environmental impacts, facilities located east of the property are of primary concern. However, actual groundwater flow direction is often locally influenced by factors such as underground structures, seasonal fluctuations, soil and bedrock geology, production wells, and other factors beyond the scope of this study. The actual groundwater flow direction under the property can be accurately determined only by installing groundwater-monitoring wells, which was beyond the scope of this project.

Depth to groundwater beneath the site has not been determined. Based on the soil investigation by Kleinfelder in 2005, groundwater was not encountered above 31 feet bgs.

5.2.5 Other Physical Setting Sources

Flood Plain Map

According to the Federal Emergency Management Agency (FEMA), the property is located in Flood Zone X, which is identified by FEMA as “areas determined to be outside [of the] 500-year floodplain” and Zone AE, which is identified by FEMA as “areas that have a 1% probability of flooding every year,” (Flood Insurance Rate Map [FIRM] Map Number 06055C0617F, dated August 3, 2016).

A copy of the FIRM is included in Appendix L.

Wetlands Map

Based on a review of the United States Department of the Interior, National Wetlands Inventory (NWI) Map (undated, online Wetlands Mapper at http://www.nwi.fws.gov/), there are no potential wetlands on the property.

A copy of the NWI map is included in Appendix L.

5.3 Historical Records Sources

The following table summarizes the findings of the research presented below pertaining to historical property and surrounding area uses.

HISTORICAL USE SUMMARY				
Period	**Identified Historical Uses**		**Source(s)**	**Intervals/Comments**
	Property	**Surrounding Area**		
Prior to 1940	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential	Topographic Maps	The earliest record for the property is a 1902 topographic map which depicts the property and surrounding area as undeveloped land.
1940 - 1960	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential	Aerial Photographs Topographic Maps	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
1961 - 1980	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential/ Industrial	Aerial Photographs Topographic Maps Tax Records	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
1981 - 2000	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential/ Industrial	Aerial Photographs Topographic Map Tax Records	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
2001 - present	Agricultural/ Undeveloped	Undeveloped/ Agricultural/ Industrial	Aerial Photographs Tax Records Regulatory Listings City Directory Listings	No data gaps.

Interval gaps (greater than five years) were encountered during the research of historical use information for the property and surrounding area. However, based on the review of available historical sources, these data gaps did not have an impact on the REC determinations of this assessment and are not significant data gaps.

5.3.1 Aerial Photographs

ATC reviewed available aerial photographs of the property and surrounding area provided by EDR. Available aerial photographs ranged from 1947 to 2012. The following are descriptions and interpretations from the aerial photograph review. Copies of reproducible aerial photographs are included in Appendix F.

AERIAL PHOTOGRAPH SUMMARY		
Year	**Scale**	**Comments**
1947 1952 1958 1968 1974 1982	1 inch = 500 feet	**Property**: The majority of the property is depicted as undeveloped land; specifically eucalyptus groves. **Surrounding Area**: The surrounding area is depicted as open fields and eucalyptus groves. A residential home is depicted to the south.
1993	1 inch = 500 feet	**Property**: No notable changes since the 1982 aerial photograph. **Surrounding Area**: No notable changes to the surrounding areas since the 1982 aerial photograph. However, the residential home to the south is no longer depicted.
2006 2010	1 inch = 500 feet	**Property**: No notable changes since the 1993 aerial photograph. **Surrounding Area**: To the north appears multiple large industrial warehouses and to the east appears Commerce Boulevard and nondescript structures. No notable changes to the south and west since the 1993 aerial photograph.
2014	1 inch = 500 feet	**Property**: The eucalyptus grove is removed and an open field is depicted. **Surrounding Area**: No notable changes to the surrounding area since the 2010 aerial photograph.

The review of aerial photographs did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.2 Fire Insurance Maps

A search for fire insurance maps for the property and surrounding area was conducted by EDR. No such maps for the property were available.

5.3.3 Property Tax Files

ATC obtained reasonably ascertainable tax files from the Nationwide Environmental Title Research (NETR) online database for historical ownership information pertaining to the property. The table below presents the results of the historical ownership information.

TAX RECORDS OWNERSHIP SUMMARY	
Owner: Parcel Number 075-130-002	**Date**
American Canyon Flat Land Co I	December 2016 to current

The review of tax files did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not required by the scope of work for the Phase I ESA.

5.3.5 Historical USGS Topographic Maps

ATC reviewed available historical USGS Topographic Maps for information regarding past uses of the property provided by EDR. Available historical USGS Topographic Maps were dated 1902, 1914, 1916, 1947, 1949, 1951, 1968, 1973, 1980, 1981, and 2012. The property and surrounding area are depicted as vacant land on all available maps. Documentation is included in Appendix G.

The review of historic USGS Topographic Maps did not identify specific past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.6 City Directories

Research regarding the availability of historical city directories was conducted by EDR. The following are descriptions and interpretations from the historical city directory review. Documentation is included in Appendix G.

CITY DIRECTORY SUMMARY	
Year	**Comments**
1995	**Property**: No listings **Surrounding Area**: Good Health America (1245 Commerce Boulevard)
2000	**Property**: No listings **Surrounding Area**: Pokka USA Inc (1201 Commerce Boulevard) Santa Clara Warehouse Inc (1275 Commerce Boulevard)
2005	**Property**: No listings **Surrounding Area**: Hess Collection Winery (1166 Commerce Boulevard) Pro Mortgage Partners LLC (1175 Commerce Boulevard) PB Holdings Inc, Pokka USA Inc (1201 Commerce Boulevard) Santa Clara Warehouses Inc, Western Wine Service (1275 Commerce Boulevard)
2010	**Property**: No listings **Surrounding Area**: Grapevine Express, Hess Collection Winery, Tricana Inc, Zepexco Inc (1166 Commerce Boulevard) Amcan Beverages Inc, Coca Cola North America, Fluid Resource Management, Pacific Solutions Construction, Sun Pokka Citrus Inc (1201 Commerce Boulevard) Bacchus Distribution Co LLC (1245 Commerce Boulevard) Western Wine Services Inc (1275 Commerce Boulevard)

CITY DIRECTORY SUMMARY	
Year	**Comments**
2014	**Property**: No listings **Surrounding Area**: Hess Collection Winery, Zepexco Inc (1166 Commerce Boulevard) Amcan Beverages Inc, Coca Cola North America, (1201 Commerce Boulevard) Vin Go LLC (1245 Commerce Boulevard) Western Wine Services Inc (1275 Commerce Boulevard)

The review of city directories did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.7 Building Department Records

ATC contacted the American Canyon Building Department to review available historical building department records for information regarding past uses of the property. Mr. William He of the ACBD responded on April 3, 2018 and stated that no building permits exist. However, the department spoke with the developer on a prospective warehouse, but no applications for the design permit have been submitted.

5.3.8 Zoning/Land Use Records

ATC attempted to review available historical zoning/land use records at the ACPD for information regarding past uses of the property and surrounding area. No historical use information was available for the property. According to the ACPD, the property is zoned as *Recreation (REC).*

5.3.9 Prior Reports

The following provides a summary of information from prior reports made available to ATC for review. Documentation is included in Appendix H. Proposals and field forms associated with the reports below are not summarized but are included in Appendix H.

It should be noted that these documents relate to what is known as the “Couch Property” which is an approximately 106-acre property which includes the 35.85-acre property which is the subject of this report. Refer to the Site Plan which is located in Appendix B for the outline of both the Couch Property and the property which is the subject of this report.

Phase I Environmental Site Assessment by Environmental Science Associates dated October 14, 2004

The Phase I ESA was conducted for the Couch Property and the report concluded the following:

- There is past and present undocumented and illegal storage of hazardous materials and wastes on the Couch Property. The Napa County Department of Environmental Management inspected the property in 1990 and determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

- The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former USTs, and the other containers of hazardous

materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners.

- It is possible that methamphetamine labs operated in the eucalyptus groves in the area of the Couch Property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride.

- A portion of the Couch Property was used to cut and store wood. A large amount of soil containing some type of oil was deposited on a portion of the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onsite. Chief Keith Caldwell of the American Canyon Fire District remembers that soil was brought onto the property in the 1970s for a motorcycle track.

- The County identified two unapproved water wells on the property in their 1990 investigation. However, Environmental Science Associates staff could only locate one of the water wells.

- There are outhouses (holes in the ground) on the property that have been used for sewage disposal.

The recommendations of the report included the following:

- Soil and groundwater sampling is to be completed in the areas of concern that were identified by the Phase I report. It may also be necessary to sample other areas of the property as dictated by field personnel that will perform the soil and groundwater sampling at the site, depending on what is encountered during sampling. At a minimum, the soil and groundwater samples should be analyzed for petroleum hydrocarbons, oil and grease, solvents, and priority pollutant metals. The Phase II report should provide recommendations based on the laboratory analytical results.

- Due to the history of the use of the Couch Property, it is difficult to determine what might be uncovered during earth moving activities if the land is developed. At the time of excavation of the site for development, soil and groundwater sampling should be completed in any areas of the property where buried hazardous materials, odors, or stained soil are found. The results of the laboratory analytical results would provide the information needed to determine whether excavation of the soil would be necessary and whether the soil would need to be removed and properly disposed offsite.

- The water wells should be abandoned in accordance with California water well standards and Napa County protocol.

- The sewage disposal areas should be closed in accordance with Napa County protocol.

It should be noted that although the areas which were a concern by Environmental Science Associates are located within the approximately 106-acre Couch Property, the areas of concern are actually located to the east of the 35.85-acre property which is the subject of this report.

Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*.

Phase II Soil Investigation by Kleinfelder dated July 25, 2005

The investigation was conducted in response to several recognized environmental conditions which were noted in the report by Environmental Science Associates. The investigation was conducted in March through May 2005 and consisted of nine Hollow-stem auger borings, four hand auger borings, and two test pits. A total of 34 soil samples were submitted for analysis. Groundwater was not sampled or analyzed during this investigation. Analytical tables were referenced in the report but no tables were included in the copy of the report obtained by ATC.

Although this investigation was conducted on the approximately 106-acre Couch Property, only borings B-4 through B-12 (Appendix B) were advanced on the 35.85-acre property which is the subject of this report. Results that relate to the 35.85-acre property which is the subject of this report are the following:

- The report notes the presence of gasoline and BTEX which were detected in boring B-12 at 15 feet bgs in "low concentrations" that were below the 2005 Environmental Screening Levels (ESL's) as defined by the San Francisco Bay Water Board for residential shallow soils.

- The concentration of Chromium in B-12 at 15 feet bgs was noted at 130 milligrams per kilogram (mg/kg) which was noted above the screening levels used. However, concentrations of chromium in two samples collected at shallower levels from the same boring were noted below this level and, therefore, Kleinfelder determined the elevated concentration of chromium at 15 feet bgs was not due to a significant release.

- Although groundwater was not sampled during the investigation, Kleinfelder stated that potential impacts to groundwater were low.

It should be noted that although the concentration of chromium noted above in boring B-12 at 130 mg/kg is above the 2005 ESLs, the concentration is below the current version of the February 2016 ESLs. As such the noted levels of chromium is considered an *historical recognized environmental concern*.

Phase I Environmental Site Assessment by Innovative and Creative Environmental Solutions (ICES) dated March 16, 2005

The report by ICES was conducted for the approximately 106-acre Couch Property and the report concluded the following.

- A eucalyptus grove occupied the site until the late 1950s. In the early 1980s, the northeastern portion was developed and used for residential activities and the southeastern portion was used as a race track. Currently, paint ball fields are located at the west and central portions of the site.

- It was discovered that there was past and present undocumented and illegal storage of hazardous materials and waste on the site. In addition, a large amount of soil containing oil was deposited at the southeastern portion of the site in the 1970s for a motorcycle track.

ICES recommended that a supplementary investigation be conducted within the site including the following:

- Collect soil samples from the surficial soil within the west portion of the site to assess the potential presence of organochlorine pesticides, arsenic, lead, and mercury associated with the eucalyptus grove.

- Collect soil samples from the surficial soil within the southeastern portion of the site for petroleum hydrocarbons, semi-volatile organic compounds, and lead associated with the former motorcycle track and existing wood cutting and storage operations.

- Collect soil samples from the surficial soil within the northeastern portion of the site to assess surficial sediments containing arsenic, chromium, and vanadium levels detected in a previous site investigation which exceeded residential ESLs.

Phase I Environmental Site Assessment by Kleinfelder dated December 22, 2009

Kleinfelder partitioned the Couch Property into seven areas of concern: the Hurst Firewood Area, the Paintball Jungle Area (East), the Animal Pens Area, the Couch Residential Area, the Concentrated Area, the Sherwood Forest Paintball and North Slough Creek Area, and the Paintball Jungle Area (West).

According to the site map, only the Paintball Area (West), the Concentrated Area, and the Sherwood Forest Paintball and North Slough Creek Area are within the 35.85-acre property which is the subject of this report.

The report concluded the following:

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

Recommendations related to the 35.85-acre property which is the subject of this report are the following:

- A soil and groundwater investigation should be conducted within each area of the site to assess the extent of chemical constituents of concern in the soil and groundwater including, but not limited to, petroleum hydrocarbons, metals, and volatile organic compounds.

The Concentrated Area was reportedly previously occupied by a trailer and a methamphetamine lab in 2000. EPA guidelines note that soil sampling in areas of methamphetamine labs may be warranted if the ground is visibly stained or otherwise affected (e.g., odors burn piles, dead vegetation, or remnants of reaction waste. ATC did not observe evidence of dead vegetation or discarded waste on the day of the site reconnaissance (refer to Section 6.0). Thus, ATC considers the previous methamphetamine lab site to be a *de minimus condition* to the property.

Limited Site Investigation by ICES dated April 19, 2010

The investigation was conducted in March 2010 and involved the collection of soil samples from approximately 6 to 9 inches bgs from eight sample locations. Of those eight locations, four were located on the 35.85-acre property which is the subject of this report (TP-1 through TP-4) (Appendix B).

The analysis of the samples from TP-1 through TP-4 indicated that concentrations of petroleum hydrocarbons as gasoline, diesel, and motor oil and volatile organic compounds were generally below the residential Environmental Screening Levels (ESLs) with the exception of the result of 160 mg/kg of total petroleum hydrocarbons as diesel (TPHd) in the sample from TP-2 which was above the residential ESL of 83 mg/kg. The laboratory noted that oil range compounds were significant in the sample from TP-2

and ICES suggested that the elevated TPHd in the sample from TP-2 may be the result of natural oil compounds from eucalyptus trees. Also, levels of arsenic and vanadium were noted in the samples above the ESLs but below background levels. ICES concluded that surficial soil within the site has generally not been impacted by previous activities.

Limitations

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report. Documentation is included in Appendix H.

5.3.10 Other Historical Sources

No other historical sources were reviewed.

6.0 SITE RECONNAISSANCE

The following is a summary of visual and/or physical observations of the property on the day of the site visit. Photographs can be found in Appendix C.

6.1 Methodology and Limiting Conditions

Mr. Gyan Rusconi-Rodrigues, Senior Scientist with ATC, conducted the site reconnaissance on April 5, 2018. Mr. Rusconi-Rodrigues was unescorted during the site reconnaissance. The site reconnaissance consisted of visual and/or physical observations of: the property; adjoining sites as viewed from the property; and, the surrounding area based on visual observations made during the trip to and from the property. Unimproved portions of the property were observed along the perimeter and in safely accessible areas. The weather at the time of the site reconnaissance was overcast. Due to vegetation overgrowth, ground visibility was limited.

6.2 Hazardous Substance Use, Storage, and Disposal

ATC did not observe the use, storage or disposal of hazardous substances, including hazardous wastes, on the property. However, visibility was limited due to overgrowth of vegetation.

6.3 Underground Storage Tanks (USTs)

ATC did not observe evidence of USTs on the property. However, visibility was limited due to overgrowth of vegetation.

6.4 Aboveground Storage Tanks (ASTs)

ATC did not observe evidence of ASTs on the property. However, visibility was limited due to overgrowth of vegetation.

6.5 Other Petroleum Products

ATC did not observe the use, storage or disposal of other petroleum products in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.6 Polychlorinated Biphenyls (PCBs)

ATC did not observe evidence of the use, storage or disposal of PCB-containing electrical or hydraulic equipment in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.7 Unidentified Substance Containers

ATC did not observe the presence of unidentified substance containers on the property. However, visibility was limited due to overgrowth of vegetation.

6.8 Nonhazardous Solid Waste

ATC did not observe evidence of the generation, storage or disposal of nonhazardous solid waste in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.9 Wastewater

ATC did not observe evidence of wastewater generated, treated or discharged in, on or at the property or to adjoining properties.

6.10 Waste Pits, Ponds and Lagoons

ATC did not observe evidence of waste pits, ponds or lagoons in, on or at the property.

6.11 Drains and Sumps

ATC did not observe evidence of drains or sumps in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.12 Septic Systems

ATC did not observe evidence of a septic system in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.13 Stormwater Management System

Stormwater at the property is allowed to infiltrate the ground. The observed vegetation did not exhibit signs of biological stress. No strong odors were detected.

6.14 Wells

ATC did not observe evidence of wells in, on or at the property. However, there were visual limitations during site reconnaissance due to overgrowth of vegetation.

During ATC's review of documents submitted by the NCPBES, two domestic wells were noted on the Couch Property. It is estimated from the site maps that both wells are not located on the property. However, if during development of the property, a well is uncovered, it should be properly abandoned per applicable regulations.

7.0 SUBSURFACE VAPOR MIGRATION

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. According to EPA guidance, three conditions must exist for hazardous vapors to reach the interior of buildings from the subsurface environment underneath or near a building. First, a source of hazardous vapors must be present in the soil or in groundwater underneath or near a building. Second, vapors must form and have a pathway along which to migrate toward the building. Third, entry routes must exist for the vapors to enter the building, and driving forces must exist to draw the vapors into the building.

ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information that was summarized in Section 5.0. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a *recognized environmental condition* to the property.

8.0 INTERVIEWS

The following person(s) were interviewed to obtain information regarding *recognized environmental conditions* in connection with the property:

INTERVIEW SUMMARY				
Role	**Name**	**Title/Company**	**Years Assoc. With Property**	**Interview Type**
Authorized Property Representative	Brian Doswald	Stravinski Development Group	Unknown	Email

Not included in this listing are those governmental employees that were contacted solely for the purpose of retrieving public information pertaining to the property and who would not be expected to have first-hand knowledge of *recognized environmental conditions* at the property.

Pertinent information from the interviews is discussed in applicable sections of this report with details (including failed attempts to interview) documented on Record of Communication forms in Appendix J.

9.0 OTHER ENVIRONMENTAL CONDITIONS

9.1 Asbestos-Containing Materials (ACM)

Due to the undeveloped nature of the property, ACM was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.2 Radon

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. The EPA guidance action level for annual residential exposure to radon is 4.0 picoCuries per liter of air (pCi/L). The guidance action level is not a regulatory requirement for private owners of commercial real estate, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent.

ATC's review of published radon data indicates that the property is located in an area of low propensity with regard to the potential for elevated levels of radon gas. Napa County is listed as being within Zone 3, where average indoor levels are expected to be less than 2 pCi/L. Additional federal area radon statistics for zip code 94503, within Napa County, report results for 11 short-term tests as below 4.0 pCi/L. Given the available statistics, radon is not considered to represent a concern, and no additional investigations are recommended at this time.

9.3 Lead in Drinking Water

ATC confirmed with the City of American Canyon that the municipally supplied water meets all drinking water standards, including those for lead. Based on the fact that the water (once supplied to the property) is from the municipality, lead in drinking water would not be a concern to the property.

9.4 Lead-Based Paint (LBP)

Due to the undeveloped nature of the property, LBP was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.5 Mold Screening

Due to the undeveloped nature of the property, mold was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.6 Additional User Requested Conditions

No additional User requested services were included in the scope of work for this ESA.

10.0 REFERENCES

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-13. November 2013.

ASTM International, *Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process*, ASTM Designation E 2418-06. March 2006.

ASTM International, *Standard Guide for Limited Asbestos Screens of Buildings*, ASTM Designation E 2308-05. August 2005.

California Department of Toxic Substance Control, emailed request for records, dated March 29, 2018.

California Regional Water Quality Control Board-San Francisco Region, faxed request for records, dated March 29, 2018.

Environmental Data Resources, Inc. (EDR), Aerial Photo Decade Package, Inquiry No. 5240904.5, dated March 30, 2018.

Environmental Science Associates. Couch Property Environmental Site Assessment, dated October 4, 2004.

EDR, City Directory Abstract, Inquiry No. 5240904.6, dated March 30, 2018.

EDR, Environmental Lien Search Report, Inquiry No. 5240904.7, dated March 30, 2018.

EDR, Historical Topographic Map Report, Inquiry No. 5240904.4, dated March 30, 2018.

EDR, Property Tax Map Report, Inquiry No. 5240904.8, dated March 30, 2018.

EDR, Radius Map with Geocheck, Inquiry No. 5240904.2s, dated March 30, 2018.

EDR, Sanborn Map Report, Inquiry No. 5240904.3, dated March 30, 2018.

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Map Number 06055C0617F, dated August 3, 2016.

ICES. *Limited Site Investigation*, April 19, 2010.

Kleinfelder. *Phase II Soil Investigation*, dated October 4, 2004.

Kleinfelder. *Phase I Environmental Site Assessment 2 Eucalyptus Drive American Canyon*, *California,* dated October 4, 2004.

Napa County Planning, Building and Environmental Services, faxed request for records, dated March 29, 2018.

Online Department of Toxic Substances Control EnviroStor website, http://www.envirostor.dtsc.ca.gov/public/.

Online Regional Water Quality Control Board GeoTracker website, http://www.geotracker.swrcb.ca.gov.

Online United States Fish and Wildlife Service Wetlands Mapper, http://www.nwi.fws.gov/.

United States Geological Survey (USGS) Topographic Quadrangle Maps, *38122-B2 Cuttings Wharf Quadrangle*, *California and Cordelia, California* 7.5-Minute Series Topographic map, dated 2012.

USDA National Resources Conservation Service Soil Survey website http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

11.0 TERMINOLOGY

The following provides definitions and descriptions of certain terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E1527-13. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

material threat - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional (EP), is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

de minimis condition – is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. An example might include a release of *hazardous substances* or *petroleum products* that could reasonably and foreseeably result in a concentration exceeding the applicable regulatory agency risk-based residential standards or substantial damage to natural resources. The risk of that exposure or damage would represent a threat to human health or the environment. If an enforcement action would be less likely than not, then the condition is considered to be generally not likely the subject of an enforcement action. A condition determined to be *de minimis* is not a *REC* or *controlled recognized environmental condition (CREC)*.

historical recognized environmental condition(s) (HREC) - a past release of any *hazardous substances* or *petroleum products* that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a *HREC*, the EP must determine whether the past release is a *REC* at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a *REC* at the time the Phase I ESA is conducted, the condition will be reported in Section 1.2 the Findings and Conclusions Summary table as a *REC*.

controlled recognized environmental condition (CREC) - a *recognized environmental condition* resulting from a past release of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitation, institutional controls, or engineering controls). Per E1527-13, a *CREC* will be reported in the Section 1.2 Findings and Conclusions Summary table as a *CREC* and a *REC*.

migrate/migration - refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

APPENDIX A

SITE VICINITY MAP



SOURCE: CUTTINGS WARF, 2012, 7.5-MINUTE QUADRANGLE, OBTAINED BY ENVIRONMENTAL DATA RESOURCES, INC. (EDR)

0 2,000
Scale (feet)

LEGEND

SUBJECT PROPERTY

N

2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118BM01173

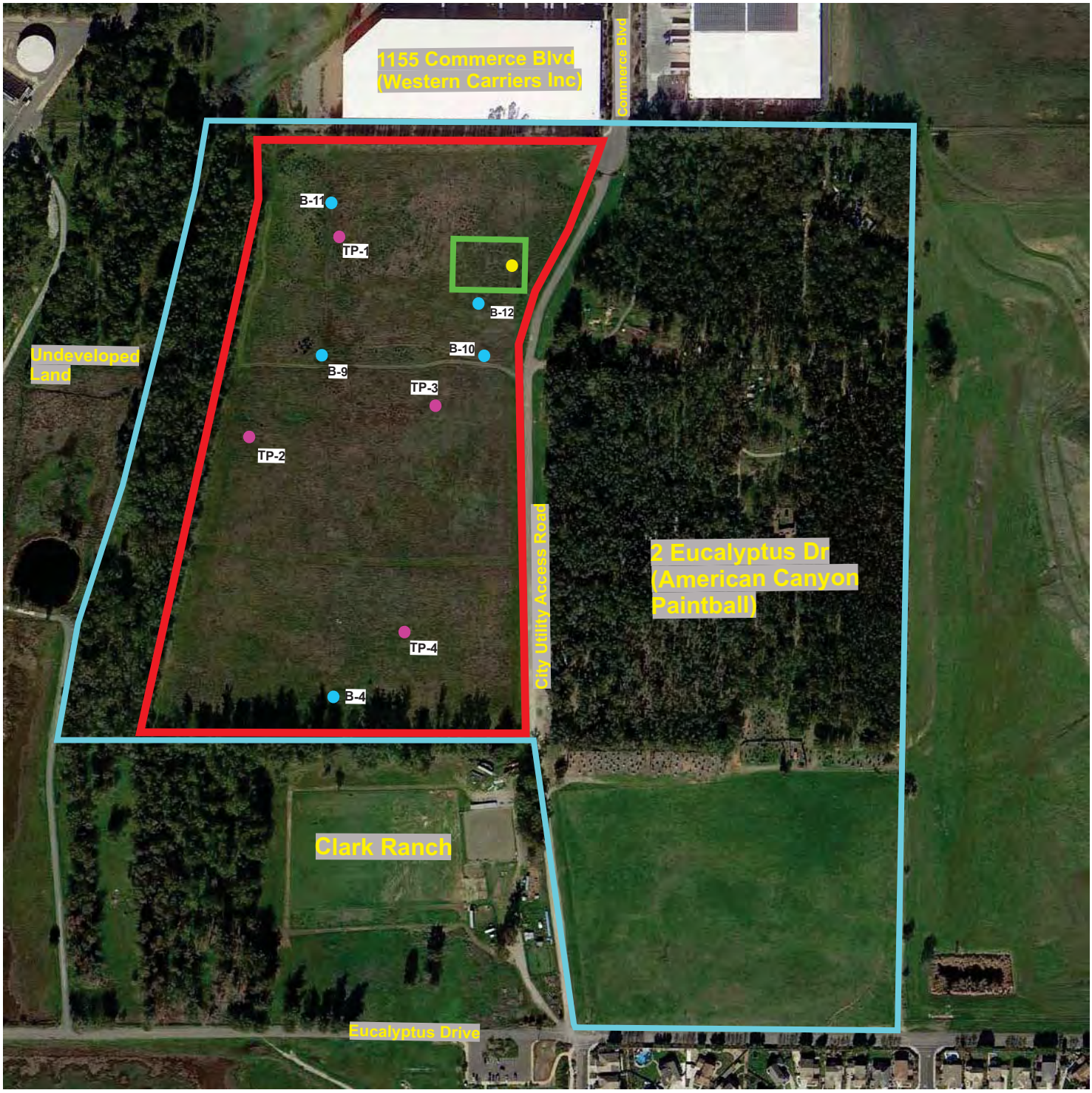
DESIGNED BY: GRR	SCALE: 1"=500'	REVIEWED BY: DSH
DRAWN BY: GRR	DATE: 4/12/18	FILE: SITE VISCINITY MAP

SITE VICINITY MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN CANYON, CALIFORNIA

APPENDIX B

SITE PLAN



Legend

- Subject Property
- Concentrated Area according to Kleinfelder, December 2009
- Couch Property
- Reported Methamphetamine Lab
- Boring by Kleinfelder, July 2005
- Test Pit by ICES, April 2010

N

2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118EM01173

DESIGNED BY: GRR	1"=100'	REVIEWED BY: BMC
DRAWN BY: GRR	DATE: 05/10/2018	FILE: SITE PLAN

SITE PLAN

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN, CALIFORNIA

APPENDIX C

SITE PHOTOGRAPHS



Photo 1: The property as viewed from Commerce Boulevard, looking northwest.



Photo 2. The property as viewed from Commerce Boulevard, looking southwest



Photo 3: The property as viewed from the center of the property, looking south.



Photo 4: The property as viewed from the center of the property, looking north.



Photo 5: View of the north adjacent site, looking north.



Photo 6: View of the west undeveloped site, looking southeast.



Photo 7: View of the east adjacent site, looking northeast.



Photo 8: View of the south adjacent site, looking southwest.

APPENDIX D

USER PROVIDED DOCUMENTATION

THIS SECTION NOT USED

APPENDIX E

REGULATORY DATABASE REPORT

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.2s
March 30, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NOT REPORTED
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.1854430 - 38° 11' 7.59''
Longitude (West):	122.2736510 - 122° 16' 25.14''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	563612.6
UTM Y (Meters):	4226434.0
Elevation:	19 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NOT REPORTED
AMERICAN CANYON, CA 94503

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	COUCH PROPERTY	2 EUCALYPTUS DR	LUST, NPDES	Lower	807, 0.153, SSW
A2	AMERICAN CANYON SANI	WESTERN TERMINUS OF	SWF/LF, Financial Assurance	Higher	897, 0.170, SSE
A3	GAS RECOVERY SYSTEMS	725 EUCALYPTUS ROAD	RCRA-SQG	Higher	934, 0.177, SSE
4	AMCAM BEVERAGES INC	1201 COMMERCE BLVD	RCRA-SQG	Higher	1133, 0.215, North
5	MORROW EQUIPMENT CO	833 HANNA DR	LUST, CHMIRS, WDS	Higher	2161, 0.409, NNE
6	POLYVINYL CHEMICAL I	501 GREEN ISLAND ROA	ENVIROSTOR	Higher	3058, 0.579, NE
7	FORMER SUNSHINE AUTO	1578 GREEN ISLAND	ENVIROSTOR, SLIC, ENF, NPDES	Higher	4006, 0.759, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File

EXECUTIVE SUMMARY

ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
UXO - Unexploded Ordnance Sites
ECHO - Enforcement & Compliance History Information
DOCKET HWC - Hazardous Waste Compliance Docket Listing
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
Cortese - "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HIST CORTESE - Hazardous Waste & Substance Site List
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
UIC - UIC Listing
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historical Auto Stations
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GAS RECOVERY SYSTEMS	725 EUCALYPTUS ROAD	SSE 1/8 - 1/4 (0.177 mi.)	A3	11
AMCAM BEVERAGES INC	1201 COMMERCE BLVD	N 1/8 - 1/4 (0.215 mi.)	4	12

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/30/2018 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
POLYVINYL CHEMICAL I Facility Id: 28510002 Status: No Action Required	501 GREEN ISLAND ROA	NE 1/2 - 1 (0.579 mi.)	6	16
FORMER SUNSHINE AUTO Facility Id: 28500004 Status: Refer: RWQCB	***1578 GREEN ISLAND***	***NNW 1/2 - 1 (0.759 mi.)***	***7***	***18***

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within

approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANI	***WESTERN TERMINUS OF***	***SSE 1/8 - 1/4 (0.170 mi.)***	***A2***	***9***

Database: SWF/LF (SWIS), Date of Government Version: 11/13/2017
Facility ID: 28-AA-0001
Operational Status: Closed
Regulation Status: Permitted

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MORROW EQUIPMENT CO	***833 HANNA DR***	***NNE 1/4 - 1/2 (0.409 mi.)***	***5***	***14***

Database: NAPA CO. LUST, Date of Government Version: 01/09/2017
Status: Closed
Permit ID: 248449

Lower Elevation	Address	Direction / Distance	Map ID	Page
COUCH PROPERTY	***2 EUCALYPTUS DR***	***SSW 1/8 - 1/4 (0.153 mi.)***	***1***	***8***

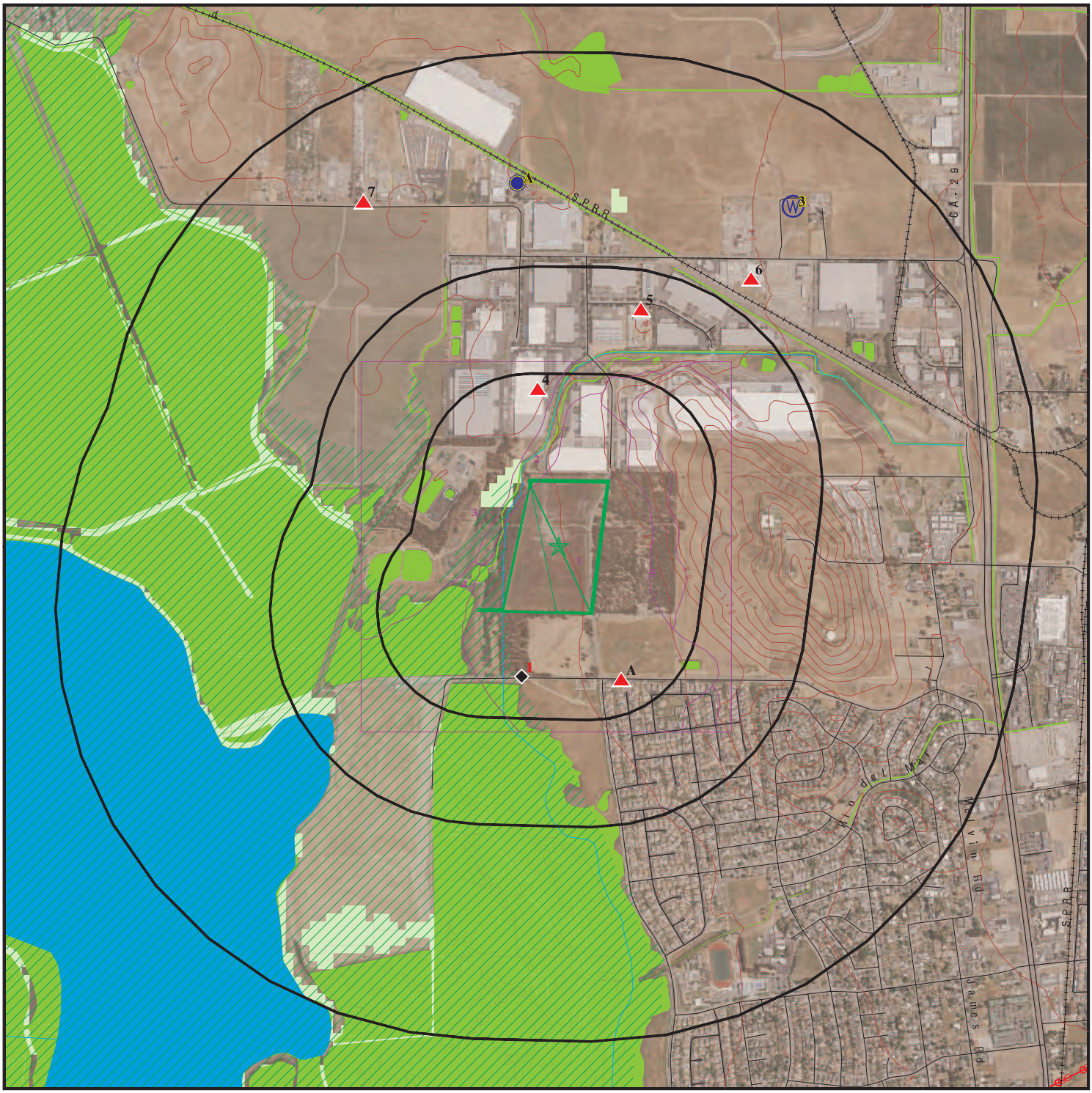
Database: NAPA CO. LUST, Date of Government Version: 01/09/2017
Status: Closed
Permit ID: 248266

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
AMERICAN CANYON POND SITE	LUST
CANYON CROSSINGS	ENVIROSTOR, VCP

OVERVIEW MAP - 5240904.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Commerce 320 Distribution Center ADDRESS: Not Reported American Canyon CA 94503 LAT/LONG: 38.185443 / 122.273651	CLIENT: ATC Group Services LLC CONTACT: Gyan Rusconi-Rodrigues INQUIRY #: 5240904.2s DATE: March 30, 2018 9:55 am

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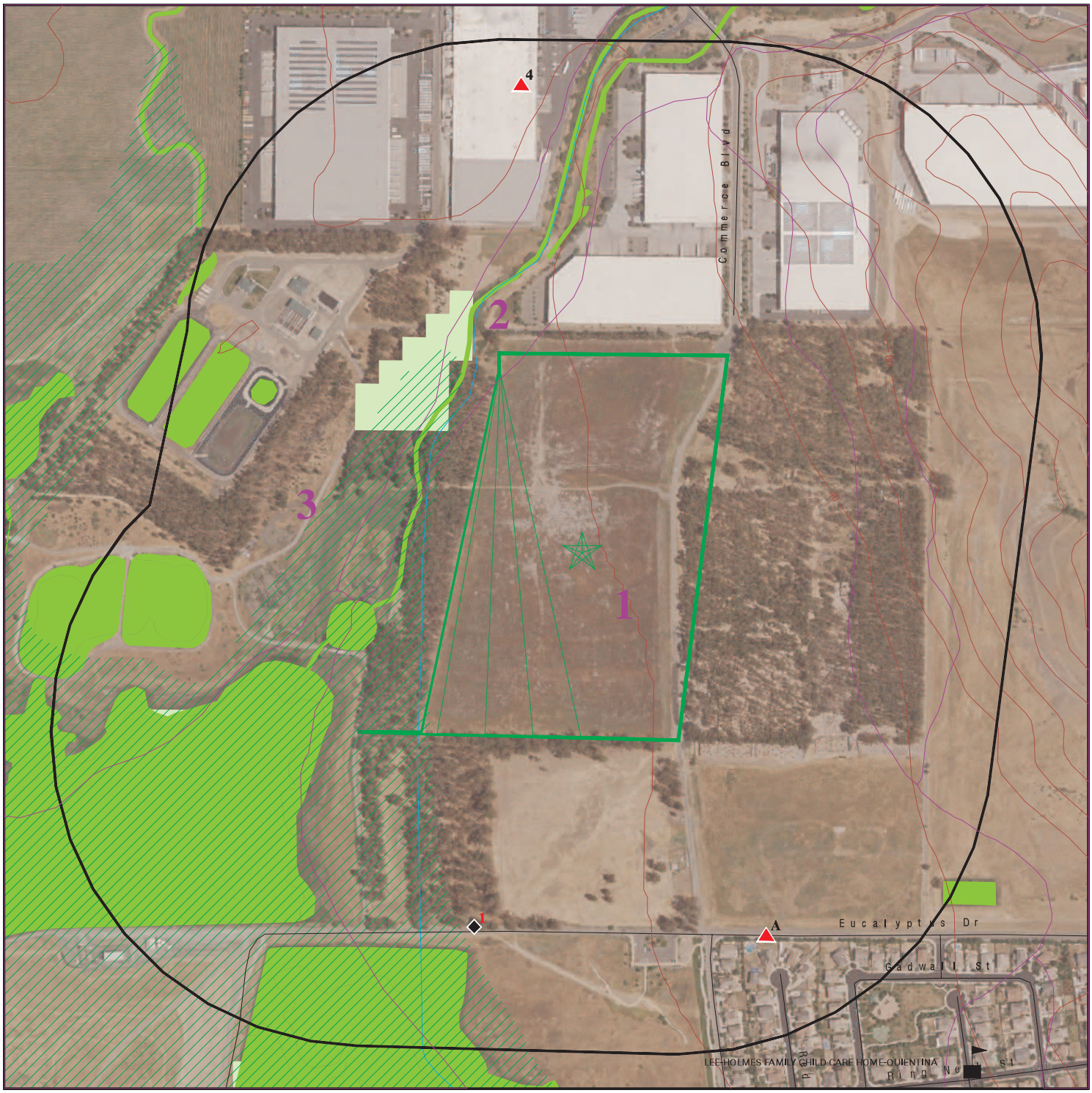
DETAIL MAP - 5240904.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
		INQUIRY #:	5240904.2s
LAT/LONG:	38.185443 / 122.273651	DATE:	March 30, 2018 9:57 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	2	NR	NR	NR	2
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	2	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	1	0	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		0	1	1	NR	NR	2

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	4	1	2	0	7

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SSW
1/8-1/4
0.153 mi.
807 ft.

COUCH PROPERTY
2 EUCALYPTUS DR
AMERICAN CANYON, CA 94589

LUST **S111291382**
NPDES **N/A**

Relative:
Lower

Actual:
9 ft.

NAPA CO. LUST:

Permit ID:	248266
Status:	Closed
Permit Type:	Non-LOP
District:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	2
Regulatory Measure Id:	420898
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	2 28C362311
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/28/2012
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	10/21/2011
PROCESSED DATE:	10/28/2011
STATUS CODE NAME:	Terminated
STATUS DATE:	11/29/2012
PLACE SIZE:	51
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Michael Johnson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	559-584-6656
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	johnson@griswoldlasalle.com
OPERATOR NAME:	AMERICAN CANYON FLAT LAND COMPANY INC
OPERATOR ADDRESS:	111 East Seventh Street
OPERATOR CITY:	Hanford
OPERATOR STATE:	California
OPERATOR ZIP:	93230
OPERATOR CONTACT NAME:	Michael Johnson
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	559-584-6656
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	johnson@griswoldlasalle.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	AMERICAN CANYON FLAT LAND COMPANY INC
DEVELOPER ADDRESS:	111 East Seventh Street
DEVELOPER CITY:	Hanford
DEVELOPER STATE:	California
DEVELOPER ZIP:	93230

COUCH PROPERTY (Continued) **S111291382**

DEVELOPER CONTACT NAME:	Michael Johnson
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Eucalyptus grove removal.
CONSTYPE OTHER IND:	Y
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	MICHAEL JOHNSON
CERTIFIER TITLE:	LRP
CERTIFICATION DATE:	21-OCT-11
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

A2 **AMERICAN CANYON SANITARY LANDFILL** **SWF/LF** **S102361374**
SSE **WESTERN TERMINUS OF EUCALYPTUS DRIVE** **Financial Assurance** **N/A**
1/8-1/4 **NAPA, CA**
0.170 mi.
897 ft. **Site 1 of 2 in cluster A**

Relative:
Higher

Actual:
26 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	28-AA-0001
Lat/Long:	38.18056 / -122.27556
Owner Name:	Napa-Vallejo Waste Management Authority
Owner Telephone:	7072534545
Owner Address:	Not reported
Owner Address2:	1195 Third Street, Room 101
Owner City,St,Zip:	Napa, CA 94559
Operational Status:	Closed
Operator:	Napa-Vallejo Waste Management Authority
Operator Phone:	7072534545
Operator Address:	Not reported
Operator Address2:	1195 Third Street, Room 101
Operator City,St,Zip:	Napa, CA 94559
Permit Date:	12/17/2013
Permit Status:	Permitted
Permitted Acreage:	$122.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Permitted
Landuse Name:	Agricultural
GIS Source:	Map

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Mixed municipal
Closure Date:	12/01/1995
Closure Type:	Actual
Disposal Acreage:	$97.00
SWIS Num:	28-AA-0001
Waste Discharge Requirement Num:	III
Program Type:	Financial Assurance Responsibilities
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	4900000
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Cubic Yards
Lat/Long:	38.18056 / -122.27556

CA Financial Assurance 2:

Region:	2
SWIS_NO:	28-AA-0001
Closure Approved:	Yes
Closure Inf Coverage Date:	Not reported
Closure Plan Coverage:	$3,301,570.00
Closure Plan Date:	04/15/2005
PostClose Approved:	Yes
PostClose Adequacy Date:	07/25/2005
PostClose Inf Coverage:	$11,868,209.00
PostClose Inf Coverage Date:	06/01/2016
CorActCoverage:	$939,393.00
CorActApproved:	Yes
CorAct Mec Adequacy Date:	Not reported
CorAct Inf Coverage:	$977,464.00
CorActPlanCoverage:	$767,000.00
CorAct Plan Date:	09/25/2003
Lia Coverage:	$0.00
Lia Approved:	No
Review:	07/20/2016
Closure Mechanism A:	Not reported
Closure Mechanism B:	Not reported
Closure Coverage:	$0.00
Closure Adequacy:	Not reported
Closure Inflation Estimate:	$0.00
Post Closure Mechanism A:	PLEDGE OF REVENUE
Post Closure Established A:	05/13/1994
Post Closure Mechanism B:	Not reported
Post Closure Coverate:	$17,108,935.00
Post Closure Adequacy:	Not reported
Corrective Action Extablished A:	Not reported
Corrective Actiont Coverage:	$939,393.00
Corrective Action Approved:	Yes
Corrective Action Inflation Estimate:	$977,464.00
Corrective Action Inflationdate:	06/01/2016
Corrective Action Plan Estimate:	$767,000.00
Liability Mechanism A:	Not reported
Liability Established A:	Not reported
Liability Mechanism B:	Not reported
CostAnniversary:	02/10/2008

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

ClosureEstablishedA:	Not reported
ClosureEstablishedB:	Not reported
ClosureDisbursement:	0
PostClosureEstablishedB:	Not reported
PostClosureDisbursement:	0
CorrectiveActionMechanismA:	PLEDGE OF REVENUE
CorrectiveActionMechanismB:	Not reported
CorrectiveActionExtablishedB:	Not reported
CorrectiveActiontDisbursement:	0
LiabilityEstabllishedB:	Not reported
LiabilityAdequacy:	Not reported
Contact:	Not reported

A3 **GAS RECOVERY SYSTEMS - AMERICAN CANYON** **RCRA-SQG** **1007199996**
SSE **725 EUCALYPTUS ROAD** **CAL000035673**
1/8-1/4 **AMERICAN CANYON, CA 94589**
0.177 mi.
934 ft. **Site 2 of 2 in cluster A**

Relative:
Higher

Actual:
26 ft.

RCRA-SQG:

Date form received by agency:	03/07/2002
Facility name:	GAS RECOVERY SYSTEMS - AMERICAN CANYON
Facility address:	725 EUCALYPTUS ROAD AMERICAN CANYON, CA 94589
EPA ID:	CAL000035673
Mailing address:	5717 BRISA STREET LIVERMORE, CA 94550
Contact:	MATTHEW L NOUROT
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	925-606-3700
Telephone ext.:	3721
Contact email:	NOUROT@GRSI.NET
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No

GAS RECOVERY SYSTEMS - AMERICAN CANYON (Continued) **1007199996**

Used oil transporter: No

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

4
North
1/8-1/4
0.215 mi.
1133 ft.

Relative:
Higher

Actual:
27 ft.

AMCAM BEVERAGES INC **RCRA-SQG** **1023675186**
1201 COMMERCE BLVD **CAR000271809**
AMERICAN CANYON, CA 94503

RCRA-SQG:
Date form received by agency: 04/03/2017
Facility name: AMCAM BEVERAGES INC
Facility address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94503
EPA ID: CAR000271809
Mailing address: COMMERCE BLVD
AMERICAN CANYON, CA 94503
Contact: JERROD CLARK
Contact address: COMMERCE BLVD
AMERICAN CANYON, CA 94503
Contact country: US
Contact telephone: 707-556-1230
Contact email: JERCLARK@COCA-COLA.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: THE COCA-COLA COMPANY
Owner/operator address: PO BOX 1734
ATLANTA, GA 30313
Owner/operator country: US
Owner/operator telephone: 404-676-2121
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Owner/operator name: THE COCA-COLA COMPANY
Owner/operator address: PO BOX 1734
ATLANTA, GA 30313
Owner/operator country: US
Owner/operator telephone: 404-676-2121
Owner/operator email: Not reported

AMCAM BEVERAGES INC (Continued) **1023675186**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

AMCAM BEVERAGES INC (Continued) **1023675186**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

Violation Status: No violations found

---

5 **MORROW EQUIPMENT CO** **LUST** **S103978447**
NNE **833 HANNA DR** **CHMIRS** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503** **WDS**
0.409 mi.
2161 ft.

Relative:
Higher

Actual:
37 ft.

NAPA CO. LUST:
Permit ID: 248449
Status: Closed
Permit Type: Non-LOP
District: 0

CHMIRS:

OES Incident Number:	9-2001
OES notification:	05/10/1999
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported

MORROW EQUIPMENT CO (Continued) **S103978447**

Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	San Francisco Bay
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	Morrow Equipment Co
Incident Date:	5/10/199912:00:00 AM
Admin Agency:	Napa County Dept. Environmental Mgmt
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	unk
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Discovered an oily substance on top of a drainage ditch that runs along side of the building. Company traced the spill back to the far drain on the back of the property. Company has called a contactor to come and contain the spill. Company does not bbeleive this is caused by them.

WDS:

Facility ID:	San Francisco Bay 28I017048
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	7076443731

MORROW EQUIPMENT CO (Continued) **S103978447**

Facility Contact:	BRYAN FRAZER
Agency Name:	MORROW EQUIPMENT CO
Agency Address:	833 Hanna Dr
Agency City,St,Zip:	American Canyon 945039606
Agency Contact:	BRYAN FRAZER
Agency Telephone:	7076443731
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

6
NE
1/2-1
0.579 mi.
3058 ft.

POLYVINYL CHEMICAL INDUSTRIES, INC **ENVIROSTOR** **S118756649**
501 GREEN ISLAND ROAD **N/A**
VALLEJO, CA 94589

Relative: Higher

Actual: 38 ft.

ENVIROSTOR:

Facility ID:	28510002
Status:	No Action Required
Status Date:	06/05/2008
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	04
Senate:	03
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Funding: EPA Grant
Latitude: 38.19456
Longitude: -122.2654
APN: 057160002000
Past Use: UNKNOWN
Potential COC: * HYDROCARBON SOLVENTS * UNSPECIFIED ALKALINE SOLUTIONS * LATEX WASTE
Not reported
Confirmed COC: NONE SPECIFIED
Potential Description: UE
Alias Name: CALIFORNIA RESINS (NAME CHANGE 11/17/82)
Alias Type: Alternate Name
Alias Name: PCI
Alias Type: Alternate Name
Alias Name: 057160002000
Alias Type: APN
Alias Name: CAD061163325
Alias Type: EPA Identification Number
Alias Name: SL0605547879
Alias Type: GeoTracker Global ID
Alias Name: 28510002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/29/1990
Comments: PRELIM ASSESS DONE ECOLOGY AND ENVIRONMENT PRELIMINARY ASSESSMENT 2/12/90. SITE POSES A HIGH POTENTIAL OF RELEASE TO SURFACE WATER. EPA RECOMMENDATION-MEDIUM PRIORITY SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/05/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/16/1987
Comments: SITE SCREENING DONE MANUFACTURER OF ACRYLIC EMULSIONS CHEMS. ORGANIC CHEMICALS FOUND IN SOIL AND GROUNDWATER AROUND PIT. PCI WAS PART OF BEATRICE CHEMICAL DIVISION OF BEATRICE FOODS. THE DIVISION WAS SOLD TO IMPERIAL CHEMICAL INDUSTRIES 03/01/85.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/28/2008
Comments: The Triage recommended No Further Action. A Sensitive Receptor Survey and Risk Based Corrective Action Assessment submitted to the SF Water Board indicate that the contaminant residuals present at the site do not pose a significant health risk to current or future occupants of the site. Based on this Report, a No Further Action Letter was issued by the SF Board dated November 20, 2000.

Completed Area Name: PROJECT WIDE

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	05/01/2014
Comments:	DTSC conducted a reassessment of sites in EPA's CERCLIS database on EPA's behalf. The regional waterboard had reviewed past soil and groundwater investigations and determined that no further action was required. Based on this information and available sampling data, DTSC recommended no further federal assessment under CERCLA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	02/05/1988
Comments:	FACILITY IDENTIFIED DHS DRIVE-BY. PHOTOS TAKEN SITE SCREENING DONE PAH REQ BASED ON NAPA CO ENVR HLTH FILE
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	01/12/1988
Comments:	FACILITY IDENTIFIED ENVR HLTH NAPA KNOWN CONTAMINATED SITE
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

7
NNW
1/2-1
0.759 mi.
4006 ft.

FORMER SUNSHINE AUTO SALVAGE
1578 GREEN ISLAND
AMERICAN CANYON, CA 94503

ENVIROSTOR **S106234974**
SLIC **N/A**
ENF
NPDES

Relative:
Higher

Actual:
31 ft.

ENVIROSTOR:

Facility ID:	28500004
Status:	Refer: RWQCB
Status Date:	01/10/2001
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	04
Senate:	03
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Latitude: 38.19873
Longitude: -122.2822
APN: 058070020000
Past Use: BATTERY RECLAMATION, RECYCLING - SCRAP METAL
Potential COC: Lead TPH-diesel 1,2,4-Trimethylbenzene
Confirmed COC: Lead 1,2,4-Trimethylbenzene 30024-NO
Potential Description: SOIL
Alias Name: CALIFORNIA AUTO DISMANTLING
Alias Type: Alternate Name
Alias Name: 058070020000
Alias Type: APN
Alias Name: 28500004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/11/2002
Comments: PA/SI completed. The site was recommended for no further CERCLA remedial site assessment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 01/10/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/22/1988
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/10/2001
Global Id: SLT2O01220
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 38.1979592581048
Longitude: -122.282120459358
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: 28S0043

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:
Region: 2
Facility ID: 28S0043
Facility Status: Case Closed
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

ENF:
Region: 2
Facility Id: 226276
Agency Name: California Auto Dismantling Inc
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: Privately-Owned Business
Of Agencies: 1
Place Latitude: 38.197004
Place Longitude: -122.283653
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Reg Meas
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	238135
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	10/22/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	No Further Action
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

Region: 2

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237984
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	09/07/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Conditional Approval
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

Region:	2
Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237983
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	04/19/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Approval of Time Extension
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Total $ Paid/Completed Amount:	$0.00
Region:	2
Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237833
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	03/29/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Approval of the Revised Workplan for Limited Soil and GW Investigation
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	2
Regulatory Measure Id:	276879
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	2 28I019282
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	07/01/2015
PROCESSED DATE:	01/19/2005
STATUS CODE NAME:	Active
STATUS DATE:	07/14/2015

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

PLACE SIZE:	5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Fahim Noorzay
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	707-557-4300
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	fahimnoorzay@gmail.com
OPERATOR NAME:	California Auto Dismantling Inc
OPERATOR ADDRESS:	1578 Green Island Rd
OPERATOR CITY:	American Canyon
OPERATOR STATE:	California
OPERATOR ZIP:	94503
OPERATOR CONTACT NAME:	Fahim Noorzay
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	707-557-4300
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	fahimnoorzay@gmail.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	707-557-4300
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	wetlands
CERTIFIER NAME:	Fahim Noorzay
CERTIFIER TITLE:	owner
CERTIFICATION DATE:	01-JUL-15
PRIMARY SIC:	5015-Motor Vehicle Parts, Used
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	2

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Regulatory Measure Id:	276879
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	2 28I019282
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/19/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	California Auto Dismantling Inc
Discharge Address:	1578 Green Island Rd
Discharge City:	American Canyon
Discharge State:	California
Discharge Zip:	94503
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	S119102654	AMERICAN CANYON POND SITE	EUCALYPTUS DR	94503	LUST
AMERICAN CANYON	S121475155	CANYON CROSSINGS	NAPA JUNCTION ROAD	94503	ENVIROSTOR, VCP

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 23

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 15
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/09/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 57

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 92

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 28

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 30
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 42
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 54

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/08/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/29/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 29
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 35
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 32
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 02/22/2018
Number of Days to Update: 42

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 63

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 10

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/25/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/26/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/26/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 14

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/29/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 51

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/05/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 40

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/06/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 21

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 54

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/16/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 29
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 01/17/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 28
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 10/26/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/06/2017
Number of Days to Update: 10

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 12

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/12/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 15

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 20

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 30

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/31/2018
Date Data Arrived at EDR: 02/01/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 41

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/09/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 50

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/15/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 50

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 64

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/05/2018
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 42

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 46

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 02/01/2018
Number of Days to Update: 42
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 28
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 29
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/04/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 42

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 28

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 16

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 37

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 12/04/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 15

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/26/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 50

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 48

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/27/2017
Date Data Arrived at EDR: 12/13/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 10
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/22/2018
Number of Days to Update: 36
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/09/2018
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COMMERCE 320 DISTRIBUTION CENTER
NOT REPORTED
AMERICAN CANYON, CA 94503

TARGET PROPERTY COORDINATES

Latitude (North):	38.185443 - 38° 11' 7.59''
Longitude (West):	122.273651 - 122° 16' 25.14''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	563612.6
UTM Y (Meters):	4226434.0
Elevation:	19 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

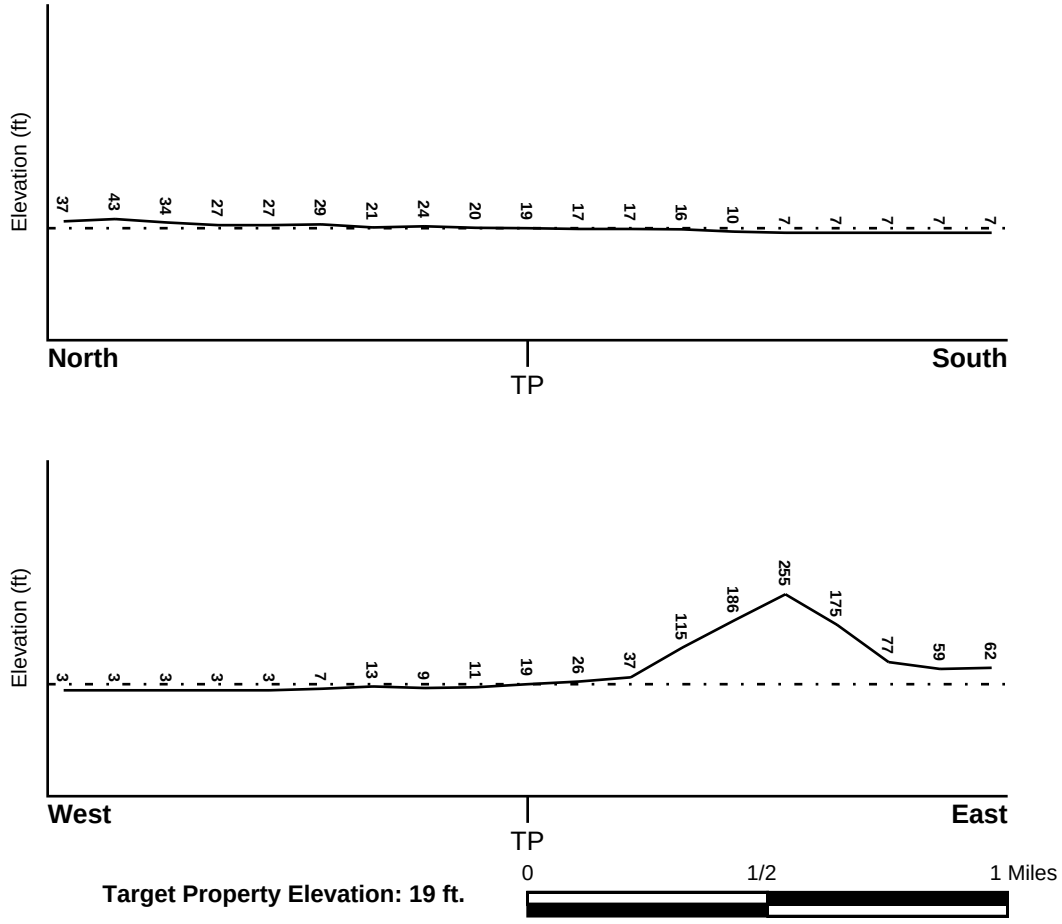
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 19 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06055C0625E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06055C0610E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CUTTINGS WHARF	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

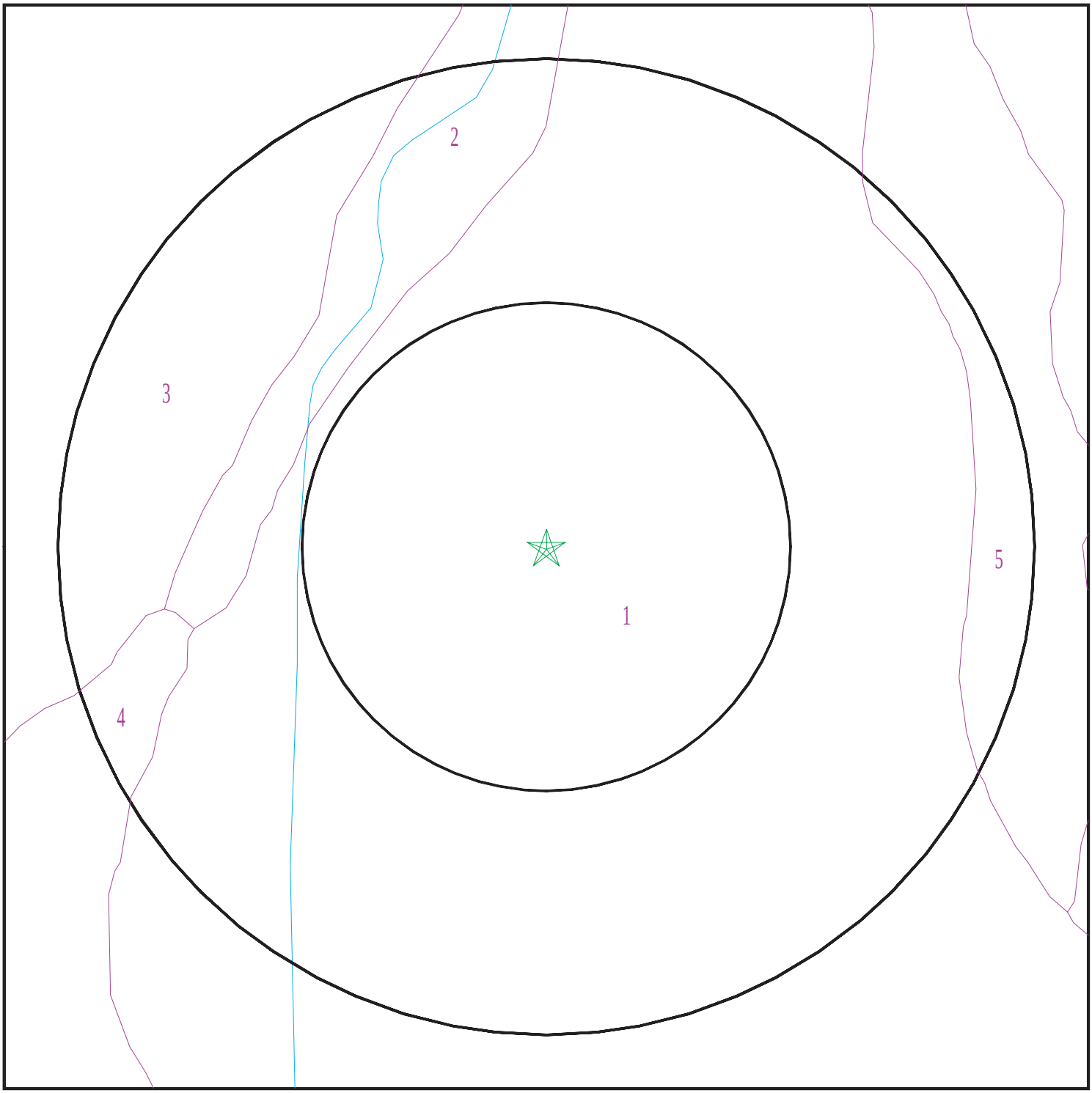
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5240904.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
LAT/LONG:	38.185443 / 122.273651	INQUIRY #:	5240904.2s
		DATE:	March 30, 2018 9:57 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: HAIRE

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 2

Soil Component Name: CLEAR LAKE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	31 inches	68 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: HAIRE

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 4

Soil Component Name: REYES

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6
2	14 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5 Min: 3.6

Soil Map ID: 5

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6.5 Min: 5.6
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 5.6
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6.5 Min: 5.6
4	46 inches	50 inches	weathered bedrock	Not reported	Not reported	Max: 4 Min: 1.4	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000187284	1/2 - 1 Mile North

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADW60000011407	1/2 - 1 Mile North
3	CADW60000011406	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 5240904.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
LAT/LONG:	38.185443 / 122.273651	INQUIRY #:	5240904.2s
		DATE:	March 30, 2018 9:57 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
North
1/2 - 1 Mile
Higher | **CA WELLS** | **CADW60000011407**

Objectid:	11407
Latitude:	38.1976
Longitude:	-122.2753
Site code:	381976N1222753W001
State well numbe:	04N04W14C002M
Local well name:	''
Well use id:	4
Well use descrip:	Residential
County id:	28
County name:	Napa
Basin code:	'2-2.03'
Basin desc:	Napa-Sonoma Lowlands
Dwr region id:	80236
Dwr region:	North Central Region Office
Site id:	CADW60000011407

A2
North
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000187284**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-381153122162801		
Monloc name:	004N004W14C002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050002	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.1979728
Longitude:	-122.2755275	Sourcemap scale:	024000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	34
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 27

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1977-10-03	36.7		1977-06-20	33.7	
1977-04-18	36.2		1977-01-24	32.7	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1976-10-18	33.4	
1976-04-28	33.2	
1975-10-28	33	
1975-04-15	30.2	
1974-07-22	33.7	
1973-10-25	31.2	
1972-10-25	38.2	
1971-03-17	36.2	
1969-04-04	30.4	
1967-05-01	32.7	
1965-03-22	33.2	
1963-04-05	33.4	
1976-07-28	32.6	
1976-02-02	31.2	
1975-07-09	32.2	
1974-10-08	30.2	
1974-04-03	28.2	
1973-05-04	32.7	
1972-03-20	35.2	
1970-03-23	30.4	
1968-03-18	27.9	
1966-04-06	32.8	
1964-04-02	33.3	

3
NE
1/2 - 1 Mile
Higher

CA WELLS **CADW60000011406**

Objectid:	11406
Latitude:	38.197
Longitude:	-122.2636
Site code:	381970N1222636W001
State well numbe:	04N04W13E001M
Local well name:	''
Well use id:	5
Well use descrip:	Stockwatering
County id:	28
County name:	Napa
Basin code:	'2-2.03'
Basin desc:	Napa-Sonoma Lowlands
Dwr region id:	80236
Dwr region:	North Central Region Office
Site id:	CADW60000011406

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94503	11	0

Federal EPA Radon Zone for NAPA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NAPA COUNTY, CA

Number of sites tested: 27

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.937 pCi/L	93%	7%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.800 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F

AERIAL PHOTOGRAPHS

Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.12

March 30, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.12

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2014	1"=500'	Flight Year: 2014	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1993	1"=500'	Acquisition Date: July 06, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 08, 1982	USDA
1974	1"=500'	Flight Date: April 30, 1974	USGS
1968	1"=500'	Flight Date: April 20, 1968	USGS
1958	1"=500'	Flight Date: July 25, 1958	USGS
1952	1"=500'	Flight Date: August 03, 1952	USDA
1947	1"=500'	Flight Date: March 01, 1947	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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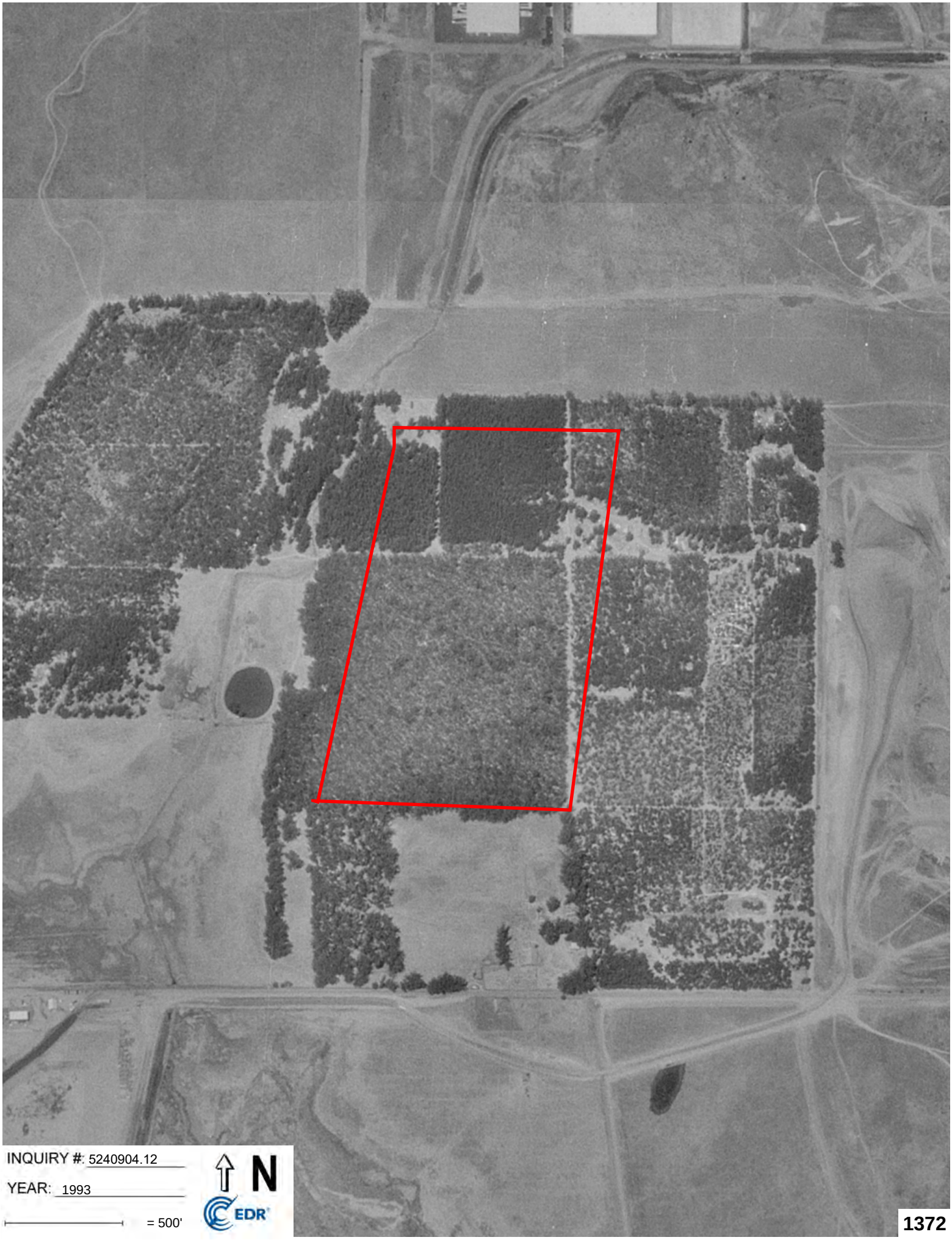
INQUIRY #: 5240904.12
YEAR: 2014
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 2006
= 500'
N
EDR



INQUIRY #: 5240904.12

YEAR: 1993

= 500'

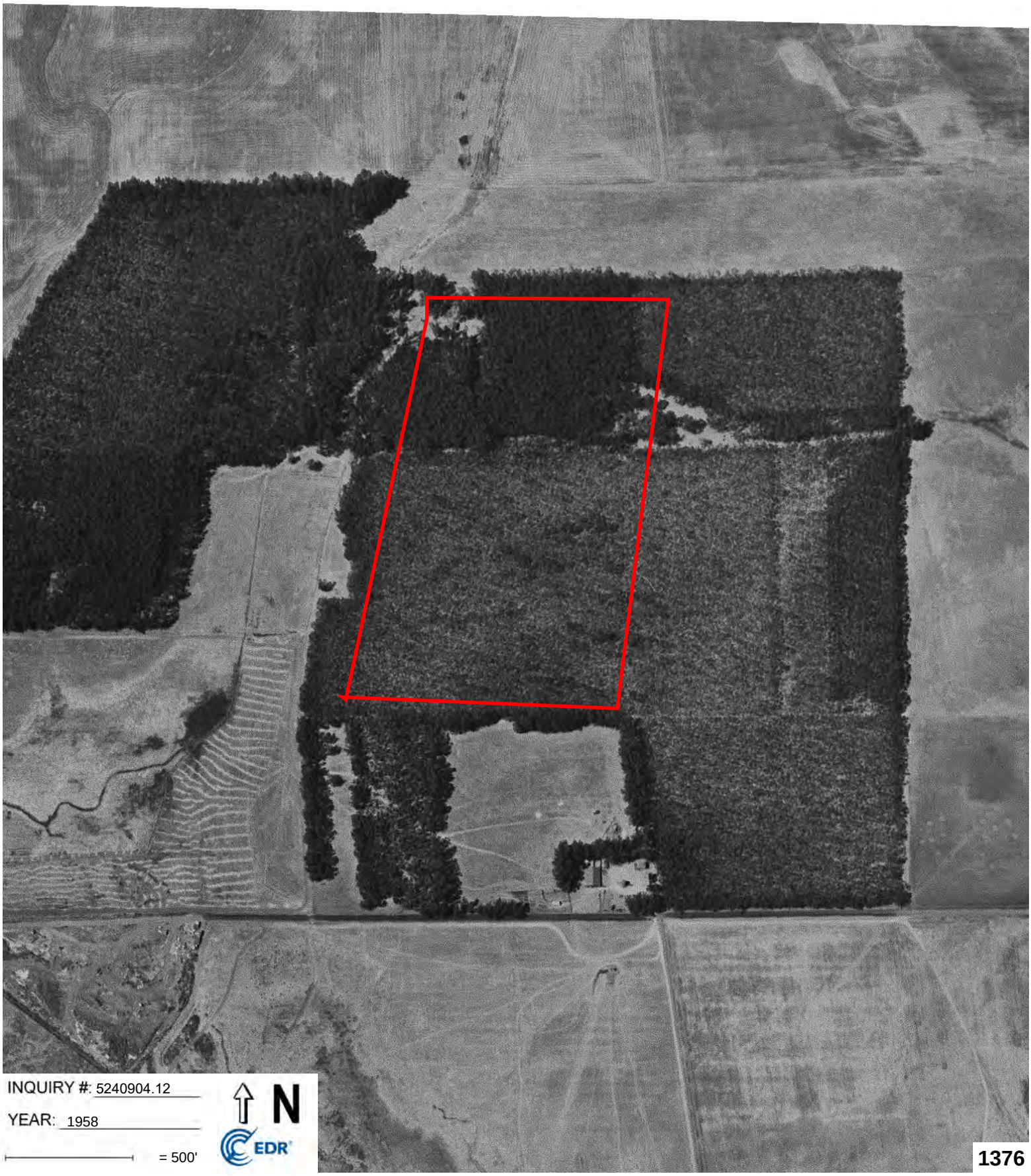
N

EDR

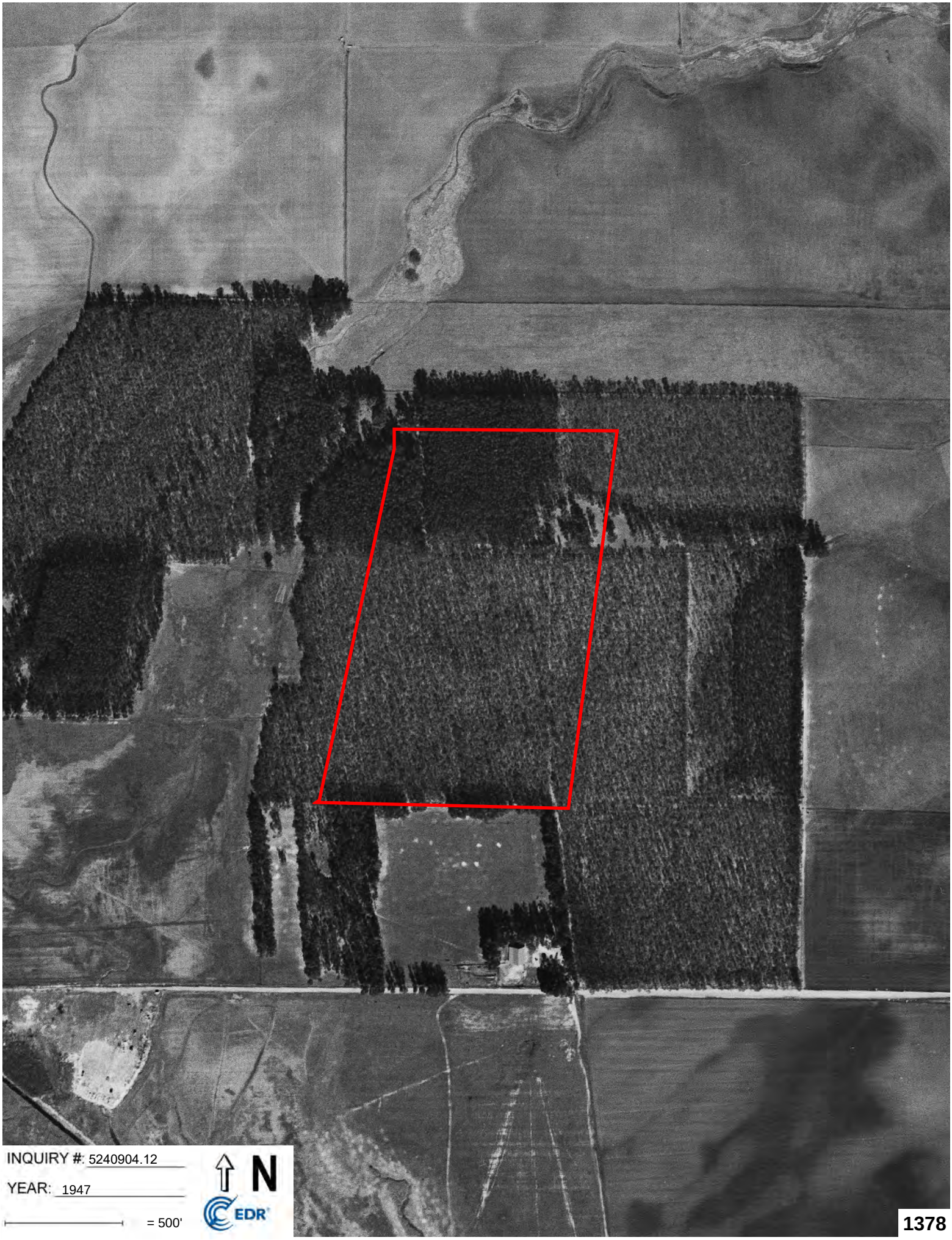

INQUIRY #: 5240904.12
YEAR: 1982
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1974
= 500'
N
EDR
1374


INQUIRY #: 5240904.12
YEAR: 1968
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1958
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1952
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1947
= 500'
N
EDR

APPENDIX G

HISTORICAL RESEARCH DOCUMENTATION

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.8
March 30, 2018

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Building Permit Report: Search Documentation

3/30/18

Site Name:
Commerce 320
Not Reported
American Canyon, CA

EDR Inquiry # 5240904.8

Client Name:
ATC Group Services LLC
2400 Camino Ramon, Suite
San Ramon, CA 94583

Contact: Gyan Rusconi-

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 3/30/18, EDR does not have access to building permits in the city where your target property is located (American Canyon, CA).

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.5
March 30, 2018

The EDR-City Directory Image Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by
infoUSA®
Copyright©2008
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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	Haines Criss-Cross Directory
1990	☐	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Not Reported
American Canyon, CA 94503

Year	*CD Image*	*Source*	

COMMERCE BLVD

2014	pg A1	EDR Digital Archive	
2010	pg A2	EDR Digital Archive	
2005	pg A3	EDR Digital Archive	
2000	pg A4	EDR Digital Archive	
1995	pg A5	Haines Criss-Cross Directory	
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2014

1166	HESS COLLECTION WINERY
	ZEPEXCO INC
1201	AMCAN BEVERAGES INC
	AMERICAN BEVERAGES
	COCA-COLA COMPANY AMERICAN CYN
1245	VIN GO LLC
1275	WESTERN WINE SERVICES INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2010

1166	GRAPEVINE EXPRESS
	HESS COLLECTION WINERY
	TRICANA INC
	ZEPEXCO INC
	ZEPHYR EXPRESS
1201	AMCAN BEVERAGES INC
	COCA COLA NORTH AMERICA
	FLUID RESOURCE MANAGEMENT
	PACIFIC SOLUTIONS CONSTRUCTION
	SUN POKKA CITRUS INC
1245	BACCHUS DISTRIBUTION CO LLC
1275	WESTERN WINE SERVICES INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2005

1166	HESS COLLECTION WINERY THE
1175	PRO MORTGAGE PARTNERS LLC
	SELECT WINE SERVICES
	WRAPIT TRANSIT
1201	PB HOLDINGS INC
	POKKA USA INC
	SUN POKKA CITRUS INC
1275	SANTA CLARA WAREHOUSES INC
	WESTERN WINE SERVICE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2000

1201 POKKA USA INC
SUN POKKA CITRUS INC
1275 SANTA CLARA WAREHOUSES INC

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

COMMERCE BLVD 1995



COMMERCE BLVD (93)
94589 VALLEJO

1245 ★GOOD HEALTH AMERICA 552-0122 +5
★PIONEER TIRE SUPPLY 552-6666 3
★ 2 BUS 0 RES 1 NEW

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.7
April 02, 2018

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Not Reported
Commerce 320 Distribution Center
American Canyon, CA 94503

RESEARCH SOURCE

Source 1:

Napa Recorder
Napa, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	American Canyon Flatland Co Inc
Title received from:	Steven R Brock
Deed Dated	12/2/2016
Deed Recorded:	12/12/2016
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	American Canyon Flatland Co Inc
Parcel # / Property Identifier:	058030065000
Comments:	See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

RECORDING REQUESTED BY)
AND WHEN RECORDED)
RETURN TO:)
)
)
MICHAEL R. JOHNSON)
GRISWOLD, LaSALLE, COBB,)
DOWD & GIN, L.L.P.)
111 E. 7th St.)
Hanford, CA 93230)
)
Mail Tax Statements to:)
American Canyon Flat Land Co., Inc.)
17674 N. Woodson Avenue)
Fresno, CA 93711)

2016-0032608

Recorded Official Records County of Napa JOHN TUTEUR Assessor-Recorder-Cou	REC FEE	22.00
	PCOR FEE	20.00
	CC1 ONE CONFORM	1.00
	LS	
09:00AM 21-Dec-2016	Page 1 of 3	

ORNF

QUITCLAIM DEED

☑ Computed on full value of property conveyed, or
☐ Computed on full value less liens & encumbrances remaining thereon at time of sale.

Signature of declarant or agent determining tax, firm name

THE UNDERSIGNED GRANTOR DECLARES
DOCUMENTARY TRANSFER TAX IS $ 0.00
(No Consideration)

Parcel Nos. 058-030-065 and 058-030-067

X City of American Canyon

STEVEN R. BROCK,

DOES HEREBY REMISE, RELEASE AND FOREVER QUITCLAIM TO:

AMERICAN CANYON FLAT LAND CO., INC. any and all interest arising from Real Estate Purchase Agreement and Escrow Instructions dated May 9, 2002, as disclosed by Memorandum of Agreement recorded June 6, 2003, as Series Number 2003-0029743 of Official Records:

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED HEREIN BY THIS REFERENCE

DATED: December 2, 2016, 2016.

STEVEN R. BROCK

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss.
COUNTY OF Fresno)

On December 2, 2016, before me, Kim Ann Hindmarsh, a Notary Public, personally appeared STEVEN R. BROCK, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(SEAL)

KIM ANN HINDMARSH
NOTARY PUBLIC - CALIFORNIA
COMMISSION # 2091914
FRESNO COUNTY
My Comm. Exp. December 25, 2018

NOTARY PUBLIC

END OF DOCUMENT

EXHIBIT "A"

Parcels 2 and 3 as shown on that certain Map entitled "Lands of Couch Parcel Map" filed November 8, 2012 in Book 26 of Parcel Maps at pages 87-90, in the office of Napa County Recorder of Napa County.

Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.3

March 30, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.3

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 6C89-4301-88F9

PO # NA

Project NA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 6C89-4301-88F9

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.6
March 30, 2018

The EDR Property Tax Map Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.4

March 30, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.4

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: NA

Coordinates:

Latitude:	38.185443 38° 11' 8" North
Longitude:	-122.273651 -122° 16' 25" West
UTM Zone:	Zone 10 North
UTM X Meters:	563610.99
UTM Y Meters:	4226639.90
Elevation:	19.00' above sea level

Maps Provided:

2012	1914
1980, 1981	1902
1973	
1968	
1951	
1949	
1947	
1916	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

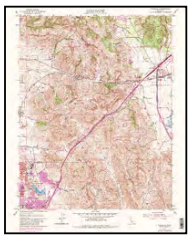


Cuttings Wharf
2012
7.5-minute, 24000



Cordelia
2012
7.5-minute, 24000

1980, 1981 Source Sheets



Cordelia
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Cuttings Wharf
1981
7.5-minute, 24000

1973 Source Sheets



Cuttings Wharf
1973
7.5-minute, 24000
Aerial Photo Revised 1968

1968 Source Sheets



Cuttings Wharf
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Cordelia
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1951 Source Sheets



Cordelia
1951
7.5-minute, 24000
Aerial Photo Revised 1948



Cuttings Wharf
1951
7.5-minute, 24000
Aerial Photo Revised 1948

1949 Source Sheets



Cuttings Wharf
1949
7.5-minute, 24000
Aerial Photo Revised 1948

1947 Source Sheets



PORT CHICAGO
1947
15-minute, 50000



MARE ISLAND
1947
15-minute, 50000

1916 Source Sheets



Mare Island
1916
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1914 Source Sheets



MARE ISLAND
1914
15-minute, 62500

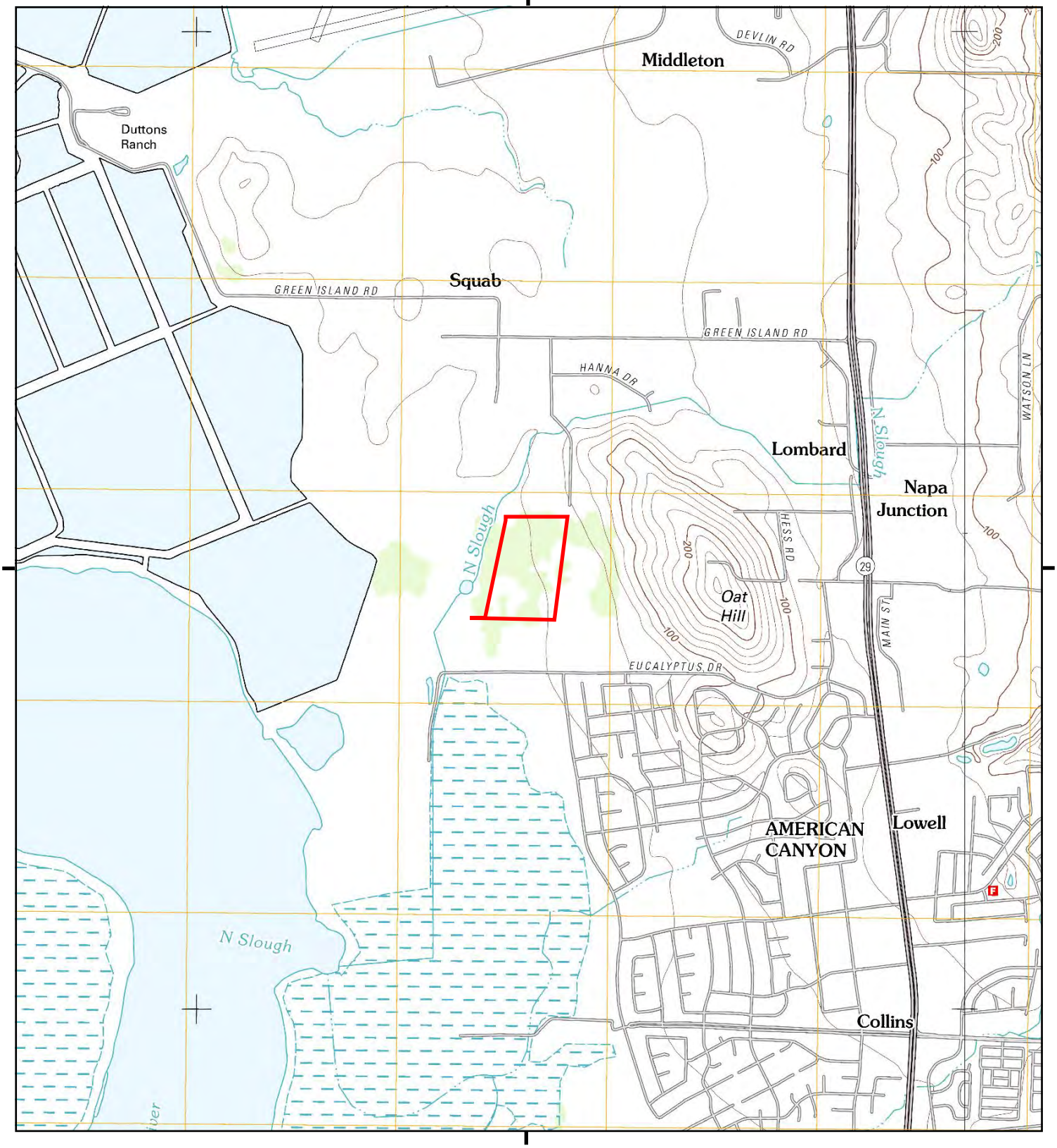
1902 Source Sheets



Napa
1902
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Cuttings Wharf, 2012, 7.5-minute
E, Cordelia, 2012, 7.5-minute

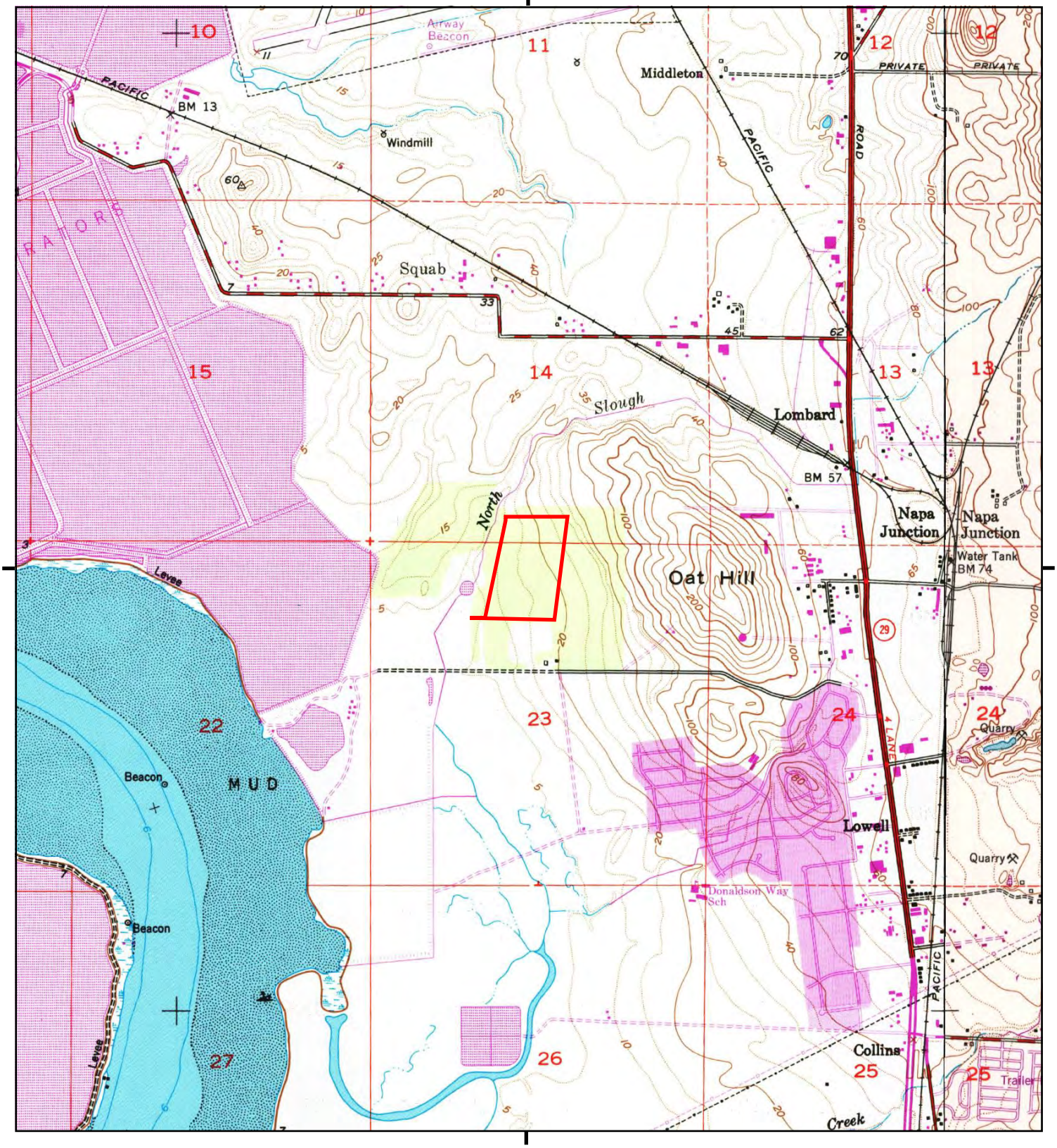
SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

1410

Historical Topo Map

1980, 1981



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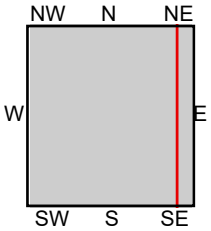


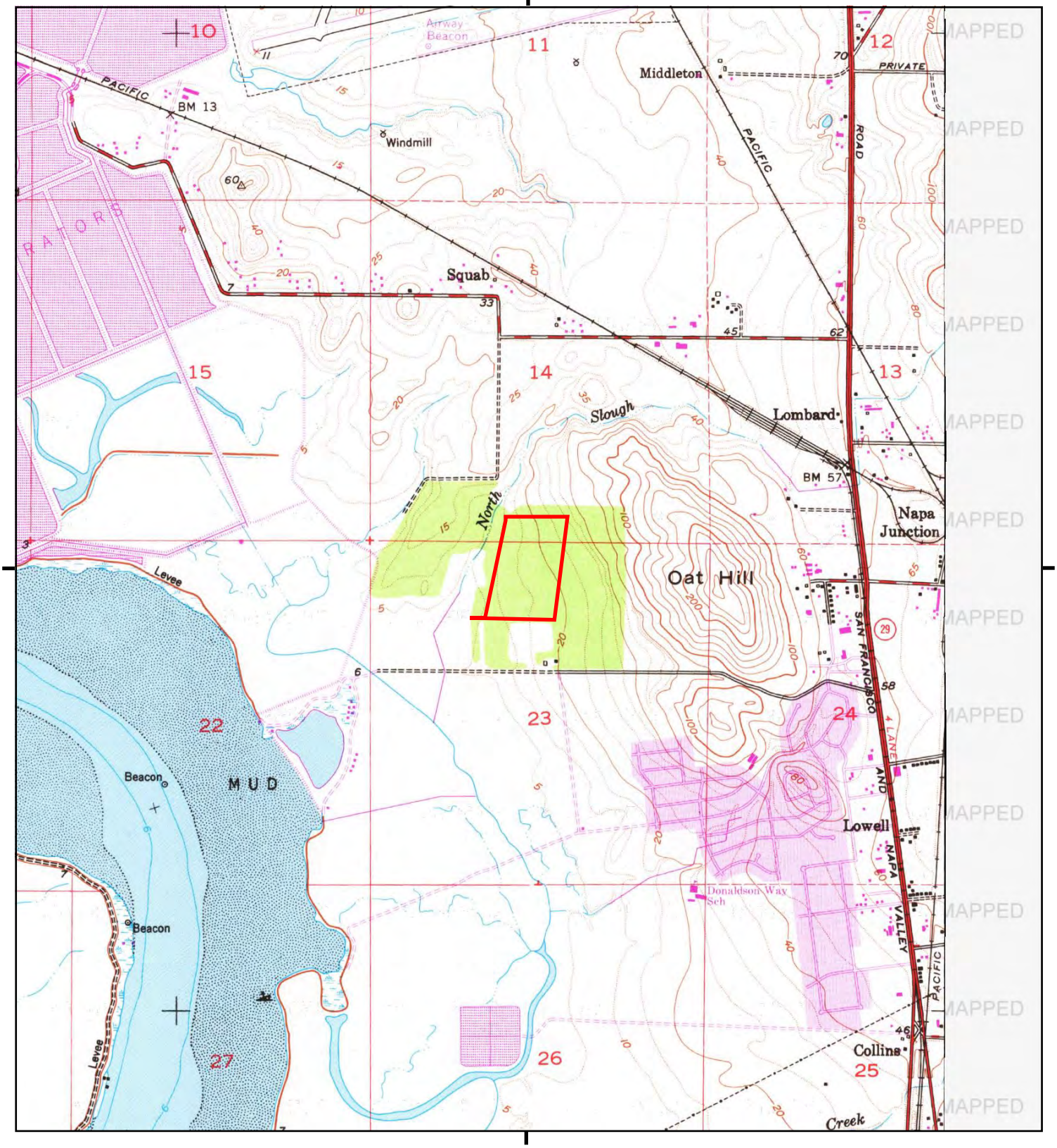
TP, Cuttings Wharf, 1981, 7.5-minute
E, Cordelia, 1980, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

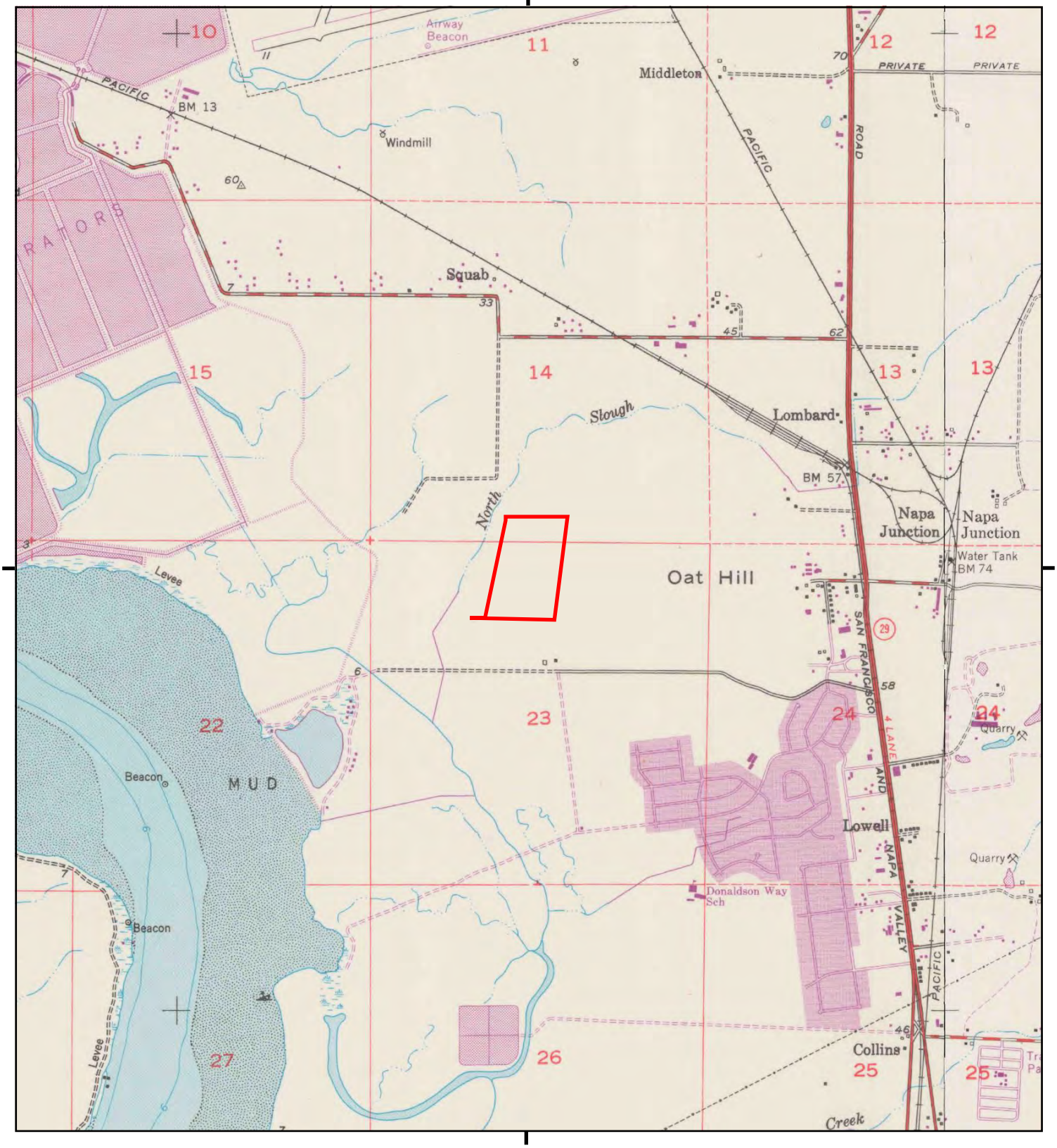
TP, Cuttings Wharf, 1973, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1968



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NW N NE
W E
SW S SE

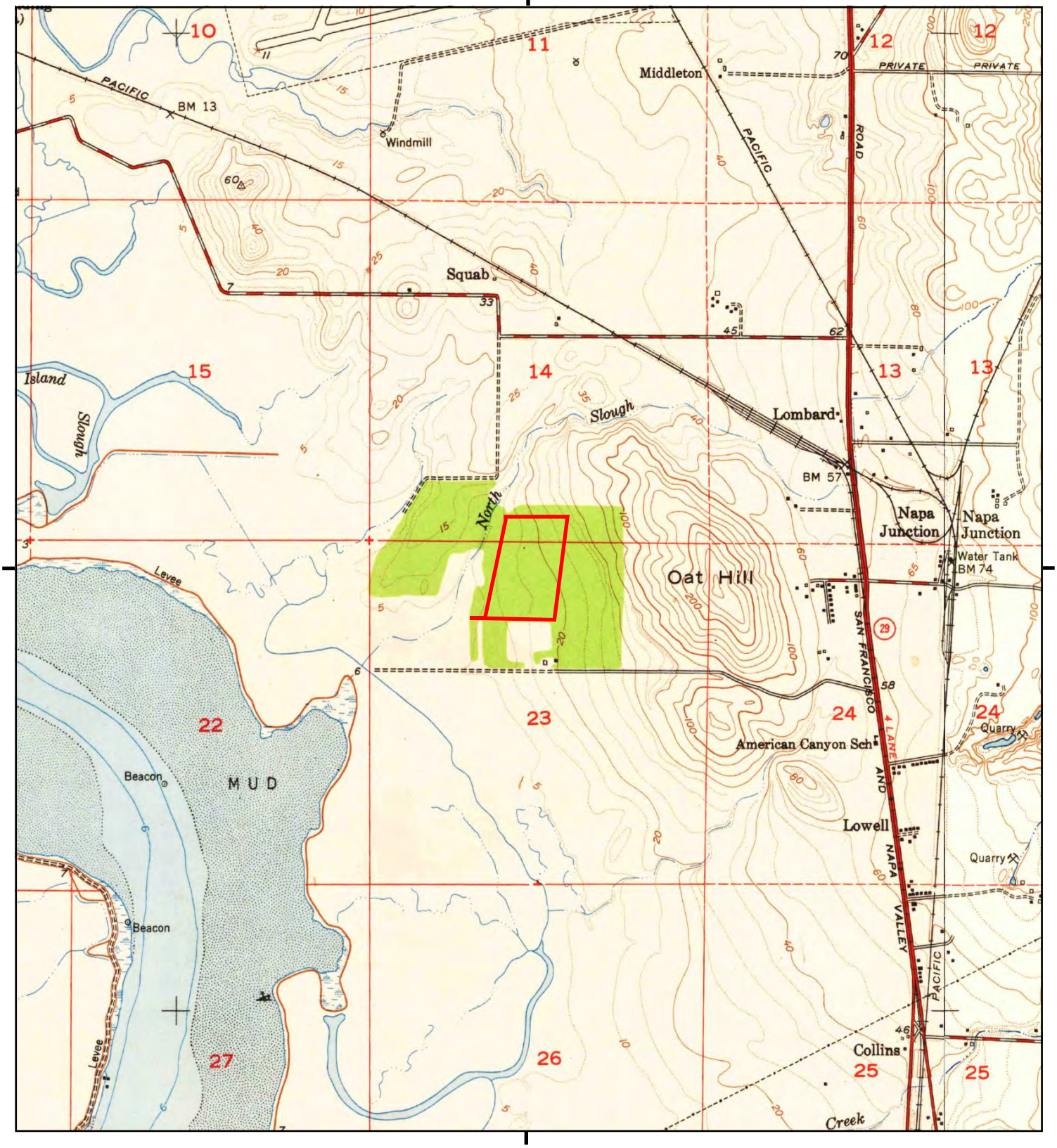
TP, Cuttings Wharf, 1968, 7.5-minute
E, Cordelia, 1968, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1951



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

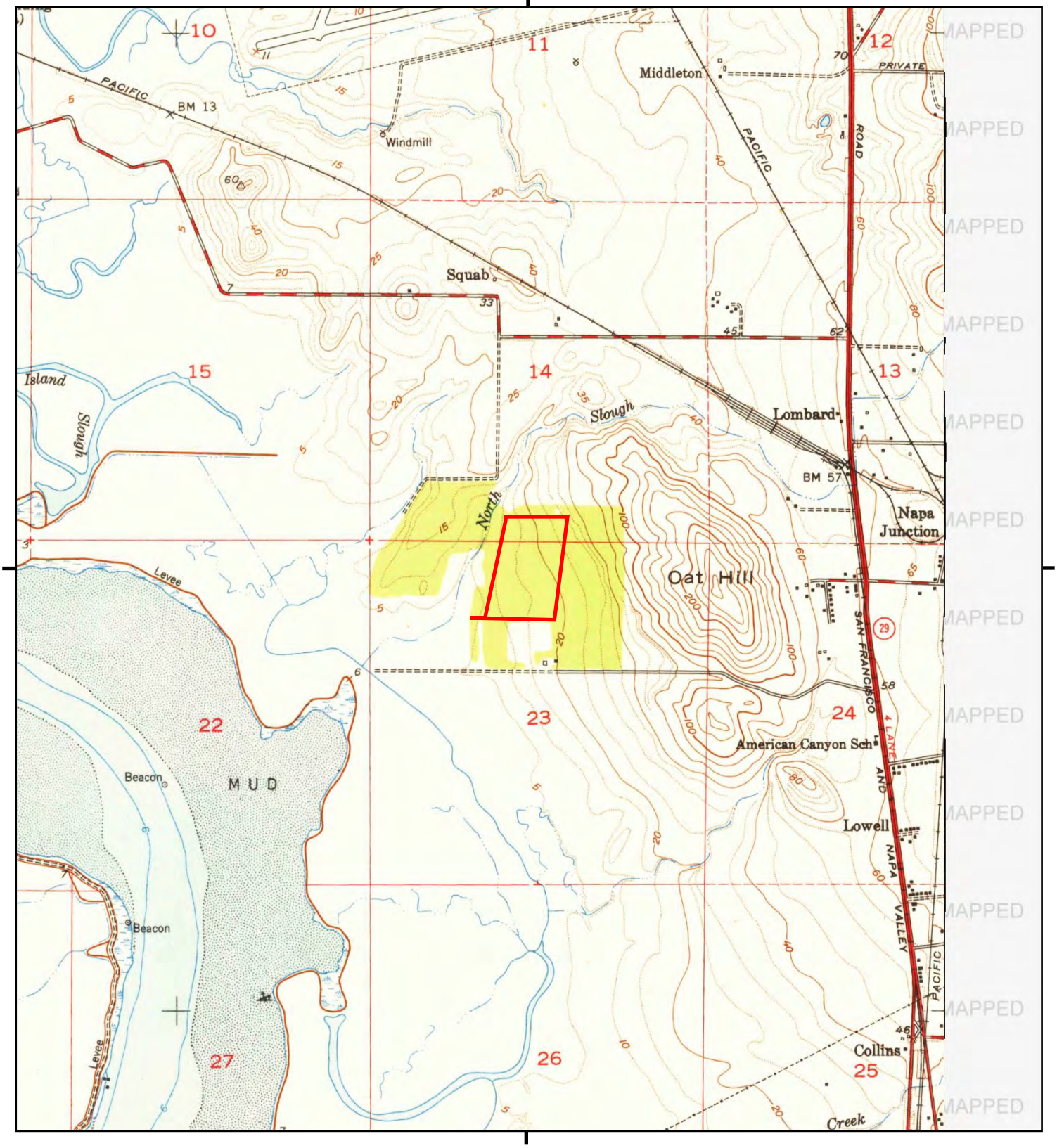
TP, Cuttings Wharf, 1951, 7.5-minute
E, Cordelia, 1951, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1949



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

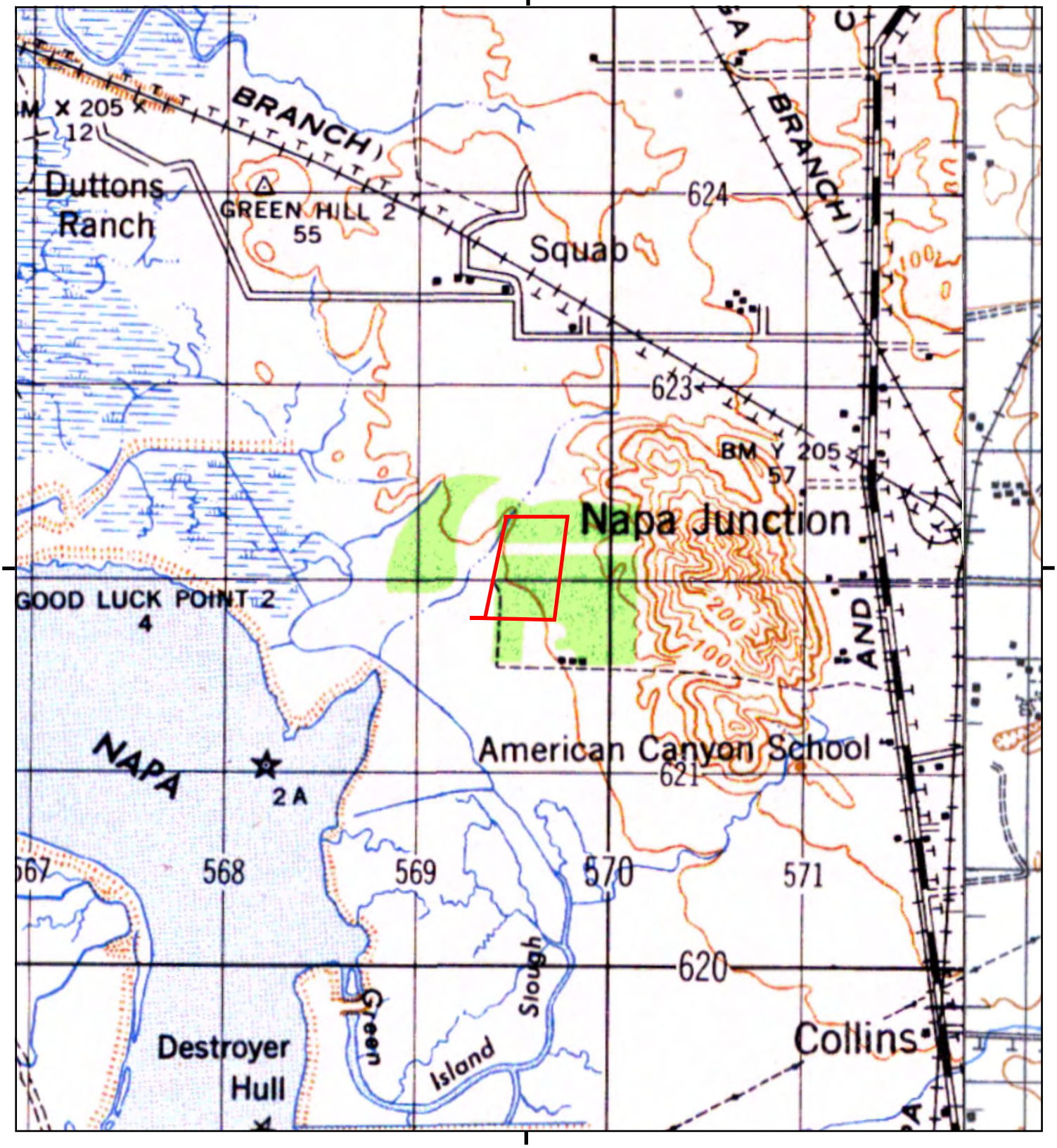
TP, Cuttings Wharf, 1949, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1947



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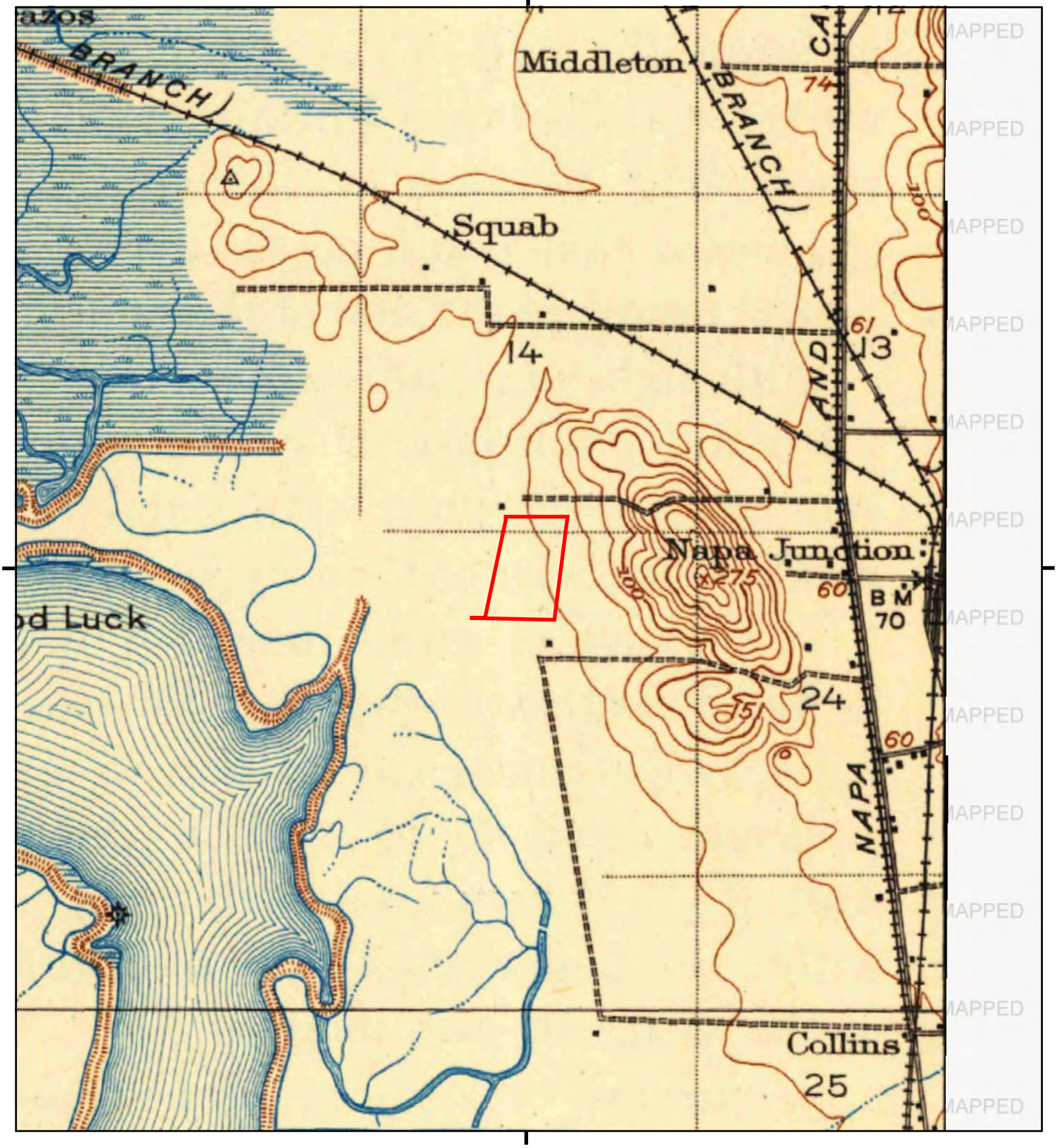
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, MARE ISLAND, 1947, 15-minute
SE, PORT CHICAGO, 1947, 15-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N



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NW N NE
W E
SW S SE

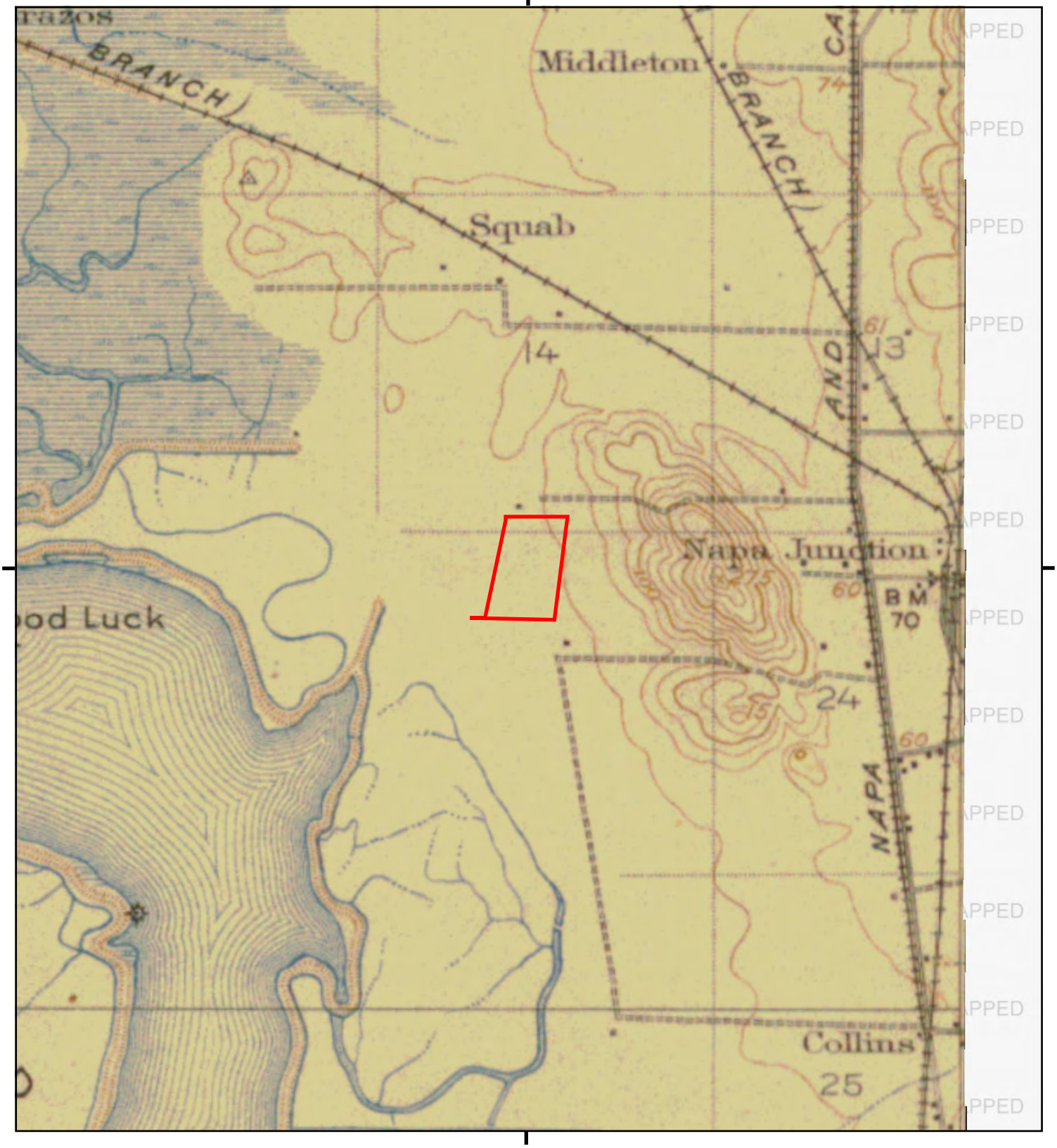
TP, Mare Island, 1916, 15-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1914



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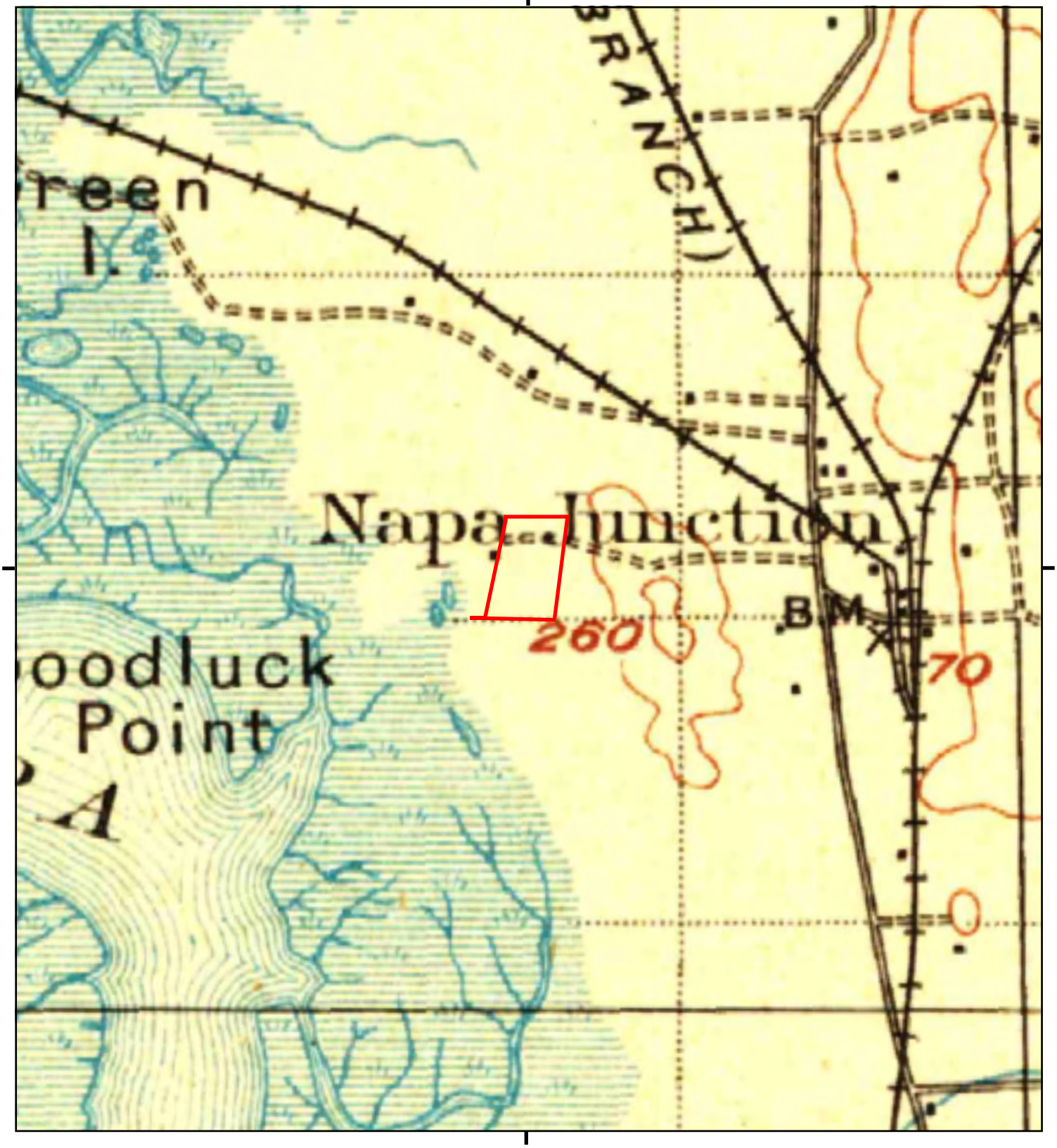
NW N NE
W E
SW S SE

TP, MARE ISLAND, 1914, 15-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Napa, 1902, 30-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

APPENDIX H

PRIOR REPORTS

COUCH PROPERTY

Phase I Environmental Site Assessment

October 2004

ESA Environmental Science Associates

COUCH PROPERTY

Phase I Environmental Site Assessment

October 2004

Prepared for:

Steve Brock
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(727) 572-5226

5850 T.G. Lee Boulevard
Suite 440
Orlando, FL 32822
(407) 851-1155

ESA Environmental Science Associates

204103

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Appendix C Topographic Maps
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SECTION 1.0

EXECUTIVE SUMMARY

SECTION 1.0
EXECUTIVE SUMMARY

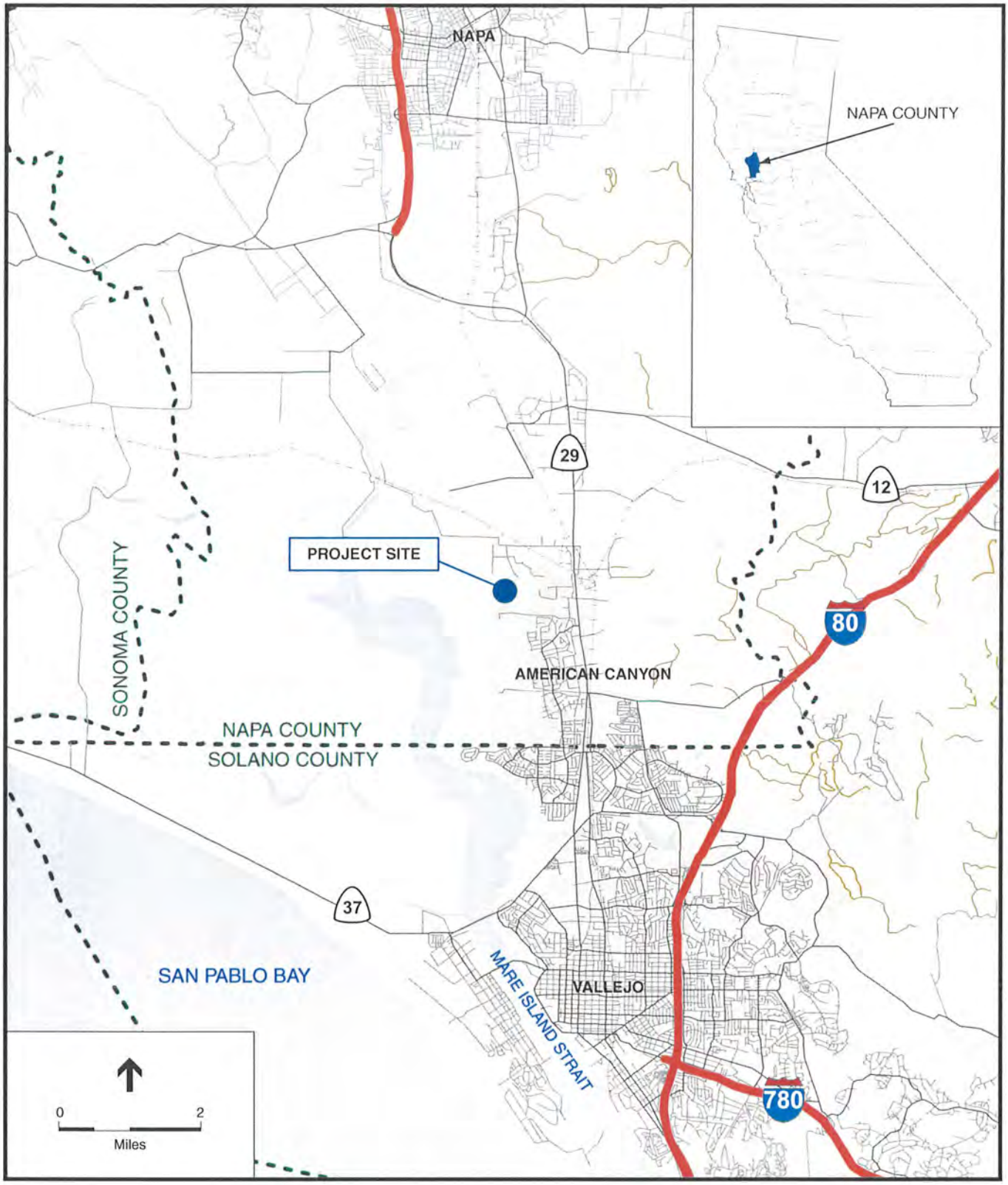
Environmental Science Associates (ESA) has been retained by Mr. Steve Brock, Fresno, California to prepare a Phase I Environmental Site Assessment of property located in American Canyon, Napa County, California (**Figure 1**). The property consists of approximately 106 acres of land located at 2 Eucalyptus Drive, American Canyon, California (**Figure 2**).

This Phase I Environmental Site Assessment was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E1527-00, Standard Practice for Environmental Site Assessments. ASTM E1527 specifies the *appropriate inquiry* to satisfy one of the requirements for the *innocent landowner defense* under the Comprehensive Environmental Response, Compensations, and Liability Act (CERCLA).

ESA's scope of work to complete the Phase I Assessment included several tasks to determine the past and present uses of the property, including:

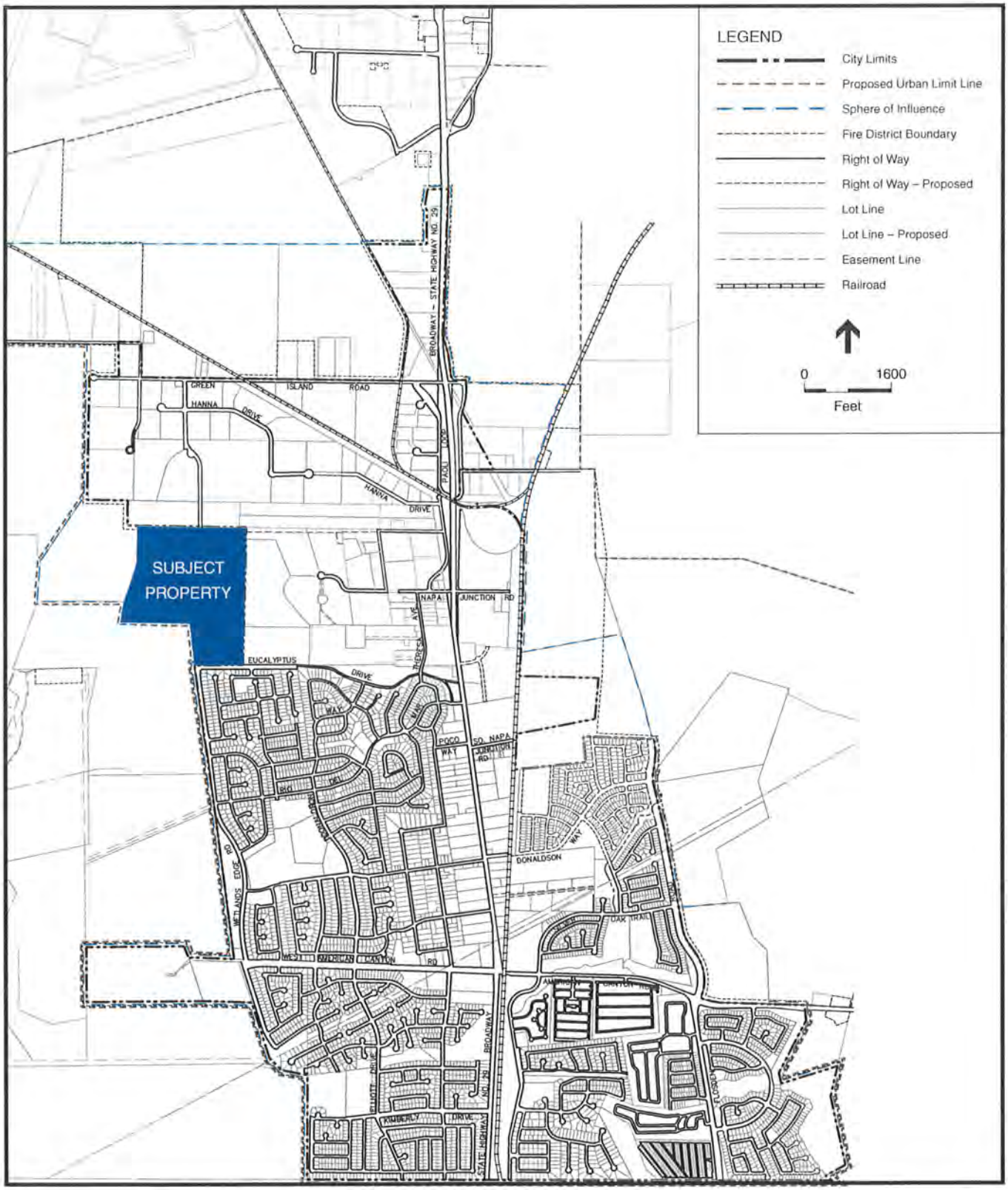
- Review of available historical aerial photographs and topographic maps.
- Review of governmental agency database listings for records of known storage tank sites, leaking underground storage tank sites, and known sites with hazardous materials use, generation, storage, or soil and groundwater contamination.
- Site reconnaissance to evaluate the potential for existing sources of contamination on or adjacent to the subject property.

Based on the information reviewed as a part of this Phase I assessment, ESA observed evidence of potential soil contamination on the property due to previous and current storage of hazardous materials and wastes and housekeeping practices on the subject property. Conclusions and recommendations are presented in Section 6.0 of this report.



SOURCE: Teale Data Center, 2000; and Environmental Science Associates, 2004

Figure 1
Regional Location



SOURCE: City of American Canyon and Environmental Science Associates, 2004

Figure 2
Site Vicinity

SECTION 2.0
INTRODUCTION

SECTION 2.0
INTRODUCTION

PURPOSE

ESA has performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of American Society of Testing and Materials (ASTM) Standard Practice E1527-00, which specifies the *appropriate inquiry* to satisfy one of the requirements for the *innocent landowner defense* under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The purpose of this Phase I Environmental Site Assessment is to identify *recognized environmental conditions* that may pose a risk to human health or to the environment, or in any way affect the proposed use of the subject property. As defined in ASTM E1527 the term *recognized environmental conditions* means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into any structures on the property or into the ground, groundwater, or surface water of the property.

The term *recognized environmental conditions* includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

This Phase I assessment provides historical information of the subject property and adjacent properties. As a part of this assessment, ESA performed a site reconnaissance of the subject property, contacted local agencies, and reviewed relevant database listings of hazardous material sites, waste generators, and underground storage tanks.

LIMITATIONS AND EXCEPTIONS

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Conformance of this assessment with the ASTM Standard Practice E1527-00 will reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the subject property.

While ESA has made every effort to discover and interpret available historical and current information on the property within the time available, the possibility for undiscovered contamination to be present remains. ESA's report is a best-effort collection and interpretation of available information consistent with industry standards for the completion of Phase I Environmental Site Assessments.

LIMITING CONDITIONS

This Phase I Environmental Site Assessment is based on a records review, a site reconnaissance, and interviews. Physical testing of soil or groundwater was not within the scope of this assessment. This Phase I Environmental Site Assessment did not include ASTM E1527 non-scope considerations for the subject property such as radon, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, and indoor air quality.

The subject property is a large dense eucalyptus grove, and while we attempted to walk the entire property, we were unable to view all areas due to dense vegetation and trees. The property has had numerous uses over the years, including reportedly illegal uses. It would be difficult to determine where the numerous shacks and temporary homes were located and where the methamphetamine labs operated throughout the property in the past.

This assessment is the result of appropriate inquiry, and is not an exhaustive assessment of the subject property. As described in the ASTM Standard Practice E1527-00, there is a point at which the cost of information obtained, or the time required to gather it, outweighs the usefulness of the information, and may, in fact, be a material detriment to the orderly completion of the investigation. Information was obtained for this Phase I investigation in compliance with ASTM E1527 guidelines.

METHODOLOGY

A variety of data sources and agencies were consulted in completing this Phase I Environmental Assessment. The following discussion describes the methods used and the data sources consulted to accomplish each task.

HISTORICAL REVIEW

Previous land uses and history of the subject property and adjacent properties were researched in an effort to identify potential sources of hazardous substances at or adjacent to the property. Aerial photographs and topographic maps were reviewed for the presence of industrial buildings, gas station canopies or pump islands, or other indications of bulk hazardous material storage and generation within the study area.

DATABASE SEARCH

Regulatory Agency database search requests were made for records of known storage tank sites and known sites of hazardous materials generation, storage or contamination. A database search report including a full listing of sites within the subject property vicinity is provided in **Appendix A.**

SITE RECONNAISSANCE

The purpose of the site reconnaissance is to observe potential locations of hazardous substances or petroleum products, to locate current aboveground storage tanks, to observe evidence of underground tanks, and to examine for obvious physical indications of improper hazardous substances or petroleum product disposal such as stained soil or asphalt, stressed vegetation, sumps, and partially buried drums.

SECTION 3.0
SITE DESCRIPTION

SECTION 3.0
SITE DESCRIPTION

LOCATION AND LEGAL DESCRIPTION

The subject property consists of approximately 106 acres of land located at 2 Eucalyptus Drive, American Canyon, Napa County, California. The Napa County Assessor's Parcel Number is 058-030-056.

SITE AND VICINITY CHARACTERISTICS

The property is located within the City of American Canyon boundary and is bound to the north warehouse buildings. To the east of the property is undeveloped grassland. The property is bound to the south by open space and a residential subdivision that is across Eucalyptus Drive. Properties to the west include a portion of the City Water Treatment Plant, a eucalyptus grove, and a wetland area. The now closed American Canyon Sanitary Landfill is located approximately 1/4 mile southwest of the subject property. Historically, the adjacent properties have been eucalyptus groves, undeveloped land, and rural residential.

The subject property is a eucalyptus grove, a portion of which is being used by the "Paint Ball Jungle" for paint ball games, and a portion is occupied by relatives of the property owners. Historically, the subject property has been a eucalyptus grove with developed portions of the property similar to what now exists.

There are paint balls throughout a portion of the property, and several forts and that have been built for use during the paint ball games. There are two unpermitted homes on the property. The area surrounding the homes has been used as an undocumented and illegal storage of hazardous materials and wastes. Utility pipelines were being installed along a dirt road that runs through the center of the property in a north/south direction.

On the southern portion of the property is an area that is being used to cut and store wood. Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property.

The owners of the property have been illegally accepting and disposing of hazardous materials and wastes on their property for several years. Old abandoned vehicles, machinery, equipment,

trash piles, batteries, compressed gas cylinders, small containers of unknown substances, and tanks are located throughout the property. The owners have allowed people to put up temporary shelters, live in abandoned vehicles and trailers on the property over the years.

In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management. The hazardous materials and wastes observed on the property at that time were oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners and solvents, unknown materials in small containers, and automobile batteries, 55-gallon drums, three underground storage tanks sitting on top of the ground, two 10,000 gallon tanks (empty) and one 3,000 gallon tank (partially full of an oily liquid). Samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel. The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

PHYSICAL SETTING

The subject property is located within the Coast Ranges, which are between the Pacific Ocean and the Great Valley of California and run almost parallel with the Sierra Nevada Mountains to the east. The Coast Ranges are comprised of a series of small ranges bisected by the San Francisco Bay. The central portion of the Coast Ranges within the vicinity of the property is characterized by gentle sloping foothills to the east of American Canyon, and alluvial plains leading to the Napa River on the western border of the City.

The major topographic features within the vicinity of the property are lowlands and marshes which border the lower reaches of the Napa River, and Oat Hill located adjacent to the east side of the property.

The U.S. Geologic Survey (USGS), 7.5 minute Cuttings Warf, California, topographic quadrangle map, 1981, depicts the subject property at an elevation approximately 20 feet above mean sea level.

Surface soil types on the subject property include Clear Lake clay, Haire loam, and Haire clay loam (USDA NRCS Soil Survey of Napa County, 1978).

Hydrology

A creek runs through the western portion of the subject property. The nearest major surface water drainage is the Napa River, located approximately one mile to the west. Regional

groundwater depth ranges from 12 to 21 feet below ground surface in the area of the subject property. Regional groundwater flow is in an easterly direction.

A biological evaluation study was completed for the proposed property on August 24, 2004. According to that study, wetlands that are likely to meet the requirements of the jurisdiction under the Clean Water Act were observed in two locations. The first and largest area is a drainage that enters the property from an underground pipe on the northwest boundary of the property. The location on the northern boundary of the property this drainage was flowing southwest with water approximately 3-4 inches deep. The drainage continues through the property southwest until it crosses the property (fence line) and drains into the adjacent wetlands. Along the northern 60-80 feet of the drainage there is sparse perennial and annual herbaceous vegetation composed of plants that are known to be indicators of wetlands. Also along the western property boundary is an area near the fence line where the brackish marsh west of the property impinges into the project area. A small area approximately 25 square feet in size at the maximum is dominated by wetland plants.

WATER SUPPLY AND SEWAGE DISPOSAL SYSTEM

The Napa County Department of Environmental Management indicated in their 1990 site investigation report (see Appendix D) that "There is no approved water supply and there are two unapproved water wells that have been dug on the property). However, ESA staff was only able to find one of the water wells on the property.

There is no approved sewage disposal or approved septic system on the property. The Napa County Department of Environmental Management has indicated in their 1990 site investigation report (see Appendix D) that "There is no approved sewage disposal or approved septic system present. Sewage disposal ranges from holes in the ground to allowing sewage, to merely allowing sewage to run on the ground to an outhouse type structure. A few portable toilets were also observed on the property.

New infrastructure for utilities is being installed along a dirt roadway that runs through the property in a north/south direction.

HISTORICAL USES OF SUBJECT PROPERTY

Historical sources were reviewed to develop a history of the previous uses of the subject property and adjacent lands, in order to help identify the likelihood of past uses that might lead to recognized environmental conditions in connection with the subject property.

As stated in ASTM standard practice E1527-00, Section 3.3.27, *practically reviewable* data is information that is "provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data." Furthermore, "records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable."

Historically, the subject property has been a eucalyptus grove with developed portions of the property similar to what now exists. The property has had numerous uses over the years, including reportedly illegal uses, such as methamphetamine labs and hazardous waste storage.

The owners of the property have been illegally accepting and disposing of hazardous materials and wastes on their property for several years. Old abandoned vehicles, machinery, equipment, trash piles, batteries, compressed gas cylinders, small containers of unknown substances, and tanks are located throughout the property. The owners have allowed people to put up temporary shelters, live in abandoned vehicles and trailers on the property over the years.

In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management. Hazardous materials and wastes were observed on the property and samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel. The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

AERIAL PHOTOGRAPHS

Historic aerial photographs were provided by GeoSearch for the subject property and surrounding area. Aerial photographs were available for the years 1937, 1957, 1965, 1982 and 1993. Refer to **Appendix B** for copies of the aerial photographs.

1937 AND 1957

The subject property is shown as a eucalyptus grove in the aerial photographs. There are dirt roads that are located along the perimeter of the property and through portions of the property, similar to what is there now. A cleared area is shown in the northeast portion of the property, where the homes, outbuildings and other items are now located. The scale and quality of the photograph is such that it is difficult to determine what is located on the developed portion of the property. Adjacent properties are shown as undeveloped land, eucalyptus groves, and a rural residence and pasture.

1965

This aerial photograph shows that a large portion of the eucalyptus grove in the southeast area of the property has been harvested, and a portion of the northwest area has been harvested. A cleared area is shown in the northeast portion of the property. The scale and quality of this photograph is such that it is difficult to determine what is located on the developed portion of the

property. Adjacent properties are shown as undeveloped land, eucalyptus groves, and a rural residence and pasture.

1982 AND 1993

The subject property is shown as a eucalyptus grove in the aerial photographs, the areas that had been cleared are now covered with trees. There are now three developed areas on the property, two in the northeast portion and one in the southeast portion of the property. Adjacent properties are shown as undeveloped land, a pond or wetland area is now located to the west, eucalyptus groves, and a rural residence and pasture. The now closed American Canyon Landfill is shown to the southwest of the property.

TOPOGRAPHIC MAPS

Historic topographic maps were provided by GeoSearch for the subject property and surrounding area. The USGS Mare Island, California, 15 minute quadrangle topographic maps were available for the years 1916 (reprinted 1947) and 1941. The USGS Cuttings Warf, California, 7.5 minute quadrangle topographic maps were available for the years 1949, 1968, and 1981. Refer to **Appendix C** for copies of the topographic maps.

1916 (REPRINTED 1947)

The subject property is shown as undeveloped land. Surrounding lands are also shown as undeveloped land or having structures typical of rural residential homes.

1941, 1949, 1968, AND 1981

The subject property is shown as a eucalyptus grove. No structures are depicted on the property. Surrounding lands are shown as eucalyptus groves, undeveloped land, or land having structures typical of rural residential homes.

RECORDED LAND TITLE RECORDS

A chain of title report was not provided to ESA for this assessment.

SANBORN INSURANCE COMPANY MAPS

EDR conducted a search for Sanborn Fire Insurance Maps. The Sanborn maps do not provide coverage of the area in which the subject property is located.

BUILDING DEPARTMENT RECORDS

The Napa County Building Department was contacted. According to staff on duty at the Napa County Building Department, they have no records for any of the structures located on the property.

SECTION 4.0

SITE RECONNAISSANCE AND INTERVIEWS

SECTION 4.0
SITE RECONNAISSANCE AND INTERVIEWS

The purpose of the site reconnaissance was to identify visible hazardous materials involvement with respect to the subject property. Hazardous materials involvement includes the presence or likely presence of any hazardous materials or petroleum products that indicate an existing release, past release, or a threat of release into any structure on the property, soil, or groundwater.

Interviews included contacting individuals familiar with the subject property and knowledgeable of the property's historic and existing conditions relative to hazardous materials.

SITE RECONNAISSANCE FINDINGS

ESA performed a site reconnaissance of the subject property on June 18, 2004 and again on July 29, 2004. Notable features and property conditions were photographed (**Figures 5-1 through 5-5**). A map of the property with the locations of the areas discussed below is provided as **Figure 3**. A map of the area with the potential for contamination is provided as **Figure 4**. In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management (refer to page 6-2 of this report for a discussion of the County's findings).

The subject property is mostly a eucalyptus grove, a large portion of which is being used by the "Paint Ball Jungle" for paint ball games (Areas 1 and 2 on **Figure 3**). There are paint balls throughout the property, and several forts and that have been built for use during the paint ball games (Photograph 1, **Figure 5-1**). Three forts were observed on the property that had been set up for use in the paintball games. Included in those forts are several 55-gallon plastic drums used for walls. The drums did not have lids and were empty, appeared to have never been used for storage of material, and there was no soil staining beneath or around the drums. Paint balls typically contain a non-toxic oil, egg, or gelatin based paint.

Near a corner of the property that is intersected by two dirt roads was observed a pile of household debris (Area 3 on **Figure 3**), including a mattress, rug, lamp, hose, and other household trash (Photograph 2, **Figure 5-1**). No stained soil or hazardous materials were observed within, beneath or around the debris. A 55-gallon sealed drum was observed near the creek on the west side of the property. The drum appeared to be empty and there was no soil staining beneath or around the drum.

A portion of the property appeared to be or have been recently occupied (Area 4 on **Figure 3**, and photographs 3, 4 and 5, **Figures 5-1 and 5-2**). There was a small trailer, a truck with a camper

bed on the back, a portable toilet, a locked shed, some household debris, several 5-gallon containers of unknown material, and a no trespassing sign that read "violators will be shot". No stained soil or stressed vegetation were noted in this area of the property.

A portion of the property is occupied by relatives of the owners who live in unpermitted homes on the property (Area 5 on **Figure 3** and photographs 6 through 19, **Figures 5-2 through 5-5**). The area surrounding the residences contains a large amount of household items, wood debris, soil piles, concrete rubble, abandoned vehicles, refrigerators, burn piles, tires, 55-gallon drums, machinery, equipment, automobile batteries, 5-gallon or smaller containers of unknown material, several water tanks, a grave stone, an underground storage tank that was sitting on top of the ground, a concrete block foundation for some type of structure, and a wooden garage filled with clothes, trash, equipment, etc. Areas that had recently been disturbed and areas with a lack of vegetation were noted in this area of the property.

A portion of the property is being used to cut and store wood (Area 6 on **Figure 3**). There is a trailer, several sheds, boats, truck trailers, tires, refrigerators, and equipment used for wood cutting on this portion of the property. Several 55-gallon oil drums that are empty were observed, and an old trichlorethane tank that is not being used was observed. There is a pole-top transformer that has a blue sticker indicating that it is PCB free. Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property. ESA field personnel attempted to talk to the person in charge of the wood cutting operation on the property on both dates they accessed the property. The person in charge was not on the property on those dates.

A portion of the property is used to house animals, such as horses, calves, goats, and chickens/roosters (located adjacent to the south of Area 5 on **Figure 3**). The animals were in pens and appeared to be well cared for, possibly this area is leased for the boarding of the animals. No hazardous materials or wastes were observed in this area of the property.

INTERVIEWS

The objective of the interview process is to obtain additional information regarding the history and current uses of the subject property. The occupants of the property are the sons of the owners. There are legal issues pending on this property; therefore, we could not interview the occupants of the subject property (relatives of the property owners) due to their adversarial position with our client and with ESA staff.

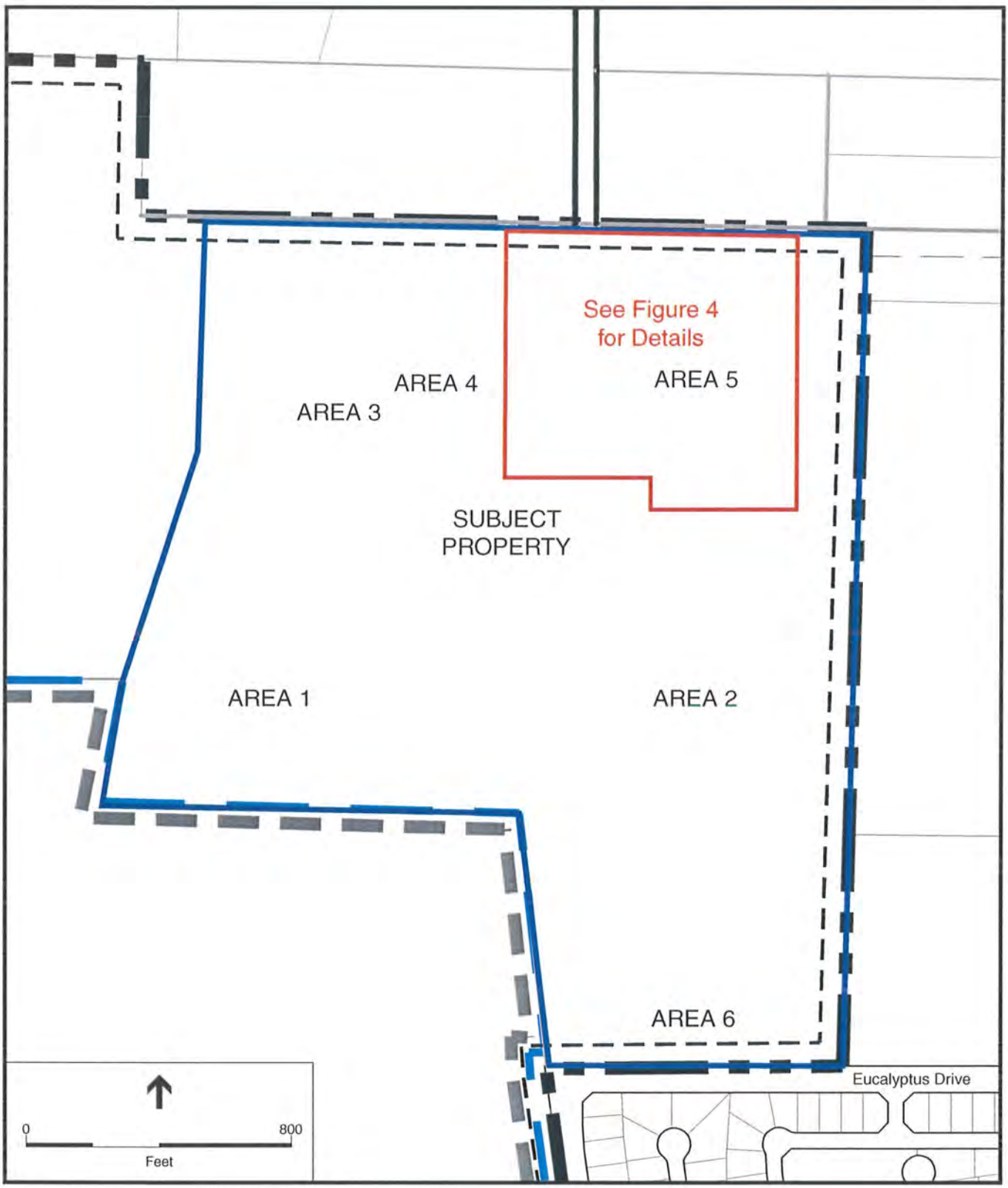
ESA staff contact Mr. Trent Cave at the Napa County Environmental Management Department to discuss the contents of their file for the subject property and to find out if they have done any additional investigations of the property. Mr. Cave indicated that he has no information regarding the property other than what is in the County files. Mr. Cave noted that he made and signed the

Declaration in Support of Motion to Modify Final Judgment and Permanent Injunction in order to give the court a estimate of what it would cost to clean up the property based on what was found during the Site Investigation in 1990. Mr. Cave then directed ESA staff to Doug Calhoun of the County Environmental Management Department. Mr. Calhoun indicated that they have not done any additional investigations of the property since the 1990 inspection. Mr. Calhoun indicated that in 1990 there were many people living on the property in vehicles, tents, shacks built out of garage doors, etc. Mr. Calhoun does not know the location of the water wells that were identified by the County during their inspection of the property. He has no additional information regarding the property and what has occurred on the property since the 1990 inspection. If cleanup has occurred on the property, no inventory or manifests of the cleanup have been provided to the Napa County Environmental Management Department.

ESA staff contacted Chief Keith Caldwell at the American Canyon Fire District. Chief Caldwell indicated that in the past there have been as many as 30 families living on the subject property in various types of living quarters. There are no septic systems on the property and he knows of no approved water wells on the property. According to Chief Caldwell, in the 1970s soil was brought onto the portion of the property where the wood cutting business is now located for a motorcycle track. He does no know whether that soil was contaminated. Chief Caldwell knows of no underground storage tanks on the property, but does not know if there are any hazardous materials or other wastes buried on the property. There has been drums and above-ground tanks of hazardous materials/wastes located on the property in the past. Some cleanup of the property has been done by the owners of the property. However, no inventory or manifests of the cleanup have been provided to the American Canyon Fire District.

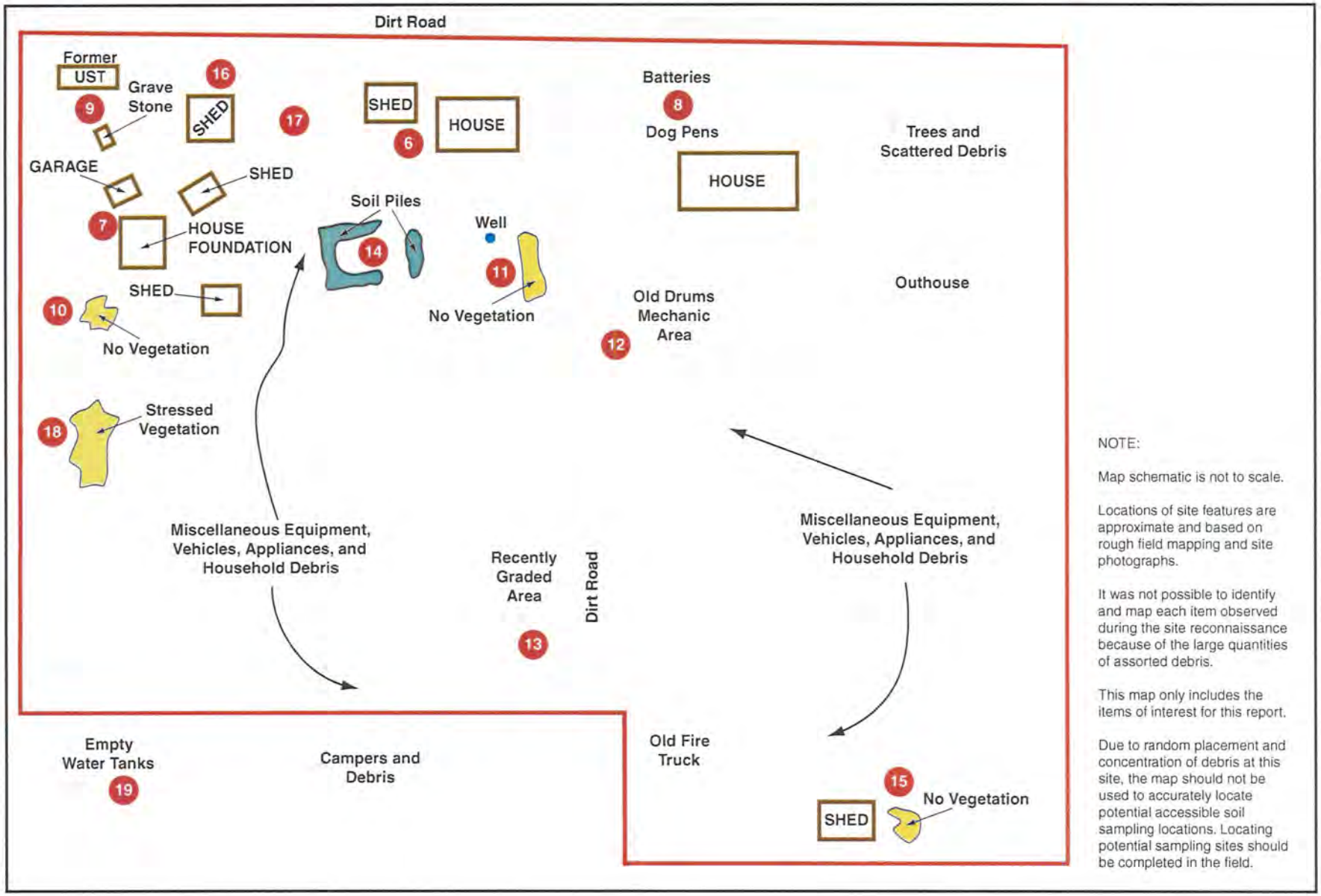
On September 27, 2004, ESA staff contacted Mr. Norbert Frost, the attorney for Patricia Couch who is one of the property owners. Mr. Frost indicated that he knows of no buried underground storage tanks on the property. He does not know the location of any water wells on the property. Mr. Frost is not aware of any contaminated soil brought onto the property prior to or by Mr. Hearst, who runs the woodcutting operation on the property. Over the years people have illegally dumped solid waste onto the property instead of taking it to the nearby landfill. However, the Couches have worked to clean up most of those areas over the last two years.

The Notice of Motion and Motion for Order Modifying Terms of Stipulation and Order dated August 26, 2003 has a Declaration signed by Edward S. Colby as Exhibit C. Mr. Colby indicated that he had inspected the Couch property in 1990 and in 2003. In the 2003 inspection the property contained scattered and accumulated piles of trash and debris, piles of vehicle tires, junked large appliances, used lumber, scrap metals, broken concrete, abandoned and inoperative heavy equipment, non-permitted wooden enclosures, buildings and fences, a wooden cabin and two mobile homes without appropriate permits, and an illegal tree-cutting business.



SOURCE: City of American Canyon and Environmental Science Associates, 2004

Figure 3
Site Map



SOURCE: Environmental Science Associates, 2004

Figure 4
Details of Area 5
(Approximate Locations)



PHOTOGRAPH 1.

Typical view of a fort used for paint ball games



PHOTOGRAPH 2.

View of household debris pile in Area 3



PHOTOGRAPH 3.

View of Area 4



PHOTOGRAPH 4.

View of Area 4

SOURCE: Environmental Science Associates, 2004

Figure 5-1
Site Photographs



PHOTOGRAPH 5.

View of Area 4



PHOTOGRAPH 6.

View of Area 5



PHOTOGRAPH 7.

View of Area 5



PHOTOGRAPH 8.

View of batteries in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-2
Site Photographs



PHOTOGRAPH 9.

View of former underground storage tanks in Area 5



PHOTOGRAPH 10.

View of area with no vegetation in Area 5



PHOTOGRAPH 11.

View of water well and tanks in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-3
Site Photographs



PHOTOGRAPH 12.

View of mechanic area in Area 5



PHOTOGRAPH 13.

View of recently graded area in Area 5



PHOTOGRAPH 14.

View of soil piles in Area 5



PHOTOGRAPH 15.

View of area with no vegetation near shed in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-4
Site Photographs



PHOTOGRAPH 16.

View of Area 5



PHOTOGRAPH 17.

View of Area 5



PHOTOGRAPH 18.

View of area with stressed vegetation in Area 5



PHOTOGRAPH 19.

View of water tank in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-5
Site Photographs

SECTION 5.0
RECORDS REVIEW

SECTION 5.0
RECORDS REVIEW

As stated in ASTM standard practice E1527-00, *practically reviewable* data is information that is "provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data." Furthermore, "records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable."

DATABASE SEARCH

It should be noted that the database search is only as accurate as the data entered into the government agency maintained databases and the date on which those databases were last updated. Installation of underground storage tanks or hazardous material releases, if not reported to the appropriate agency, are not listed on any of the databases searched. The following section reviews the previously mentioned database search and all follow-up communications with local agencies and individuals.

REVIEW OF FEDERAL AND STATE REGULATORY AGENCY DATABASES

Federal and State Agency database searches were made for records of known storage tank sites and known sites of hazardous materials generation, storage or contamination. Databases were searched for sites and listings up to one mile from a point roughly equivalent to the center of the subject property. The database search report as provided to ESA by Environmental Data Resources (EDR) can be found in **Appendix A**. Included in the EDR database search report was a list of "unmapped sites". ESA reviewed the list of unmapped sites for properties that may be located within the search radius specified for each governmental database.

DATABASE SEARCH FINDINGS

The California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) map number W6-1, which includes the subject property and surrounding area does not show any oil or gas wells on the subject property or adjacent properties.

The subject property does not appear on any of the federal or state agency databases searched as of the date of this assessment. However, the Napa County Department of Environmental Management, Hazardous Material Section has a file for the subject property. The contents of that

file are attached as **Appendix D**, and a summary of the County findings for the property is presented below.

Couch Property (subject property)
2 Eucalyptus Road
American Canyon, California

On November 19, 1990 an inspection was made by Catherine Moody, Senior Hazardous Materials Specialist at the County Department of Environmental Management of a 165-acre portion of the subject property known to have hazardous materials and wastes. The hazardous materials and wastes observed on the property were oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners and solvents, unknown materials in small containers, and automobile batteries. Some of the items noted on the property by Ms. Moody included several 55-gallon drums, all but five were empty. Three underground storage tanks sitting on top of the ground, two 10,000 gallon tanks (empty) and one 3,000 gallon tank (partially full of an oily liquid). Ms. Moody also observed several compressed gas cylinders scattered throughout the property.

Samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel.

The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

There is one listed on the database search that are located within 1/4 mile of the subject property, and is discussed below.

American Canyon Landfill
Western Terminus of Eucalyptus Drive

The American Canyon Sanitary Landfill is located approximately 1/4 mile southwest of the subject property. The American Canyon Landfill was in operation from 1942 to 1995, when the landfill stopped accepting waste on a regular basis. During closure activities a leachate treatment system and landfill gas collection plant were installed. Groundwater is being monitored at the landfill. Groundwater beneath the landfill has been impacted with volatile organic compounds. Groundwater depth ranges from 12 to 21 feet below ground surface and flow at the landfill is in an east/northeast direction. Contamination at the site is mainly in the western portion of the landfill. It is unlikely that this landfill would have impacted soil or groundwater beneath the subject property due to its distance from the property.

There are several additional sites listed on the federal and state databases that are located 1/2 to 1 mile from the subject property. These sites are listed as leaking underground storage tank locations, hazardous waste generators, facilities with emissions permits, landfill locations, and locations of releases of hazardous materials. Readily available information relative to the listed sites located 1/2 to 1 mile from the subject property was reviewed and it is ESA's opinion that these sites are not expected to pose a threat of adverse impact to the subject property due to their distances from the subject property.

SECTION 6.0

FINDINGS AND CONCLUSIONS

SECTION 6.0
FINDINGS AND CONCLUSIONS

ESA has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-00 of the subject property. Any exceptions to, or deletions from, this practice are described in the Limiting Conditions section of this report. Based only on the information reviewed and described in this report, a site reconnaissance of the property, and interview, this assessment has noted the following recognized environmental conditions in connection with the subject property:

- There is past and present undocumented and illegal storage of hazardous materials and wastes on the subject property. The Napa County Department of Environmental Management inspected the property in 1990 and determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes. Refer to page 6-2 for a discussion of the inspection by the County and to **Appendix D** for a copy of the County's file on the subject property.

- The site reconnaissance of the subject property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000 gallon former underground storage tanks, and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000 gallon tanks may have been removed by the property owners. Refer to **Figures 3 through 5.**

- It should be noted that it is common knowledge that methamphetamine labs operated in the eucalyptus groves in the area of the subject property, and possibly on the property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. No methamphetamine labs were observed during the field reconnaissance.

- A portion of the property is being used to cut and store wood (Area 5, **Figure 3**). Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property. Chief Keith Caldwell of the American Canyon Fire District remembers that soil was brought onto the property in the 1970s for a motorcycle track.

ESA field personnel attempted to talk to the person in charge of the wood cutting operation on the property on both dates they accessed the property. The person in charge was not on the property on those dates.

- The County identified two unapproved water wells on the property in their 1990 investigation (Appendix D). However, ESA staff could only locate one of the water wells.

- There are outhouses (holes in the ground) on the property that have been used for sewage disposal.

RECOMMENDATIONS

- Soil and groundwater sampling be completed in the areas of concern that were identified by this Phase I report (those areas on **Figure 4** that show no vegetation or stressed vegetation, the area with the batteries, the mechanic area, and soil sampling only from the soil piles). It may also be necessary to sample other areas of the property as dictated by field personnel that perform the soil and groundwater sampling at the site, depending on what is encountered during sampling. At a minimum, the soil and groundwater samples should be analyzed for petroleum hydrocarbons, oil and grease, solvents, and priority pollutant metals. The Phase II report should provide recommendations based on the laboratory analytical results.

  Due to the history of the use of the property, it is difficult to determine what might be uncovered during earth moving activities if the property is developed. At the time of excavation of the site for development soil and groundwater sampling should be completed in any areas of the property where buried hazardous materials, odors, or stained soil are found. The results of the laboratory analytical results would provide the information needed to determine whether excavation of the soil would be necessary and whether the soil would need to be taken off the site for disposal.

- Further investigation into the existence and location of soil containing oil that might have been placed on the portion of the property that is used for a wood cutting operation (Area 5, **Figure 3**). Soil and groundwater sampling might be warranted in that area of the property.

- The water wells should be abandoned in accordance with California water well standards and Napa County protocol.

- The sewage disposal areas should be closed in accordance with Napa County protocol.

SECTION 7.0

REPORT AUTHOR/SIGNATURE

SECTION 7.0
REPORT AUTHOR/SIGNATURE

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8950 Cal Center Drive, Bldg. 3, Suite 300
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Prepared by:

Crystal Spurr, REA I-07363
Senior Associate

Reviewed by:

Peter B. Hudson, R.G.
Senior Geologist

SECTION 8.0
REFERENCES

SECTION 8.0
REFERENCES

Environmental Data Resources (EDR)Radius Map Report No. 01214114.1r dated June 17, 2004.

GeoSearch, aerial photographs dated 1937, 1957, 1965, 1982 and 1993.

Napa County Building Department, Napa, California.

Napa County Department of Environmental Management, Hazardous Material Section, Napa, California.

United States Geological Survey (USGS), Mare Island Quadrangle, California, (topographic) editions of 1916 (reprinted 1947) and 1941.

United States Geological Survey (USGS), Cuttings Warf Quadrangle, California, (topographic) editions of 1949, 1968, and 1981.

SECTION 9.0

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

SECTION 9.0
QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

CRYSTAL SPURR

Professional Experience:

Environmental Science Associates (2000–present)
NOA Environmental (1998–2000)
LRA Engineering (1994–1998)

Ms. Spurr has ten years of experience performing environmental site assessments for various types of commercial, industrial and residential projects throughout California. She has a Registered Environmental Assessor I designation issued by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

Education:

B.A., Environmental Studies, California State University, Sacramento

PETER HUDSON

Professional Experience:

Mr. Hudson is a senior geologist/hydrogeologist with over fourteen years of broad-based experience in engineering geology, hydrogeology, environmental and geotechnical studies. He is a registered geologist in the state of California (Registration No. 6730). His general responsibilities include providing geological, geotechnical, geophysical and hydrogeological technical support in water quality assessments, water resource and geological studies for planning, permit assistance, environmental impact assessments with a focus on hydrological and geologic issues, soils investigations and erosion/geomorphic investigations, planning/policy assessments, and mitigation planning and monitoring. Mr. Hudson provides technical input for completion of work products such as resource management plans, EIRs and EISs, reclamation/restoration plans, erosion control plans, draft permits, (e.g., NPDES), land development environmental feasibility analyses, and site selection studies.

Education: BA, Geology, San Francisco State University
Pre-Engineering Program, University of San Francisco

APPENDIX A

EDR DATABASE SEARCH REPORT



The EDR Radius Map™ Report

American Canyon Development
Eucalyptus Grove
American Canyon, CA 94503

Inquiry Number: 01214114.1r

June 17, 2004

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

EUCALYPTUS GROVE
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.182700 - 38° 10' 57.7"
Longitude (West):	122.280900 - 122° 16' 51.2"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	562980.1
UTM Y (Meters):	4226124.5
Elevation:	6 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	38122-B3 CUTTINGS WHARF, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS ..... Corrective Action Report
RCRIS-TSD ..... Resource Conservation and Recovery Information System
RCRIS-LQG ..... Resource Conservation and Recovery Information System

STATE ASTM STANDARD

AWP ..... Annual Workplan Sites

EXECUTIVE SUMMARY

Cal-Sites	Calsites Database
Notify 65	Proposition 65 Records
Toxic Pits	Toxic Pits Cleanup Act Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
VCP	Voluntary Cleanup Program Properties
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land
CA FID UST	Facility Inventory Database
HIST UST	Hazardous Substance Storage Container Database

FEDERAL ASTM SUPPLEMENTAL

CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
DOD	Department of Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
FUDS	Formerly Used Defense Sites
INDIAN RESERV	Indian Reservations
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST	Aboveground Petroleum Storage Tank Facilities
CLEANERS	Cleaner Facilities
DEED	List of Deed Restrictions
NFA	No Further Action Determination
SCH	School Property Evaluation Program
NFE	Properties Needing Further Evaluation

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas	Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS	A Listing of Brownfields Sites
VCP	Voluntary Cleanup Program Properties

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

CERCLIS-NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/26/2004 has revealed that there is 1 CERC-NFRAP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SUNSHINE AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	F23	28

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 RCRIS-SQG site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MORROW CRANE COMPANY	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D14***	***20***

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2003 has revealed that there is 1 ERNS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
833 HANNA DRIVE	833 HANNA DRIVE	1/2 - 1 NE	D16	22

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 3 CHMIRS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	1201 COMMERCE BLVD.	1/2 - 1 NNE	B7	11
Not reported	1175 COMMERCE BLVD	1/2 - 1 NNE	9	15
Not reported	*833 HANNA DR*	*1/2 - 1 NE*	*D13*	*18*

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there is 1 Cortese site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANITARY LANDF	WESTERN TERMINUS OF EUC	1/4 - 1/2 ESE	1	6
SUNRISE TRADERS AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	F24	29

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, has revealed that there is 1 WMUDS/SWAT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANI LNDFL	*EUCALYPTUS DR AT NAPA J*	*1/2 - 1 ESE*	*3*	*7*

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 LUST site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 UST site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/08/2004 has revealed that there are 3 FINDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
G L MEZZETTA INC	*105 MEZZETTA COURT*	*1/2 - 1 NNE*	*A6*	*11*
MORROW CRANE COMPANY	*833 HANNA DRIVE*	*1/2 - 1 NE*	*D14*	*20*
STEEL MILL SUPPLY OF NAPA	659 NAPA JUNCTION RD	1/2 - 1 ENE	E19	25

STATE OR LOCAL ASTM SUPPLEMENTAL

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 04/05/2004 has revealed that there are 4 CA WDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANI LNDFL	***EUCALYPTUS DR AT NAPA J***	***1/2 - 1 ESE***	***3***	***7***
GL MEZZETTA INC	105 MEZZETTA CT	1/2 - 1 NNE	4	9
Not reported	***833 HANNA DR***	***1/2 - 1 NE***	***D13***	***18***
ENG BROS WOOD PROD	1660 GREEN ISLAND RD	1/2 - 1 N	25	30

Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2002 has revealed that there are 4 EMI sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CITY OF AMERICAN CANYON	151 MEZZETTA COURT	1/2 - 1 NNE	2	7
G L MEZZETTA INC	***105 MEZZETTA COURT***	***1/2 - 1 NNE***	***A6***	***11***
POKKA BEVERAGES	***1201 COMMERCE BLVD***	***1/2 - 1 NNE***	***B8***	***13***
MORROW EQUIPMENT CO LLC	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D15***	***21***

REF: This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another tate or local regulatory agency.

A review of the REF list, as provided by EDR, and dated 03/02/2004 has revealed that there is 1 REF site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SUNSHINE AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	F20	25

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there are 2 CA SLIC sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GREEN ISLAND	1554 GREEN ISLAND RD	1/2 - 1 N	C12	17
CALIFORNIA AUTO DISMANTLERS	1578 GREEN ISLAND RD	1/2 - 1 N	C17	23

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets

are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

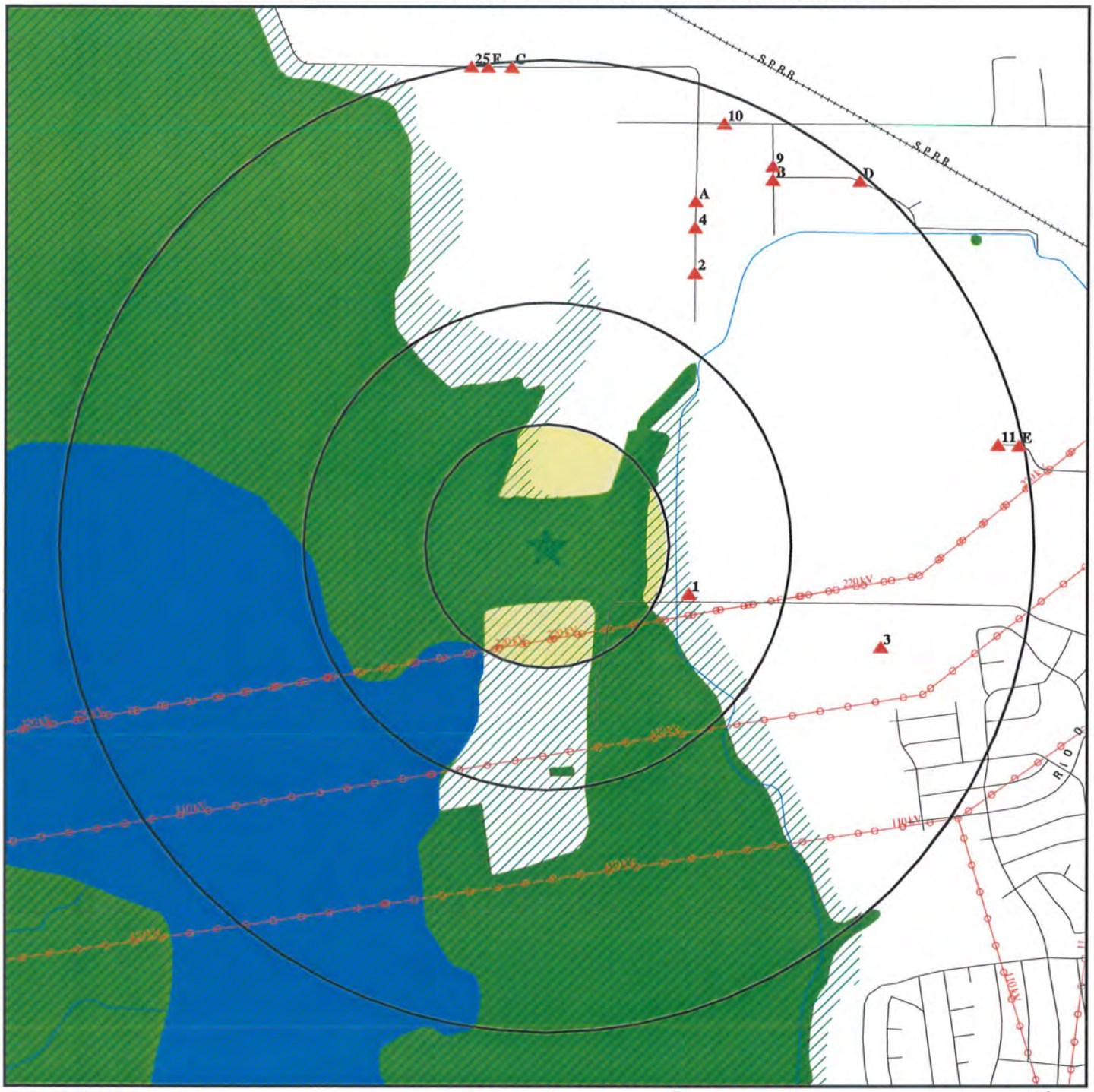
A review of the HAZNET list, as provided by EDR, and dated 12/31/2002 has revealed that there are 8 HAZNET sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GL MEZZETTA INC	105 MEZZETTA COURT	1/2 - 1 NNE	A5	10
POKKA BEVERAGES	***1201 COMMERCE BLVD***	***1/2 - 1 NNE***	***B8***	***13***
HATCH AND KIRK	1111 GREEN ISLAND RD	1/2 - 1 NNE	10	16
TRIBOTECH	100 NAPA JUNCTION RD	1/2 - 1 ENE	11	17
Not reported	***833 HANNA DR***	***1/2 - 1 NE***	***D13***	***18***
MORROW EQUIPMENT CO LLC	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D15***	***21***
SUNRISE AUTO INC	1578 GREEN ISLAND RD	1/2 - 1 N	F21	27
ULTIMATE ADVENTURE INC DBA SUN	1578 GREEN ISLAND RD	1/2 - 1 N	F22	27

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PG&E GAS PLANT NAPA 104 3	CERC-NFRAP
STUCCO STONE PRODUCTS	LUST
STUCCO STONE	UST
CDM	HAZNET
CULTURED STONE	HAZNET
HUDSON VINEYARDS	HAZNET
CALTRANS DIST 4/CONSTRUCTION	HAZNET
PACIFIC GAS AND ELECTRIC COMPANY	HAZNET
CAPITOL REFRIDGERATION	HAZNET
ADOBE LUMBER	RCRIS-SQG
CITY OF AMERICAN CANYON	FINDS
GAS RECOVERY SYSTEMS - AMERICAN CANYON	FINDS
BENETO TANK LINES	CA SLIC
CALTRANS	CA SLIC
AMERICAN CANYON SANITARY LAND	CA WDS
NAPA VALLEY WASTE MGMT AUTHORI	CA WDS

OVERVIEW MAP - 01214114.1r - Environmental Science Assoc.



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/4 1/2 1 Miles

N

TARGET PROPERTY:	American Canyon Development	CUSTOMER:	Environmental Science Assoc.
ADDRESS:	Eucalyptus Grove	CONTACT:	Crystal Spurr
CITY/STATE/ZIP:	American Canyon CA 94503	INQUIRY #:	01214114.1r
LAT/LONG:	38.1827 / 122.2809	DATE:	June 17, 2004 8:48 am

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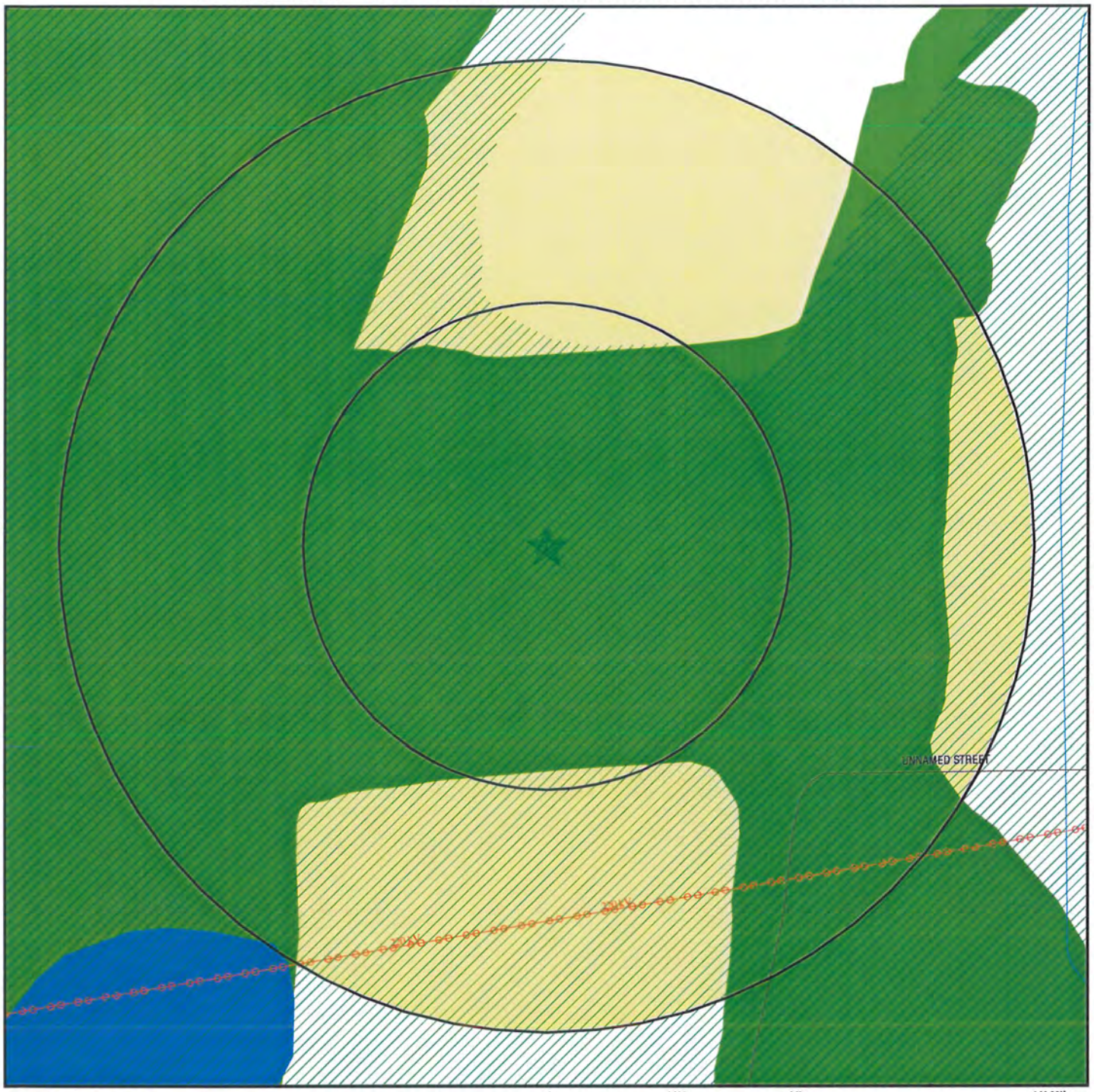
DETAIL MAP - 01214114.1r - Environmental Science Assoc.



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	American Canyon Development	CUSTOMER:	Environmental Science Assoc.
ADDRESS:	Eucalyptus Grove	CONTACT:	Crystal Spurr
CITY/STATE/ZIP:	American Canyon CA 94503	INQUIRY #:	01214114.1r
LAT/LONG:	38.1827 / 122.2809	DATE:	June 17, 2004 8:48 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		1.000	0	0	0	1	NR	1
CORRACTS		1.000	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		1.000	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		1.000	0	0	0	1	NR	1
ERNS		1.000	0	0	0	1	NR	1
STATE ASTM STANDARD								
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	0	0	0	NR	0
CHMIRS		1.000	0	0	0	3	NR	3
Cortese		1.000	0	0	0	1	NR	1
Notify 65		1.000	0	0	0	0	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill		1.000	0	0	1	1	NR	2
WMUDS/SWAT		1.000	0	0	0	1	NR	1
LUST		1.000	0	0	0	1	NR	1
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
UST		1.000	0	0	0	1	NR	1
VCP		1.000	0	0	0	0	NR	0
INDIAN LUST		1.000	0	0	0	0	NR	0
INDIAN UST		1.000	0	0	0	0	NR	0
CA FID UST		1.000	0	0	0	0	NR	0
HIST UST		1.000	0	0	0	0	NR	0
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		1.000	0	0	0	3	NR	3
HMIRS		1.000	0	0	0	0	NR	0
MLTS		1.000	0	0	0	0	NR	0
MINES		1.000	0	0	0	0	NR	0
NPL Liens		1.000	0	0	0	0	NR	0
PADS		1.000	0	0	0	0	NR	0
DOD		1.000	0	0	0	0	NR	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
RAATS		1.000	0	0	0	0	NR	0
TRIS		1.000	0	0	0	0	NR	0
TSCA		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SSTS		1.000	0	0	0	0	NR	0
FTTS		1.000	0	0	0	0	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		1.000	0	0	0	0	NR	0
CLEANERS		1.000	0	0	0	0	NR	0
CA WDS		1.000	0	0	0	4	NR	4
DEED		1.000	0	0	0	0	NR	0
NFA		1.000	0	0	0	0	NR	0
EMI		1.000	0	0	0	4	NR	4
REF		1.000	0	0	0	1	NR	1
SCH		1.000	0	0	0	0	NR	0
NFE		1.000	0	0	0	0	NR	0
CA SLIC		1.000	0	0	0	2	NR	2
HAZNET		1.000	0	0	0	8	NR	8
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.000	0	0	0	0	NR	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

---

1 **AMERICAN CANYON SANITARY LANDFILL** **SWF/LF** **S102361374**
ESE **WESTERN TERMINUS OF EUCALYPTUS DRIVE** **N/A**
1/4-1/2 **NAPA, CA**
1624 ft.

Relative:
Higher

Actual:
9 ft.

LF:

Facility ID:	28-AA-0001
Operator:	Napa-Vallejo Waste Management Authority
Operator Phone:	(707) 253-4545
Operator Addr:	1195 Third Street, Room 101 Napa, CA 94559
Owner:	Napa-Vallejo Waste Management Authority
Owner Address:	Not reported 1195 Third Street, Room 101 Napa, CA 94559
Owner Telephone:	(707) 253-4545
Activity:	Solid Waste Landfill
Operator's Status:	Not reported
Regulation Status:	Not reported
Region:	STATE
Lat/Long:	38 / -122
Permit Date:	Not reported
Accepted Waste:	Mixed municipal
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported
Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	1350
Permitted Throughput with Units:	1350
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Actual Capacity with Units:	4900000
Permitted Capacity with Units:	4900000
Remaining Capacity with Units:	Cubic Yards
Permitted Total Acreage:	122
Inspection Frequency:	Monthly
Landuse Name:	Agricultural

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

GIS Source:	Map
Permit Status:	Permitted
Category:	Disposal
Unit Number:	01
Last Waste Tire Inspection Count :	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported
Closure Date:	12/01/94
Closure Type:	Actual
Disposal Acreage:	97
Remaining Capacity:	207000
Year Opened:	Not reported
Year Closed:	Not reported
Fill Area:	Not reported
Type Of Refuse: Not reported	
Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Description:	Not Reported

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2 **CITY OF AMERICAN CANYON** **EMI** **S106248259**
NNE **151 MEZZETTA COURT** **N/A**
1/2-1 **AMERICAN CANYON, CA 94503**
3368 ft.

Relative: Higher

Actual: 29 ft.

EMISSIONS :

Facility ID :	12231
Air District Code :	BA
SIC Code :	4952
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

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3 **AMERICAN CANYON SANI LNDFL** **WMUDS/SWAT** **S100838778**
ESE **EUCALYPTUS DR AT NAPA JUNCTION** **CA WDS** **N/A**
1/2-1 **VALLEJO CA, CA**
3782 ft.

Relative: Higher

Actual: 36 ft.

WMUDS:

Region:	2
Date of Last Facility Edit:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System ID:	2 283033001
Solid Waste Information ID:	28-AA-0001
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True
Facility Name:	AMERICAN CANYON LANDFILL
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False
Open to Public:	False

AMERICAN CANYON SANI LNDFL (Continued) **S100838778**

Number of WMUDS at Facility:	2
Facility Telephone:	Not reported
Primary Standard Industrial Classification:	4953
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	AMERICAN CANYON LANDFILL CO.
NPID:	Not reported
Tonnage:	660
Regional Board ID:	Not reported
Municipal Solid Waste:	True
Superorder:	True
Sub Chapter 15:	True
Reg. Board Project Officer:	DMA
Section Range:	04N04W22
RCRA Facility:	No
Waste Discharge Requirements:	A
Base Meridian:	MD
Waste List:	False
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Quarterly Submittal

Threat to Water Quality:
Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.

Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.

Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

Prime Waste: Solid Wastes - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

2nd Waste Type: Miscellaneous (Includes wastes from dewatering, recreational lake overflow, swimming pool wastes, water ride wastewater, ground water seepage and other wastes of this type) - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

Agency: SOUTH NAPA WASTE MGMT AUTHORIT
Address: 1195 THIRD ST, RM 101
NAPA CA 94559
Department: Not reported
Contact: TRENT CAVE
Telephone: (707) 253-4471
Type: Private
Landowner: AMERICAN CANYON LANDFILL CO
Address: 710 MARIN ST
VALLEJO, CA 94590
Telephone: (707) 552-3112
Contact: Not reported

AMERICAN CANYON SANI LNDFL (Continued) **S100838778**

WDS:
Facility ID: San Francisco Bay 283033001
Facility Contact: TRENT CAVE
Facility Telephone: 0
SIC Code: 4953
SIC Code 2: Not reported
Agency Name: SOUTH NAPA WASTE MGMT AUTHORIT
Agency Address: 1195 THIRD ST, RM 101
NAPA 94559
Agency Contact: TRENT CAVE
Agency Phone: 0
Design Flow: 0.0001 Million Gal/Day
Baseline Flow: 0.0001 Million Gal/Day
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: Private
Waste Type: Solid Wastes - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Miscellaneous (Includes wastes from dewatering, recreational lake overflow, swimming pool wastes, water ride wastewater, ground water seepage and other wastes of this type) - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Threat to Water: Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Reclamation: No reclamation requirements associated with this facility.
POTW: The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.
NPDES Number: Not reported
Subregion: 2

4
NNE
1/2-1
3808 ft.

Relative:
Higher

Actual:
27 ft.

GL MEZZETTA INC
105 MEZZETTA CT
AMERICAN CANYON, CA 94589

CA WDS **S106101849**
N/A

WDS:
Facility ID: San Francisco Bay 2810I3731
Facility Contact: Not reported
Facility Telephone: 0
SIC Code: Not reported
SIC Code 2: Not reported
Agency Name: GL MEZZETTA INC
Agency Address: 0
Agency Contact: Not reported
Agency Phone: 0
Design Flow: Not reported
Baseline Flow: Not reported
Facility Type: Not reported
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: Not reported
Waste Type: Not reported
Threat to Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent

GL MEZZETTA INC (Continued) **S106101849**

no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Reclamation: Not reported
POTW: Not reported
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 2

A5
NNE
1/2-1
4071 ft.

GL MEZZETTA INC **HAZNET** **S105086344**
105 MEZZETTA COURT **N/A**
AMERICAN CANYON, CA 94589

Site 1 of 2 in cluster A

Relative: Higher

Actual: 25 ft.

HAZNET:
Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0125
Waste Category: Liquids with pH <UN-> 2
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0529
Waste Category: Laboratory waste chemicals
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0041
Waste Category: Unspecified alkaline solution
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A6 NNE 1/2-1 4071 ft. Relative: Higher Actual: 25 ft.	G L MEZZETTA INC 105 MEZZETTA COURT AMERICAN CANYON, CA 94503 Site 2 of 2 in cluster A	FINDS EMI	1006824265 110013828527

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)

EMISSIONS :

Facility ID :	11102
Air District Code :	BA
SIC Code :	2033
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

B7 NNE 1/2-1 4664 ft. Relative: Higher Actual: 30 ft.	1201 COMMERCE BLVD. AMERICAN CANYON, CA 02896 Site 1 of 2 in cluster B	CHMIRS	S105670169 N/A

CHMIRS:

OES Control Number:	01-7055
Chemical Name:	Activated sludge
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-7055
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported

(Continued) **S105670169**

Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Storm drain
Spill Site :	Industrial Plant
Cleanup By :	Responsible Party
Containment :	No
What Happened :	Caller observed responsible party performing clean up of this release. The sludge flowed into a near by storm drain which feeds to a small unnamed creek on Mazetta St. Caller advises he does not believe this creek is a source for drinking water.
Type :	SEWAGE
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	12/5/01 730
Evacuations :	0
OES Control Number:	01-3815
Chemical Name:	Fruit Juice digested solids
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-3815
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported

(Continued) S105670169

Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Iragation Ditch
Spill Site :	Merchant/Business
Cleanup By :	Unknown
Containment :	Yes
What Happened :	Sledge digester foamed over.
Type :	UNSPECIFIED
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	7/1/01 800
Evacuations :	0

B8 **POKKA BEVERAGES** HAZNET S104580629
NNE **1201 COMMERCE BLVD** EMI N/A
1/2-1 **AMERICAN CANYON, CA 94589**
4664 ft.

Site 2 of 2 in cluster B

Relative: Higher

Actual: 30 ft.

HAZNET:

Gepaid:	CAL000173892
TSD EPA ID:	Not reported
Gen County:	Napa
Tsd County:	Sonoma
Tons:	0.28
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method:	Transfer Station
Contact:	ROBERT SEVEY
Telephone:	(707) 556-1250
Mailing Address:	1201 COMMERCE BLVD AMERICAN CANYON, CA 94503 - 9611
County	Not reported

Gepaid:	CAL000173892
TSD EPA ID:	CAD059494310
Gen County:	Napa
Tsd County:	Santa Clara
Tons:	0.25
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Contact:	POKKA INC(JAPAN)
Telephone:	(707) 556-9611
Mailing Address:	1201 COMMERCE BLVD AMERICAN CANYON, CA 94589 - 9611
County	Napa

POKKA BEVERAGES (Continued) **S104580629**

Gepaid: CAL000173892
TSD EPA ID: CAD059494310
Gen County: Napa
Tsd County: Santa Clara
Tons: 0.0166
Waste Category: Unspecified organic liquid mixture
Disposal Method: Disposal, Other
Contact: POKKA INC(JAPAN)
Telephone: (707) 556-9611
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94589 - 9611
County Napa

Gepaid: CAL000173892
TSD EPA ID: Not reported
Gen County: Napa
Tsd County: Sonoma
Tons: 0.43
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Contact: ROBERT SEVEY
Telephone: (707) 556-1250
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94503 - 9611
County Not reported

Gepaid: CAL000173892
TSD EPA ID: CAT000613943
Gen County: Napa
Tsd County: Sonoma
Tons: .0916
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Contact: POKKA INC(JAPAN)
Telephone: (707) 556-9611
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94589 - 9611
County Napa

EMISSIONS :

Facility ID :	12557
Air District Code :	BA
SIC Code :	3565
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
9 NNE 1/2-1 4791 ft. Relative: Higher Actual: 31 ft.	1175 COMMERCE BLVD AMERICAN CANYON, CA 02896	CHMIRS	S105669713 N/A

CHMIRS:

OES Control Number:	01-7489
Chemical Name:	sewage
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-7489
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No
Waterway :	Not reported
Spill Site :	Road
Cleanup By :	Responsible Party
Containment :	Yes
What Happened :	Per caller, during an excavation project a sewer main was broken.
Type :	SEWAGE
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	12/27/01 1530
Evacuations :	0

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
10 NNE 1/2-1 4971 ft. Relative: Higher Actual: 28 ft.	HATCH AND KIRK 1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589	HAZNET	S104574720 N/A

HAZNET:

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.0750
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.1584
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Not reported
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.2875
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CAT000613943
Gen County:	Solano
Tsd County:	Sonoma
Tons:	.1000
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

HATCH AND KIRK (Continued) **S104574720**

Gepaid: CAL000191639
TSD EPA ID: Not reported
Gen County: Napa
Tsd County: Alameda
Tons: 5.64
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: TODD WALKER/VP,SEC,TREAS
Telephone: (800) 834-3457
Mailing Address: PO BOX 540
NAPA, CA 94559
County Not reported

Click this hyperlink while viewing on your computer to access
11 additional CA HAZNET record(s) in the EDR Site Report.

11
ENE
1/2-1
5011 ft.

Relative:
Higher

Actual:
247 ft.

TRIBOTECH HAZNET S104575655
100 NAPA JUNCTION RD N/A
NAPA, CA 94581

HAZNET:
Gepaid: CAL000019946
TSD EPA ID: CAT080033681
Gen County: Napa
Tsd County: Los Angeles
Tons: 0.9174
Waste Category: Unspecified oil-containing waste
Disposal Method: Disposal, Land Fill
Contact: TRIBUTECH CORP SUP SE
Telephone: (707) 643-2148
Mailing Address: PO BOX 5030
NAPA, CA 94581
County Napa

C12
North
1/2-1
5208 ft.

Site 1 of 2 in cluster C

Relative:
Higher

Actual:
32 ft.

GREEN ISLAND CA SLIC S106234975
1554 GREEN ISLAND RD N/A
AMERICAN CANYON, CA

SLIC Region 2:
Facility ID: 28S0045
Region: 2
Facility Status: 9
Date Closed: Not reported
Local Case #: Not reported
How Discovered : Not reported
Leak Cause : Not reported
Leak Source : Not reported
Date Confirmed : Not reported
Date Prelim Site Assmnt Workplan Submitted : Not reported
Date Preliminary Site Assessment Began : Not reported
Date Pollution Characterization Began : Not reported
Date Remediation Plan Submitted : Not reported
Date Remedial Action Underway : Not reported
Date Post Remedial Action Monitoring Began : Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
D13 NE 1/2-1 5208 ft. Relative: Higher Actual: 29 ft.	833 HANNA DR AMERICAN CANYON, CA 29053 Site 1 of 4 in cluster D	HAZNET CHMIRS CA WDS	S103978447 N/A

HAZNET:

Gepaid:	CA0000001149
TSD EPA ID:	CAT000613950
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1080
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1080
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1260
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1260
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

(Continued) **S103978447**

Gepaid: CA0000001149
TSD EPA ID: CA0000084517
Gen County: Napa
Tsd County: Sacramento
Tons: .1260
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: JOHN A & RICHARD E MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306 3218 PRINGLE RD
SALEM, OR 97302 - 9606
County Napa

Click this hyperlink while viewing on your computer to access
4 additional CA HAZNET record(s) in the EDR Site Report.

CHMIRS:

OES Control Number:	99-2001
Chemical Name:	unk
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	99-2001
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	San Francisco Bay
Spill Site :	Merchant/Business

(Continued) S103978447

Cleanup By :	Contractor
Containment :	Yes
What Happened :	Discovered an oily substance on top of a drainage ditch that runs along side of the building. Company traced the spill back to the far drain on the back of the property. Company has called a contactor to come and contain the spill. Company does not belei
Type :	PETROLEUM
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	5/10/99 1000
Evacuations :	0

WDS:

Facility ID:	San Francisco Bay 2810170 48		
Facility Contact	BRYAN FRAZER	Facility Telephone	(707) 644-3731
SIC Code:	Not reported	SIC Code 2:	Not reported
Agency Name:	MORROW EQUIPMENT CO		
Agency Address:	833 Hanna Dr American Canyon 94503 - 9606		
Agency Contact:	BRYAN FRAZER	Agency Phone:	(707) 644-3731
Design Flow:	Not reported	Baseline Flow:	Not reported
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Private		
Waste Type:	Not reported		
Threat to Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.		
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.		
Reclamation:	Not reported		
POTW:	Not reported		
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board		
Subregion:	2		

D14 **MORROW CRANE COMPANY** **RCRIS-SQG 1000856915**
NE **833 HANNA DRIVE** **FINDS CA0000001149**
1/2-1 **AMERICAN CANYON, CA 94589**
5208 ft.

Site 2 of 4 in cluster D

Relative:
Higher

Actual:
29 ft.

MORROW CRANE COMPANY (Continued) **1000856915**

RCRIS:
Owner: MORROW CRANE INC
(707) 644-3731
EPA ID: CA0000001149
Contact: BRIAN FRASIER
(707) 644-3731
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)
National Emissions Trends (NET)
National Toxics Inventory (NTI)
Resource Conservation and Recovery Act Information system (RCRAINFO)

D15 **MORROW EQUIPMENT CO LLC** **HAZNET S102816984**
NE **833 HANNA DRIVE** **EMI N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
5208 ft.

Site 3 of 4 in cluster D

Relative: Higher

Actual: 29 ft.

HAZNET:
Gepaid: CAL000092017
TSD EPA ID: CAD028409019
Gen County: Napa
Tsd County: Los Angeles
Tons: 1.1259
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: 2.0641
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

MORROW EQUIPMENT CO LLC (Continued) **S102816984**

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: .4587
Waste Category:
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: .2293
Waste Category: Unspecified sludge waste
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

EMISSIONS :

Facility ID :	9128
Air District Code :	BA
SIC Code :	5082
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

D16 **833 HANNA DRIVE** **ERNS** **99621239**
NE **833 HANNA DRIVE** **N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
5215 ft.

Site 4 of 4 in cluster D

Relative:
Higher

Actual:
28 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

C17 **CALIFORNIA AUTO DISMANTLERS** **CA SLIC** **S106234974**
North **1578 GREEN ISLAND RD** **N/A**
1/2-1 **AMERICAN CANYON, CA 94503**
5218 ft.

Site 2 of 2 in cluster C

Relative:
Higher

Actual:
29 ft.

SLIC Region 2:

Facility ID:	28S0043
Region:	2
Facility Status:	9
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered :	Not reported
Leak Cause :	Not reported
Leak Source :	Not reported
Date Confirmed :	Not reported
Date Prelim Site Assmnt Workplan Submitted :	Not reported
Date Preliminary Site Assessment Began :	Not reported
Date Pollution Characterization Began :	Not reported
Date Remediation Plan Submitted :	Not reported
Date Remedial Action Underway :	Not reported
Date Post Remedial Action Monitoring Began :	Not reported

E18 **JAEGER VINEYARDS** **LUST** **U003659768**
ENE **658 NAPA JUNCTION ROAD** **Cortese** **N/A**
1/2-1 **AMERICAN CANYON, CA 94589** **UST**
5232 ft.

Site 1 of 2 in cluster E

Relative:
Higher

Actual:
231 ft.

State LUST:

Cross Street:	Not reported		
Qty Leaked:	0		
Case Number	28-0229		
Reg Board:	2		
Chemical:	Heater Fuel		
Lead Agency:	Local Agency		
Local Agency :	28000L		
Case Type:	Soil only		
Status:	Case Closed		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	10/24/96 0:00		
Monitoring:	Not reported		
Close Date:	11/23/98 0:00		
Release Date:	05/11/1992		
Cleanup Fund Id :	Not reported		
Discover Date :	05/26/1992		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	5/24/93 0:00		
Funding:	Federal Funds		
Staff Initials:	ZZZ		
How Discovered:	Tank Closure		
How Stopped:	Not reported		
Interim :	Yes		
Leak Cause:	UNK		
Leak Source:	Tank		
MTBE Date :	Not reported		

JAEGER VINEYARDS (Continued) **U003659768**

Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 83
Beneficial: Not reported
Staff : MRC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Napa-Sonoma Valley (
Operator : Not reported
Oversight Prgm: LUST
Review Date : 1/11/00 0:00
Stop Date : 05/26/1992
Work Suspended :No
Responsible PartyBLANK RP
RP Address: Not reported
Global Id: T0605500203
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: Not reported
Mtbe Fuel: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 2:
Region: 2
Case Number: 0083
Facility Id: 28-0229
Facility Status: Case Closed
How Discovered: TC
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: Not reported
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 10/24/1996
Date Remediation Action Underway: Not reported

LUST NAPA County:
Facility ID: NAPA0083
Region: NAPA
Date Closed: 12/23/1998

CORTESE:
Region: CORTESE
Fac Address 2: 658 NAPA JUNCTION RD

UST Napa County:
Facility ID: NAPA0083 Num of Tanks: 0
Region: NAPA

E19
ENE
1/2-1
5232 ft.

STEEL MILL SUPPLY OF NAPA — FINDS — 1004441402
659 NAPA JUNCTION RD — 110001188606
NAPA, CA 94559

Site 2 of 2 in cluster E

Relative: Higher

Actual: 231 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subsystem (AIRS/AFS)

F20
North
1/2-1
5247 ft.

SUNSHINE AUTO SALVAGE — REF — S102860920
1578 GREEN ISLAND ROAD — N/A
AMERICAN CANYON, CA 94589

Site 1 of 5 in cluster F

Relative: Higher

Actual: 28 ft.

REF:

Facility ID	28500004
Dtsc Region Code :	2
Region Code Definition :	BERKELEY
County Code :	28
Site Name Under :	Not reported
Current Status Date :	01102001
Current Status Code :	REFRW
Current Status :	PROPERTY/SITE REFERRED TO RWQCB
Lead Agency Code :	RWQCB
Lead Agency :	REGIONAL WATER QUALITY CONTROL BOARD
Site Type Code :	Not reported
Site Type :	N/A
National Priorities List :	N
Tier :	Not reported
Source Of Funding Code :	Not reported
Staff Member :	VLASKY
Supervisor :	Not reported
Sic Code :	50
Sic Code Definition :	WHOLESALE TRADE - DURABLE GOODS
Site Mitigatn & Brnflds Reuse Prog (SMBR) Code :	NC
SMBR Branch :	NORTH COAST
Regional Water Quality Control Board :	SF
RWQCB Definition :	SAN FRANCISCO BAY
Site Access Controlled :	Not reported
Listed In Haz Wst & Substncs Sites List (CORTESE):	Not reported
Date Hazard Ranked :	Not reported
GW Contamination Suspected :	Not reported
# Of Sources Contributing To Contamination :	0.00000
Lat/Long :	0.00000° 0.00000′ 0.00000″ / 0.00000° 0.00000′ 0.00000″
Direction Lat :	Not reported
Direction Long :	Not reported
Lat/long Method :	Not reported
Entity Lat/long Coordinates Refer To :	Not reported
State Assembly Distt Code :	07
State Senate Distt Code :	02
Identifying Code:	Not reported
ID Value:	Not reported
Other ID Desc:	Not reported
Alternate Name(s):	SUNSHINE AUTO SALVAGE CALIFORNIA AUTO DISMANTLING
Address(es) :	1578 GREEN ISLAND ROAD AMERICAN CANYON, CA 94589
Background Info :	The property has been used as an auto salvage yard since about

SUNSHINE AUTO SALVAGE (Continued) **S102860920**

Background Info :	1985. Due to mishandling of hazardous substances by the previous
Background Info :	owner, soil and groundwater investigations were required by the
Background Info :	SF Regional Water Quality Control Board. Results indicated that
Background Info :	on soil samples had lead above untrestricted residential
Background Info :	standards. Contaminants related to petroleum were also found
Background Info :	in the soil. Groundwater samples did not detect any contaminants
Background Info :	above the drinking water standards. A No Further Action
Background Info :	determination was made by the Water Board.
Facility Id :	28500004
AWP Activities Code :	1.00000
DTSC Site Activity Code :	DISC
Activity Code Def:	DISCOVERY
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	01221988
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	28500004
AWP Activities Code :	2.00000
DTSC Site Activity Code :	SS
Activity Code Def:	Not reported
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03151988
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	28500004
AWP Activities Code :	3.00000
DTSC Site Activity Code :	PEA
Activity Code Def:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Activity Id :	PA/SI
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	04112002
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported

SUNSHINE AUTO SALVAGE (Continued) **S102860920**

Special Program Code: RCSP
Special Program : RURAL COUNTY SURVEY PROGRAM
Comments Date : Not reported
Comments : Not reported

F21
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

SUNRISE AUTO INC **HAZNET** **S105084761**
1578 GREEN ISLAND RD **N/A**
AMERICAN CANYON, CA 94589

Site 2 of 5 in cluster F

HAZNET:
Gepaid: CAC002209009
TSD EPA ID: CAD099452708
Gen County: Napa
Tsd County: Los Angeles
Tons: 1.0425
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: SUNRISE AUTO INC
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589
County Napa

F22
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

ULTIMATE ADVENTURE INC DBA SUNRISE TRADI **HAZNET** **S103993056**
1578 GREEN ISLAND RD **N/A**
VALLEJO, CA 94589

Site 3 of 5 in cluster F

HAZNET:
Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 8.3482
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 1.5012
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

ULTIMATE ADVENTURE INC DBA SUNRISE TRADI (Continued) **S103993056**

Gepaid: CAL000031929
TSD EPA ID: CAD043260702
Gen County: Solano
Tsd County: San Mateo
Tons: 4.1700
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 2.7105
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAT000646117
Gen County: Solano
Tsd County: Kings
Tons: .6000
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Treatment, Tank
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Click this hyperlink while viewing on your computer to access
2 additional CA HAZNET record(s) in the EDR Site Report.

F23
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

SUNSHINE AUTO SALVAGE **CERC-NFRAP** **1003109132**
1578 GREEN ISLAND ROAD **CAD091840710**
VALLEJO, CA 94503

Site 4 of 5 in cluster F

CERCLIS-NFRAP Classification Data:
Site Incident Category: Not reported
Non NPL Code: NFRAP
Ownership Status: Not reported
Site Description: Per BC 6/12/03

Federal Facility: Not a Federal Facility

NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History:
Assessment: DISCOVERY Completed: 01/10/2001
Assessment: PRELIMINARY ASSESSMENT Completed: 12/10/2002
Assessment: ARCHIVE SITE Completed: 06/12/2003

CERCLIS-NFRAP Alias Name(s):
CALIFORNIA AUTO DISMANTLING

SUNSHINE AUTO SALVAGE (Continued) 1003109132

ULTIMATE ADVENTURE INC. DBA

F24 **SUNRISE TRADERS AUTO SALVAGE** SWF/LF 1001134452
North **1578 GREEN ISLAND ROAD** N/A
1/2-1 **VALLEJO, CA**
5247 ft.

Site 5 of 5 in cluster F

Relative:
Higher

Actual:
28 ft.

LF:

Facility ID:	28-TI-0002
Operator:	Sunshine Auto Dismantling
Operator Phone:	(707) 643-3111
Operator Addr:	Vallejo, CA 94589
Owner:	Sunshine Auto Dismantling
Owner Address:	Not reported
	Not reported
	Vallejo, CA 94589
Owner Telephone:	(707) 643-3111
Activity:	Auto Dismantler
Operator's Status:	Not reported
Regulation Status:	Not reported
Region:	STATE
Lat/Long:	38 / -122
Permit Date:	Not reported
Accepted Waste:	Tires
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported
Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	Not reported
Permitted Throughput with Units:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Tires
Actual Capacity with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity with Units:	Tires
Permitted Total Acreage:	0
Inspection Frequency:	None
Landuse Name:	Rural,Industrial
GIS Source:	Map
Permit Status:	Not reported

SUNRISE TRADERS AUTO SALVAGE (Continued) **1001134452**

Category:	Waste Tire Site
Unit Number:	01
Last Waste Tire Inspection Count :	1
Last Waste Tire Inspection Date:	3/15/02
Original Waste Tire Count:	8000
Original Waste Tire Count Date:	11/2/95
Closure Date:	/ /
Closure Type:	Not reported
Disposal Acreage:	Not reported
Remaining Capacity:	Not reported
Year Opened:	Not reported
Year Closed:	Not reported
Fill Area:	Not reported
Type Of Refuse:	Not reported
Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Description:	Not Reported

25
North
1/2-1
5274 ft.

ENG BROS WOOD PROD **CA WDS** **S106101847**
1660 GREEN ISLAND RD **N/A**
AMERICAN CANYON, CA 94503

Relative:
Higher

Actual:
32 ft.

WDS:

Facility ID:	San Francisco Bay 28I011669		
Facility Contact	GLENN NG	Facility Telephone	(707) 647-7559
SIC Code:	Not reported	SIC Code 2:	Not reported
Agency Name:	ENG BROS WOOD PROD		
Agency Address:	1660 Green Island Rd American Canyon 94503 - 9661		
Agency Contact:	GLENN NG	Agency Phone:	(707) 647-7559
Design Flow:	Not reported	Baseline Flow:	Not reported
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Private		
Waste Type:	Not reported		
Threat to Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.		
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.		
Reclamation:	Not reported		
POTW:	Not reported		
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board		
Subregion:	2		

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	1006826004	CITY OF AMERICAN CANYON	WEST AMERICAN CANYON ROAD FOOT OF	94503	FINDS
AMERICAN CANYON	S106101846	AMERICAN CANYON SANITARY LAND	END OF EUCALPYTUS DR	94559	CA WDS
AMERICAN CANYON	S106101895	NAPA VALLEY WASTE MGMT AUTHORI	WEST END OF EUCALYPTUS RD	94503	CA WDS
AMERICAN CANYON	1007249212	GAS RECOVERY SYSTEMS - AMERICAN CANYON	725 EUCALYPTUS ROAD	94503	FINDS
AMERICAN CANYON	S106088947	CDM	151 MEZZETTA	94503	HAZNET
AMERICAN CANYON	1007200685	ADOBE LUMBER	150 S NAPA JCT RD	94503	RCRIS-SQG
NAPA	S104574822	CULTURED STONE	HIGHWAY 29 / TOWER RD	94559	HAZNET
NAPA	U003114756	STUCCO STONE	0 HWY 29 AT TOWER RD	94559	UST
NAPA	S103664127	HUDSON VINEYARDS	5398 CARNEROS HWY	94559	HAZNET
NAPA	1003878934	PG&E GAS PLANT NAPA 104 3	NW COR CROSS & ELM	94559	CERC-NFRAP
NAPA	S105088158	CALTRANS DIST 4/CONSTRUCTION	NAPA 121 P.M. 0.3-4.5	94559	HAZNET
NAPA	S102792370	PACIFIC GAS AND ELECTRIC COMPANY	1/2 MI SOUTH OF HIGHWAY 12	94559	HAZNET
NAPA	S106162543	STUCCO STONE PRODUCTS	UNKNOWN HWY 29 / TOWER RD	94559	LUST
NAPA	S106234964	BENETO TANK LINES	UNKNOWN HWY 29	94559	CA SLIC
NAPA	S106234966	CALTRANS	UNKNOWN HWY 12 / KELLY RD	94559	CA SLIC
SONOMA	S103661425	CAPITOL REFRIDGERATION	4777 W NAPA ST(SAFEWAY)	94559	HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 6
Telephone: 214-655-6659

EPA Region 8
Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/04
Date Made Active at EDR: 04/15/04
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 03/25/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/08/04

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 04/13/04
Date Made Active at EDR: 05/13/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 04/20/04
Elapsed ASTM days: 23
Date of Last EDR Contact: 04/20/04

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03
Date Made Active at EDR: 03/12/04
Database Release Frequency: Annually
Date of Data Arrival at EDR: 01/26/04
Elapsed ASTM days: 46
Date of Last EDR Contact: 04/26/04

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially
Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies
Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/08/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/04
Date of Next Scheduled EDR Contact: 08/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/19/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 03/05/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/04
Date of Next Scheduled EDR Contact: 06/28/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/12/04
Date of Next Scheduled EDR Contact: 05/24/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/04
Database Release Frequency: Annually

Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-692-8801
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

INDIAN RESERV: Indian Reservations
Source: USGS
Telephone: 202-208-3710
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A
Database Release Frequency: N/A

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

FUDS: Formerly Used Defense Sites
Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/03
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/05/04

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 03/23/04
Date of Next Scheduled EDR Contact: 06/21/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 03/05/04
Date of Next Scheduled EDR Contact: 06/07/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Annually
Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies
Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 02/23/04

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 04/28/04

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 04/19/04

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 05/03/04

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/15/04
Date Made Active at EDR: 04/14/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/17/04
Elapsed ASTM days: 28
Date of Last EDR Contact: 03/16/04

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 03/11/04

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/13/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/13/04
Elapsed ASTM days: 16
Date of Last EDR Contact: 04/13/04

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/13/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/13/04
Elapsed ASTM days: 16
Date of Last EDR Contact: 04/13/04

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
Source: Environmental Protection Agency
Telephone: 415-972-3372
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/09/04
Date Made Active at EDR: 03/01/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 02/10/04
Elapsed ASTM days: 20
Date of Last EDR Contact: 01/27/04

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
Source: EPA Region 10
Telephone: 206-553-2857
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/11/04
Date Made Active at EDR: 03/31/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/12/04
Elapsed ASTM days: 19
Date of Last EDR Contact: 01/27/04

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 02/25/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/01/04
Elapsed ASTM days: 23
Date of Last EDR Contact: 02/23/04

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/03/04
Date of Next Scheduled EDR Contact: 08/02/04

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/21/04
Database Release Frequency: Annually
Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-341-5227
Sites which have been issued waste discharge requirements.

Date of Government Version: 04/05/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 04/06/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/06/04
Date of Next Scheduled EDR Contact: 07/05/04

NFA: No Further Action Determination
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/02
Database Release Frequency: Varies
Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

REF: Unconfirmed Properties Referred to Another Agency
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

NFE: Properties Needing Further Evaluation
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA in Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

HAZNET: Facility and Manifest Data
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/02
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/04
Date of Next Scheduled EDR Contact: 08/09/04

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 03/05/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/01/04
Date of Next Scheduled EDR Contact: 05/31/04

FRESNO COUNTY:

CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/04
Date of Next Scheduled EDR Contact: 08/09/04

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 01/27/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/03/03
Database Release Frequency: Varies

Date of Last EDR Contact: 02/20/04
Date of Next Scheduled EDR Contact: 05/17/04

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-524-2236

Date of Government Version: 03/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 03/28/03
Database Release Frequency: Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 02/17/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/04
Database Release Frequency: Varies

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 05/17/04

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/26/04
Database Release Frequency: Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 02/10/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/03/04
Date of Next Scheduled EDR Contact: 08/02/04

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 03/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/04
Date of Next Scheduled EDR Contact: 06/28/04

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 03/29/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/29/04
Date of Next Scheduled EDR Contact: 06/28/04

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 03/01/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/17/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/17/04
Date of Next Scheduled EDR Contact: 06/21/04

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/23/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 04/16/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/07/04
Date of Next Scheduled EDR Contact: 08/02/04

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/03/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/07/04
Date of Next Scheduled EDR Contact: 08/02/04

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 04/15/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00
Database Release Frequency: Varies

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/31/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

SAN FRANCISCO COUNTY:

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 03/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 03/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 01/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/07/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/02/04
Date of Next Scheduled EDR Contact: 07/12/04

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 12/31/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/04
Date of Next Scheduled EDR Contact: 06/28/04

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 10/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 03/18/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 03/18/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 04/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 01/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 02/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/15/04
Date of Next Scheduled EDR Contact: 07/12/04

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 02/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 01/27/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 03/31/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/19/03
Database Release Frequency: Varies

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/10/04
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291

Date of Government Version: 04/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/03
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 01/21/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 02/26/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/26/04
Date of Next Scheduled EDR Contact: 06/28/04

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 01/12/04
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 04/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 03/31/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 01/28/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 04/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 6L: SLIC Sites
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 03/09/04
Database Release Frequency: Varies

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 04/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 7: SLIC List
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491

Date of Government Version: 02/27/04
Database Release Frequency: Varies

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 04/29/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/29/04
Date of Next Scheduled EDR Contact: 05/31/04

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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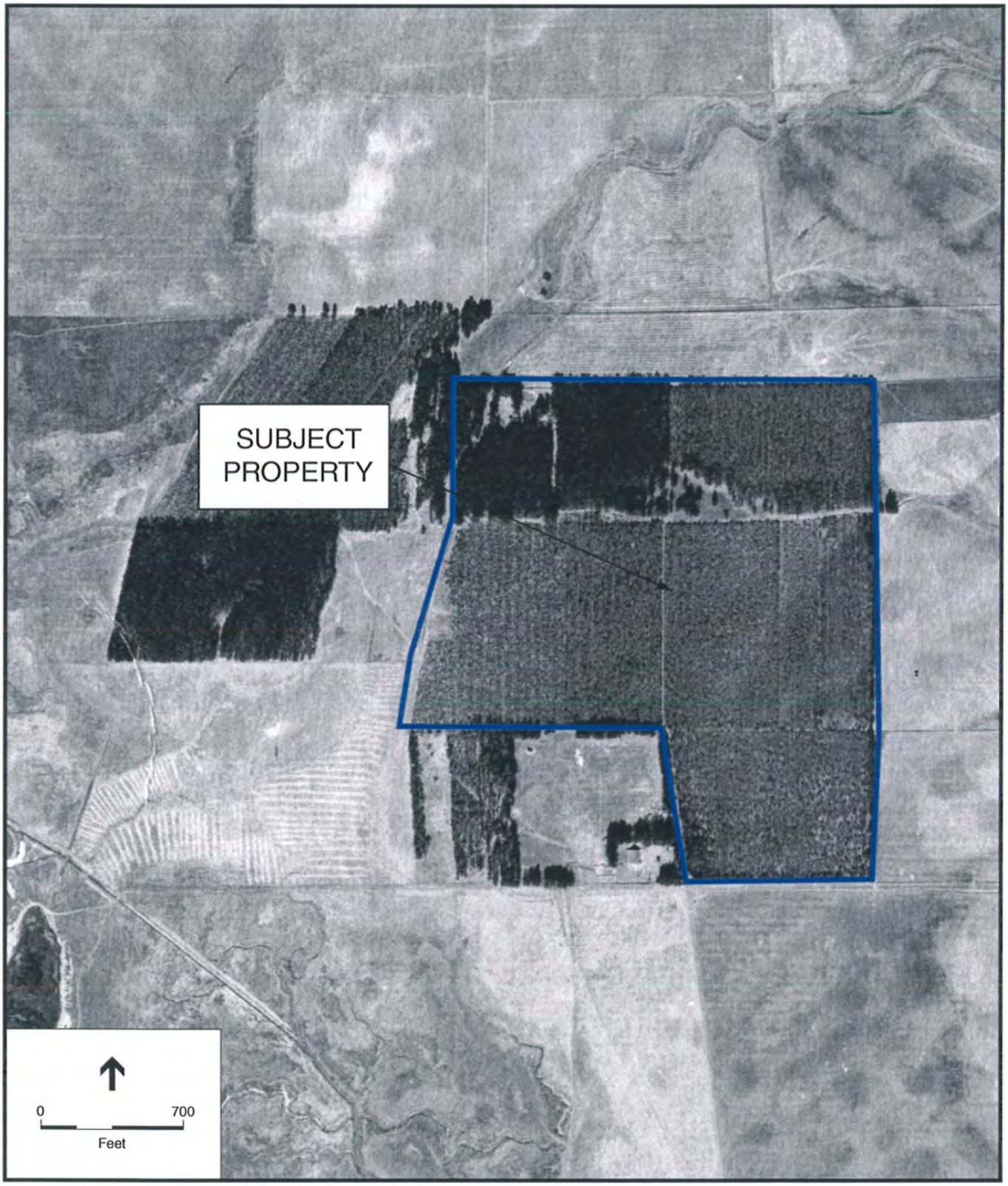
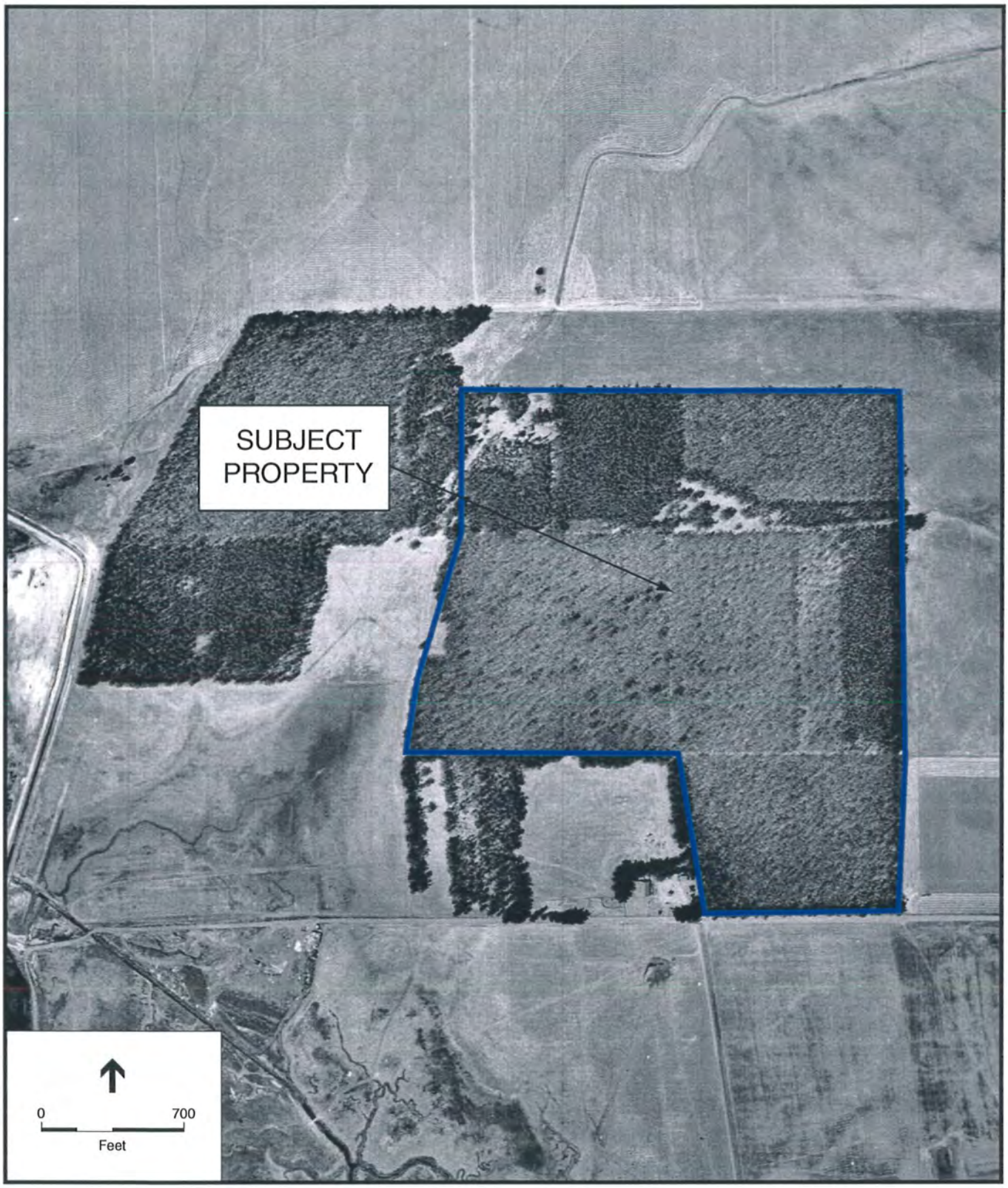
APPENDIX B

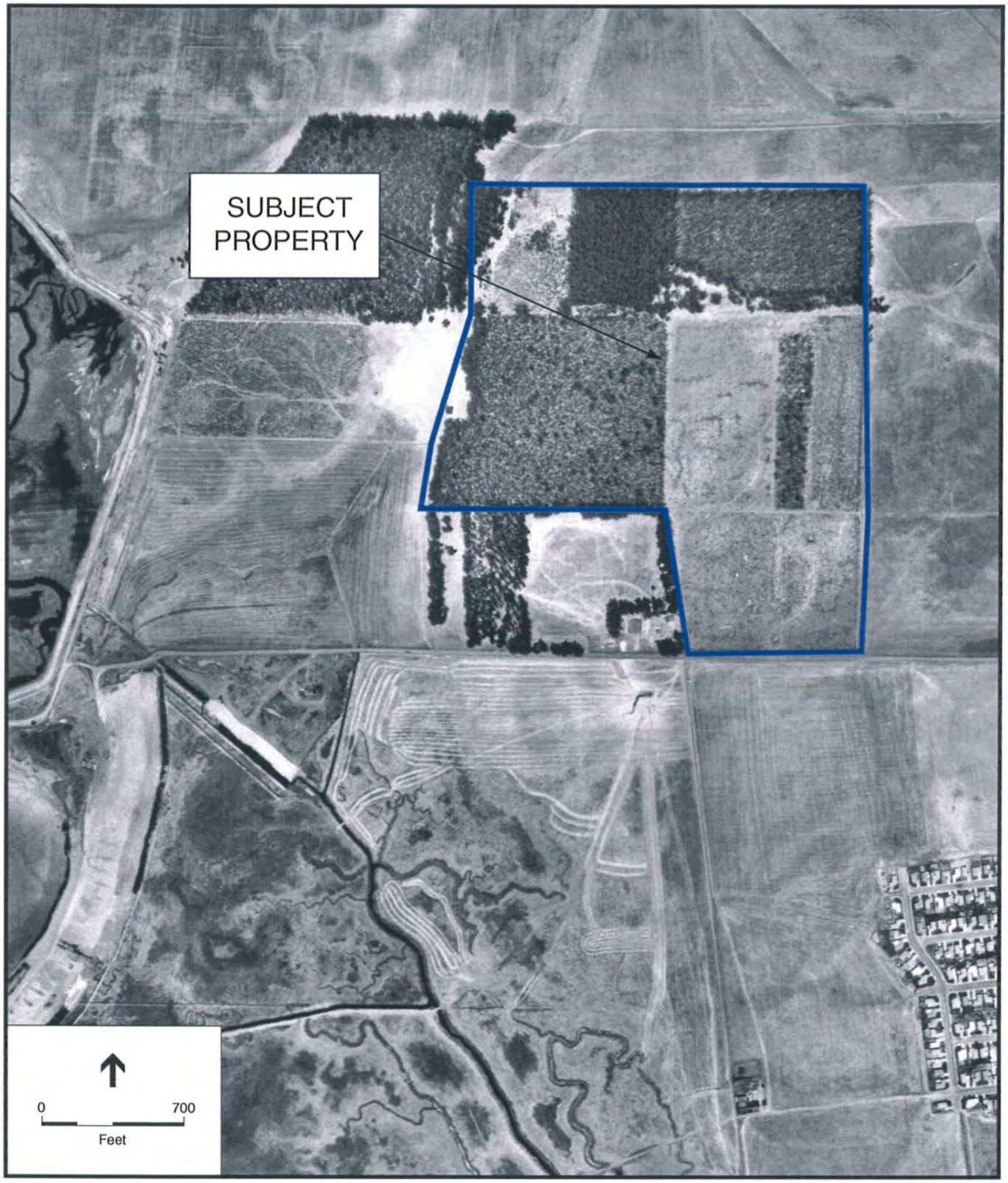
AERIAL PHOTOGRAPHS



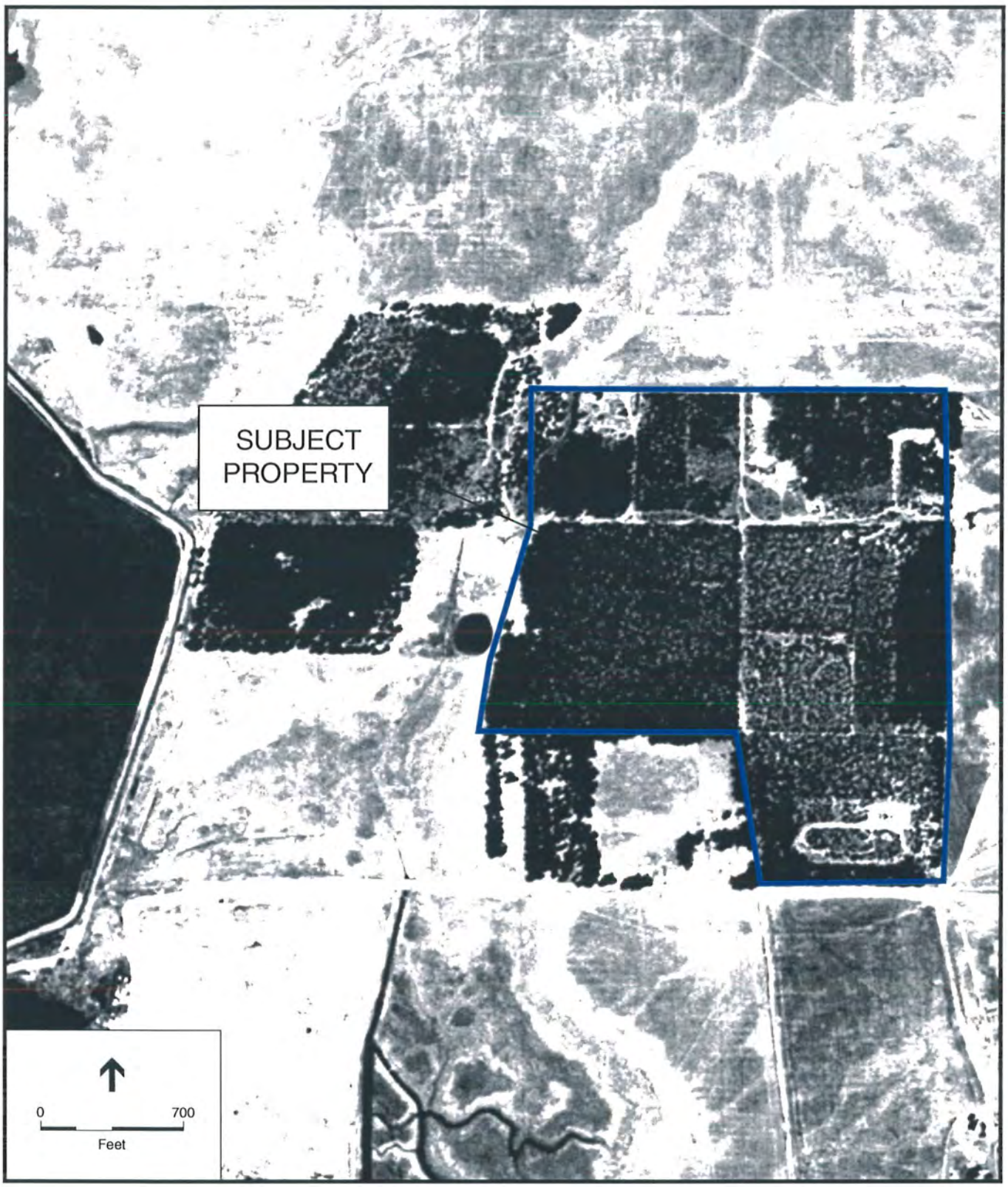
SOURCE: U.S. Department of Agriculture ASCS, 1937; and
Environmental Science Associates, 2004



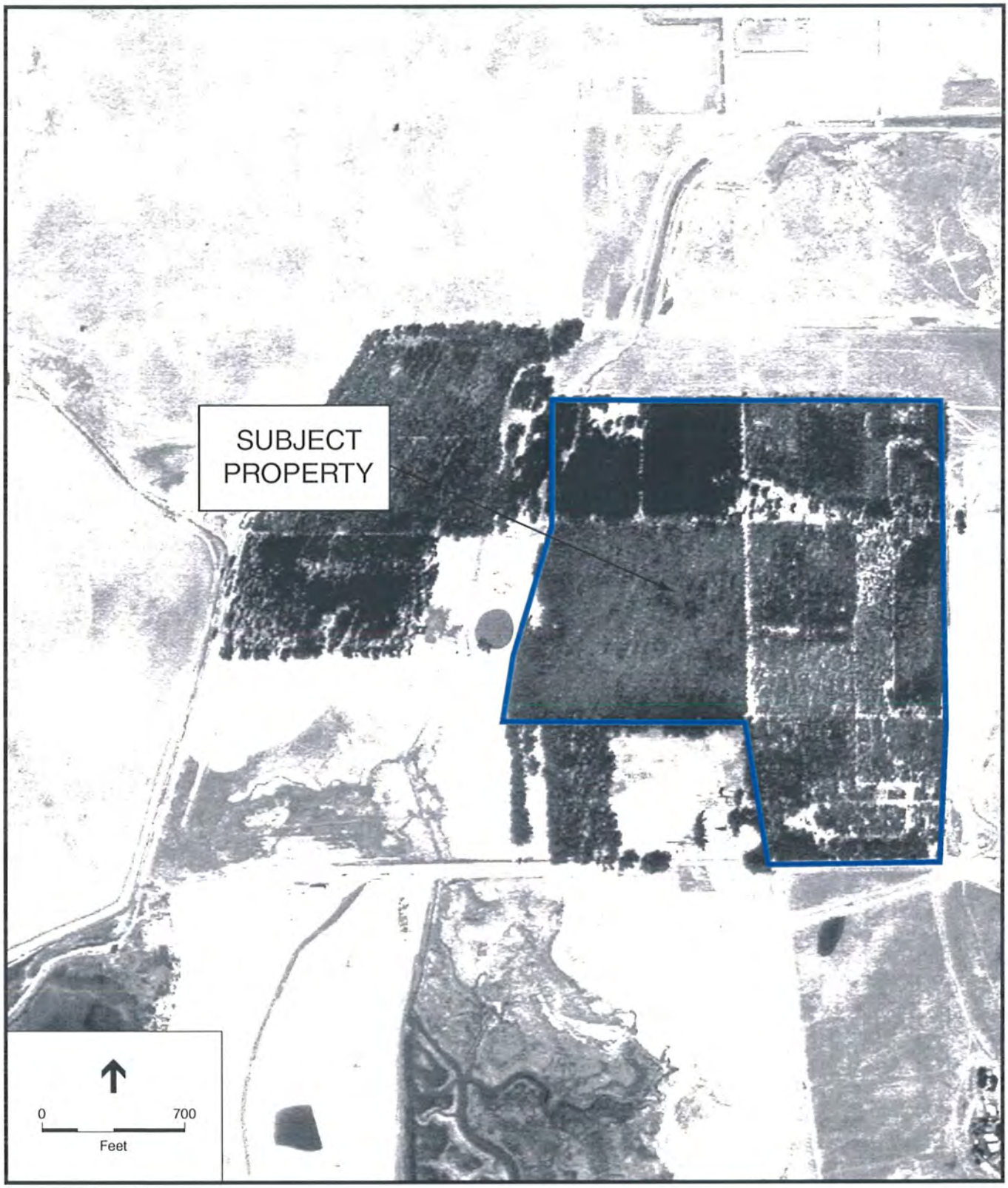
SOURCE: U.S. Department of Agriculture ASCS, 1957; and
Environmental Science Associates, 2004



SOURCE: Cartwright Aerial Surveys, 1965; and
Environmental Science Associates, 2004



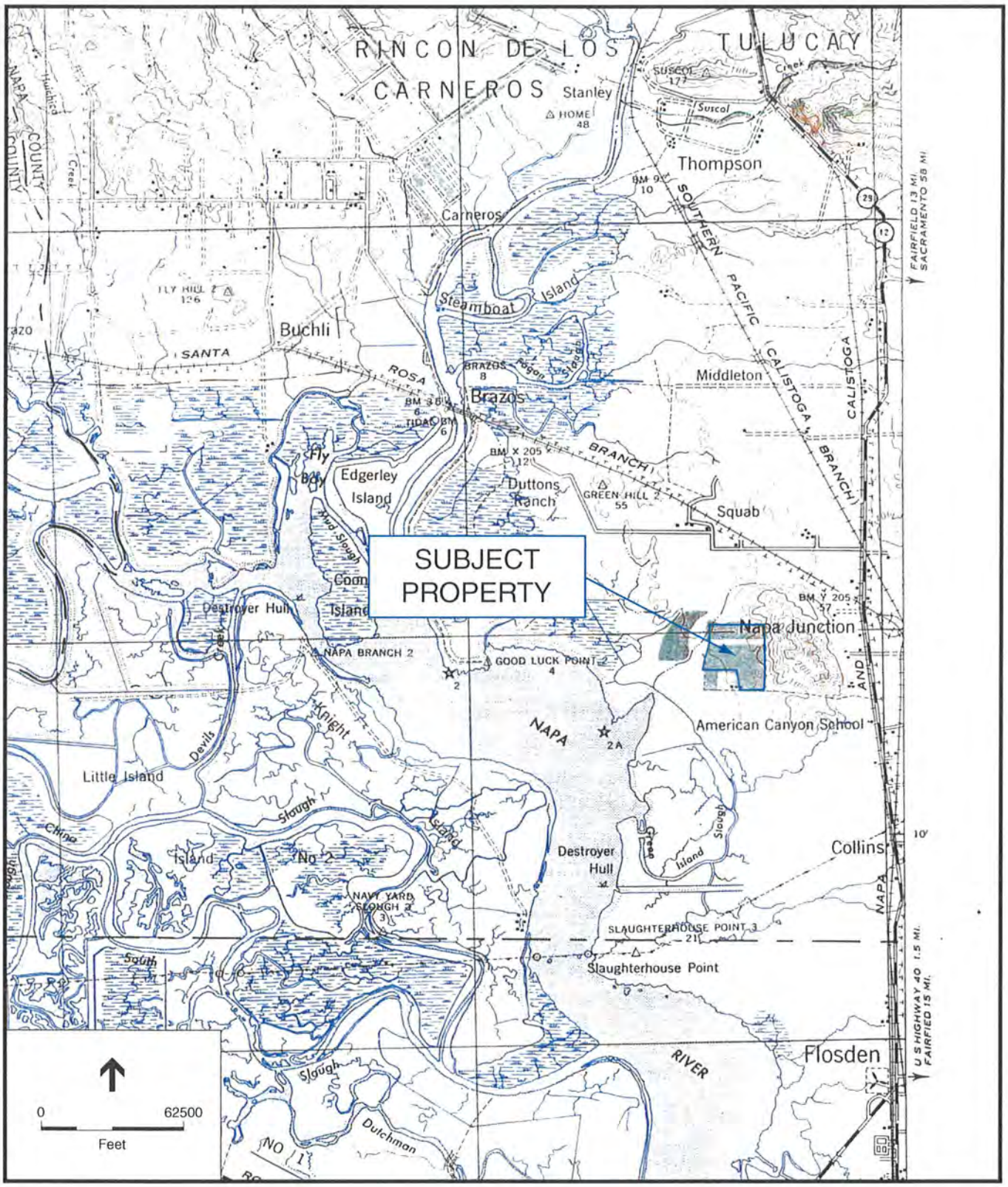
SOURCE: U.S. Geological Survey, 1982; and Environmental Science Associates, 2004



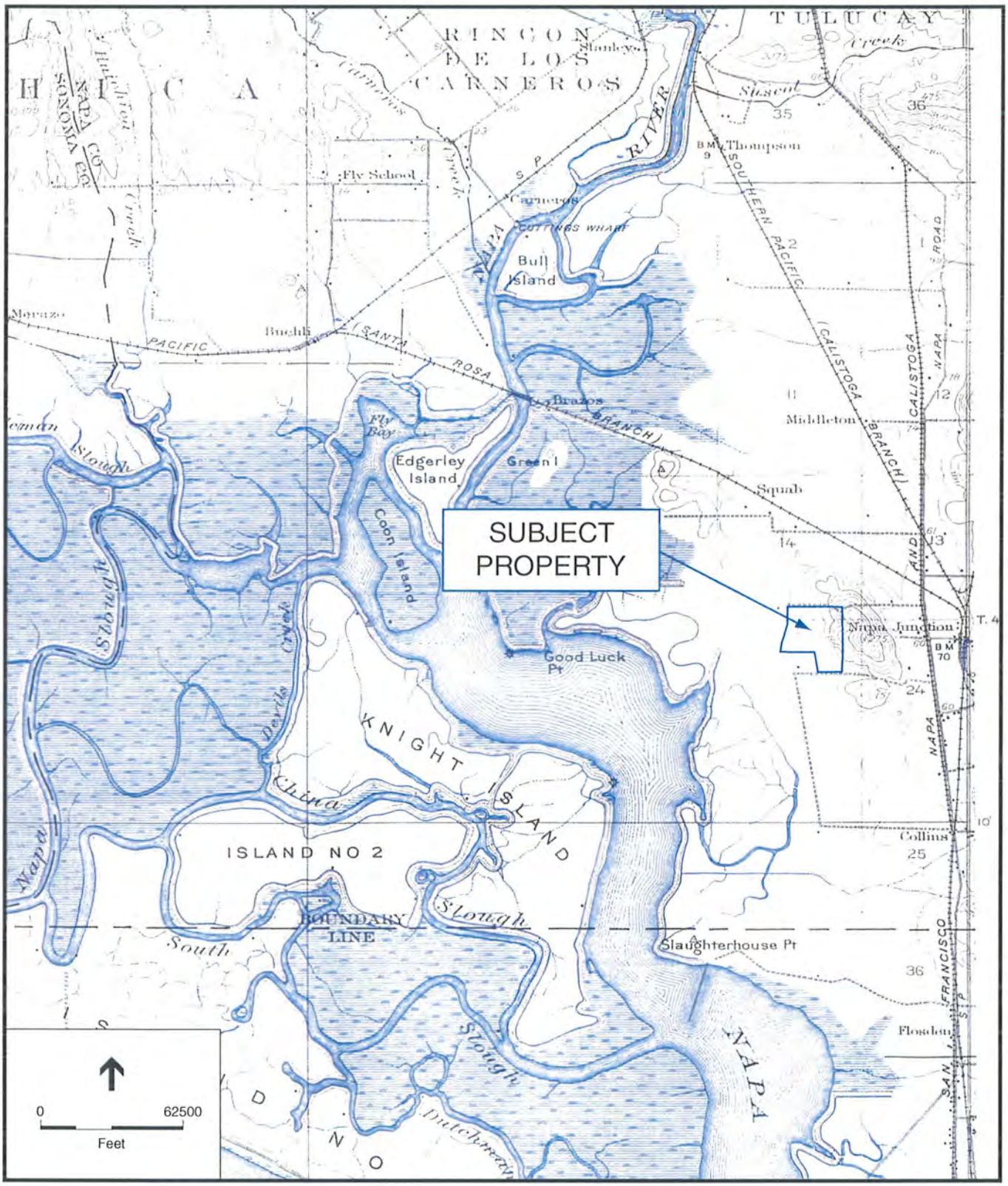
SOURCE: U.S. Geological Survey, 1993; and Environmental Science Associates, 2004

APPENDIX C

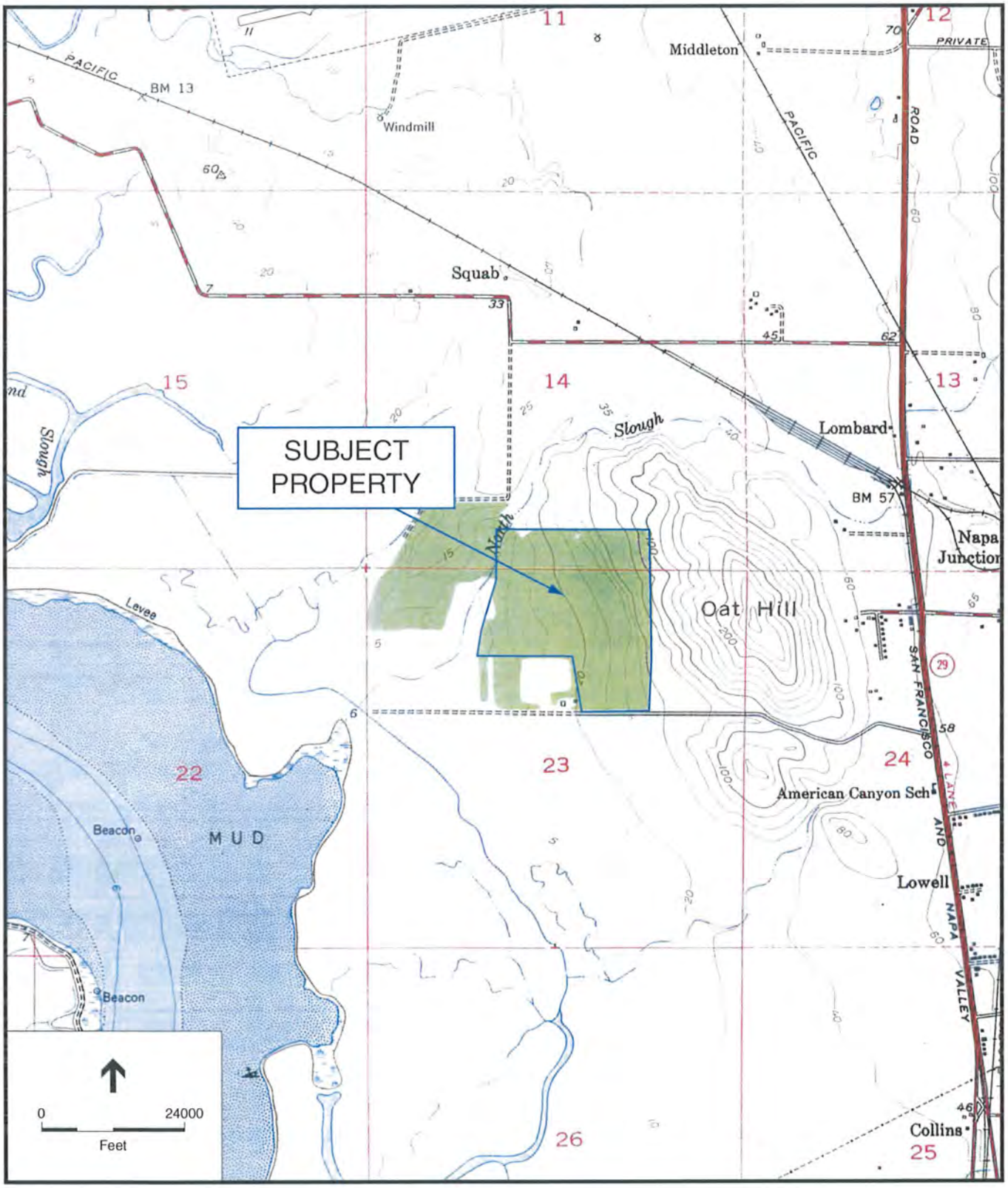
TOPOGRAPHIC MAPS



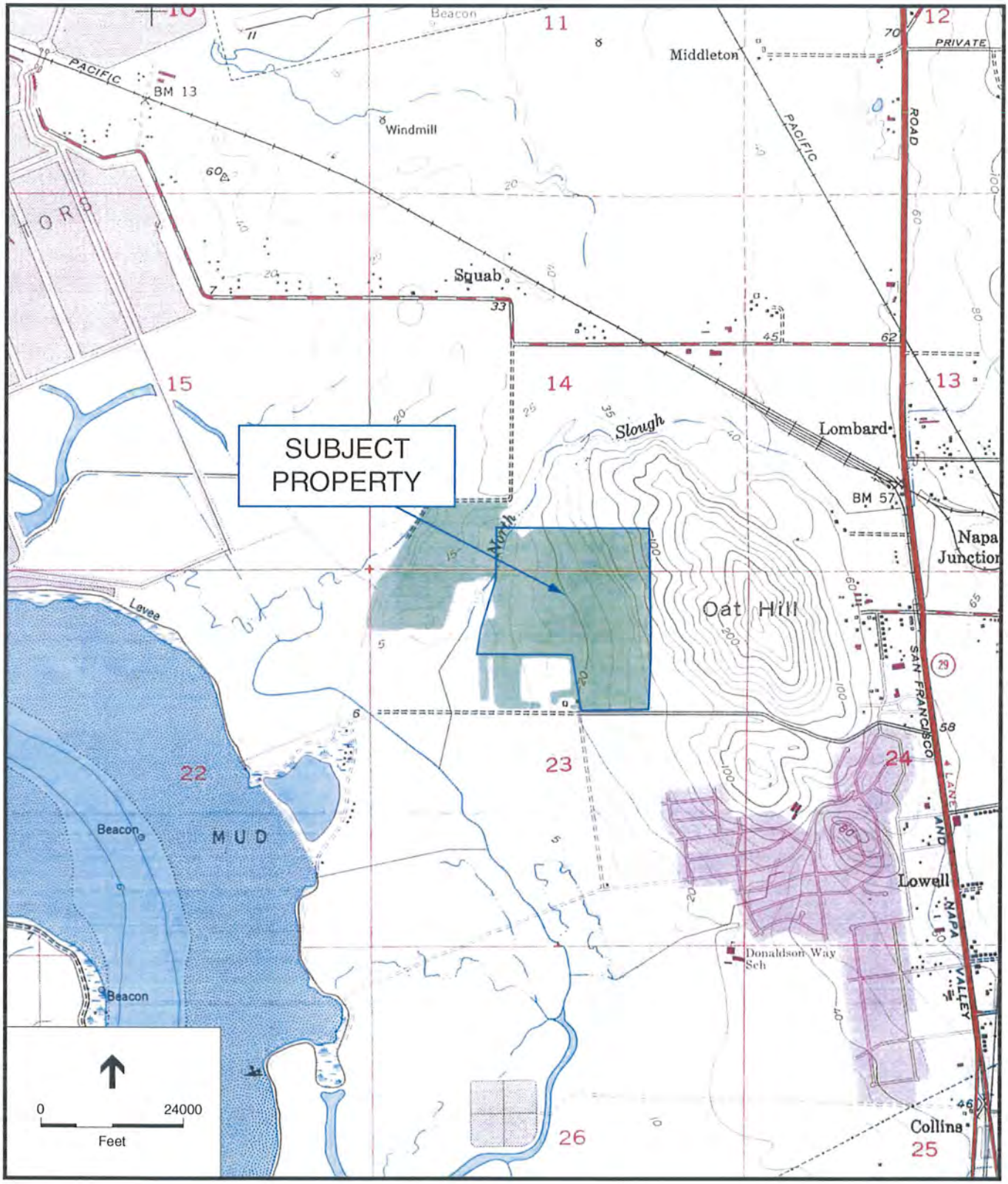
SOURCE: U.S. Geological Survey Quadrangle (Mare Island, 1941); and Environmental Science Associates, 2004



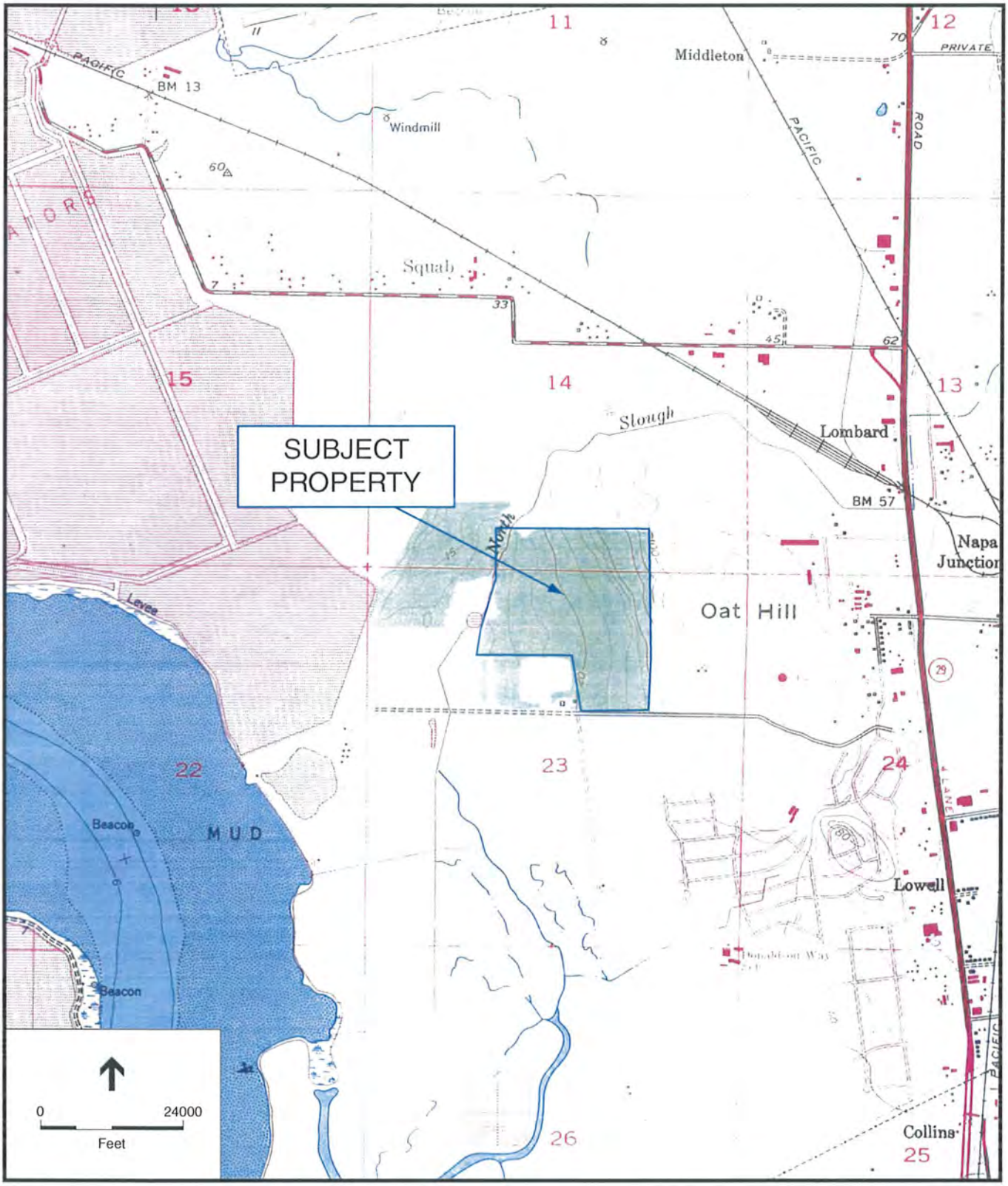
SOURCE: U.S. Geological Survey Quadrangle (Mare Island, 1916 [reprinted 1947]); and Environmental Science Associates, 2004



SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949); and Environmental Science Associates, 2004



SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949 [photorevised, 1968]); and Environmental Science Associates, 2004



SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949 [photorevised, 1981]); and Environmental Science Associates, 2004

APPENDIX D

COPY OF NAPA COUNTY FILE FOR
THE SUBJECT PROPERTY

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
HAZARDOUS MATERIAL SECTION

625 IMPERIAL WAY, SUITE 9 • NAPA, CA 94559-1329
AREA CODE 707/253-4269 ATSS #528-4269
FAX 707/253-4545

Subject: Couch Property, #2 Eucalyptus Road, Am. Cyn.
APN #58-030-17 - Our File #HF 219

Date of
Inspection: November 19, 1990

Purpose: Site Investigation Under Inspection Warrant

Report
Prepared by: Catherine Moody, Senior Hazardous Materials Specialist, Department of Environmental Management, Hazardous Materials Section

On November 19, 1990, I accompanied members of the California Department of Forestry to inspect the property and to collect samples, take photographs and make notes regarding hazardous wastes and solid waste at the Couch Property in American Canyon.

The property is a one hundred sixty five acre parcel, heavily forested with eucalyptus trees. There are small dirt roads throughout much of the property. Pinpointing on specific locations on a map is difficult as there is a tremendous amount of all manner of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps and concrete rubble,as well as 3 tanks and a railroad car. Trails and paths wind throughout the property.

Interspersed throughout the property are shelters where people are living, or were recently living. Some of these shelters used the debris piles as walls for their living quarters.

In addition, we found a box containing six cylindrical cardboard tubes, sealed on each end with wax and stenciled with the words "GAMMA-FLAME". The each tube is approximately ten inches in length, four inches in diameter. The cardboard tubing is approximately one-quarter inch in thickness. Inserted in this box was a piece of mail (unsealed) addressed to "Hollis Newman".

Scattered throughout the property are used automobile batteries and small containers of what is probably used oil and used antifreeze. There are also many small unlabeled containers, probably containing paint or automobile related wastes.

We observed many 55-gallon drums on the property however, most were empty, as determined either by observation (many lacked lids) or by tapping on the sides. Five drums were full or partially full. A sample was collected from each.

There are at least three tanks on the property. Two are of approximately ten-thousand gallon capacity and seemed empty. Apparently, these two tanks used to be underground storage tanks. One is of three-thousand capacity and was partially full of an oily liquid. A sample was collected from this tank.

There are many compressed gas cylinders scattered throughout the property; particularly propane cylinders. The propane cylinders was usually found in the garbage and debris piles.

Other compressed gas cylinders were grouped together in two areas: one group of five cylinders is in a wooden garage that presumably belongs to the Couch family. This garage is filled with all manner of clothes, trash, machinery, equipment, boxes and so forth and as well as five cylinders. (See photo #4).

Near the mobile home where the Couch family lives, adjacent to the road, are twenty-one compressed gas cylinders laying on the ground. Several of them were in a deteriorated condition with rust and corrosion forming on them. All of the cylinders looked like they have been outside for a long time; the paint was faded, the cylinders were scarred and rusty, and leaves and dirt had built up on them, partially burying them. We counted six acetylene cylinders, ten hydrogen cylinders, and five freon cylinders in this area.

Mr. Couch told me that he had tried to get the acetylene cylinders refilled but was refused due to the poor condition of the cylinder valves. He told me that he used the hydrogen cylinders to fill balloons. This concerned me since he seemed to me to be confusing hydrogen, a highly explosive and flammable gas, with helium, an inert gas commonly used to fill children's balloons.

In general, the hazardous wastes we observed fell into four categories;

1) oil or oily wastes
2) compressed gas cylinders
3) paints, lacquers, thinners and solvents
4) unknowns in small containers
5) automobile batteries

Sampling Summary:

All samples were collected by the Haz Mat Team composed of staff from of the California Department of Forestry and the American Canyon Fire Protection District. The Haz Mat Team also tested the two empty ten-thousand gallon tanks for the presence of volatile or toxic gases with hand-held meter device. The meter is a direct reading instrument that does not record findings. Neither tanks registered as having volatile or toxic gases.

A total of six liquid samples were collected. Five of the samples were taken from 55-gallon drums. One sample was taken from the three-thousand gallon tank. One of the cardboard cylinders stenciled "GAMMA-FLAME" was taken from the box if six.

One of the samples came from a drum located in area identified as Zone One; which was the southerly portion of the property that is either leased, rented or otherwise occupied by persons other than the Couch family. The drum was labeled Z-1-1. The sample was identified on the sample jar and on our Chain of Custody document as Sample Number One.

The other five liquid samples came from the drums and the tank located in Zone 3 and were identified on the sample jars and on our Chain of Custody document as Sample Numbers Two through Six.

Sample Z-1-2 consisted of one of the cardboard cylinders stenciled "GAMMA-FLAME". It was NOT included on the Chain of Custody document since we could not send it to a laboratory for analysis as there was concern that it might be explosive or incendiary device of some type, or possibly might contain a highly reactive metal. The device was subsequently x-rayed and opened by Sergeant Johnson of the Presidio Bomb Squad. It was found to be empty except for sawdust packing. Sergeant Johnson said he would list it on his report as a hoax device. He did say that the other cylinders were probably empty too.

Sample ID Number	Sample Type	Sample Jar #
Z-1-1	Liquid from drum	One
Z-1-2	Cardboard cylinder (Gamma-Flame)	N/A
Z-3-3	Liquid from drum	Two
Z-3-4	Liquid from ~~tank~~ drum	Three
Z-3-5	Liquid from ~~drum~~ tank	Four
Z-3-6	Liquid from drum	Five
Z-3-7	Liquid from drum	Six

Areas of Concern:

In terms of hazard potential, the cylinders of hydrogen would represent the most immediate concern. Also, the cylinders in deteriorated condition or of unknown contents have hazard potential. Neither this Department nor the Department of Forestry have the sampling equipment necessary for obtaining gas samples.

The unlabeled drums and tank represent a hazard in that they are unidentified as to contents. Drum Z-3-1 (lying on its side); showed leakage from the top rim. (See photo #17). Drums Z-3-4- and Z-3-5 were resting on a wooden pallet that is heavily stained, and therefore are believed to be leaking. (See photo #21).
The tank Z-3-3 is resting on the ground, without a cap on the fill hole, instead it had a chunk of wood stuck in it. In addition, the tank is not braced in anyway to prevent overturning and it rests on bare earth. (See photo #20).

There are at least two areas on Zone One where twenty or more small containers (one gallon or less) of what look to be various paints, sealers, epoxies, lacquers, engine treatments, wood stains and so forth area stored. Many are rusty or stained and therefore their contents are uncertain but they are mostly like paint and related materials. One group is stored in a fairly neat fashion on a wooden pallet, another group is stored haphazardly in wooden boxes and on the ground. (see Photo #6 and #7)

I observed a large pile of granular asphalt material and asphalt chunks, which would not usually represent an environment hazard unless placed in or along a waterway. (See photo #13).

Judging by the soil piles, asphalt piles, debris piles and abandoned automobiles on the property it appears that the property owners are allowing dumping to take place on their property, perhaps for revenue. Receiving off-site wastes constitutes operating a Solid Waste facility without a Permit or variance.

In addition, Napa County Ordinance #213 makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit to do so.

An Order of Quarantine that forbids the removal of any hazardous wastes on the property for 30 days unless approval is received from this Department was present to Mr. Robert Couch by a representative of the Sheriff Department. Mr. Couch signed the Order verifying receipt. A copy appears as an attachment to this report.

Violative conditions:

Violative conditions are based wholly or partly on the following:

Section 25117(a), Chapter 6.5, Division 20, Health & Safety Code includes in the definition of a hazardous waste as any wastes or combination of wastes that pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Section 25124(e), Chapter 6.5, Division 20, California Health & Safety Code includes in the definition of waste a material that poses a threat to public health or the environment and is either or both mislabeled or not adequately labeled or is packaged in deteriorated or damaged containers.

Based on those definitions, I have determined the following violations.

1. Section 66471, Title 22, California Code of Regulations. The generator (property owner) failed to determine if the wastes are hazardous wastes pursuant to this section in that five (5) drumsand one tank on the property were found (by laboratory analysis) to be hazardous. These containers were unlabeled and at least one container (drum #Z-3-7) did not contain the type of material Mr. Couch stated it to be. Both Robert Couch and David Couch believed all the containers held "cresote".

2. Section 66508, Title 22, California Code of Regulations. The generator (property owner) failed to satisfy the storage requirements for hazardous and the ninety (90) day accumulation time limit for hazardous wastes in that all five of the drums and the tank that were found to contain hazardous wastes were unlabeled and, according to my conversations with Robert Couch and with David Couch, and by my observations on the condition of the containers, these five drums, the tank and the cylinders have been stored on the property for years.

3. Section 67241, Title 22, California Administrative Code. The generator (property owner) failed to manage hazardous waste properly in that the cylinders were lying on their sides, on the ground, adjacent to a road. Several were severely rusted and all of which appeared to be in a deteriorated condition. At least three of drums were severely rusted, one was definitely leaking (Z-3-1) and two were suspected of leaking (Z-3-3 and Z-3-4).

4. Napa County Ordinance 213, Article VI, Section I makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit from the Health Department to do so. Based on my observations and my discussion with David Couch the property owners have allowed dumping to take place on this property and have allowed refuse to accumulate on this property. (See all photos).

Attachments: (1) Order of Quarantine
(2) Chain of Custody
(3) Photographs (twenty-five)
(4) Laboratory Results

Couch Property
Report of 11-19-90
HF 219

Photo #	Description
1	Entrance to Couch Property. Note tractor-trailer exiting property.
2	Inside Couch property, west of entrance road. Note compressed gas cylinders lying on the ground.
3	Area near Couch residence. Note the drum, tank abandoned automobiles and debris.
4	Storage building. Note Compressed gas cylinders, paint & oil containers, debris.
5	Cardboard cylinders labeled "Gamma Flame". Either a "paint" game device or other hoax device.
6	Numerous containers of paint and related products.
7	Numerous containers of paint, epoxies, cleaners antifreeze, engine additives, etc.
8	Huge piles of debris.
9	Box of Gamma Flame cylinders.
10	Drums and debris pile. CDF staff labeling drum.
11	Debris & drums.
12	Abandoned autos, debris & living quarters for persons unknown.
13	Asphalt pile in foreground. Bus in the background is living quarters for a family, including small children and an infant. Poly drum on the top of pickup truck has plastic tubing that delivers water to the bus.
14	Apparently a former underground storage tank. CDF staff person is commencing to test it for explosive vapors.

Couch Property
Report 11-19-92
HF 219

Photo #	Description
15	Another view of the storage tank and debris pile
16	Eucalyptus tree grove. "Paint" games held here.
17	Toppled, leaking drum.
18	Another drum, full.
19	Another former underground storage tank. This tank contained an oily material. A sample was collected here.
20	Another view of the tank being sampled.
21	Two drums. Both appear to be leaking. One is toppled.
22	Compressed gas cylinders. Ten were labled as containing hydrogen. All of the 21 cylinders observed in this area were in a deteriorated condition.
23	Vehicle on property. Dog's skull nailed to vehicle. Trash in truck bed.
24	A living area for persons unknown.
25	Two horses tethered by chains. No water. Various vehicles in the background, used as living quarters.

NAPA COUNTY DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT
1195 THIRD ST., ROOM 205
NAPA, CA. (707) 253-4471

FACILITY: Couch Property Fac # HF219 Date: 11-19-90

ADDRESS: Eucalyptus Rd., American Canyon, APN 58-030-17

TO: Robert Couch

FROM: Napa County - Env. Mgmt. Dept.
Sheriff's Dept.

_____ Telephone Conversation
_____ Meeting/Conference
_____ Site Visit
_X_ Other Inspection Warrant

COMMENTS:

ORDER OF QUARANTINE

You are hereby notified that an Order of Quarantine is issued on the hazardous wastes on this property; pursuant to the State of California Health & Safety Code, Division 20, Section 25187.6(a).

Pursuant to Section 25187.6(a)(2) No person shall remove, transfer, or dispose of the hazardous waste until permission for the removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department.

Pursuant to Section 25187.6(a)(c), Chapter 6.5, Division 20, State of California Health & Safety Code this Order of Quarantine shall take effect upon issuance and shall remain effective for thirty (30) days or until an authorized agent as identified in this document shall remove this Order of Quarantine .

Robert T. Couch Jr.
11-19-1990

FOR:
____ Action
____ Review
____ Information

cc: _____

:2-8/22/88

CHAIN OF-CUSTODY R[illegible]RD

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

Note: Level One QC gross work only

Date of Sample Collection	APN	Turnaround Time
NOV 19, 1990	58-030-17	Standard

Responsible Party	Site Name	
Robert Couch and Occupants	Robert Couch Property	
Site Address	**City**	**Zip Code**
#2 Eucalyptus Drive	American Canyon	
Signature of Sample Collector	**Name of Collector (print)**	**Company/Agency**
Steven Wallis	STEVEN WALLIS	CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT (approx)	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
drum one	liquid	glass jar one pint	1:00 pm	pH, chlorides	suspect pH ≃ 1, HCL
drum two			2:00 pm	tph, heavy	dark red-brown, viscous
drum three			2:30 pm	tph, heavy	dark red-brown, viscous
drum four			3:00 pm	tph, heavy	dark red-brown viscous
drum five			3:45 pm	tph, heavy	dark red-brown viscous
drum six	liquid	glass jar one pint	4:00 pm	tph, light, phenol	brown-green, non-viscous

Samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

1	Steven Wallis Relinquished by (Sign & Print)	County Haz Mat Company/Agency	1625 Time and Date
2	Catherine S. Moody Received by (Sign & Print)	Napa County Dept of Env. Mgmt Company/Agency	1625 Time and Date
3	Catherine S. Moody Relinquished by (Sign & Print)	Napa County Dept. of Env. Mgmt Company/Agency	1125 11-21-90 Time and Date
4	Peter W. Hafsin Received by (Sign & Print)	Caltest Laboratory Company/Agency	1125 11-21-90 Time and Date
5	Relinquished by (Sign & Print)	Company/Agency	Time and Date
6	Received by (Sign & Print)	Company/Agency	Time and Date

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks:

White-Remains with Samples Returned from Lab with Results Yellow-Courier Pink-Sampler

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-1

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM ONE	Aqueous	STEVEN WALLIS	19 NOV 90/13:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Chloride	15.	1.0	mg/L	(325.3)	12-11-90	FH	
pH	<0.5		Units	(150.1)	12-11-90	FH	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit
** Qualitative analysis indicated a high level of sulfate.

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM SIX	Aqueous	STEVEN WALLIS	19 NOV 90/16:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Phenol	65.5	0.02	mg/L	9065	12-12-90	MT	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CALTEST ANALYTICAL LABORATORY

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number 90-11288-1 & 6

PROJECT: ROBERT COUCH PROPERTY

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

The quality control data pertinent to the above samples submitted on November 21, 1990 is as follows:

CONSTITUENT	DUPLICATION (mg/L)	SPIKE RECOVERY (%)	EXT.STD.RECOVERY (%)
Chloride	120 / 120	105	96
Phenol	0.114 / 0.113	114	88

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Lab Director

MA:ct
1/22/91

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacterio. & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST TO COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSDS/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

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751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2933

Lab Number : G-4504-3
Project : CDG/County Haz Mat

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: NB-1449
Collected: 11/19/90
Received: 11/21/90
Tested: 11/30/90
Collected by: S. Wallis

FUEL FINGERPRINT ANALYSIS
CAL DHS (TPH Draft) Method & EPA Method 8240/8260-(GC/MS)
Extracted by EPA Method 5030 (purge-and-trap)**

Napa County Department of
Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

SAMPLE DESCRIPTION:
Proj #APN 58-030-17, Robert Couch Property
C#9011-288-6
Drum #6, Liquid

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Total Purgeable Petroleum Hydrocarbons		
(Diesel #2)	100.	4400.
(Gasoline, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits.....	100.	not found
Percent Surrogate Recoveries		93/97/87

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

NOTE: High concentration of some analytes caused the sample to be run diluted, resulting in raised Practical Quantitation Limits for all analytes. Refer to instrument Blank for undiluted Practical Quantitation Limits.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/04
NB1449F2.wr1/FFP57
MH/hc/gb/gb/hc

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: B113ØØ
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:

Fuel Fingerprint Analysis - CAL DHS TPH Method & EPA Method 824Ø/826Ø-(GC/MS)
Extracted by EPA Method 5Ø3Ø (purge-and-trap)**

CCAS-NAPA

SAMPLE DESCRIPTION:
Instrument Blank for 11/3Ø/9Ø MSD#1

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Benzene	Ø.1	not found
Toluene	Ø.5	not found
Ethylbenzene	Ø.5	not found
Xylenes	Ø.5	not found
1,2-Dichloroethane (EDC)	Ø.1	not found
Ethylene Dibromide (EDB)	Ø.1	not found
Total Purgeable Petroleum Hydrocarbons		
(Gasoline)	5Ø.	not found
(Diesel #2, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits) ...	5Ø.	not found
BTX as a Percent of Total Fuel		n/a
Percent Surrogate Recoveries		73/83/1Ø4

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES

Mary Havlicek

Mary Havlicek, Ph.D.
President

MSD #1-12/Ø4
B113ØØFW.wr1/FFP57
MH/hc/gb/hc

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
POLYNUCLEAR AROMATICS				
Acenaphthylene	(208968)	50.	ND	
Acenaphthene	(83329)	50.	150.	
Anthracene	(120127)	50.	60.	
Benzo(a)anthracene	(56553)	50.	ND	
Benzo(b)fluoranthene	(205992)	50.	ND	
Benzo(k)fluoranthene	(207089)	50.	ND	
Benzo(a)pyrene	(50328)	50.	ND	
Benzo(ghi)perylene	(191242)	50.	ND	
Chrysene	(218019)	50.	ND	
Dibenzo(a,h)anthracene	(53703)	50.	ND	
Fluoranthene	(206440)	10.	20.	
Fluorene	(86737)	50.	440.	
Indeno(1,2,3-cd)pyrene	(193395)	50.	ND	
Naphthalene	(91203)	50.	850.	
Phenanthrene	(85018)	50.	910.	
Pyrene	(129000)	10.	50.	
Methylnaphthalenes		50.	9400.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/11/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
SPECIFIC PHENOLS-ACID FRACTION				
4-Chloro-3-methylphenol	(59507)	50.	ND	
2-Chlorophenol	(95578)	50.	ND	
2,4-Dichlorophenol	(120832)	50.	ND	
2,4-Dimethylphenol	(105679)	50.	1400.	
2-Methylphenol	(95487)	50.	130.	
4-Methylphenol	(106445)	50.	1300.	
Pentachlorophenol	(87865)	50.	ND	
Phenol	(108952)	50.	ND	
2,3,4,6-Tetrachlorophenol	(95487)	50.	ND	
2,4,5-Trichlorophenol	(95954)	50.	ND	
2,4,6-Trichlorophenol	(88062)	50.	ND	
Total Listed Chlorophenols		50.	ND	
Total Listed Phenols		50.	2800.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/09/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: QS-1120-1
Collected:
Received:
Tested: 11/30/90
Collected by:
Extracted on: 11/20/90

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/8270 (GC/MS)

CCAS

SAMPLE DESCRIPTION:
ANALYTE-FREE WATER SPIKE, Spiked to 16000 ug/L with Diesel #2

Component Determined	Detection Limit in ug/L (PQL)*	Concentration w/spike in ug/L	Percent Recovery
Total Petroleum Hydrocarbons (Diesel #2)	200.	8000.	50.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 3510.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R Cortes
Donald R. Cortes, Group Leader

Mary Havlicek
Mary Havlicek, Ph.D., President

MSD#5
12/07/90
QS1120t1.wr1/71
MH/dp/lp/co

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 934Ø1
(8Ø5) 543-2553

Lab Number: QL-112Ø
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:
Extracted on: 11/2Ø/9Ø

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/827Ø (GC/MS)

CCAS

SAMPLE DESCRIPTION:
EPA METHOD 351Ø METHOD BLANK

Component Determined	Detection Limit in ug/L (PQL)*	Concentration in ug/L
Total Petroleum Hydrocarbons	2ØØ.	<2ØØ.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 351Ø.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/Ø7/9Ø
QL112Øt.wr1/71
MH/dp/dp/co

CALTEST ANALYTICAL LABORATORY
Certified Environmental Services

1885 North Kelly Rd. • Napa, California 94558
(707) 258-4000 • FAX: 707-226-1001

INVOICE NO. 5698

]
Napa County Department of
/Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

INVOICE DATE	LAB NUMBER	
January 29, 1991	9011-288-1 to 6	
PROJECT NUMBER	**PURCHASE ORDER NUMBER**	**TERMS**
#2 Eucalyptus Drive - Robert Couch Property	Sampled 11/19/90	Net 30 Days

QTY.	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
	Professional Services		
4	EPA 8270 Semivolatile Petroleum Hydrocarbons	160.	$ 640.
	EPA 8015 Total Purgeable Petroleum Hydrocar	80.	80.
	EPA 8270 Acid Fraction + PNA	140.	140.
	pH	10.	10.
	Chloride	20.	20.
	Phenols	40.	40.
			$ 930.

Our File HF219
See Catherine
if any questions

Accounts past due will atuomatically receive a FINANCE CHARGE of 1.5% per month on the upaid balance.

REMITTANCE

HF219

CHAIN-OF-CUSTODY RECORD

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

G 4888-1

Note: Level One QC gross work only

Date of Sample Collection: NOV 19, 1990 | APN 58-030-17 | Turnaround Time: standard

Responsible Party: Robert Couch and Occupants | Site Name: Robert Couch Property

Site Address: 7- Eucalyptus Drive | City: American Canyon | Zip Code:

Signature of Sample Collector: Steven Wallis | Name of Collector (print): STEVEN WALLIS. | Company/Agency: CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT approx	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
one	liquid	glass jar one pint	1:00 pm	pH, chlorides	suspect pH ≈ 1, HCL
two G 4888-1		-1	2:00 pm	tph, heavy	dark red-brown, viscous
three		2	2:30 pm	tph, heavy	dark red-brown, viscous
four		3	3:00 pm	tph, heavy	dark red-brown, viscous
five		4	3:45 pm	tph, heavy	dark red-brown viscous
six	liquid	glass jar one pint	4:00 pm	tph, light, phenol	brown-green, non-viscous

samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

	Relinquished by (Sign & Print)	Company/Agency	Time and Date
1	S Wallis	County Haz Mat	1625
	Received by (Sign & Print)	Company/Agency	Time and Date
2	Catherine S. Moody	Napa County Dept of Env Mgmt	1625
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
3	Catherine S. Moody	Napa County Dept of Env Mgmt	1125 11-21-90
	Received by (Sign & Print)	Company/Agency	Time and Date
4	Peter W. Hagen	Calscience Laboratory	1125 11-21-90
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
5	Peter W Hagen		
	Received by (Sign & Print)	Company/Agency	Time and Date
6	Shelli Hoyt	CCAS-SLO	11-23-90 1030

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks: rec'd CCAS-SLO sealed intact & cold via greyhound

White-Remains with Samples Returned from Lab with Results | Yellow-Courier | Pink-Sampler

HF219

RECEIVED

NOV 26 1991

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH PROPERTY VIOLATIONS

I. Zoning and Building Violations

1. The property is only zoned for one single-family dwelling and for agricultural uses. Despite this, there are twenty other structures (ten of which are inhabited, and ten of which are built for storage or for housing chickens). Also inhabited are ten trailers, two buses, and a camper shell. None of these inhabited structures are permitted uses (NCC 12231, 12107)

2. The twenty stuctures all exceed 120 square feet of roof area and require building permits, which were not obtained (UBC 301(a)).

3. The one permitted dwelling is still under construction and has never been completed. An unapproved, unpermitted underground utility trench has been dug.

4. The owners are living in a mobile home which is to be in dead storage, but is being used as a residence by the owners (NCC 11010).

5. There is no approved water supply and there are two unapproved water wells that have been dug on the property (NCC 5505, 5230).

6. The entire parcel constitutes an illegal junk yard (NCC 6051).

7. Evidence exists regarding the occurrance of paint-ball games which have occurred and been advertised. There is no approved use permit for this activity.

8. All of the residents in the unpermitted structures are renting from the owners, a use not permitted in this zoning. (NCC 12231, 12107).

10. The property is being used to store heavy construction equipment (such as dump trucks, skip loaders, backhoes, and semitrailers), a use not contemplated by the zoning.

11. The entire parcel constitutes a public nuisance (NCC 12903, 11021).

II. Environmental Management-Health and Safety Problems

1. There is no approved sewage disposal or approved septic system present in the park. Sewage disposal ranges from holes in the ground, to merely allowing sewage to run on the ground to an outhouse type structure (NCC 5621, 5622, H&S 5411).

2. There is the illegal accumulation of refuse, debris, trash, and garbage in places located throughout the property. Owners are operating a refuse disposal area without a permit, in violation of Napa County Ordinance No. 213.

3. The property contains unlocked abandoned refrigerators, in violation of Penal Code Section 402(b).

III. Environmental Management-Toxics Problems

1. Small amounts of toxic wastes have been discovered on the property, including oil, compressed gas cylinders, paints, lacquers, thinners, solvents, used auto batteries, containers with antifreeze.

2. In addition, three large old abandoned underground storage tanks are present on the property, one of which is partially full of liquid that tested as hazardous waste.

3. The violations here range from storage of hazardous wastes over 90 days without a permit (22 CCR 66508, and H & S 25189.2) to failure of the generator to determine if his wastes are hazardous (22 CCR 66471) to failure to properly manage hazardous wastes (22 CCR 67243).

IV. Fire and Forestry Violations

1. There is not adequate clearance between combustable debris and material and the various residential structures (NCC 8871, Public Resources Code Section 4291).

2. Residents have been found to be burning their household trash and garbage in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301).

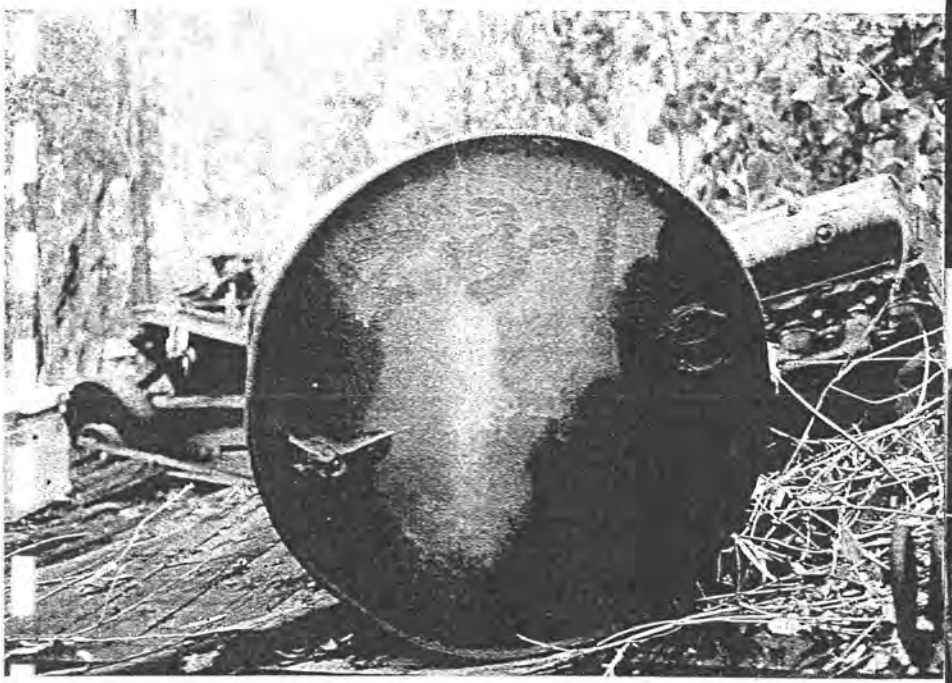
V. CHP/Public Works Violations

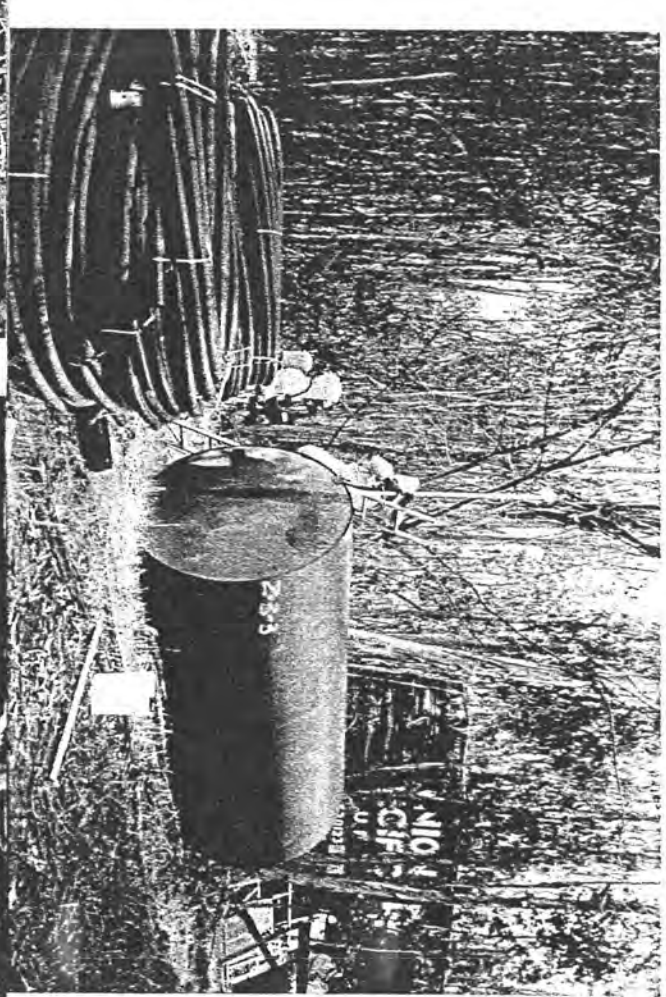
1. The property contains over 230 abandoned vechicles (NCC 4700)

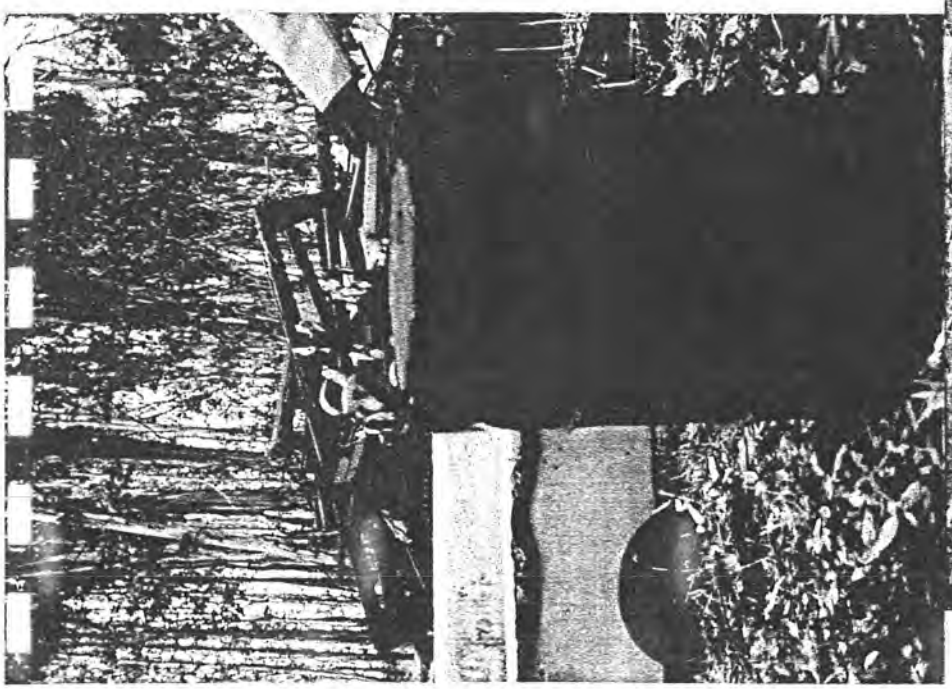
2. The proeprty contains numerous dismantled vehicles, for which the certificate of ownership, the registration card, and the license plates were not delivered to DMV before dismantling began (Vehicle Code Section 5500).









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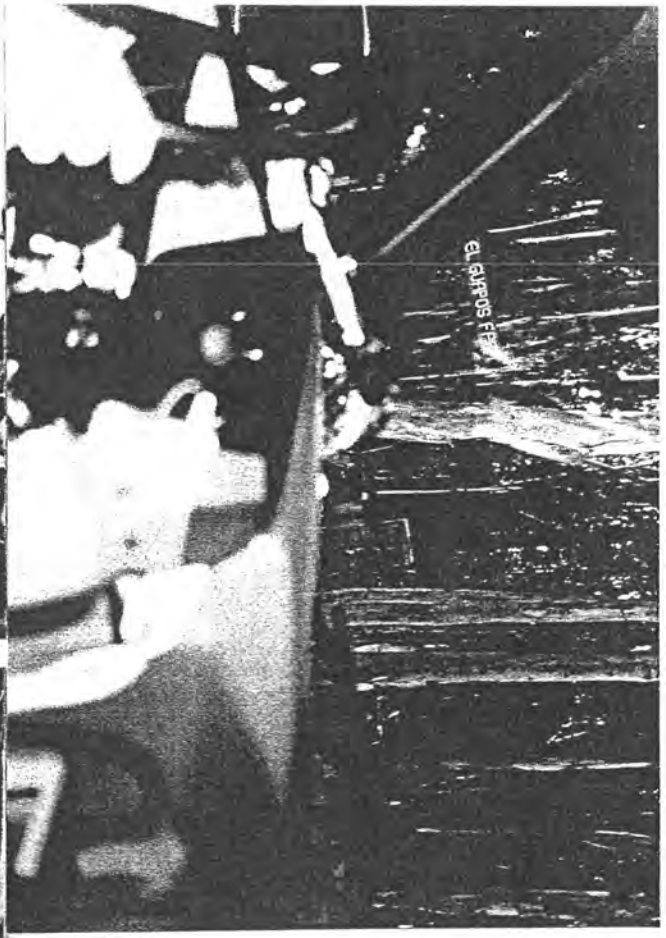
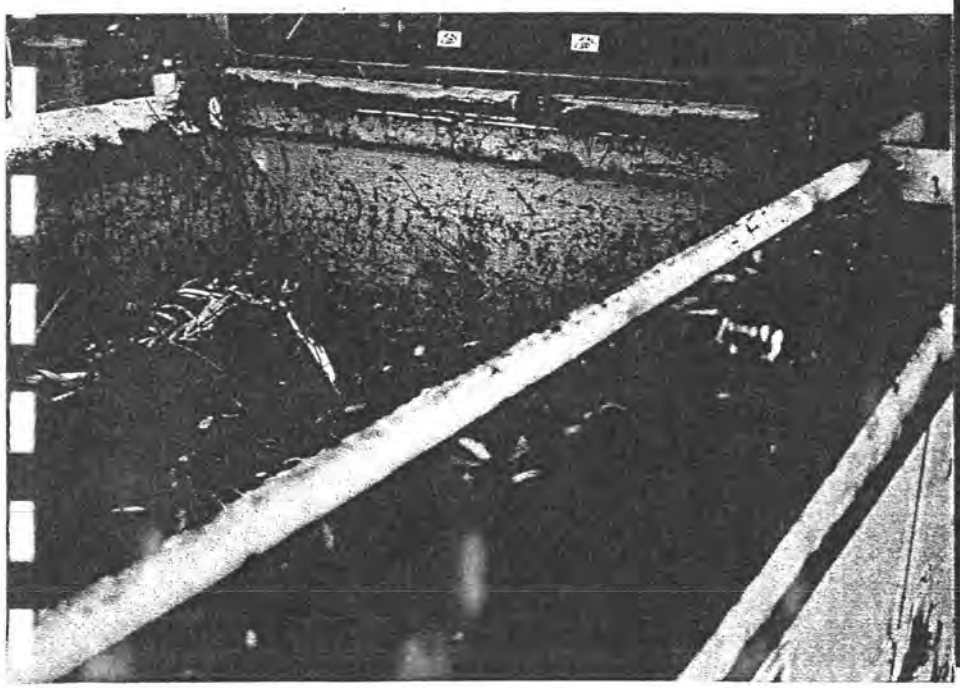
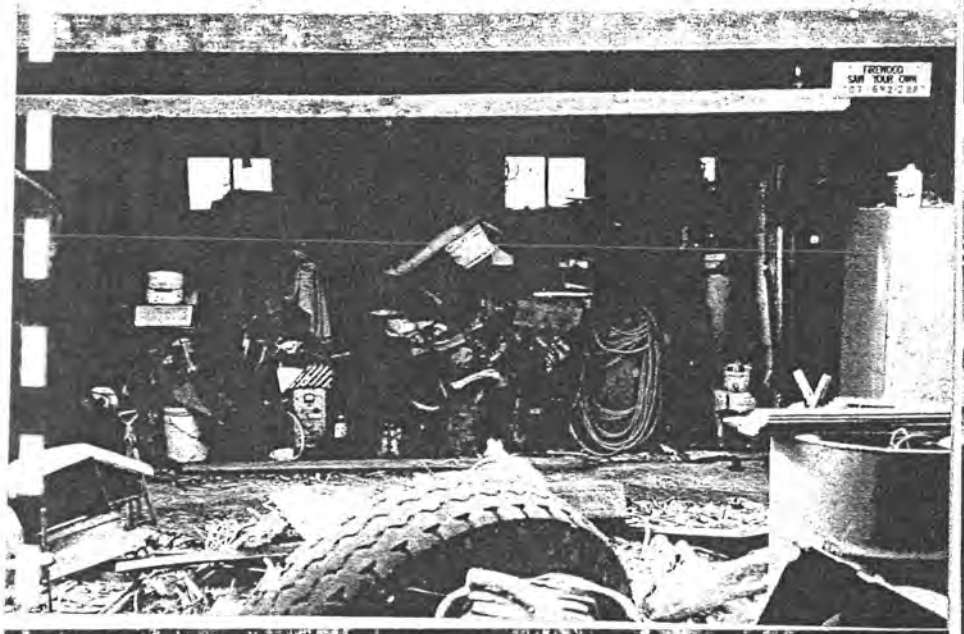




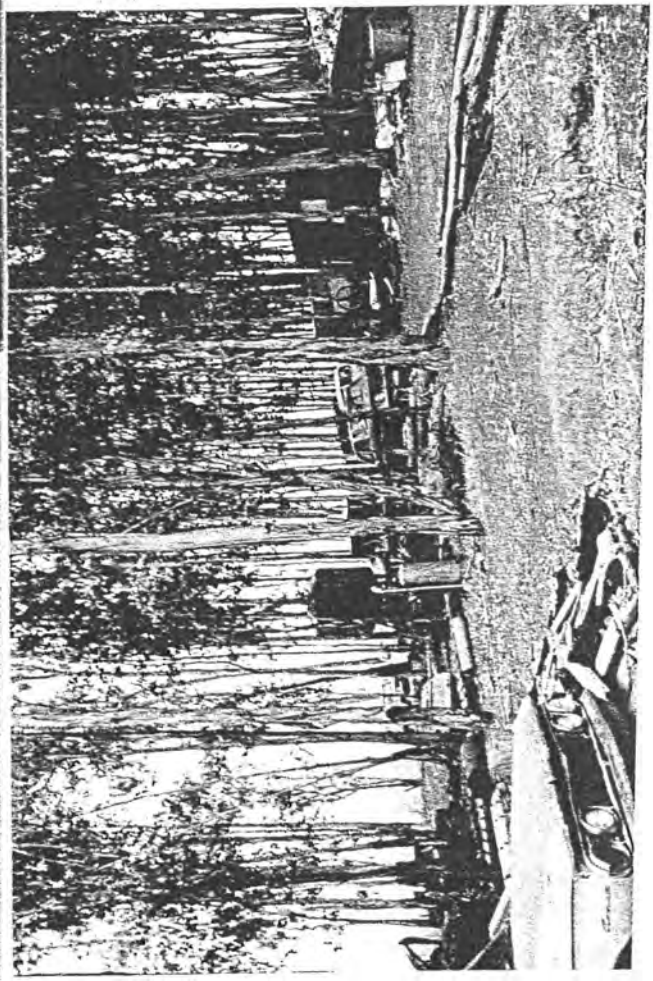




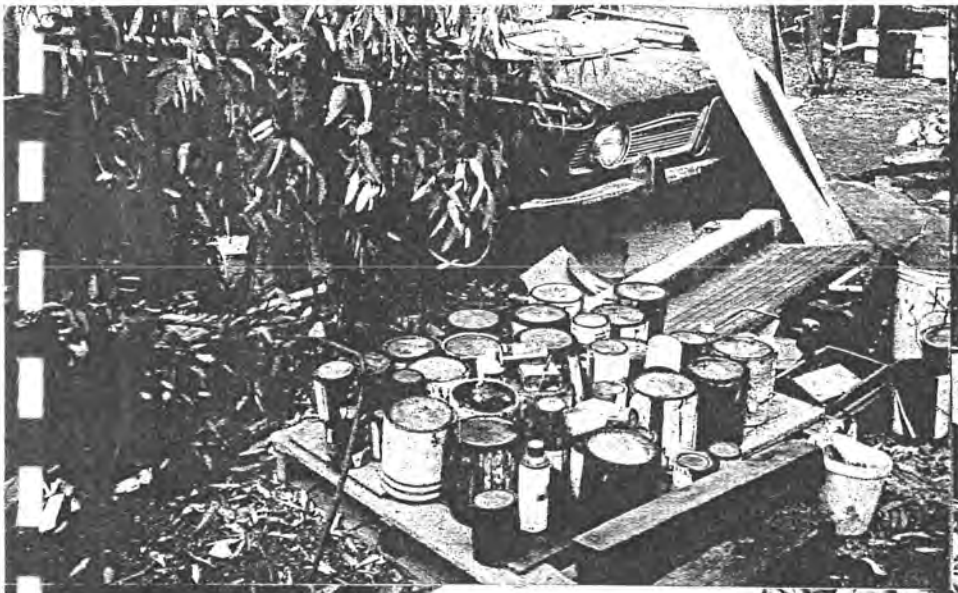

FIREWOOD
SAW YOUR OWN
















Z1
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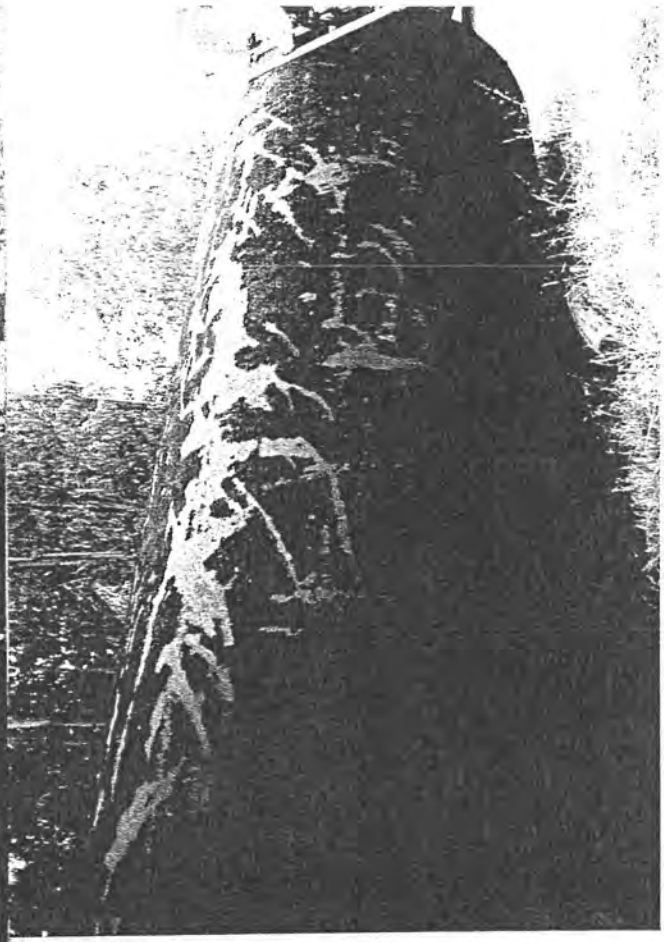



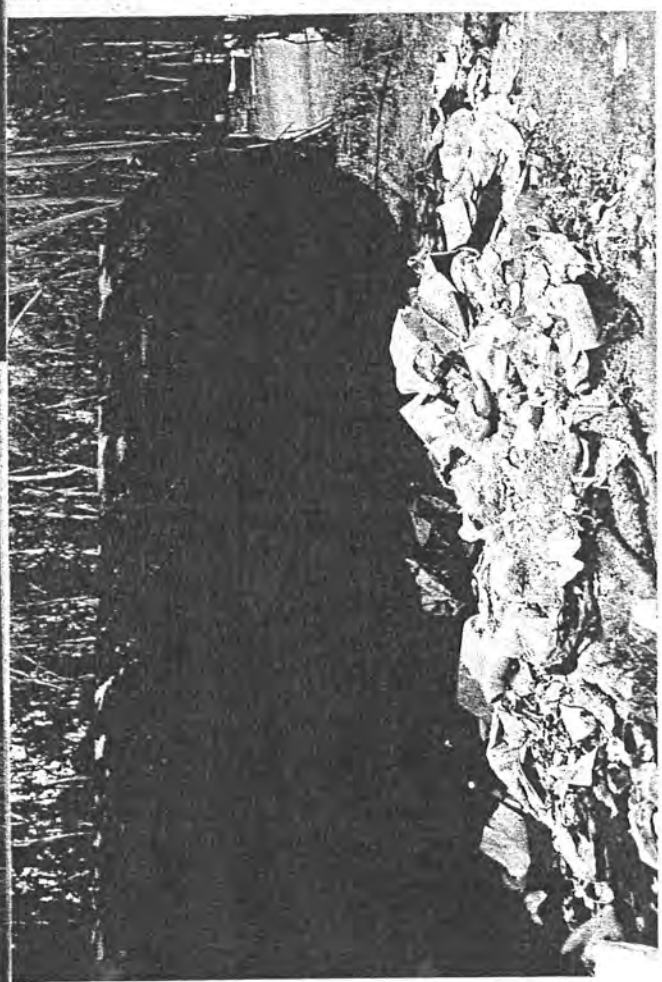





KROEKER, Inc.

Demolition and Environmental Contractors

CA License #621866 A C12 C21 C57 C61/D06 HAZ ASB HIC & AZ License #131453 A

www.KROEKERINC.com

April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

NAPA COUNTY HAZMAT

REQUEST FOR EXAMINATION AND/OR COPYING OF RECORDS

FILE NUMBER: HAZFAC 219 UST _____ BP _____

OTHER _____

FACILITY NAME: Couche Property

FACILITY ADDRESS: 2 Eucalyptus Dr., Amer. Canyon

REASON FOR REVIEW: Conducting a site assessment for a nearby property

REQUESTED BY: Todd Murray (name) Environmental Scientist (title)

REPRESENTING: Wahler Associates (firm name)

MAILING ADDRESS: 100 Pringle Ave., Ste. 580 CITY: Walnut Creek

PHONE/FAX: 510-746-8290 / FAX 510-746-3838 ZIP: 94596

To your knowledge, is there legal action pending on this facility?

✓ Yes _____ No

Todd B Murray 4-13-93

(signature of requesting party) (date)

FAX/MAIL TO: NAPA COUNTY DEPT. OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, Ca. 94559-1329
PHONE: 707/253/4269 FAX: 707/253-4545

FOR OFFICE USE:

Request approved by: nl

Staff person assigned: _____ Date assigned: _____

Date/time of review appointment: 4-13-93

file complete: _____ chron order: _____

pages attached: _____ rmvd intrefemper*: _____

rmvd confidential notes*: _____ rmvd BP site maps*: _____

rmvd water well logs*: _____

* inserted green indexing sheets

COPY CHARGES

Staff person copying: _____ Date: _____

Number of pages _____ x $0.50 ~~for~~ first 5 pages _____

copies _____ x $0.10 thereafter = _____

Receipt Number: _____ Collected by: _____

Date copying sent to requesting party: _____ Sent by: _____

HF219

JEROME J. MAUTNER
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
County of Napa
931 Park Way Mall
Napa, California 94559

Attorneys for Plaintiff

MUNICIPAL COURT FOR THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

IN THE MATTER OF THE APPLICATION FOR AN INSPECTION REGARDING: ROBERT COUCH PROPERTY APN 058-030-017	NO. INSPECTION WARRANT

THE PEOPLE OF THE STATE OF CALIFORNIA TO:

Any authorized personnel of the Napa County Department of Environmental Management, and to any peace officer,

Proof, by affidavit, having been made before me by Michael Collins,

THERE IS REASON TO BELIEVE that there exists at the

ROBERT COUCH PROPERTY
#2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA
APN 058-030-017

conditions of nonconformity with the Napa County Code set forth in sections 5500, 5630, with the Health & Safety Code, set forth in sections 5411, 25189 and 25189.2, and with Napa Ordinance No. 213, as required by California Code of Civil Procedure, section 1822.50, et seq., for the issuance of an

ME J. MAUTNER
TRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
LL OF JUSTICE
3 THIRD STREET
CALIFORNIA 94559
707-253-4211

inspection warrant:

YOU ARE THEREFORE COMMANDED TO INSPECT, INVESTIGATE AND SEARCH, accompanied by authorized representatives of the establishment operator if present,

THE PROPERTY located at #2 Eucalyptus Dr., American Canyon, California, owned by Robert and Patricia Couch, Assesor's Parcel No. 058-030-017, a 165.05 acre parcel of densely wooded land, bordered on the South by Eucalyptus Dr., on the West by the American Canyon landfill and the Napa River, and on the North and East by a 4-strand barbed-wire fence, including but not limited to all structures of whatever type, nature or design used for habitation or ancillary to habitation uses,

WHICH INSPECTION SHALL INCLUDE the observation of physical conditions or processes, the taking of photographs, the taking of samples of materials, the conducting of any tests, the inspection and copying of documents and papers, and the questioning or conferring with the occupants of the property to obtain information bearing on whether the violations of the regulations and laws set forth above exist.

THIS WARRANT SHALL EXPIRE ON November 30, 1990, and the return must be executed by November 30, 1990.

Dated: 11/16/90

Judge of the Municipal Court

ROME J. MAUTNER
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
1125 THIRD STREET
PA, CALIFORNIA 94559
707-253-4211

HF219

ENDORSED

FILED MAR 17 1993

JANICE F. NORTON
COURT EXECUTIVE OFFICER
J. MILES

ANTHONY PEREZ
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559
(707) 253-4211

RECEIVED

MAR 19 1993

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

THE PEOPLE OF THE STATE OF CALIFORNIA, PLAINTIFF, VS. ROBERT L. COUCH, et. al., DEFENDANTS.	NSC: 64010 FINAL JUDGMENT AND PERMANENT INJUNCTION

This matter came on regularly before the Court for trial on the 17th, 23rd, 24th of February, and the 1st of March, 1993. Appearance on behalf of plaintiff was made by Deputy District Attorney Daryl A. Roberts, appearance on behalf of Defendant Patricia K. Couch was made by Norbert U. Frost of Frost & Healy, and Defendant Robert L. Couch appeared on behalf of himself. Evidence having been presented and accepted by the Court, arguments having been made, the Court having considered the evidence and the pleadings in this matter, good cause appearing, and in the furtherance of justice,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559

I

FINDINGS OF FACT

The Court finds that Robert L. Couch and Patricia K. Couch, defendants herein, are co-owners of the property located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017.

The Court further finds that the evidence produced by plaintiff in this matter establishes the following with regard to defendants' property, located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017:

1. At least 100 and possibly as many as 286 abandoned motor vehicles are on the property, in violation of Napa County Code §4700;

2. Defendants' property contains an unknown but large number of accumulations or piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items, in violation of the Napa County Garbage Ordinance No. 213;

3. Probably less than 10 abandoned refrigerators are located on the property in violation of Penal Code §402(b);

4. There are numerous illegal sewage disposal systems ranging from holes in the ground and outhouses to septic systems installed, in violation of Napa County Code §§5621, 5622 and Health & Safety Code §5411;

5. For property zoned Agricultural-Watershed, of which the

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DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
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only permitted use is one single family dwelling, a second dwelling unit and a guest cottage, a number of other inhabited structures existed on the property ranging from lean-tos to trailers and buses, which structures were on plots of land being rented by the defendants to various tenants and none of these structures had legal water supplies or permitted sewage disposal systems, all in violation of Napa County Code §§12231,12107;

6. All of these the inhabited structures, as well as approximately 10 chicken coops with roof areas exceeding 120 square feet, were constructed without benefit of building permits, in violation of the Uniform Building Code §301;

7. One water well had been installed or constructed on the property without benefit of permits, in violation of the Napa County Code §§5505 and 5230;

8. In a number of areas on the property, the storage of heavy construction equipment occurred, a use not allowed by the zoning, in violation of Napa County Code §§12231 and 12107;

9. Small amounts of hazardous waste have been illegally stored or disposed of on the property, in violation of Health & Safety Code §25189.2;

10. Defendants are living in a mobile home for which the use permit has expired, and the one dwelling for which a building permit was issued is still under construction, and contains an unapproved, unpermitted underground utility trench, in violation of Napa County Code §11010;

11. Tenants have burned their household trash or

ANTHONY PEREZ
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agricultural debris, in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301) and the Napa County Garbage Ordinance;

12. Adequate clearance does not exist between combustible debris and material and the residences of defendants in violation of Napa County Code §8871 and Public Resources Code §4291;

In addition to the above specific findings, the Court finds that Patricia K. Couch has cooperated with Plaintiff in its efforts to remedy the above-described conditions of defendants' property, including but not limited to, serving tenants with notices terminating tenancies and notices of building code violations, and cleaning and removing certain debris, garbage, refuse, trash and other similar items.

The Court finds that Robert L. Couch has accepted rent from at least one tenant in violation of the preliminary injunction issued by this Court.

II
CONCLUSIONS OF LAW

The Court finds that, based upon the evidence produced by plaintiff during trial, the defendants have been and are presently maintaining upon their property a public nuisance. Specifically, the Court bases this conclusion on both a public nuisance per se theory, as numerous conditions of defendants' property violate specific Napa County Code Sections relating to nuisances, as well as a common law nuisance theory, as the condition of the property meets the criteria as set forth in California case law regarding the existence of public nuisances.

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
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In addition, based upon the evidence produced at trial, the Court finds that the defendants, by renting or leasing of portions of their property to tenants either for living on the property or for storage of belongings, engaged in unfair competition, as defined by Business & Professions Code §17200, as such activity was a business activity which violated the zoning laws of the County of Napa, and provisions of the Uniform Housing Code.

III
JURSIDICTION AND APPLICABILITY

The Court has jurisdiction of the subject matter hereof and the parties hereto.

The provisions of this final judgment are applicable to defendants Robert L. Couch and Patricia K. Couch, and to their agents, servants, employees, representatives, heirs, successors in interest, and any and all other persons acting in concert with or participating with defendants who have actual or constructive notice of this judgment.

IV
PROHIBITORY INJUNCTION

Defendants are permanently enjoined and restrained, pursuant to Civil Code §3494 and Business & Professions Code §17203, from doing, directly or indirectly, any of the following:

1. From leasing or renting any portion of the property unless any such lease or rental is in conformance with the zoning of the property and the terms of this judgment.

2. From bringing onto their property or causing to be

ANTHONY PEREZ
DISTRICT ATTORNEY
U IC ADMINISTRATOR
IBLIC GUARDIAN
OUNTY OF NAPA
931 PARKWAY MALL
APA, CALIFORNIA 94559

brought onto their property any of the following items:

a. Any junk, scrap, or dismantled or abandoned motor vehicles of any kind, including but not limited to automobiles, trucks, vans, buses, or motorcycles;

b. Any debris of any kind including but not limited to scrap lumber, scrap metal, broken concrete, other types of spoils, dirt, rubble, rock, or gravel unless the presence of such debris is consistent with the zoning of the property or not violative of any applicable law or ordinance;

c. Any junk of any kind, including but not limited to abandoned vehicle parts or components, junked appliances, junked appliance parts or components, tanks, machines, machinery parts or components;

d. Any garbage, rubbish, refuse, trash, or other similar type material;

e. Any hazardous wastes, including but not limited to waste oil, spent gasoline, gasoline products, gas cylinders, paints, lacquers, thinners, solvents, batteries, anti-freeze, or other similar material.

3. From constructing or maintaining any sewage disposal system unless defendants procure a valid and current permit to do so, and follow all conditions and requirements of said permit.

4. From erecting, constructing, enlarging, altering, repairing, moving, improving, or demolishing any structure or building on defendants property unless defendants comply with the provisions of Uniform Building Code §301, and follow all

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DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559

conditions and requirements of any building permit required pursuant to the provisions of this section.

5. From installing or maintaining any water well on the property unless defendants procure a valid permit to do so, and follow all conditions and requirements of said permit.

6. From storing heavy construction equipment on the property unless the presence of such equipment would be consistent with the zoning of the property, or the equipment is being used to fulfill defendants' obligations under this judgment, or any construction or development performed is pursuant to a valid permit.

7. From storing or disposing of hazardous waste unless defendants do so in compliance with the provisions of the Hazardous Waste Control Act.

8. From allowing inadequate clearance between combustible debris material and any inhabited structure as required by Public Resources Code §4291.

9. From dismantling any motor vehicle unless done in compliance with the zoning laws of the parcel, and in compliance with Vehicle Code §5500.

10. From burning trash or other similar type debris, including agricultural debris, except as allowed by regulations promulgated by the Bay Area Air Quality Management District.

V
MANDATORY INJUNCTION

Defendants, are hereby ordered and mandated as follows:

1. Within 30 days from the filing of this judgment, Robert

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
NAPA CALIFORNIA 94559

L. Couch or Patricia K. Couch shall do the following:

a. Personally serve a written notice upon each person (other than defendants or members of their immediate family) residing on defendants' property, #2 Eucalyptus Drive, American Canyon, Napa County, California, which provides that each resident has 30 days from the receipt of the notice to remove themselves and all their personal belongings from defendants' property, and that their failure to move their belongings off the property within the time indicated in the notice will constitute an abandonment of those belongings and may be disposed of pursuant to Civil Code §1980 et. seq.

b. Personally serve each and every person who has left personal belongings on defendants' property but does not reside there with a notice requiring them, within 30 days of receipt of the notice, to remove those personal belongings from defendants' property, and that any property left on the premises after the 30 day period will be deemed abandoned and may be disposed of pursuant to Civil Code §1980 et. seq.

c. In the event defendants are unable to personally serve any person, defendants shall cause such notice to be posted in a conspicuous area where the belongings are situated and a copy of the notice mailed to such persons at their last known address. If defendants are unable to locate tenants or their last known address,

ANTHONY PEREZ
ISTRICT ATTORNEY
3LIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
31 PARKWAY MALL
PA, CALIFORNIA 94559

they may apply to this Court for an order permitting publication of any notices required herein in the Napa Register, a newspaper of general circulation, to give tenants notice.

2. Within 45 days from the filing of this judgment, defendants shall cause to be filed unlawful detainer complaints against any and all tenants who remain on the property after the 30 day notice period has expired (as referred to above in paragraph 1), and shall properly serve each tenant with summons and complaint as required by law. In addition, defendants are hereby ordered to diligently pursue these unlawful detainer actions until all tenants have been removed from the property, and their property has been removed or been deemed abandoned. It is further ordered that to the extent the service of any tenants with required process and/or pursuit of these unlawful detainer actions prohibits defendants from meeting any time deadline, as set forth in this mandatory injunction, defendants shall be given an extension of time for meeting that deadline equivilant to the amount of time spent by defendant in pursuing these unlawful detainer actions.

3. Within 30 days of the filing of this judgment, each party to this action shall provide to the District Attorney's Office the name, address, and phone number of a scrap or junk dealer. The District Attorney's Office shall prepare a list of the scrap or junk dealers designated by each party and serve the list on defendants. Further, Defendants shall allow any scrap or

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
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junk dealer so named to enter the property during reasonable times (8:00 a.m. to 6:00 p.m. Monday through Friday) for the purpose of assessing the status of the property and coming up with a bid for how much money that scrap or junk dealer would pay to remove all valuable items of scrap and abandoned motor vehicles (but excluding those items set aside by defendants pursuant to the provisions of paragraph 4, below) on the property. Only bids obtained within 90 days of the filing of this judgment shall be considered. The dealer offering the highest bid shall be chosen.

4. Defendants shall, within 105 days of the filing of this judgment, collect in one place on their property, unless physically impossible to do so, all operable motor vehicles, operable pieces of construction equipment or vehicle whose purpose is consistent with the agricultural zoning of the property, and any and all other valuable items that defendants contend are not scrap or junk, or an abandoned motor vehicle, and whose storage on the property is consistent with the zoning of the property. Once this has occurred, defendants shall then allow county officials to enter the property to inspect this collection of items to determine if their storage on the property would be consistent with the zoning of the property. If so, none of these items of property would be subject to any of the provisions set forth in paragraphs 5 and 15, below. In the event there is a dispute between defendants and county officials regarding any or all of these items of property, such dispute

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shall be brought to hearing before this court upon 15 days written notice by either party. Opposition papers shall be filed at least 5 days before the hearing and reply papers shall be filed at least 3 days before the hearing. Defendants will be deemed to have abandoned all other items of scrap, junk, debris and abandoned motor vehicles on the property if not collected and set aside by the deadline set forth in this paragraph, or if ordered by court after hearing.

5. Robert L. Couch and/or Patricia K. Couch shall, within 105 days of the filing of this judgment, enter into a contract with the scrap or junk dealer chosen pursuant to paragraph 3, above, which contract will provide for the following:

a. It will set forth the price to be paid by the dealer for the abandoned motor vehicles and scrap to be removed from the property and it will require the dealer to remove all abandoned motor vehicles and not merely select and remove the motor vehicles and scrap bringing the dealer the highest and/or best price.

b. It will set forth a time period within which the scrap dealer is to remove all abandoned motor vehicles and valuable scrap from the property, with the period not to exceed 150 days, and the period to commence no later than 120 days from the filing of this judgment.

c. It will require the scrap dealer to keep legible records regarding the numbers of abandoned motor vehicles removed, and the weight of scrap removed, as well as legible records regarding

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the payment of moneys on either a price per vehicle or price per weight basis. Further, it will require the scrap dealer to, on weekly basis, provide these records both to defendants and to the District Attorney's Office.

d. The bid will require the dealer to handle and dispose of, in a lawful manner, all hazardous waste that may be generated by the removal of motor vehicles, including motor oil, gasoline, diesel fuel, brake fluid, transmission fluid, batteries, and catalytic converters, and any other similar hazardous materials that are commonly found in motor vehicles.

e. The bid will require the dealer to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of abandoned motor vehicles and valuable scrap items to a trust fund, to be maintained by the District Attorney's Office, as more fully described in paragraph 13, below.

6. Defendants shall allow the chosen scrap or junk dealer to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the dealer's efforts to remove from the property all abandoned motor vehicles and valuable scrap items.

7. Defendants shall not in any manner interfere with or obstruct any and all County officials who may enter the property during reasonable hours to do the following: appraise any or all abandoned motor vehicles on the property for the purpose of issuing salvage certificates; monitor efforts to remove and properly dispose of hazardous wastes; monitor efforts to properly

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remove abandoned motor vehicles and scrap from the property; monitor efforts to remove or destroy all illegal sewage disposal systems on the property; monitor efforts to raze all structures which are abandoned or condemned; monitor all efforts to remove from the property all garbage, rubbish, trash, spoils, and other similar unpermitted materials.

8. Within 105 days of the date of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall commence to remove or have others undertake the removal of trees, bushes, and shrubs required to create an approximate 30 foot firebreak around the mobile home in which defendants are residing, and any other structure inhabited by any other member of defendants' immediate family. Such removal shall be completed within 165 days of the filing of this judgment.

9. In the event the District Attorneys Office determines, at any time, that income generated from the removal of abandoned motor vehicles and other valuable scrap is insufficient to pay for the removal of hazardous waste, debris, garbage, rubbish, trash (and all other items referred to in paragraph 13), the razing of structures on the property and subsequent removal of razed debris, and the removal or destruction of the illegal sewage disposal systems, then the District Attorney's Office may notify the defendants in writing of such situation.

10. Within 30 days of receipt of the notice from the District Attorney's Office referred to in paragraph 9, above, each party shall provide to the District Attorney's Office the

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name, address, and phone number of a commercial harvester wood pulp processor or other wood products dealer for the purpose of obtaining a bid to remove or thin out the eucalyptus trees present on defendants property, and to sell the trees for firewood or other income generating purposes. Either defendant may designate the areas where the trees may be removed or thinned out. Further, Defendants shall allow any commercial harvester or processor so named to enter the property during reasonable times for the purpose of assessing the status of the property and arriving at a bid for how much money that harvester or processor would pay to remove or thin out trees for the purpose of resale as firewood or other purpose. Only bids obtained within 60 days of defendants receipt of the notice referred to in paragraph 10 shall be considered. The harvester or processor offering the highest bid shall be chosen.

11. Robert L. Couch and/or Patricia K. Couch shall, within 75 days of receipt of the notice referred to in paragraph 9, enter into a contract with the chosen harvester, which contract will provide for the following:

a. It will set forth the price to be paid by the harvester or processor for the removal of trees from the property, and the approximate number of trees, or cords of firewood or weight of wood pulp, to be removed from the property.

b. It will set forth a time period within which the harvester is to remove trees from the property, with the period not to exceed 120 days, and the period to commence no later than

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120 days from the date of defendants' receipt of the notice referred to in paragraph 9.

c. It will require the harvester or processor to apply for a timber harvest plan with the California Department of Forestry, and will require the harvester or processor to follow all conditions and requirements of any such plan as approved by said Department of Forestry.

d. It will require the harvester or processor to keep legible records regarding the numbers of trees removed or the cords of firewood removed or weight of wood pulp removed, as well as legible records regarding the payment of moneys on either a price per tree or price per cord basis. Further, it will require the harvester to, on a weekly basis, provide these records both to defendants and to the District Attorney's Office.

e. The contract will require the harvester or processor to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of trees to the trust fund to be maintained by the District Attorney's Office, as described in paragraph 13, below.

12. Defendants shall to allow the chosen harvester or processor to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the harvester's or processor's efforts to remove designated trees from the property.

13. The District Attorney's office shall maintain a trust fund whose primary purpose shall be to pay for removing from

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defendants' property hazardous waste, the various piles and accumulations of debris, garbage, rubbish, trash, metals, scrap lumber, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, junked furniture and appliances, and oth similar items from the property, removing and destroying all illegal sewage disposal systems, and razing all structures whi are abandoned or condemned and removing the debris produced from such razing. Defendants may be reimbursed from this trust fund for costs they have incurred themselves in cleaning up the property, upon presenting bills, receipts or invoices, but only after the primary purpose of the fund, as set forth above, has been met, and there is money remaining in the trust fund for such reimbursement. Any funds remaining in the trust fund after completion of all clean up activities required under this injunction shall be paid to defendants.

14. Within 150 days of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall enter into a contract to retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present. The contract shall contain the following provisions:

a. It shall set forth a time period within which the consultant, hauler or dealer shall produce a plan to identify and remove all hazardous waste on defendants' property, with the plan to be produced by a date no later than 30 days from the date the

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contract is entered into.

b. It shall provide a time period for which all hazardous wastes shall to be removed, with the period not to exceed 120 days, and to commence no later than 60 days from the date the contract is entered into;

c. It will set forth the price to be paid by the consultant, hauler or dealer for any hazardous waste removed from the property which has some value and will set forth the cost for properly disposing of all other hazardous wastes which are present on the property.

d. It would provide for the maintenance of hazardous waste manifests for the tracking of the hazardous waste removed and properly disposed of, with the requirement that the consultant, hauler or dealer shall provide forthwith copies of these manifests both to the defendants and to the District Attorneys Office.

15. Once all valuable scrap, abandoned motor vehicles, and designated trees for firebreak purposes have been removed from the property, defendants shall either obtain bids from solid waste haulers for the cost to clean up, raze structures and remove from the property all remaining items of waste or garbage (including all piles of debris, garbage, rubbish, trash, and similar materials on the property, all debris created from the razing of structures on the property, along with any items of scrap, and motor vehicles that were left on the property because they were not valuable or income generating and were not picked

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up by any scrap dealer) or defendants or their designees may clean up and remove from the property all of these remaining items of waste or garbage.

a. If defendants act upon their own, they shall remove all remaining items of waste or garbage and any necessary clean up shall be completed within 60 days of the date that all valuable scrap, motor vehicles, and trees for firebreak purposes have been removed.

b. In the event defendants or their designees fail to meet the 60 day requirement as set forth in subparagraph a, above, then defendants shall within 30 days after the 60 day period has expired, obtain bids from solid waste haulers for the cost to clean up the property, as set forth above.

c. Within 45 days after the end of the 60 day period, Robert L. Couch and/or Patricia K. Couch shall enter into a contract with the solid waste hauler giving the lowest bid, which contract shall provide for the following:

(1) It shall provide a time period for which all structures shall be razed and all remaining wastes on the property shall be removed, with the period not to exceed 150 days, and to commence no later than 60 days after the expiration of the 60 day period noted above;

(2) It will set forth the price to be charged by the solid waste hauler for the removal of the remaining waste on the property, including the cost of properly disposing of all of these wastes at a State licensed solid waste landfill. It will

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require the solid waste hauler to maintain legible records regarding the removal of the waste from the property and the costs incurred.

VI
RESERVATION OF JURISDICTION

The Court hereby reserves jurisdiction with regard to the following issues:

1. Issues pertaining to the need for defendants to obtain use permits or building permits for the structures on their property that they or their immediate family members reside in or otherwise intend to occupy;

2. Issues regarding the destruction of any unpermitted water wells that exist on the property;

3. Issues regarding the burning of household trash, garbage, or agricultural debris on the property;

4. Issues regarding the destruction or removal of any illegal sewage disposal systems on the property.

5. Issues regarding the razing of agricultural structures constructed on the property without benefit of building permits.

6. Issues regarding authorizing the County of Napa to enter defendants' property and conduct all clean-up and removal activities, including the removal of income generating items as have been addressed by this judgment, in the event defendants or either defendant fail to comply with the provisions of the mandatory injunction.

6. Issues regarding the issuance of civil penalties pursuant to Business & Professions Code §17206.

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VII
MODIFICATION AND ENFORCEMENT

Any party to this judgment may seek leave of the court upon 15 days notice to the parties hereto and upon a showing of good cause, to modify, amend, or add to any of the provisions of this judgment.

The Court retains jurisdiction, in the event either Robert L. Couch or Patricia K. Couch individually, or both, interfere with, impede, refuse or fail to comply with any provision of this judgment, to make such orders as will prevent further contempt, prevent waste, and protect the property or title to the property, including but not limited to, appointing the defendant who is not in contempt, or a non-party, as a receiver for the purpose of ensuring compliance with this judgment, managing the subject property, and executing any agreements required to comply with this judgment. Further, jurisdiction is retained for the purpose of enabling any party to apply to the Court for such further orders and direction as may be necessary and appropriate for the construction or carrying out of this judgment, for the enforcement of compliance herewith, or for the punishment of violations thereof.

VIII
EFFECT AND ENTRY

This final judgment shall take effect immediately upon entry.

The Clerk is ordered to enter this final judgment forthwith.

Date: March 17, 1993

PHILIP A. CHAMPLIN
JUDGE OF THE SUPERIOR COURT

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MAR 19 1993
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH TIME LINE

DATE	PROJECT TO BE ACCOMPLISH	PARAGRAPH REF'D
4-16-93	Deadline for defendants to serve tenants with notices.	Paragraph 1
	Deadline to provide D.A. with names of scrap dealers.	Paragraph 3
5-1-93	Deadline to file unlawful detainer actions and serve tenants with Summons and Complaint.	Paragraph 2
6-15-93	Deadline to receive bids from scrap dealers; highest bid to be accepted.	Paragraph 3
6-30-93	Deadline for defendants to collect in one place all items of property they wish to keep (County should inspect this property).	Paragraph 4
	Deadline for defendants to enter into contract with scrap dealer, requiring dealer to commence work by 7-15-93 and to complete work in 150 days.	Paragraph 5
	Deadline for defendants to commence removal of trees to create fire breaks around their places of residence, work to be completed by 8-29-93.	Paragraph 8
7-15-93	Deadline for scrap dealer to commence removal work.	Paragraph 5
8-14-93	Deadline for defendants to enter into contract with a hazardous waste consultant.	Paragraph 14
8-29-93	Deadline for defendants to complete creation of fire breaks.	Paragraph 8
9-13-93	Deadline for hazardous waste consultant to submit plan.	Paragraph 14
10-13-93	Deadline for hazardous waste consultant to commence removal operations, and to complete all removal within 120 days.	Paragraph 14

12-12-93	Deadline for all scrap to be removed from the property; removal triggers the provisions of paragraph 15. and May trigger paragraph 9.	Paragraph 5 Paragraph 9
2-10-94	Deadline for defendants to remove all garbage if acting on their own.	Paragraph 15
	Deadline for hazardous waste consultant to remove all hazardous waste.	Paragraph 14
3-12-94	Deadline for defendants to obtain bids from a solid waste hauler.	Paragraph 15
3-27-94	Deadline for defendants to enter contract with solid waste hauler.	Paragraph 15
4-11-94	Deadline for solid waste hauler to commence removal operations, with 150 days to complete all removal.	Paragraph 15
9-8-94	Deadline for solid waste hauler to have removed all garbage debris, etc.	Paragraph 15

KLEINFELDER
An employee owned company

July 25, 2005
File: 54912/2

Mr. Steven Brock
2555 West Bluff Avenue
Fresno, CA 93711

SUBJECT: Phase II Soil Investigation
Couch Property
2 Eucalyptus Drive
American Canyon, California

Dear Mr. Brock:

This report present the results of a soil investigation conducted at the Couch Property located at 2 Eucalyptus Drive in American Canyon, California (Plate 1). The objective of the investigation was to collect and assess the potential impact of chemical constituents associated with Recognized Environmental Conditions (REC's) as described in a Phase I Environmental Site Assessment and other areas as observed during a pre-field visit in April, 2005. To meet this objective, Kleinfelder placed borings and analyzed samples on the basis of: 1) the recommendations of the Phase I ESA, and 2) information acquired during a site inspection and conversations with Mr. Couch. Kleinfelder performed this investigation based on our proposal dated September 14, 2004; and approved with edits by email on February 15, 2005. In summary, this investigation did not reveal evidence for a significant contaminant release at the site.

BACKGROUND

Environmental Science Associates (ESA) identified several REC's in a Phase I Environmental Site Assessment conducted at the Couch Property (*Couch Property Phase I Environmental Site Assessment*, August 25, 2004). The REC's included past and present storage of hazardous materials and wastes on the property, soil staining, reported methamphetamine lab on the property, a wood-cutting area possibly contaminated with diesel fuel or fill dirt, unpermitted outhouses, and two water well locations.

ESA recommended that soil and groundwater be assessed for potential contamination at the site in areas that show stressed or no vegetation in areas used for battery storage and in a mechanic area. ESA also recommended that, "further investigation be conducted to determine the existence and location of soil containing oil that may have

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been placed on the portion of the property that is used for a wood cutting operation" (within the southeast portion of the property).

ESA stated that water wells should be abandoned in accordance with California water well standards and Napa County protocol and the sewage disposal areas should be closed.

PRE-FIELD ACTIVITIES

Based on our review of ESA's Phase I Investigation, reports by Napa County Department of Environmental Management (NCDEM) (*Couch Property Violations*, 1991, and a letter *Clearing and Grubbing of the Couch Property, American Canyon, California*, 2003), conversations with the client, and field judgments, Kleinfelder designed a soil and groundwater investigation consisting of nine Hollow-stem auger borings, two test pits, four hand auger borings, and one four-point composite sample of a soil stockpile in areas of concern. Constituents of concern including petroleum hydrocarbons, pesticides, polynuclear aromatic hydrocarbons, volatile organic compounds, coliform, E. Coli, and metals, were identified based on observed and reported uses of areas of the property.

Kleinfelder placed borings and sample locations in areas designated as REC's in the Phase I report, as well as in areas near former above-ground storage tanks, possible underground storage tank locations, areas of oily soil, areas where site activities determined a need for sampling including woodcutting, landscaping materials storage areas, and areas adjacent to former outhouses and reported sewage disposal areas.

Kleinfelder was unable to locate the areas of stressed vegetation, as described in the Phase I report. In addition, the two water wells were non-operational. The current resident, George Couch, stated that the wells are no longer in use, and no potable water for human and domesticated animal consumption is derived from the property.

Kleinfelder obtained a boring permit from NCDEM prior to commencement of work (Appendix A).

Soil boring locations were marked in white paint. Kleinfelder notified USA who cleared the public areas of the site for underground utilities at boring locations.

FIELD ACTIVITIES

The investigation was conducted on March 31, April 1, April 4, April 13, April 20, and May 24, 2005 by Jeff Gilbert, Staff Engineer, under the direction of Jennifer Gomez, Senior Geologist and Environmental Department Manager. This investigation was conducted in conjunction with a Geotechnical report, under the direction of Tom Ries, P.E., Senior Engineer, which will be sent under separate cover. The environmental investigation consisted of nine Hollow-stem auger borings (7, 12, 13, 14, 15, 16, 17, 18,

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19) four hand auger borings (2, 3, 4, 5), and two test pits (TP-1, TP-2) at the locations shown on Plate 2.

Hollow-stem auger borings were advanced by Woodward Drilling of Rio Vista, California, a C-57 licensed driller. A Kleinfelder engineer logged and classified the soil, and collected soil samples for laboratory analysis (Boring Logs, Appendix B). Hollow stem auger soil samples were collected at approximately every five feet to twenty feet, or until refusal. Hollow stem auger soil samples were obtained from the nine borings by advancing a Hollow stem auger core sampler, consisting of a 2-inch diameter hollow rod with new stainless steel tubing inside. The probe was driven over a 1.5-foot interval, and soil was contained inside the stainless steel tubing. Once the sampler was brought to the surface, the stainless steel tube was capped with Teflon sheets and plastic caps and put into an iced cooler, and the soil interval was logged and classified.

Kleinfelder collected five soil samples from four hand auger borings by advancing a hand auger to depths ranging from 0 to 1 foot. Each soil sample was collected by immediately filling a stainless steel tube with soil from the auger and capping each end with Teflon sheets and plastic caps.

One four-point composite soil sample (1 A-D) was collected from a soil stockpile. Four stainless steel tubes are filled with soil from the stockpile, then combined by the laboratory to create one composite representative sample that is analyzed.

Three soil samples were collected from two test pits. Each soil sample was collected by immediately filling a stainless steel tube with soil from the bottom of the pit as soon as overlying soil was removed by the backhoe bucket. Each end of the stainless steel tube was secured with Teflon sheets and plastic caps.

Groundwater was not encountered in any of the environmental borings. One boring, B-7, was left open overnight to determine if groundwater would collect in the boring. Groundwater was not present in this borehole. Groundwater was encountered in Geotechnical Boring B-4 at 31 feet below ground surface (bgs). Groundwater stabilized at 23 feet bgs within twenty minutes, however, this borehole was drilled using mud-rotary and drilling fluid, the use of which prevents the collection of an undisturbed and uncontaminated groundwater sample. This boring was left open for a short time to allow formation water to collect, however, upon return, the hole had caved, preventing groundwater sampling.

To prevent cross-contamination Hollow stem auger and hand auger sampling equipment was cleaned between borings with non-phosphate soap and rinsed with distilled water. The borings were backfilled at completion.

LABORATORY ANALYSIS

A total of 34 soil samples were submitted for analysis. Groundwater was not encountered during this investigation and therefore, not sampled. The soil samples

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were submitted to Campbell Analytical in Pacheco, California who is accredited by the State of California for the analyses performed. The samples were transported under chain-of-custody documentation and were analyzed as follows:

Samples were collected at a variety of locations on the property, mostly near occupied areas. Borings 12, 13, 15, 16, 17, 18, and 19 were placed near the residences, sheds, equipment storage areas, possible areas where stressed vegetation may have been located, and mechanic storage areas. Borings 7 and 14 were placed down gradient from these activities in anticipation of a groundwater sample; however, groundwater was not encountered in any of these borings.

Soil samples from Borings 7, 12, 13, 14, 15, 16, 17, 18, and 19 were analyzed for:

- Total Petroleum Hydrocarbons-Extractable (TPH-d, TPH-mo);
- Total Petroleum Hydrocarbons-Purgeable (TPH-g);
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX);
- Methyl tertiary butyl Ether (MTBE);
- Polynuclear Aromatic Hydrocarbons (PAH);
- Total Coliform; and
- Cam 17 Metals.

The soil pile (1A-D) was located within the occupied area of the property, north of the dog pen, near some sheds and a possible former outhouse.

A four-point composite soil sample (1A-D) was taken from this stockpile and analyzed for:

- TPH-d, TPH-mo;
- TPH-g ;
- BTEX;
- MTBE;
- PAH; and
- Cam 17 Metals.

Hand Auger samples were located on an upslope area of the northeast corner of the property. Hand samples were required due to the limited access of this area to a drill rig. This area of the property was reportedly the location of two above ground storage tanks (removed by Napa County), possible underground storage tanks, possible stressed vegetation, and mechanic storage areas.

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The Hand Auger sample 2, located adjacent to a possible former sewage dump or outhouse area, was analyzed for:

- PAH;
- Total Coliform;
- Cam 17 Metals; and
- E. Coli.

The Hand Auger samples 3, 4, and 5, all located in various areas of possible stressed vegetation and mechanic storage area were analyzed for:

- PAH; and
- Pesticides.

The Test Pit soil samples TP-1, TP-4 were located in the woodcutting area, reportedly the location of some dumped oily soil. Kleinfelder observed trash in the soil of these test pits at the depths sampled (TP1 at 2 feet and 3 feet bgs, TP4 at 2 feet bgs). These test pit samples were analyzed for:

- TPH-d, TPH-mo;
- TPH-g;
- MTBE; and
- BTEX.

All soil samples were analyzed on a standard five-day turnaround schedule.

ANALYTICAL RESULTS

Analytical results for the March 31, April 1, April 4, April 13, April 20, and May 24, 2005 sampling events are presented in Tables 1 and 2. Copies of analytical laboratory reports and chain-of-custody form are included in Appendix C.

None of the samples analyzed had detected levels of the following constituents above the Environmental Screening Levels (ESL's) as defined by the San Francisco Bay Water Board for residential shallow soils (<3m) where groundwater is currently or potentially a source of drinking water (February, 2005).

- TPH-d, TPH-mo;
- TPH-g;
- BTEX;
- MTBE;

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- PAH;
- Pesticides; or
- E. Coli.

The two samples collected at Hand Auger boring 2 both had detected levels of Total Coliform at depths of 0 and 1 foot bgs, 2-0-I (960 MPN/ml) and 2-1-I (430 MPN/ml). Hand Auger boring 2 was located near a variety of wooden structures, adjacent to a structure that appeared to be a former outhouse (Plate 2).

Metals were detected above ESL's level in the following samples:

- 14-5-I: Vanadium
- 19-5-I: Chromium, Nickel, Vanadium
- 12-15-I: Chromium
- 18-5-II: Cobalt, Vanadium

DISCUSSION

The purpose of this investigation was to screen for potential contamination by sampling soil and groundwater at locations where contamination, if present, would be most likely. The locations and constituents of concern were selected on the basis of information provided by the Phase I ESA, Mr. Couch, and a site walk.

Petroleum hydrocarbons, gasoline additives, and polynuclear aromatic compounds were not detected in any of the samples collected from the borings, with the exception of sample 12-15-1 where gasoline and BTEX were detected in low concentrations. In addition, gasoline and diesel-range hydrocarbons were detected in very low concentrations within the soil stockpile. Therefore, no evidence for a significant release of petroleum hydrocarbons was found at the site.

Review of the metals data indicate, with the possible exception of four samples discussed below, that the concentration of metals in soil represent background conditions. Elevated concentrations of some metals from four samples, however, warrant discussion:

- The concentration of Chromium (130 mg/kg) in sample 12-15-I collected at 15 feet bgs is elevated relative to the majority of samples. However, chromium concentrations in two samples collected at shallower levels from the same boring are low. In addition, elevated levels of other contaminants that often coexist with chromium at sites with a similar history were not detected. Therefore, the data does not indicate that the elevated chromium concentration is due to a significant release.
- The concentrations of vanadium in samples 14-15-I (110 mg/kg) and 18-5-II (120 mg/kg) appear to be elevated as compared to the majority of samples. However,

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because other metals and petroleum hydrocarbons are not elevated in these samples, and vanadium is an unusual contaminant, the levels of vanadium do not likely represent a significant release at this location.

- Concentrations of chromium (230 mg/kg), nickel (150 mg/kg) and vanadium (160 mg/kg) are elevated relative to the other samples in sample 19-5-I. However, these constituents do not appear to be significantly elevated in samples collected above and below this sample. The boring was located near the former battery storage location, but elevated levels of lead (as would be expected from a release from lead-acid batteries) was not detected. Therefore, the data does not appear to reflect a significant release at this location.

Total coliform as high as 960 MPN/ml was detected at Hand Auger location 2, adjacent to a possible former outhouse structure. These levels are probably related to the former use of a nearby outhouse and reported sewage disposal at this location. E Coli was not detected in these samples. Therefore, the total coliform does not appear to represent a health risk at the site.

Groundwater was not sampled during this investigation, so direct data regarding potential contaminant impacts are not available. However, because no evidence of a significant release that may act as a source of groundwater contamination was found, it may be inferred that the potential of impacts to groundwater from the site is low.

Two water well spigots were located, as described in the Phase I report. According to Mr. Couch, the wells are not operational. Kleinfelder recommends decommissioning these wells and abandoning them in accordance with Napa County Department of Environmental Management procedures.

LIMITATIONS

This report was prepared in general accordance with the standard of care that exists in Northern California at the time the investigation was performed. It should be recognized that definition and evaluation of subsurface conditions are difficult. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. The conclusions of this assessment are based on field observations obtained during the time of drilling and laboratory analytical results. More extensive studies may further reduce the uncertainties associated with this assessment. Kleinfelder should be notified for additional consultation if the Client wishes to reduce the uncertainties beyond the level associated with this report. No warranty, express or implied, is made.

This report may be used only by the client and only for the purposes stated within a reasonable time from its issuance, but in no event later than three years from the date of the report. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability

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resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help understand and manage the level of risk. Since detailed investigation and analysis involves greater expense, our clients participate in determining levels of service, which provide adequate information for their purposes at acceptable levels of risk.

If you have any questions or need additional information, please contact us at 707-429-4070.

Sincerely,

KLEINFELDER, INC.

Sarah Callahan
Staff Geologist

Bradley Erskine, Ph. D., P.G.
Area Manager

SEC/mlc

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March 16, 2006 ICES 6203

Mr. Aaron Ross-Swain
Standard Pacific Homes
3825 Hopyard Road #195
Pleasanton, California 94588

Subject: Phase I Environmental Site Assessment
2 Eucalyptus Drive
American Canyon, California

Dear Aaron:

Enclosed is the Phase I Environmental Site Assessment Report for 2 Eucalyptus Drive located in American Canyon, California.

Please do not hesitate to contact Derek Wong or me if you have any questions.

Sincerely,

Peng Leong
Principal Engineer

Enclosure

PHASE I ENVIRONMENTAL SITE ASSESSMENT

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

MARCH 16, 2006

ICES 6203

Prepared for:

Mr. Aaron Ross-Swain
Standard Pacific Homes
3825 Hopyard Road #195
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March 16, 2006 ICES 6203

PHASE I ENVIRONMENTAL SITE ASSESSMENT
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

1.0 INTRODUCTION

At the request of Mr. Aaron Ross-Swain of Standard Pacific Homes, Innovative and Creative Environmental Solutions (ICES) performed a Phase I Environmental Site Assessment (ESA) for 2 Eucalyptus Drive located in American Canyon, California ("the Site"; Figure 1). The accessors's parcel number (APN) for the Site is 058-030-056. This report presents:

1. A summary of relevant information obtained;

2. A description of the methods and sources used to obtain information concerning the Site;

3. Our interpretation of the information, with respect to potential environmental concerns; and

4. Our professional opinion concerning the likelihood of potential soil, groundwater, or surface-water degradation caused by the presence of hazardous substances, and the need, if any, for sampling and analysis to document site conditions.

The objectives of this ESA are to:

1. Assess the potential sources of hazardous substances at the Site as a result of on-site or off-site activities that may have affected site soil or groundwater quality; and

2. Evaluate the presence of chemically-affected soil on the Site to the extent indicated by visual observations, personal interviews, and regulatory records.

The ESA investigated past and present site uses, focusing on the use, handling, storage, release, or on-site disposal of hazardous substances, and examined the potential for migration of hazardous substances onto the Site from reported chemical releases, if any,

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in the site vicinity. The assessment was based solely on a review of available records, visual observations, and personal interviews. Field sampling was not performed as part of this ESA.

2.0 BACKGROUND

A eucalyptus grove has occupied the Site since the late 1950s. In the early 1980s, the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. Currently, the southeastern portion of the Site is used to cut and store wood. Paint ball fields are located at the western and central portions of the Site. A farm-like environment which is used to house animals is located directly south of the residential developed area at the northeastern portion of the Site.

A Phase I ESA was conducted by Environmental Science Associates of Sacramento, California in October 2004. Environmental Science Associates' assessment revealed that there was past and present undocumented and illegal storage of hazardous materials and waste on the Site. Additionally, Environmental Science Associates reported that a large amount of soil containing some type of oil was deposited at the southeastern portion of the Site in the 1970s for a motorcycle track. A site investigation was recommended based on their findings.

Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum constituents, polynuclear aromatic hydrocarbons (PAHs), total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the California Regional Water Quality Control Board's Environmental Screening Levels (ESLs) for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the northeastern portion of the Site.

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3.0 SCOPE OF WORK

This Phase I ESA included the following tasks:

- Review of background information on site setting and history of site usage
- Field inspection of the Site and neighboring properties
- Review of regulatory records concerning the Site and surrounding area
- Data evaluation and report preparation

The findings associated with the above tasks are presented below.

4.0 SITE RECONNAISSANCE

ICES personnel conducted a walk-through site inspection, and performed a drive-by reconnaissance of the adjacent properties and the surrounding area on March 10 and 13, 2006.

4.1 Site Visit

The Site is located on the north side of Eucalyptus Drive and is within the legal jurisdiction of the City of American Canyon, in conjunction with Napa County and the State of California. The Site consists of one parcel (APN 058-030-056) covering an area of approximately 106 acres. The parcel falls distinctly from the northeast corner of the Site towards the central portion of the Site. The remaining areas of the Site are relatively flat.

A eucalyptus grove occupies the Site - a major portion is used by the Paint Ball Jungle (primarily during the weekends), and the remaining acreage is occupied by Mr. George Couch (the property owner) and a wood cutting and storage operation. The Paint Ball Jungle uses the western and central portions of the Site. Mr. Couch occupies the northeastern portion of the Site. A farm-like environment which is used to house animals is located directly south of Mr. Couch's residence. A cleared area used to cut and store wood is located at the southeastern portion of the Site. At the time of the site visit, several piles of wood chips, truck trailers, and equipment used for wood cutting were observed within the area.

A visual inspection of the paintball fields indicated that paint balls are scattered throughout the property and several forts have been built for the paint ball games. The forts house

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several empty 55-gallon plastic drums. An inspection of the northeastern portion of the Site indicated two residential structures, a concrete block structural foundation, an outhouse, several sheds, and a well. The areas surrounding the residential structures contained a lot of household items, wood debris, abandoned vehicles, machinery, equipment, small containers of unknown material, several water tanks, an underground storage tank that was sitting on the ground, tires, and refuse.

4.2 Drive-by Reconnaissance

A drive-by reconnaissance of the neighboring properties indicated that landuse in the vicinity of the Site is a mixture of residential and commercial.

The Site is bounded to the north by warehouse buildings and to the east by open pastures. The area south of the Site is occupied by open space and a residential subdivision. The American Canyon Sanitary Landfill, a eucalyptus grove, and wetlands are located west of the Site.

5.0 HISTORY OF THE SITE AND VICINITY

Historical records reviewed as part of this ESA included aerial photographs and Sanborn Fire Insurance maps.

5.1 Aerial Photographs Review

Historical aerial photographs of the Site and vicinity from 1959 through 1998 were provided by Environmental Data Resources, Inc. ("EDR") of Southport, Connecticut. A historical account of the landuse of the Site between 1959 and 1998 based on a review of available aerial photographs is presented below.

The Site

The 1959 aerial photograph showed that the Site was occupied by a eucalyptus grove. In 1965, a large section of the eucalyptus grove at the eastern portion of the Site had been harvested. Replanted eucalyptus trees were observed at the eastern portion of the Site by 1970. The 1982 aerial photograph showed that the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. There were no noticeable changes in the 1993 and 1998 aerial photographs relative to the 1982 aerial

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photograph.

Neighboring Area

The 1957 aerial photograph showed that the neighboring area surrounding the Site was generally undeveloped land. Eucalyptus groves were present northwest of the Site. Two structures were located adjacent to the southwestern portion of the Site. A residential development was observed on the south side of Eucalyptus Drive, southeast of the Site.

There were no appreciable changes to the neighboring area in the 1965 and 1970 aerial photographs relative to the 1957 aerial photograph.

The 1982 aerial photograph showed that the American Canyon Sanitary Landfill was located west of the Site. There were no noticeable changes to the neighboring area in the 1993 and 1998 aerial photographs relative to the 1982 aerial photograph.

5.2 Sanborn Maps Review

A Sanborn Map site search conducted by EDR indicated that there were no Sanborn Maps available for the Site and the immediate surroundings.

5.3 Personnel Interviews

ICES attempted to interview Mr. Couth on March 10 and 13, 2006 to obtain additional information regarding the historical and current uses of the Site. Mr. Couch declined to be interviewed.

6.0 REGIONAL PHYSIOGRAPHY

The U.S. Geological Survey Cuttings Wharf Quadrangle indicated that the elevation at the Site is approximately 12 feet above mean sea level and that the topography at the Site slopes in a southwesterly direction. The nearest major body of water is the Napa River, which lies approximately 1.0 mile west of the Site.

7.0 RADON POTENTIAL

The radon data presented in this section is based on the California Statewide Radon Survey Interim Results (CSRSIR) for the County of

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Napa. Radon is a known human carcinogen and is the second leading cause of lung cancer in the United States. The United States Environmental Protection Agency (EPA) recommends that action be taken to reduce radon levels when indoor radon levels exceed 4 pico curies per liter of air (pCi/l).

The CSRSIR predicts that 4.7 percent of homes in the Napa County would exceed 4 pCi/l. Additionally, of the 34 states participating in the radon survey, California ranks as the third lowest state for percentage of homes exceeding 4 pCi/l. The survey results are not intended to predict the radon exposure level measurement in an individual structure since other factors such as climatic conditions, soil permeability, house structure, and soil/house pressures besides geographic location can affect indoor radon levels. Indoor radon levels at the Site can only be obtained by sampling and testing existing or future structures. Radon levels were not measured at the Site.

The potential for radon concentrations to exceed 4 pCi/l at the Site is relatively low based on the small percentage of homes in the County of Napa predicted to exceed EPA's recommended exposure limit.

8.0 REVIEW OF REGULATORY RECORDS

A governmental records report for the Site and the surrounding areas was prepared by EDR dated February 27, 2006. The geographic database search was conducted following the American Society for Testing Materials standards for a government records review. A copy of the EDR report is included in Appendix A. The record search included sites on governmental environmental lists within a one-eight to one mile radius of the Site to determine if the Site or nearby properties have been identified by Federal or State regulatory agencies and to identify hazardous material handling, storage or storage disposal operations. Within the EDR report, a complete listing of agency records is provided.

A total of two cases with possible releases of chemicals of concern to the environment were identified within the area of the search. EDR's radius map list review identified:

<> one State Landfill;

within a one eighth-mile radius from the Site;

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<> no cases;

within a one quarter-mile radius from the Site;

<> one WMDUS/SWAT case;

within a one half-mile radius from the Site;

<> no cases;

within a one mile radius from the Site.

Of the two cases, all two cases are not considered to have impacted the Site because of one of the following criteria:

1. No further action (NFA) status;
2. A De-listed status;
3. No violations; and
4. Their distance (approximately one-eight mile or greater) from the Site, and/or their relative location cross gradient from the Site.

A NFA status or a de-listed status for a site/case indicates that chemical releases to the environment had not occurred or had been successfully remediated. In addition, sites/cases with a "No Violations" notation have not had known releases of chemicals into the environment.

The local topography suggests that the local groundwater gradient flows in a southwesterly direction. It is, therefore, unlikely that properties situated in the down-gradient locations of the Site could have impacted the Site through groundwater flow.

9.0 SUMMARY AND CONCLUSIONS

A eucalyptus grove has occupied the Site since the late 1950s. In the early 1980s, the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. Currently, the southeastern portion of the Site is used to cut and store wood. Paint ball fields are located at the western and central portions of the Site. A farm-like environment which is used to house animals is located directly south of the residential developed area at the northeastern portion of the Site.

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Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum constituents, PAHs, total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the California Regional Water Quality Control Board's ESLs for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the northeastern portion of the Site.

Based on the findings of this ESA, ICES recommends that a supplementary investigation be conducted within the Site. Specifically, ICES recommends that the following task be performed to obtain additional information to adequately characterize the underlying sediments:

1. Collect soil samples from the surficial soil within the western portion of the Site to assess the potential presence of organochlorine pesticides, arsenic, lead, and mercury associated with the eucalyptus grove;

2. Collect soil samples from the surficial soil within the southeastern portion of the Site to assess the potential presence of petroleum hydrocarbons, semi-volatile organic compounds, and lead associated with the former motorcycle track and existing wood cutting and storage operations; and

3. Collect soil samples from the surficial soil within the northeastern portion of the Site to assess surficial sediments containing arsenic, chromium, and vanadium levels detected in a previous site investigation which exceeded residential ESLs.

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The evaluation is site specific, based on the information available at this time and could be revised if new information necessitating further review of the Site and adjacent facilities becomes available.

10.0 LIMITATIONS

The Scope of Work for this Phase I ESA did not include collection or analysis of soil and/or groundwater samples; assessment of the potential presence of asbestos in building materials; testing of electrical equipment for the potential presence of polychlorinated biphenyls; assessment of natural hazards such as naturally occurring asbestos, radon gas, or methane gas; assessment of the potential presence of radionuclides; or assessment of nonchemical hazards, such as the potential for damage from earthquakes or floods or the presence of endangered species or wildlife habitats. Therefore, a full and complete determination of environmental risks was not made. This Phase I ESA also did not include an assessment of the compliance status of the Site.

The observations and conclusions presented in this report are professional opinions based on the scope of activities and information obtained through the Phase I ESA described above. Opinions presented herein apply to site conditions at the time of our study, and cannot apply to site conditions or changes of which we are not aware, or which we have not had the opportunity to evaluate. It must be recognized that any conclusions drawn from these data rely on the integrity of the information available to ICES at the time of the investigation. Soil and/or groundwater sampling and analysis would provide additional level of confidence with respect to potential environmental risks at the Site.

This report is exclusively for the use of Mr. Aaron Ross-Swain of Standard Pacific Homes. Any reliance on this report by a third party shall be at such party's sole risk.

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PHASE I ENVIRONMENTAL SITE ASSESSMENT 2 EUCALYPTUS DRIVE AMERICAN CANYON, CALIFORNIA

File No. 107515
December 22, 2009

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A Report Prepared for:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT 2 EUCALYPTUS DRIVE AMERICAN CANYON, CALIFORNIA

Kleinfelder Job No: 107515
December 22, 2009

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1. SUMMARY

A Phase I Environmental Site Assessment (ESA) was performed for American Canyon Flat Land Inc., for the property at 2 Eucalyptus Drive in American Canyon, California (Plate 1). This report was prepared in general accordance with the scope and limitations in the American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* E1527-05 and the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law). The property is hereafter referred to as the "subject site."

The subject site consists of 106.57 acres of land in American Canyon, California, occupied by a residence, outbuildings, and a recreational paintball operation, (Plate 1). Much of the site is used for agricultural purposes, occupied by eucalyptus trees that were harvested for firewood. The parcel number, as identified by the Napa County Assessor's office, is 058-030-056.

For ease of description, the site is divided into several areas and described counterclockwise from Eucalyptus Drive (Plate 2):

- Hurst Firewood Area: located adjacent to the north of Eucalyptus Drive, south of an east/west unpaved road, and east of the unpaved section of Commerce Blvd. that runs north/south through the site;
- Paintball Jungle Area (East): located north of the east/west unpaved road and Hurst Firewood, south of the animal pens and Couch Residential Area, and on both sides of Commerce Blvd;
- Animal Pens Area: located north of Paintball Jungle and south of the Couch Residential Area;
- Couch Residential Area: located north of the animal pens, south of the property boundary, east of Commerce Blvd;

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- "Concentrated Area" (named in accordance with County investigation and legal document maps): located west of Commerce Blvd across from the Couch Residential Area; and

- Sherwood Forest Paintball & North Slough Creek Area: located at the northwest corner of the property, west of the Concentrated Area.

- Paintball Jungle Area (West): located on the western side of Commerce Boulevard, south of Sherwood Forest Paintball, north of the property line, east of the property line.

The site has been developed as a eucalyptus tree farm since at least 1937. A Phase I ESA was performed in 2004 by Environmental Science Associates (ESA) that covered the entire parcel, but findings and recommendations were restricted to the 2004 observations of conditions at the Couch Residence and Hurst Firewood Areas. A Phase II soil and groundwater investigation performed by Kleinfelder in 2005 was based on the recommendations from ESA's Phase I report and maps, and therefore addressed only a portion of the areas where previous dumping, spills, and leaks may have occurred. During the Phase II investigation, Kleinfelder collected soil samples but did not encounter groundwater for sampling.

This Phase I ESA represents a re-evaluation of the site based on new information provided to Kleinfelder since the original investigations.

The following is a summary of Kleinfelder's findings in each area.

Hurst Firewood Area:

This area is currently occupied by Hurst Firewood, a business owned by Mr. Hurst, used for cutting eucalyptus trees into firewood for sale. Previously, as few as 19 to as many as 30 people reportedly may have resided in this area, mainly north of area cleared of trees. These renters set up residences on small plots of land that were not connected to water, sewer, or electricity. According to Keith Caldwell, former American Canyon Fire Chief, many of these renters conducted short-scale engine and auto repairs and one methamphetamine lab was discovered and removed. In addition, Mr. Hurst previously stored approximately 50 vehicles and pieces of equipment at the site and

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performed small-scale engine repairs on these vehicles. Kleinfelder observed several stockpiles of wood chips and soil and concrete debris during the site visit.

Paintball Jungle Area (East):
This area is currently occupied by paintball games operated under the name Paintball Jungle. According to permitting records, paintball operations have occurred at the site since at least 1990. Prior to paintball operations, the majority of this area was occupied by junked cars, vehicles, drums, containers, trash, and other debris.

Animal Pens Area:
This area is currently occupied by animals including horses, roosters, and hens. The Couch family reportedly rents stalls and pens for horse boarding. Several vehicles were observed in this area as well as various storage containers. Kleinfelder did not have interior access to this portion of the site so observations were made from the perimeter fence. This area was reported to be occupied by various animals and was the site of illegal animal fighting activities.

Couch Residential Area:
This area is currently occupied by one member of the Couch family who lives on the property in a reportedly unpermitted dwelling. Kleinfelder observed at least 10 vehicles and hundreds of other pieces of equipment, various containers of paints, transmission oil, motor oils, areas of dumped garbage, three unpermitted wells, several large containers including tanks, tanks on wheels, structures, locked storage containers or structures that Kleinfelder could not access, and various debris. Previously, this area reportedly contained over 150 vehicles, hundreds of tires, additional structures occupied by other members of the Couch Family and possibly additional renters, and many widespread areas of debris.

Kleinfelder reviewed various documentation related to the 1993 court-ordered cleanup. This area of the site contained drums that were sampled by Catherine Moody of NCDEM and found to be either diesel or phenols which Robert Couch and David Couch reportedly described as “cresol.” Various subsequent court documents describe cleanup activities at the site and provide copies of household waste disposal at Devlin Road landfill in American Canyon (a Class III municipal landfill), tire disposal at a recycler, scrap metal at a recycler, and junked car removal and disposal. The

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documents do not include manifests for the hazardous materials found to be within drums, fluids from vehicles, and contents of small containers. These materials, if disposed of properly, would have been disposed of at the fire department or a Class II landfill by a certified waste hauler. However, Kleinfelder searched the DTSC and Cal-EPA database to obtain records of a possible RCRA generator ID number (required on the waste manifest for hazardous materials) and no RCRA ID number was found for the Couch Family. A RCRA ID was found for paintball operations only.

Concentrated Area:

This area was identified and labeled by Napa County investigators during previous investigations and information gathering. This area is currently occupied by a chain-link fence, wooden garage door barrier, outhouse, boat, boat trailer, and camper trailer. This area previously was occupied by various renters and reportedly was the site of an additional illegal methamphetamine lab, which was reportedly removed by the Napa County Sheriff's Department in approximately 2000.

Sherwood Forest Paintball Area:

This area, located on the northwest corner of the property, appears to be currently occupied by paintball operations, formerly operated under the name "Sherwood Forest" paintball. Kleinfelder is not sure whether this company still operates this portion of the site, or whether this area is used by Paintball Jungle. Kleinfelder observed several small structures in this area including an enclosure for CO_2 compressed gas containers, a pickup truck, and a wood chipping machine. This area previously was reported to be the "cleared area" and possible location of an outdoor fireplace. According to Keith Caldwell, this area reportedly was a location where drums may have been buried.

North Slough Creek (within Sherwood Forest Paintball Area):

A creek, which appears to drain southwest to the Napa River, is located on the northwest corner of the property near the site boundary. A rock and soil pile was observed along the eastern bank of the creek. It was reported to Kleinfelder by Mr. Michael Johnson that a concern exists regarding the runoff within the creek, which was based on a reported surface water quality violation that was issued to the adjacent American Canyon Wastewater treatment plant. According to Mr. Johnson, the wastewater treatment plant was concerned that the source for pollutants in the creek

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was the Couch Property. Kleinfelder has not seen a copy of the complaint or the results of any sampling or analysis that may have been performed.

Paintball Jungle Area (West):
This area, which comprises the majority of the area west of unpaved Commerce Blvd, was previously and now is currently used for paintball games. Several structures constructed of wood and 55-gallon drums were observed as well as two outhouses. Minor dumping was reported along the roadside but no residences or tenants occupied this area.

Kleinfelder's Phase I ESA of the subject site revealed the following current and historic RECs associated with the site.

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

In addition, while not considered to be RECs by definition, the following other environmental conditions were revealed that could affect the subject site:

- A septic system exists at the subject site. The purpose of the septic system is to receive domestic sewage. If future construction activities encounter the septic system or the system is no longer in use, the system must be abandoned in accordance with applicable local permitting requirements and regulations.

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- Although asbestos and lead is specifically excluded from the Phase I standards, Kleinfelder recommends that all structures be surveyed prior to demolition in compliance with EPA, Bay Area Air Quality Control Management District, and Napa County Building Department rules and regulations.

- Three wells were observed at the site. If these wells are no longer in use, they must be abandoned in accordance with applicable federal, state, and local regulations.

- A complaint and possible violation reportedly occurred related to waters of the creek, located on the property in the northwest corner. The City of American Canyon Water Treatment Facility was reportedly concerned by the possibility of source material leaching into the creek from materials on the Couch property.

Any deviations, historical environmental conditions, and de minimis findings are discussed in Section 8 of this report. This report is subject to the limitations in Section 2.5.

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2. INTRODUCTION

Kleinfelder conducted a Phase I ESA of the subject site. The following report is a summary of work performed in general accordance with the scope and limitations in the ASTM Standard E-1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard), the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law), and our Master Services Agreement with American Canyon Flat Land Inc, dated November 7, 2009. This report also generally conforms to the ASTM Standard's suggested table of contents.

2.1 PURPOSE

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the scope of work defined in our work order, and the limitations discussed in this report, RECs and other environmental issues related to the subject site. As defined in the ASTM Standard, a REC is:

> *The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.*

This report describes Kleinfelder's assessment methodology and documents our assessment findings, subject to the limitations presented in Section 2.5 of this report.

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2.2 DETAILED SCOPE OF SERVICES

The following sections describe Kleinfelder's work scope:

- Section 2, **Introduction**, includes a discussion of the purpose/reason for performing the Phase I ESA, additional services requested by the Client (i.e. an evaluation of business environmental risk factors associated with the subject site), significant assumptions (i.e. property boundaries if not marked in the field), limitations, exceptions, and special terms and conditions (i.e. contractual), and user reliance parameters.

- Section 3, **Site Description**, is a compilation of information concerning the site location, legal description (if provided), current and proposed use of the subject site, physical setting, and geologic and hydrogeologic conditions.

- Section 4, **History of the Site**, summarizes the history of land use at the site and on adjoining properties. The history was developed by conducting interviews, reviewing information provided to Kleinfelder by the client and by consulting various resources such as aerial photographs, agency files, and historic maps.

- Section 5, **Records Review**, is a compilation of Kleinfelder's review of several databases available from the Federal, State, and local regulatory agencies regarding hazardous substance use, storage, or disposal at the subject site; and for off-site facilities up to a one-mile radius around the site. This chapter includes interviews with the owner.

- Section 6, **Site Reconnaissance**, describes Kleinfelder's site observations during the site reconnaissance and observations of adjacent parcels.

- Section 7, **Interviews**, is a summary of telephone and personal interviews conducted with "Key Site Managers" that may include the owner/manager of the facility, occupants/tenants, local government officials, and the Client. Additional interview sources may be contacted if "Key Site Managers" are not available prior to production of this report, and may include adjoining landowners and people with historical knowledge of the area.

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- Section 8, **Evaluation**, is a presentation of our findings and conclusions regarding the information in Chapters 3 through 6; and presents our opinion regarding the presence of Recognized Environmental Conditions of concern at the site.

- Section 9, **References**, is a summary of some of the resources used to compile this report.

The appendices contain certain pertinent documentation regarding the subject site. Appendix A presents site photographs. Appendix B contains the qualifications of the environmental professionals responsible for the preparation of this report. Appendices C, D, E, F, and G contain historical records review and database review records, user provided aerial photographs and documents, regulatory agency documentation, supporting documentation for interviews, and Kleinfelder's previous investigations, respectively.

2.3 SIGNIFICANT ASSUMPTIONS

The subject site is hereafter referred to as the "site" or "subject site". Kleinfelder does not guarantee the accuracy of information supplied by its sources, but reserves the right to rely on this information in forming a professional opinion regarding the potential for contamination at the site.

2.4 LIMITATIONS AND EXCEPTIONS

Phase I ESAs are non-comprehensive by nature and are unlikely to identify all environmental problems or eliminate all risk. The attached report is a qualitative assessment. Kleinfelder offers a range of investigative and engineering services to suit the needs of our clients, including more quantitative investigations.

The scope of this ESA does not incorporate ASTM Standard non-scope considerations, such as asbestos/lead-based paint, radon, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, high voltage power lines, indoor air quality, and therefore vapor intrusion as a contributing indoor air quality issues.

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Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help you understand and better manage your risks. Since such detailed services involve greater expense, we ask our clients to participate in identifying the level of service that will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

Kleinfelder performed this environmental site assessment in general accordance with the guidelines set forth in the ASTM and AAI Standards, and the proposed scope subsequently approved by our Client. No warranty, either expressed or implied, is made. Environmental issues not specifically addressed in this report were beyond the scope of our services and not included in our evaluation.

This report may be used only by the Client and only for the purposes stated within a reasonable time from its issuance, but in no event later than one year from the date of the report. Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the site visit. This report should not be relied upon after 180 days from the date of its issuance (ASTM Standard, Section 4.6). Any party other than the Client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party, and Client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

2.5 SPECIAL TERMS AND CONDITIONS

No special terms and conditions in addition to those discussed previously were agreed to either by the Client and Kleinfelder in our work order for this project.

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3. SITE DESCRIPTION

This section describes the condition of the site at the time the Phase I ESA was conducted and provides information about the site description and local geologic and hydrogeologic conditions.

3.1 SITE DESCRIPTION

The site is identified as a 106.57 acre site, located north of Eucalyptus Drive and west of Oat Hill. The site is occupied by a eucalyptus grove and for the purposes of clarity for this assessment; the site is divided into several sections defined by their use:

- **Hurst Firewood Area**
  Hurst Firewood was formerly operated by Mr. Hurst for cutting of eucalyptus trees into firewood, storage of vehicles & equipment, reported periodic engine repair. In addition, north of the firewood cutting operation, the Couch family rented the area within the trees to at least 19 residents. The residences were constructed without permits and consisted of tarps, garage doors, scrap wood, trailers, and vehicles. In addition, a methamphetamine lab was reportedly removed from one of the residences.

- **Paintball Jungle Area (East)**
  Paintball Jungle area has been commercially operated by an outside company for recreational paintball games since at least the early 1990's. Areas currently operated as paintball were previously occupied by over 150 vehicles, various debris including tarps, equipment, 55-gallon drums of known and unknown contents.

- **Animal Pens Area**
  The Animal Pens area has been used to board horses, chickens, roosters, and possibly other animals. The Couch family reportedly rents stalls and pens for animal owners to board and take care of their animals. This location was formerly used for illegal chicken fighting activities and reportedly raided several times by law enforcement.

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- **Couch Residential Area**
  The Couch Family occupied this area from at least the early 1970's. Several building permits were issued for the construction of a home that was not completed. At least one mobile home was occupied by Robert and Patricia Couch, which burned to the ground in 1994. A garage was occupied by several people and is now used to store tools. A small dwelling, constructed of wood, is currently occupied by one of the Couch's sons. Various areas of the property were occupied by the Couch's other two sons. In addition to residences, most of this area previously contained equipment, vehicles, metal debris, petroleum products, tanks, repair equipment, tools, drums and other containers, and debris including garbage. Three water wells were observed within this area.

- **Concentrated Area**
  The "Concentrated Area" was named by Napa County investigators during previous investigations and information gathering site visits. This area was previously occupied by a trailer and a methamphetamine lab, removed in 2000 or 2001. This reported methamphetamine lab was located within a chain-link fenced area. A portion of this fence still exists. This area is currently occupied by a boat, boat trailer, and camper.

- **Sherwood Forest Paintball Area and North Slough Creek**
  This area is located along the northwest corner of the property and is currently occupied by paintball operations, several wooden structures, wood chipping equipment, a truck, and CO2 compressed air containers. The creek is located along the western border of the property in this location. This area was reportedly used for drum burial and used to contain a brick fireplace. The creek flows southwest to the Napa River.

- **Paintball Jungle Area (West)**
  This area is composed of the western side of the property, west of the unpaved Commerce Blvd. This area appears to have been used for recreational paintball operations since the early 1990's, possibly earlier. Several wooden walls and paintball related structures are currently present in this area.

Roads at the site consist of an unpaved section of Commerce Boulevard, which is situated in the center of the property. Several other unpaved roads exist at the site

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including a road leading to the residence and various unpaved paths through the trees. An unpaved parking lot associated with the paintball operation exists along the southern portion of the Paintball Jungle Area (East). Each area of the site is described in further detail in Section 6.2.

Surrounding properties consist of American Canyon Wastewater Treatment Plant and undeveloped land to the northwest and west, former municipal landfill to the west and southwest, undeveloped property to the east, commercial warehouses to the north, and single-family residential property to the south. In addition, a 4-H garden area is located adjacent to the southwest across the unpaved Commerce Blvd segment from Hurst Firewood.

The information presented in Table 3.1 describes the physical location of the subject site. This information was obtained from maps, public records, and interviews.

TABLE 3.1: SITE SETTING

DESIGNATION	DESCRIPTION
Address	2 Eucalyptus Drive
Location	North of Eucalyptus Drive, west of Oat Hill, American Canyon, California
Township & Range	Township 4 North, Range 4 West, Sections 14 & 23
Assessor's Parcel Number	058-030-056
Acreage	106.57 acres
Current Use	Rural residential, recreational paintball, storage areas
Potable Water Supply	Current: City water connection; Past: imported by truck, and possible wells
Waste Water System	Septic System, surface dumping
USGS TOPOGRAPHIC QUADRANGLE Cuttings Wharf, California 7.5 Minute Series. 1949, photorevised 1981	The subject site is approximately 15 to 30 feet above mean sea level. The site topography slopes toward the west.
MUNGER MAP (ftp://ftp.consrv.ca.gov/pub/oil/maps/Dist6/W6-1/MapW6-1.pdf)	There are no mapped oil wells or dry holes located on the subject site.

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3.2 SITE SOILS

According to the Soil Survey of Napa County soils at the site are mapped as Haire clay loam, and Fagan clay loam.

The Haire series consists of moderately well drained soils located on old terraces and alluvial fans. The Haire series has slow to medium runoff, depending on slope and the hazard of erosion is slight to moderate, depending on slope.

The Fagan series consists of well drained soils on uplands. The Fagan series has medium to rapid runoff, depending on slope and the hazard of erosion is moderate to high, depending on slope.

3.3 REGIONAL AND LOCAL GEOLOGY

3.3.1 Regional Geology

The site lies within the Coast Range Geologic Province of California. This province is characterized by northwest trending mountain ranges and intervening valleys, which are a reflection of the dominant northwest structural trend in bedrock of the region. The basement rock in the northwest portion of this province is dominantly highly deformed sedimentary, metamorphic and volcanic rock of the Franciscan Complex of Upper Jurassic to Cretaceous Age.

3.3.2 Local Geology

The site is underlain by a portion of Oat Hill, which is composed of Quaternary Holocene sandstone, siltstone, and shale. The higher elevation portion of the property is composed of Late Pleistocene alluvial fan deposits which grade to the southwest. The low-lying area of the site, mainly on the western side of Commerce Blvd, is composed of Quaternary Holocene Bay Mud.

3.4 GROUNDWATER

Depth to groundwater beneath the site has not been determined. Based on a limited Phase I ESA by ESA in 2004 and a subsequent soil investigation by Kleinfelder in 2005, groundwater was not encountered above 31 feet bgs. Kleinfelder assumes, based on

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this limited data and site topography, that groundwater depth should be deeper on the northeastern portion of the site (in areas of higher topography) and become progressively shallower toward the west and southwest where the site elevation approaches the level of the slough south of Eucalyptus Drive and to the west where the site meets the surface creek that drains to the Napa River. General groundwater depth and direction may be influenced by local pumping, rainfall, and irrigation patterns. Evaluation of such factors is beyond the scope of this assessment.

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4. HISTORY OF THE SITE

The history of the site was researched to identify obvious uses of the site from the present to first developed use or back to 1940, whichever is earlier. The objective was to evaluate the likelihood that past uses resulted in RECs. Table 4.1 summarizes the information reviewed during this assessment. Kleinfelder used this information to establish the site history.

TABLE 4.1: HISTORICAL INFORMATION REVIEWED

HISTORICAL SOURCE	YEARS REVIEWED	AVAILABILITY
Aerial Photographs	1937, 1948, 1957, 1965, 1970, 1982, 1993, 1998, 2005	EDR
Topographic Maps	1902, 1914, 1947, 1951, 1968, 1981	EDR
Sanborn Fire Insurance Maps	None Available	EDR
Building Department Records	1966 to 2001	Napa County
Previous Assessments	Phase I ESA, 2004	ESA
	Phase II Investigation, 2005	Kleinfelder
	Preliminary Geotechnical Investigation, 2005	Kleinfelder
	Client-Provided Info	County, Fire Dept, Court documents
City Directories	1972, 1977, 1983, 1989, 1995, 2000, 2007	EDR
EDR Environmental Liens	2009	EDR

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4.1 AERIAL PHOTOGRAPHS

A review of historical aerial photography may indicate past activities at a site that may not be documented by other means, or observed during a site visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerial photographs were obtained from several historical photograph collections through EDR. Copes of the aerial photographs obtained by Kleinfelder are included in Appendix D.

1937

The site is occupied by a planted crop of trees, likely similar trees to the Eucalyptus trees planted at the site today. A creek is shown along the western boundary. Surrounding properties consist of residential southwest of the site boundaries, similar tree grove to the west and undeveloped land to the north, east, and south. In addition, several unpaved roads are observed in the site vicinity.

1948

The site and surrounding properties appear essentially unchanged from the 1937 photograph.

1957

The site and surrounding properties appear essentially unchanged from the 1948 photograph.

1965

The site is shown essentially unchanged from the 1957 photograph with the exception that a white structure is shown along the northern boundary of the site.

1970

A cleared area exists on the northwest corner of the site, in addition, a smaller cleared area and unpaved road with possible vehicles or trailers are shown in the northeast corner of the site. The surrounding properties appear to be essentially unchanged from the 1965 photo.

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1982

Additional unpaved roads are observed in the northwest portion of the site, along with several vehicles, possible trailer or structures, and larger cleared areas. An unpaved oval-shaped area is shown in the southern portion of the site. A round pond is shown along the western boundary of the site in the vicinity of the creek. Surrounding properties appear essentially unchanged from the 1970 photo. The overall photo quality is poor.

1993

Additional unpaved roads, vehicles, small structures are visible in the northwestern portion of the site, and many vehicles are visible within the trees in the west-central portion of the site. Additional unpaved roads are visible in the southern portion of the site, possible debris or vehicles are visible along the unpaved roads. The surrounding properties consist of undeveloped land and a tree grove immediately surrounding the site, commercial warehouses to the north, a structure on the top of Oat Hill to the east, and residential housing to the south. The rural residence previously located adjacent to the southwest is no longer present.

1998

The subject site and surrounding properties are essentially unchanged from the 1993 photograph, except the surrounding properties are slightly more densely developed and several structures are shown in the vicinity of the rural residential property adjacent to the southwest of the site.

2005

The southern portion of the site is cleared and approximately 20 vehicles and semi-truck trailers are visible. In addition, several areas of fill material piles are visible. The north-south road is wider and appears to have gravel on it. The central portion of the road is used for vehicle parking. In addition, an area on the eastern side of the property has a small paved area that appears to be used for vehicle parking. The northeastern corner of the property appears to have several trailers, vehicles and small structures. An area on the northwest corner of the site appears to be paved. Surrounding properties consist of commercial warehouses adjacent to the north, a water treatment plant to the west, residential houses to the south, and undeveloped land to the east.

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4.2 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance Maps provide historical land use information for some metropolitan areas and small, established towns. Sanborn maps were not available for this site.

4.3 HISTORICAL TOPOGRAPHIC MAPS

Kleinfelder obtained information regarding historical topographic map of the site vicinity from EDR. The topographic maps reviewed for this assessment are summarized below. Copies of the maps are included in Appendix C.

NAPA, 30 Minute Series, 1902, 1 inch = 10,416 feet

The subject site is shown as undeveloped, located west of a prominent hill with an elevation marker of 260 feet, and east of a wetlands area that drains to the Napa River.

MARE ISLAND, 15 Minute Series, 1914, 1 inch = 5,208 feet

The subject site is shown as undeveloped. The present day Eucalyptus Drive is represented as an unpaved road. A structure is depicted adjacent to the north of Eucalyptus Drive. Surrounding properties are undeveloped, with a structure depicted to the north at the end of another unpaved road.

MARE ISLAND, 15 Minute Series, 1947, 1 inch = 4,166 feet

The subject site is depicted as a vegetated area. Surrounding properties consist of three structures adjacent to the southwest, a creek along the northeast corner, and undeveloped property to the north, south, east, and west. Oat Hill is depicted as a prominent feature to the east and the Napa River is shown to the west.

CUTTINGS WHARF, 7.5 Minute Series, 1951, 1 inch = 2,000 feet

The subject site is represented as undeveloped. North slough creek is mapped along the northwest side of the property. Two structures are mapped adjacent to the southwest at the end of a paved road that continues west as an unpaved road. Oat Hill is depicted adjacent to the east and a levee and the Napa River are depicted to the west.

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CUTTINGS WHARF, 7.5 Minute Series, 1949 photorevised 1968, 1 inch = 2,000 feet
The subject site is represented as undeveloped, but within a vegetated area. Surrounding properties are shown essentially unchanged from the 1951 map.

CUTTINGS WHARF, 7.5 Minute Series, 1949 photorevised 1981, 1 inch = 2,000 feet
The subject site and surrounding properties are essentially unchanged from the 1968 map, with the exception of additional development to the southeast and southwest, with additional paved and unpaved roads.

4.4 PREVIOUS INVESTIGATIONS

Kleinfelder was provided several previous investigations for review.

Environmental Science Associates, Phase I ESA, 2004
A Phase I ESA was prepared for the site by Environmental Science Associates (ESA) in 2004. This Phase I ESA recommended a Phase II investigation focused on several areas of the Hurst Firewood operation and near the dwelling currently occupied by a member of the Couch Family that were identified as RECs. It is Kleinfelder's opinion that the Phase I ESA was limited in scope and area, and did not include important information in site records available at NCDEM, and Napa County Building and Planning. It also did not include a complete review of historic aerial photographs. In addition, the Phase I ESA was prepared well prior to the current ASTM standard and is considered to be out of date.

Kleinfelder, Phase II Soil Investigation, 2005
In 2005, Kleinfelder was tasked to rely entirely on the findings and recommendations of ESA's Phase I report, and based on the findings in the report, perform a Phase II investigation. Kleinfelder conducted Phase II soil sampling and attempted to collect groundwater. Kleinfelder collected 34 soil samples, 30 samples were from the Couch Residential portion of the site in various locations including near the reported site of former "USTs" now present aboveground, near the dwelling, near a dog pen, near structures, storage areas, and locations that appeared to be presently occupied. Soil samples were analyzed for the presence of petroleum hydrocarbons as gasoline, diesel, motor oil, methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and total xylenes (BTEX), polyaromatic hydrocarbons (PAHs), total coliform, and CAM 17 metals.

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In addition, a composite sample was taken from a soil stockpile reportedly located north of the dog pen near a shed.

Soil samples results were reported by the laboratory to not contain petroleum hydrocarbons, MTBE, BTEX, or PAHs above the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level established at that time for shallow soils where groundwater is a source for drinking water. Since this investigation was conducted, the ESL has been revised and many ESL thresholds were lowered. Soil samples analyzed for metals were reported by the laboratory to contain several metals above the ESL, however, at that time, Kleinfelder believed many of the metals concentrations (Chromium, Nickel, Vanadium, Cobalt) may be naturally-occurring. In addition, total coliform was reported within one of the samples, collected from a location near a reported outhouse. Coliform levels are expected to be elevated near outhouses.

Based on new data presented in this ESA, it is Kleinfelder's opinion that additional investigation is required to assess the potential for impacts on the site. In addition, the ESL screening levels have also been revised in May of 2008; therefore, the current screening levels may not be the same as screening levels in 2005.

Kleinfelder, Preliminary Geotechnical Investigation, 2005

Concurrent with the Phase II ESA, Kleinfelder performed a Preliminary Geotechnical investigation at the subject site in 2005. Although site geology and soils data may remain similar to conditions encountered in 2005, the reliance limitations to this report have been exceeded. It is Kleinfelder's opinion that the geotechnical report be reviewed, and if indicted, additional geotechnical investigations be conducted to augment the data and confirm the previous results.

A copy of both the Kleinfelder Phase II report and Geotechnical Report are included in Appendix G.

4.5 USER-PROVIDED INFORMATION

Kleinfelder was provided an assembly of information gathered by a third party, on behalf of our client for this investigation. This information included public records available from Napa County Environmental Management, Napa County Building and Planning

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Department, and Napa County Court records. Kleinfelder has summarized the information below. A copy of this information is included in Appendix E.

Napa County GIS Information

Kleinfelder was provided a printout of available information on the parcel, obtained from the Napa County GIS website. In addition, aerial photographs of the site from 2002 and 2007, obtained from the GIS site were included. The 2002 aerial photograph records many areas of the eastern side of the property to have vehicles, blue-tarped areas, trailers, debris, unpaved roads. The southern third of the site has been mostly cleared of trees and has many stockpiles of soil or wood chips and at least 75 truck trailers, vehicles, pieces of equipment, and small structures. The 2007 aerial photograph records fewer debris areas and vehicles, however, many vehicles, trailers, and areas of debris still exist.

User Provided Aerial Photos

Kleinfelder was provided a set of aerial photos by R.H. Hess Development Company (representative of the client), who had this area photographed in 2004. The aerial photos provided from 2004 document various areas of debris, vehicles, and structures. These photos are included in Appendix D.

Napa County Department of Environmental Management

1973 - Map, dated 1973 that records the subject site and the footprint of a proposed residence, garage, house trailer, well, and septic tank attached to a leach field. These plans are marked as "approved" by the Department of Public Health on October 17, 1973.

1990 – Order of Quarantine copy, issued on November 19, 1990 for the hazardous wastes observed on the property. The order states that "pursuant to Section 25187.6 (a)(2) no person shall remove, transfer, or dispose of the hazardous waste until permission for removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department." This order is addressed to Robert Couch and signed by Mr. Couch with a date of November 19, 1990.

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1993 – Copy of Superior Court Final Judgment and Permanent Injunction for the People of the State of California vs. Robert L. Couch, et al. The judgment describes the following findings at the property (summarized):

- At least 100 and possibly as many as 286 abandoned motor vehicles on the property;
- An unknown but significant number of piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items;
- Probably less than 10 abandoned refrigerators;
- Numerous illegal sewage disposal systems ranging from holes in the ground to outhouses and septic systems;
- Only one residence is permitted, however, a second dwelling, guest cottage, and other inhabited structures existed on the property including lean-tos, trailers, buses, structures on plots of land being rented to various tenants;
- Approximately 10 chicken coops constructed without permits;
- One water well installed without a permit;
- Storage of heavy construction equipment;
- Small amounts of hazardous waste illegally stored or disposed of at the property;
- Unpermitted mobile home, unpermitted underground utility trench;
- Burned trash areas near tenant spaces; and
- Inadequate clearance between residences and combustible material.

The judgment also states that this property is a public nuisance and orders a cleanup of the property, in addition to prohibiting future renting of property, dumping, burning, etc.

The property owners (defendants in this case) were ordered specifically to:

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- Enter a contract with a junk dealer/ hauler to haul away scrap and vehicles;
- Obtain a commercial harvester to thin out trees;
- Retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present;
- Provide hazardous waste manifests for hazardous wastes removed and disposed of; and
- Obtain bids from solid waste haulers to raze structures and clean up debris that is not income-generating or valuable.

A timeline was submitted for the tasks outlined in the judgment and each activity was scheduled to be completed by the end of 1994.

Napa County Superior Court Records

Kleinfelder was provided a copy of the available court record, filed for this case in Napa County Superior Court. In addition to the 1993 judgment summarized above, copies of written declarations by various witnesses in this case were provided from the court case files. Witnesses included Ruben Oropeza, Environmental Health Specialist for Napa County Department of Environmental Management; John Morrow, Building Inspector for Napa County Department of Conservation Development and Planning; Michael Collins, Detective for Napa County Sheriff's Office; Catherine Moody, Senior Hazardous Materials Specialist for Napa County Department of Environmental Management. In addition to their statements, various information is attached including a site map of the property's tenants and approximate areas where they resided, testing information for the liquids sampled during the inspection, and copies of photographs. Copies of these materials are in Appendix D.

In summary, this information was used during the court proceedings to provide support for the court-ordered cleanup action.

Records dated 2003 describe the schedule and approximate cost for removal and disposal of items at the site identified within the 1993 judgment. Within this document, dated September 15, 2003, Mr. Norbert Frost, attorney for Patricia Couch, states that

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"there are no known hazardous materials or substances at the property" and "the Couches would hire an environmental consultant to evaluate the property to make sure that there are no hazardous materials stored there."

Additional records dated 2003 describe the cleanup that has already been performed at the site and includes copies of disposal documents. Disposal of materials was conducted between 2001 and 2003 and generally disposed of at Devlin Road Transfer Station, various scrap tire facilities, and various metal recyclers.

Records dated by the judge on November 3, 2009, state that the following steps will be taken within 90 days following the release of funds and approval of this initial plan by the County. The plan includes the following items:

- Hurst Firewood lessee shall remove all vehicles and equipment unrelated to on-site production of firewood within 30 days;
- Accessory storage structures greater than 120 square feet that the defendants do not intend to seek a building permit for will be demolished an debris removed promptly. Permits for demolition shall be obtained from the County and Bay Area Air Quality Management District.
- Multiple debris boxes shall be rented and placed on site, all general debris, construction debris, and non-hazardous materials shall be dumped prior to the end of the 90 day initial cleanup period; and
- The approved September 5, 2009 fire mitigation plan shall be completed and maintained as specified in that plan.

In addition, this order grants $30,000 to be released from a court account to hire consultants to assist with plan and application preparations, on-site monitoring, and liaison with county staff, as well as, rent the necessary equipment to accomplish the initial clean up objectives.

Additional court records were provided to Kleinfelder which include information regarding eminent domain acquisition of a former part of the property, currently occupied by the City of American Canyon wastewater treatment plant.

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American Canyon Fire Protection District
Kleinfelder was provided a copy of two letters from Keith Caldwell, Fire Chief.

The first letter is dated September 27, 1990. Mr. Caldwell describes his attempt, along with members of building department, environmental health, and zoning enforcement on September 26, 1990 to inspect the commercial uses of the property. During this inspection, George Couch asked them to leave. This letter is a request for an inspection warrant.

The second letter is dated October 18, 1990. Mr. Caldwell describes his observations at the site which include the following:

- North corner of the property - three- 10,000 underground gasoline tanks;
- South portion of the property fronting Eucalyptus Drive- approximately 30- 55 gallon drums, undetermined amount of smaller containers, some appearing to be military with undetermined contents, some equipment that appears to be from a chemical lab or industrial lab work;
- Middle property - northeast side- large flatbed trailer with approximately 30 to 40 drums;
- Middle property - two 40-foot trailers, pad locked; and
- Throughout the entire parcel – approximately 150 abandoned vehicles in various states of dismantle and 15 to 20 residences made up of RV's or tents with no sanitary facilities.

4.6 CITY DIRECTORIES

City directories provide information regarding property occupants by address. Kleinfelder reviewed available historic city directory listings for the subject site and nearby addresses, as provided by EDR. Directories from the following years were reviewed: 1972, 1977, 1983, 1989, 1995, 2000, and 2007.

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The subject site was listed as residential in 1977, 1983, and 1989. Sherwood Forest Paintball was listed at the site address in 2007.

Nearby addresses on Eucalyptus Drive were reviewed. Listed addresses were reported as residential. In addition, Williams Construction was listed in 1983 and 1989 at 97 Eucalyptus Drive. It is Kleinfelder's opinion that Williams Construction is located too far from the site to pose an environmental concern to the subject site.

4.7 PRELIMINARY TITLE REPORT

A preliminary title report was not provided to Kleinfelder for review.

4.8 ENVIRONMENTAL LIENS

EDR researchers located available environmental lien information for the parcel associated with the property. Environmental liens were not reported by EDR for the subject site, however a quitclaim deed was found, dated July 7, 2008. A copy of the EDR environmental lien search is included in Appendix C.

4.9 VALUE REDUCTION

As part of the ASTM E 1527-05 process, information must be gathered regarding the prospective purchase price of the property relative to the fair market value of the subject site. If there appears to be a value reduction, that reduction must be identified with respect to whether the difference could be attributed to environmental degradation of the property. Kleinfelder requested that our client provide this information by filling out the "user questionnaire" form. According to Mr. Chris Koenig, on behalf of American Canyon Flat Land Inc., the purchase price is currently being litigated and it is likely that the purchase price will be greater than the fair market value of the property. In addition, Mr. Koenig reports that he believes there is potential for contamination on the site based on the court documents and report discovered as part of the due diligence he has conducted and provided to Kleinfelder.

A copy of the User Questionnaire form is included in Appendix F.

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5. RECORDS REVIEW

5.1 REGULATORY AGENCY DATABASE REVIEW

The purpose of the records review is to obtain and review records that would help to reveal Recognized Environmental Conditions in connection with the subject site and bordering properties.

Federal, State and local regulatory agencies publish databases or “lists” of businesses and properties that handle hazardous materials or waste, or are known locations of a release of hazardous substances. These databases are available for review or purchase at the regulatory agencies, or they can be obtained through a commercial database service. Kleinfelder contracted with a commercial database service, Environmental Data Resources, Inc., to review the agency lists for references to the site and any listings within the appropriate ASTM minimum search distance from the site. The executive summary and maps from the database search report are included in Appendix A of the EDR report, Regulatory Agency Database Summary. The federal and state databases reviewed are summarized on Table 5.1.

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TABLE 5.1: RECORDS REVIEWED/SEARCH DISTANCES

FEDERAL	DISTANCE
EPA National Priority List (NPL)	1-mile
Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)	½-mile
CERCLIS-NFRAP (No Further Remedial Action Planned)	Site & adjoining
Resource Conservation Recovery Act (RCRA)-CORRACTS TSDF	1-mile
RCRA-non CORRACTS TSD	½-mile
RCRA-GEN/FINDS	Site & adjoining
ERNS	Site
US Engineering Controls, US Institutional Controls	Site
STATE/LOCAL	**DISTANCE**
CLEANERS	¼-mile
CORTESE (formerly Hazardous Waste Substances)	½-mile
Landfills (SWAT/SWF/LF)	½-mile
Leaking Underground Storage Tank (LUST)	½-mile
Site Mitigation and Brownfields Reuse Program Database	½-mile
SLIC (Spills, Leaks, Investigations, & Clean-up)	½-mile
Toxic Chemical Release Inventory System (TRIS)	½-mile
Waste Discharge System (CA WDS)	½-mile
Cal-Sites, Bond Expenditure Plan (BEP), Annual Work Plan (AWP)	1-mile
Solid Waste Information System (SWIS)	1-mile
DEED	Site
Environmental Liens	Site
Above Ground Storage Tank	Site & adjoining
California Hazardous Materials Information System (CHMIRS)	Site & adjoining
FINDS	Site & adjoining
HAZNET	Site & adjoining
UST, CaFID, HistUST	Site & adjoining

A summary of facilities listed in the databases is presented in the executive summary of the EDR report, and each facility is cross-referenced with a radius map showing the location of the listed facility with respect to the subject property (Appendix A of the EDR

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document). Kleinfelder conducted a review of the EDR report to assess which listings have a significant potential to impact the subject property. Factors used to screen the listed properties include distance to the site, geology, presumed or known direction of groundwater flow, type and magnitude of hazardous material release, and nature of sensitive receptors. Those considered to have a significant potential to impact the site were then subjected to a file review at appropriate regulatory agencies. A copy of the EDR report is included in Appendix C of this report.

5.2 RESULTS OF DATABASE SEARCH

The database report shows that:

- The site was not listed on the databases searched by EDR.

The two other cases, located within the search radius, are summarized below:

- **Envirostor:** One case was listed and is summarized below:
    1. **Sunshine Auto Salvage** (1578 Green Island Road), located approximately 4110 feet north-northwest of the subject site, is listed on the Envirostor database with leaks of metals and petroleum hydrocarbons to soil. Based on distance and direction from the subject site, it is Kleinfelder's opinion that this property is unlikely to pose an environmental concern to the subject site.

- **Solid Waste Facility / Land Fill (SWF/LF):** One site was listed and is summarized below:
    1. **American Canyon Sanitary Landfill** (Western Terminus of Eucalyptus Drive), located adjacent to the western edge of the property. This landfill was closed in 1994 and was previously operated by Napa-Vallejo Waste Management Authority as a municipal landfill.

Sites not plotted by EDR due to poor or inadequate address information are referred to as orphan sites. There is one unmapped site in the EDR Report, located in Sonoma County, which is too far from the subject site to pose an environmental concern. The orphan summary/unmapped sites report was reviewed to assess the potential for off-

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site properties to be listed on databases that fall within the ASTM search distances. Based on our review this orphan site appears to be outside of the ASTM search distances.

5.3 REGULATORY AGENCY CONTACTS

The following additional sources of environmental records were reviewed during this Phase I ESA for the purposes of meeting the ASTM Standard. Local regulatory agencies were contacted for reasonably ascertainable and practically reviewable documentation regarding RECs present at the subject site and adjoining facilities (copies of file review information is included in Appendix E). Interviews with local regulatory agency representatives are included in Section 7 of this report. The following agencies were contacted for documentation:

TABLE 5.2: AGENCY CONTACTS SUMMARY

AGENCY	TYPE OF INFORMATION AND RESULTS
Napa County Department of Environmental Management (NCDEM)	Kleinfelder reviewed available files for the subject site; a summary of information gathered at NCDEM is located in Section 4.5 and in Section 5.3.1.
San Francisco Bay Regional Water Quality Control Board (SFRWQCB)	No files were available for the subject site address.
Napa County Building and Planning Department	Kleinfelder reviewed building permits at Napa County Building and Planning Department. Permits for the site dated back to 1966; a summary of information reviewed is located in Section 5.3.2.
State of California Fire Marshal Office of Pipeline Safety	No pipelines, jurisdictional to the State Fire Marshal's office, are located at the site.
State of California, Department of Conservation, Division of Oil and Gas	No oil or gas wells are depicted on or adjacent to the subject site.

5.3.1 NCDEM Records Review

Kleinfelder representative Sarah Kalika reviewed available site records at NCDEM on November 10, 2009. Available files were similar to information provided by the client and included two soil boring application permits dated March 2005 and March 2006,

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records from the court judgment dated 1993, copies of correspondence from the hazardous materials testing performed in 1991 and inspections in 1990 and 1991, and additional correspondence dated 2003 and 2005. A more detailed description of the contents of this correspondence is included in Section 4.5, and copies of the information gathered are included in Appendix E.

5.3.2 Napa County Building and Planning Department

Kleinfelder representative Sarah Kalika reviewed one available file assigned to the parcel number at Napa County Building and Planning Department on November 10, 2009. The file contained records dating back to March 1966 and consist of the following:

- 1966: Planning department approval of a proposed dwelling
- 1967: Application for building permit and certificate of occupancy for a garage, tool sheds with foundations
- 1968: Electrical permit application
- 1973: Temporary use permit to Robert Couch, Jr. to utilize a construction trailer while completing a residence on a 170-acre parcel, limited to one year on until dwelling is constructed, whichever occurs first; dwelling permit application for 3,484 square foot house
- 1973: Sewage disposal system installed (septic tank and leach field)
- 1974: Use permit application to develop a recreation area to be utilized by American Canyon residents
- 1974: Temporary use permit renewal for construction trailer
- 1977: Correspondence regarding temporary use permit for trailer to Robert Couch, Jr., notice that temp use permit will expire on 3/9/77
- 1983: Correspondence that no work had been performed at proposed dwelling since 1976, permit cancelled, Board of Supervisors requires new permits for future work

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- 1984: Request for inspection to see what progress has been made on construction. Inspection conducted 5/7/84, building has not been built.
- 1987: Permit application for new storage building, 3 storage containers (8x40 feet each), permit subsequently canceled on 3/13/93
- 1988: Order to comply, building permit required for shed roof and electrical permit for trailer
- 1990: Inspection warrant from Building Department to Assistant District Attorney Daryl Roberts "the property is in violation of Section 11206 (a), Ch1, Art 3 of Title XI of the Napa County Code."
- 1992: Negative Declaration for Paintball activities
- 1992: Use permit approved for paintball, to Robert D'Elia of Concord, CA.
- 1993: Approval of use permit for paintball (in area west of project site boundaries) to Gladis Jarquin
- 1994: Notice of paintball use permit approval with expiration of 5/28/97, notice to Dean Laing of Vacaville, CA with instruction "no paintball games to be conducted between 10/15 and 4/1 of any year unless all required road and parking improvements are installed and approved by Department of Public Works and Napa County Fire Department."
- 1994: Request for inspection to building department with note "trailer Couch was living in burnt completely last night, per Chief Caldwell"
- 1995: Use permit for paintball, no map attached
- 2001: Sherwood Forest Paintball use permit approved, no map attached

Copies of maps and correspondence collected during this file review are included in Appendix E.

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6. SITE RECONNAISSANCE

Kleinfelder's assessment activities included a site reconnaissance. This section summarizes the findings from the site reconnaissance.

6.1 METHODOLOGY AND LIMITING CONDITIONS

Kleinfelder representative Sarah Kalika conducted a site reconnaissance on November 18, 2009, to assess and photograph present site conditions. Kleinfelder was accompanied by Mr. Chris Koenig of R.H. Hess Development Company, Mr. Michael Johnson of Griswold, LaSalle, Cobb, Dowd, and Gin, and a solid materials hauling contractor who is a potential bidder to remove solid waste material on behalf of our client. In addition, Mr. Glen Couch, his wife, and their attorney were also present to facilitate access to the Couch residence portion of the subject site.

The approximate site boundaries are shown on Plate 2 over an aerial photo from 2002. The northern portion of the 2002 aerial is shown on Plate 3, the central portion of the 2002 aerial photo from 2002 is shown on Plate 4, and the southern portion of the 2002 aerial photo from 2002 is shown on Plate 5. Color photographs of the site are shown in Appendix A. Site conditions discussed below are limited to readily apparent environmental conditions observed on the date of site reconnaissance.

6.2 ON-SITE OBSERVATIONS

The site consists of a eucalyptus grove, separated into several sections, as shown on Plate 2. The sections will be described as groups below.

Hurst Firewood Area: southern section of site, north of Eucalyptus Drive, south of Paintball Jungle operation, east of unpaved segment of Commerce Drive

Kleinfelder observed several piles of wood chips, concrete debris, approximately 11 abandoned pieces of equipment including heavy equipment, box trailers, semi-trucks, and one boat. None of the equipment appeared to be operational and several were observed to be leaking hydraulic fluid. One pole-mounted transformer was observed and was labeled "Non-PCB."

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Paintball Jungle Area (East): eastern central section of site, north of Hurst Firewood area, east of unpaved segment of Commerce Drive, south of Couch Residential area

Kleinfelder observed paintball operations, several small shed structures, a fenced area of compressed CO2 gas cylinders, a semi-paved parking lot area, shooting range with many plastic 55-gallon drums. The plastic 55-gallon drums appeared to be relatively new and were labeled as previously containing olive oil or vinegar. Much of the ground, trees, drums, and other plastic or wooden barriers constructed related to paintball, were covered in paintball paint and unexploded paintballs.

Animal Pens Area: eastern central section of site, north and east of Paintball Jungle

Kleinfelder did not have access to the interior of this area. Observations and photographs were taken from fence line perimeter. Kleinfelder observed at least 10 horses, several chickens and roosters, three pickup trucks, many covered areas constructed of wood with corrugated metal roofs, several plastic and metal 55-gallon drums with unknown contents, and several portable containers, assumed to contain water.

Couch Residential Area: northeastern portion of site, north of Paintball Jungle and animal pens

Kleinfelder observed approximately four structures, one used as a residence, one a garage, and the others outbuildings, assumed to be sheds. One house foundation partially constructed is located near the garage. In addition, Kleinfelder observed many storage areas, covered areas, vehicles including several cars, two vans, at least three pickup trucks, one fire truck, one school bus with no front wheels, at least three pieces of heavy equipment or parts (excavator, bulldozer), one temporary office trailer, at least two metal storage containers, two boats, small wood chipper, camper shells, and travel trailers, tank on wheels, and a motorcycle.

Equipment at the site that may contain hazardous materials included, but is not limited to, many small tanks, one propane tank, one yellow flammables cabinet with hand-written sign “Anthrax Powder Storage Container” which Kleinfelder believes may be a

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hoax label, several cans of paint, at least two air compressors, compressed air cylinders (helium or CO2 tanks), several gasoline cans, car batteries, fire extinguishers, and abandoned appliances.

Debris at the site included, but is not limited to, metal scrap, pipes, plastic debris, household garbage, old clothing, road signs, and several tires.

One gravestone was observed with several names as follows:

- Annie Hammond 1848-1922
- Sam'l B. Hammond 1878-1930
- Fred L. Hammond 1875-1931
- Mabel C. Hammond Sept 26 1886 aged 4 yrs, 11 mo, and 21 days
- Thomas Shields, native of Vermont (scratched out) 28, 1883 68 years, 15 days

It is Kleinfelder's opinion that the gravestone may have been transported from a cemetery or other source and not an actual gravesite.

Two wells were observed with adjacent small storage tanks (up to 150 gallons) that did not appear to be operating and did not appear to be connected to electricity or pipes.

One septic tank with buried pipe was observed near the house foundation.

One power pole was observed with three pole-mounted transformers, no PCB information was observed on the transformers, though they appeared to be in good condition without obvious signs of leaks.

"Concentrated Area": northern section of site, west of unpaved segment of Commerce Drive, east of Sherwood Forest Paintball

Kleinfelder observed a chain-link fenced area with debris including an outhouse, camper trailer, boat trailer, one boat, one enclosed & locked storage trailer, a few small bottles labeled motor oil, approximately 25 five-gallon buckets that appeared to be empty, a ladder, and various scrap pieces of plywood.

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Sherwood Forest Paintball Area and North Slough Creek: western side of site, west of unpaved segment of Commerce Drive

Kleinfelder observed several wooden structures and shelters, assumed to be for paintball operations. In addition, one truck was observed in the northwest corner of the operation, east of the creek.

A creek was observed along the northwestern boundary of the property. The creek appeared to flow south.

The site is bounded by commercial warehouses to the north, American Canyon Wastewater Treatment Plant to the northwest, undeveloped land and former landfill to the west, 4-H garden west of the area occupied by Hurst Firewood, Eucalyptus Drive and single-family residential houses to the south, and undeveloped land (Oat Hill) to the east.

Site observations are tabulated in Table 6.1.

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TABLE 6.1: SITE OBSERVATIONS

General Observations	Remarks	Observed	Not Observed
Hazardous chemical and petroleum products in connection with known use.	Fuels	X	
Fill dirt from an unknown source.	Hurst Firewood has various fill areas, another mound of fill in northwest corner along eastern side of creek	X	
Aboveground storage tanks (ASTs)	Various metal and plastic storage containers with unknown contents	X	
Underground storage tanks (USTs)			X
Odors	Animal odor near pens	X	
Pools of Liquid		X	
Drums		X	
Hazardous chemical and petroleum products in connection with unknown use.		X	
Unidentified substance containers		X	

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TABLE 6.1 (CONTINUED)
SITE OBSERVATIONS

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Chemical storage or agricultural chemical mixing areas			X
Asbestos, and lead based paints	Possible	X	
Polychlorinated biphenyls (PCBs)	Possible- three pole mounted transformers (unlabeled) Couch Residential area	X	
Pits, Ponds, or Lagoons	Various pits, undulating land	X	
Stained soil or pavement			X
Stressed vegetation			X
Hazardous Waste Storage			X
Solid Waste	Debris	X	
Waste Water			X
Process waste water			X
Wells	Two wells, unknown usage	X	
Dry wells			X

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TABLE 6.1 (CONTINUED)
SITE OBSERVATIONS

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Surface water	Creek	X	
Storm basins/catch			X
Storm drains			X
Drains and sumps			X
Septic system	One septic tank, near house foundation	X	
Loading and unloading areas	No specific loading and unloading areas	X	
Burned or buried debris	Various locations of buried debris (plastic, wood, cloth) many areas buried by eucalyptus leaves	X	

6.3 OFF-SITE OBSERVATIONS

Kleinfelder conducted a brief drive-by survey of the parcels adjacent to the site on the same day as the site reconnaissance. A summary of the off-site properties is summarized in the following table:

TABLE 6.2
SURROUNDING PROPERTIES

North	Commercial warehouses
South	Eucalyptus Drive, single-family residential houses
East	Undeveloped land, Oat Hill
West	American Canyon Wastewater Treatment Plant, closed landfill, 4-H garden, undeveloped land, slough, Napa River

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7. INTERVIEWS

Kleinfelder contacted “Key Site Managers” Michael Mochizuki of American Canyon Flat Land Inc., and Mr. Michael Johnson of Griswold, LaSalle, Cobb, Dowd, and Gin. Key Site Managers are contacted to obtain current and historical environmental information concerning the subject site. Mr. Mochizuki provided an interview questionnaire and “user questionnaire” form, completed by Mr. Chris Koenig, who has conducted due diligence research on behalf of American Canyon Flat Land Inc. A copy of this research has been provided to Kleinfelder and is included as “user provided information” in Appendix D and summarized in Section 4.5. A copy of the completed interview questionnaire as well as transmittal letter and backup information is included in Appendix F.

In addition to the completed questionnaire, Mr. Michael Mochizuki presented Kleinfelder with a letter that states that American Canyon Flat Land Inc. has been diligent in providing all of the information that they could find in regard to the history of the Couch Property. In addition, he states that the Couch’s have been unwilling to provide further information relating to the condition of the property and therefore American Canyon Flat Land has researched public records and conducted reasonable due diligence. He also states that American Canyon Flat Land Inc. cannot represent that there are not other potential environmental issues related to the Couch Property and ACFL has disclosed that which they have discovered through reasonable due diligence to determine potential issues relating to the Couch Property.

7.1 INTERVIEW WITH OWNER/MANAGER

Kleinfelder was unable to interview the current owner because no members of the Couch Family were willing to complete the interview form.

7.2 INTERVIEW WITH OCCUPANTS

The subject site is occupied by a member of the Couch Family who was not present during the site visit. No interviews were granted to Kleinfelder by the attorneys representing the current occupants.

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7.3 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Local government officials were contacted to obtain further information about environmental enforcement actions pending or ongoing at the site and adjacent facilities, or relevant permits (e.g. building, air quality, well abandonment, etc.) for the site and adjoining properties.

Napa County Department of Environmental Management

Kleinfelder contacted Napa County Department of Environmental Management. Kleinfelder reviewed available files for the property on November 10, 2009. A summary of records reviewed is located in Section 5.3.1.

San Francisco Bay Regional Water Quality Control Board

Kleinfelder contacted Melinda Wong of San Francisco Bay Regional Water Quality Control Board and requested to review any available files for the subject site. According to Ms. Wong, no files were available for the project site.

Napa County Building and Planning

Kleinfelder contacted the Napa County Department of Building and Planning. Kleinfelder reviewed available files for the property on November 10, 2009. A summary of records reviewed is located in Section 5.3.2.

Ed Colby, Napa County Planning

Kleinfelder interviewed Mr. Ed Colby, Planner III / Code Compliance for the Napa County Planning Department, on November 17, 2009. Mr. Colby stated that he has been associated with this site since 1990. Mr. Colby stated that he conducted a site visit, along with various County employees, Napa County Sheriff's Department, and Fire Department investigators in the early 1990's. Mr. Colby stated that he continues to perform periodic inspections of the property to assess progress on the cleanup order judgment of 1993. Mr. Colby stated that his most recent visit was in September 2008 and a report was issued in March 2009. A copy of this report is included in Appendix D, user provided information. During the interview, Mr. Colby reviewed the County Planning file for the site and described the various areas that County Code Enforcement divided the site into for ease of explanation in a report. Those areas include "Paintball 1, Concentrated Area, Staging Area, Area 1, Area 2" etc. Mr. Colby stated that the only

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permitted activities at the site are paintball and firewood. Mr. Colby indicated that his inspections were exterior only; he personally has not entered any of the structures. Mr. Colby also stated that inspections by code enforcement were conducted at the request of county council, in response to requests by the Couch family to release Napa County cleanup funds for environmental and waste cleanup. Mr. Colby explained that County funding was set aside to assist in the cleanup and Code Enforcement was required to perform progress inspections before additional funds could be released. Mr. Colby stated that Mr. Keith Caldwell, current Napa County Supervisor and former American Canyon Fire District Chief reported that a methamphetamine lab was discovered and removed in 2000 somewhere onsite. Mr. Colby did not have knowledge of where the lab was discovered and suggested Kleinfelder speak to Mr. Caldwell directly. In addition, Mr. Colby recommended Kleinfelder speak to Mr. John Kara at Napa County Department of Environmental Management to obtain additional information regarding hazmat data collected at the site.

John Kara, Napa County Department of Environmental Management

Kleinfelder spoke briefly with Mr. John Kara of NCDEM on November 10, 2009. Mr. Kara stated that he could not provide additional information other than what was in the NCDEM file for the property.

Keith Caldwell, Napa County Supervisor- District 5 (American Canyon Area)

Kleinfelder interviewed Mr. Keith Caldwell, current Napa County Supervisor representing District 5, which includes American Canyon. Mr. Caldwell stated that he was formerly employed at the American Canyon Fire District as the Fire Chief. Mr. Caldwell stated that he was raised in American Canyon and has knowledge of the site dating back to when he was a teenager. Professionally, he was associated with the site since the mid 1980's. Mr. Caldwell provided an account from memory of various inspections associated with the warrant granted in the early 1990's and various times the Fire Department responded to emergencies at the site. Mr. Caldwell stated that a multi-agency team performed an inspection at the site under an inspection warrant based on many complaints and concerns about fire hazards and illegal living conditions. Mr. Caldwell stated that he observed over 100 cars, some drums, heavy equipment (construction equipment and some cars, some were stolen), a flatbed trailer with 20-25 drums, two meth labs, and many areas of dumping and illegal occupancy. Mr. Caldwell stated that he had heard rumors from local residents that drums were buried onsite, but

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he was never able to find the locations. He was told by a local that drums may have been buried in the northwest corner of the site near an old stone fireplace. Mr. Caldwell identified two locations where meth labs were found and removed by the Sheriff's Department. One location was within the area identified by Napa County Code Enforcement as "Concentrated Area" within a chain-link fenced area. The other location was within the area currently occupied by Hurst Firewood. He stated that this location was approximately 100 yards west off of the eastern road within the area previously occupied by renters. Mr. Caldwell stated that red phosphorous was found and removed by the Sheriff's Department, and this chemical is typical of meth labs. Mr. Caldwell stated that within the firewood area, various motor oils and diesel fuel spills were observed and were minor. Mr. Caldwell described several fires within the Couch residential area of the site. Mr. Couch's mobile home burned in 1994; within the fire were guns, ammunition, and propane. Mr. Caldwell stated that the cars he observed were generally on the eastern side of the unpaved north-south road. Mr. Caldwell stated that within the Hurst Firewood area, Mr. Hurst sometimes performed engine repairs and that the approximately 30 people who lived in that portion of the site also periodically performed auto and engine repair.

In addition to environmental concerns, Mr. Caldwell stated that the area currently occupied by the American Canyon Wastewater Treatment Plant was cleared of eucalyptus trees, he heard that the trees were removed rather easily, but the root balls were approximately 10 feet in diameter and that "the biggest grinder west of the Mississippi" had to be hired to conduct stump grinding. Mr. Caldwell stated that a few root balls were transported to the 4-H area southwest of the site and are probably still there for viewing.

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8. EVALUATION

Kleinfelder performed this Phase I ESA in accordance with the scope and limitations of ASTM Practice E-1527-05 and the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law). The purpose of this assessment was to evaluate the likelihood of RECs resulting from the present or past usage, storage, or disposal of hazardous substances or petroleum hydrocarbons at the subject site and in the surrounding area. Kleinfelder's findings and conclusions are presented below.

8.1 FINDINGS

For ease of description, the site is divided into several areas and described counterclockwise from Eucalyptus Drive (Plate 2):

- Hurst Firewood Area: located adjacent to the north of Eucalyptus Drive, south of an east/west unpaved road, and east of the unpaved section of Commerce Blvd. that runs north/south through the site;
- Paintball Jungle Area (East): located north of the east/west unpaved road and Hurst Firewood, south of the animal pens and Couch Residential Area, and on both sides of Commerce Blvd;
- Animal Pens Area: located north of Paintball Jungle and south of the Couch Residential Area;
- Couch Residential Area: located north of the animal pens, south of the property boundary, east of Commerce Blvd;
- "Concentrated Area" (name in accordance with County investigation and legal document maps): located west of Commerce Blvd across from the Couch Residential Area; and
- Sherwood Forest Paintball & North Slough Creek Area: located at the northwest corner of the property, west of the Concentrated Area.

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- Paintball Jungle Area (West): located on the western side of Commerce Boulevard, south of Sherwood Forest Paintball, north of the property line, east of the property line.

The site has been developed as a eucalyptus tree farm since at least 1937. A Phase I ESA was performed in 2004 by Environmental Science Associates (ESA) that covered the entire parcel, but findings and recommendations were restricted to the 2004 observations of conditions at the Couch Residence and Hurst Firewood Areas. A Phase II soil and groundwater investigation performed by Kleinfelder in 2005 was based on the recommendations from ESA's Phase I report and maps, and therefore addressed only a portion of the areas where previous dumping, spills, and leaks may have occurred. During the Phase II investigation, Kleinfelder collected soil samples but did not encounter groundwater for sampling.

This Phase I ESA represents a re-evaluation of the site based on new information provided to Kleinfelder since the original investigations.

The following is a summary of Kleinfelder's findings in each area.

Hurst Firewood Area:
This area is currently occupied by Hurst Firewood, a business owned by Mr. Hurst, used for cutting eucalyptus trees into firewood for sale. Previously, as few as 19 to as many as 30 people reportedly may have resided in this area, mainly north of area cleared of trees. These renters set up residences on small plots of land that were not connected to water, sewer, or electricity. According to Keith Caldwell, former American Canyon Fire Chief, many of these renters conducted short-scale engine and auto repairs and one methamphetamine lab was discovered and removed. In addition, Mr. Hurst previously stored approximately 50 vehicles and pieces of equipment at the site and performed small-scale engine repairs on these vehicles. Kleinfelder observed several stockpiles of wood chips and soil and concrete debris during the site visit.

Paintball Jungle Area (East):
This area is currently occupied by paintball games operated under the name Paintball Jungle. According to permitting records, paintball operations have occurred at the site

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since at least 1990. Prior to paintball operations, the majority of this area was occupied by junked cars, vehicles, drums, containers, trash, and other debris.

Animal Pens Area:
This area is currently occupied by animals including horses, roosters, and hens. The Couch family reportedly rents stalls and pens for horse boarding. Several vehicles were observed in this area as well as various storage containers. Kleinfelder did not have interior access to this portion of the site so observations were made from the perimeter fence. This area was reported to be occupied by various animals and was the site of illegal animal fighting activities.

Couch Residential Area:
This area is currently occupied by one member of the Couch family who lives on the property in a reportedly unpermitted dwelling. Kleinfelder observed at least 10 vehicles and hundreds of other pieces of equipment, various containers of paints, transmission oil, motor oils, areas of dumped garbage, three unpermitted wells, several large containers including tanks, tanks on wheels, structures, locked storage containers or structures that Kleinfelder could not access, and various debris. Previously, this area reportedly contained over 150 vehicles, hundreds of tires, additional structures occupied by other members of the Couch Family and possibly additional renters, and many widespread areas of debris.

Kleinfelder reviewed various documentation related to the 1993 court-ordered cleanup. This area of the site contained drums that were sampled by Catherine Moody of NCDEM and found to be either diesel or phenols which Robert Couch and David Couch reportedly described as “cresol.” Various subsequent court documents describe cleanup activities at the site and provide copies of household waste disposal at Devlin Road landfill in American Canyon (a Class III municipal landfill), tire disposal at a recycler, scrap metal at a recycler, and junked car removal and disposal. The documents do not include manifests for the hazardous materials found to be within drums, fluids from vehicles, and contents of small containers. These materials, if disposed of properly, would have been disposed of at the fire department or a Class II landfill by a certified waste hauler. However, Kleinfelder searched the DTSC and Cal-EPA database to obtain records of a possible RCRA generator ID number (required on

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the waste manifest for hazardous materials) and no RCRA ID number was found for the Couch Family. A RCRA ID was found for paintball operations only.

Concentrated Area:

This area was identified and labeled by Napa County investigators during previous investigations and information gathering. This area is currently occupied by a chain-link fence, wooden garage door barrier, outhouse, boat, boat trailer, and camper trailer. This area previously was occupied by various renters and reportedly was the site of an additional illegal methamphetamine lab, which was reportedly removed by the Napa County Sheriff's Department in approximately 2000.

Sherwood Forest Paintball Area:

This area, located on the northwest corner of the property, appears to be currently occupied by paintball operations, formerly operated under the name "Sherwood Forest" paintball. Kleinfelder is not sure whether this company still operates this portion of the site, or whether this area is used by Paintball Jungle. Kleinfelder observed several small structures in this area including an enclosure for CO_2 compressed gas containers, a pickup truck, and a wood chipping machine. This area previously was reported to be the "cleared area" and possible location of an outdoor fireplace. According to Keith Caldwell, this area reportedly was a location where drums may have been buried.

North Slough Creek (within Sherwood Forest Paintball Area):

A creek, which appears to drain southwest to the Napa River, is located on the northwest corner of the property near the site boundary. A rock and soil pile was observed along the eastern bank of the creek. It was reported to Kleinfelder by Mr. Michael Johnson that a concern exists regarding the runoff within the creek, which was based on a reported surface water quality violation that was issued to the adjacent American Canyon Wastewater treatment plant. According to Mr. Johnson, the wastewater treatment plant was concerned that the source for pollutants in the creek was the Couch Property. Kleinfelder has not seen a copy of the complaint or the results of any sampling or analysis that may have been performed.

Paintball Jungle Area (West):

This area, which comprises the majority of the area west of unpaved Commerce Blvd, was previously and now is currently used for paintball games. Several structures

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constructed of wood and 55-gallon drums were observed as well as two outhouses. Minor dumping was reported along the roadside but no residences or tenants occupied this area.

8.2 OTHER ISSUES

In addition, while not considered by definition to be RECs, the following other environmental conditions were revealed that could affect the subject site:

- A septic system exists at the subject site. The purpose of the septic system is to receive domestic sewage. If future construction activities encounter the septic system or the system is no longer in use, the system must be abandoned in accordance with applicable local permitting requirements and regulations.
- Although asbestos and lead is specifically excluded from the Phase I standards, Kleinfelder recommends that all structures be surveyed prior to demolition in compliance with EPA, Bay Area Air Quality Control Management District, and Napa County Building Department rules and regulations.
- Three wells were observed at the site. If these wells are no longer in use, they must be abandoned in accordance with applicable federal, state, and local regulations.
- A complaint and possible violation reportedly occurred related to waters of the creek, located on the property in the northwest corner. The City of American Canyon Water Treatment Facility was reportedly concerned by the possibility of source material leaching into the creek from materials on the Couch property.

8.3 DEVIATIONS AND ADDITIONAL SERVICES

The scope of this ESA does not incorporate ASTM Standard non-scope considerations, such as asbestos/lead-based paint, radon, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

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8.4 CONCLUSIONS AND RECOMMENDATIONS

Kleinfelder's Phase I ESA of the subject site revealed the following current and historic RECs associated with the site.

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

Based on Kleinfelder's review of the 1990 and 1991 inspections, 1993 court judgment and cleanup order and related photographs, aerial photograph from 2002, and recent site visit, Kleinfelder recommends the following investigations:

- Each of the three wells should be sampled for water quality and presence of various constituents. These wells appear to be unpermitted and should be abandoned properly in compliance with Federal, State, and local regulations.

- A soil and groundwater investigation should be conducted within each area of the site to assess the extent of chemical constituents of concern in the soil and groundwater including, but not limited to, petroleum hydrocarbons, metals, and volatile organic compounds.

- Surface water and sediment should be sampled within the creek to assess the presence of leached materials that may travel off-site within creek runoff.

- The septic tank should be abandoned in accordance with applicable regulations, if no longer in use.

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- A pre-demolition asbestos survey should be conducted in accordance with Federal, state, and local regulations.

8.4.1 Data Gaps

Although Kleinfelder attempted to obtain reasonably ascertainable information regarding the Site, some information was either not received or not readily available at the time of this report. Therefore, consistent with ASTM Standard E1527-05, the following data failures (data gaps) have been identified.

- Kleinfelder was not granted an interview with the current property owner.
- Kleinfelder was not granted an interview with the current site resident.
- Kleinfelder was not able to access the interior of the animal pens.
- Kleinfelder did not enter the interior of any locked vehicles, structure, or the dwelling.

Based on a review of the data gaps presented above, it is Kleinfelder's opinion that the data failure is not likely to have affected the identification of additional recognized environmental conditions at the site.

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9. REFERENCES

1. Environmental Data Resources, Radius Map Report, Couch Property, 2 Eucalyptus Drive, American Canyon, CA 94503.

2. Environmental Data Resources, Couch Property, 2 Eucalyptus Drive, American Canyon, CA 94503.

3. State of California – Department of Conservation, Division of Oil, Gas, and Geothermal Resources. (ftp://ftp.consrv.ca.gov/pub/oil/maps/Dist6/W6-1/MapW6-1.pdf)

4. Geologic Map and Map Database of Northeastern San Francisco Bay Region, Graymer, Jones, and Brabb, USGS, 2002, scale 1:100,000.

5. Topographic Map, Cuttings Wharf Quadrangle, 1949 photorevised 1981 (1 inch = 2,000 feet).

6. Soil Survey of Napa County, California, United States Department of Agriculture, Soil Conservation Service, 1978. (http://www.ca.nrcs.usda.gov/mlra02/napa/)

Other documents used in the preparation of this report are referenced within the report text.

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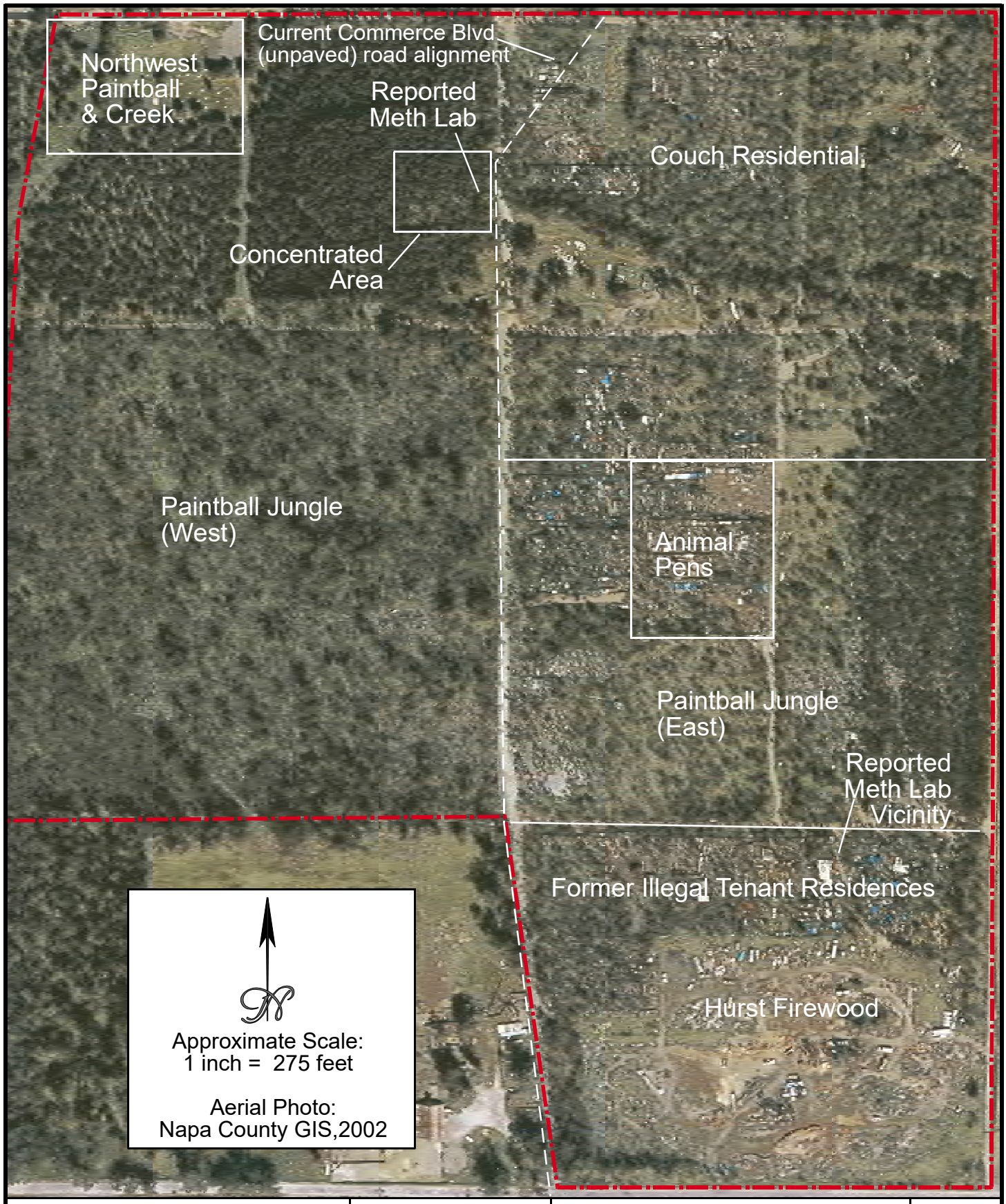

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www.Kleinfelder.com

Project Number: 107515	
Graphic Date: 12/21/09	**SITEPLAN AREA BOUNDARIES 2002 AERIAL PHOTO**
Graphic By: S. Kalika	
Checked By: S. Kalika	COUCH PROPERTY 2 EUCALYPTUS DRIVE AMERICAN CANYON, CALIFORNIA
File Name: area_bound.fh11	

Plate 2

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ICES
Innovative & Creative
Environmental Solutions

April 19, 2010 ICES 7011

Mr. Michael Mochizuki
American Canyon Flatland Company
7674 North Woodson Avenue
Fresno, California 93711

Subject: Limited Site Investigation
2 Eucalyptus Drive
American Canyon, California

Dear Michael:

Enclosed is the Limited Site Investigation Report documenting the soil sampling that was conducted by Innovative and Creative Environmental Solutions at 2 Eucalyptus Drive in American Canyon, California.

If you have any questions or comments concerning this report, please call Derek Wong or me.

Sincerely,

Peng Leong
Principal Engineer

Enclosure

Tel (510) 652-3222
Fax (510) 652-3555

3300 Powell Street
Suite #109
Emeryville, CA
94608

LIMITED SITE INVESTIGATION

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

April 19, 2010

ICES 7011

Prepared for:

Mr. Michael Mochizuki
American Canyon Flat Land Company
7674 North Woodson Avenue
Fresno, California 93711

ICES
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ICES

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April 19, 2010 ICES 7011

LIMITED SITE INVESTIGATION

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

1.0 INTRODUCTION

This report presents the findings of the Limited Site Investigation that was conducted by Innovative and Creative Environmental Solutions (ICES) at the Hurst Firewood Area and the Paint Ball Jungle (West) located within 2 Eucalyptus Drive in American Canyon, California. ("the Site"; Figure 1).

The purpose of the investigation was to address the recommendations proposed in Kleinfelder's Phase I Environmental Site Assessment (ESA) report dated December 22, 2009 for parcels located within the Site. The investigation was limited to collecting soil samples from the shallow surface sediments within the Site and analyzing the samples for total petroleum hydrocarbons (TPH) as gasoline (TPHg); TPH as diesel (TPHd); TPH as motor oil (TPHmo); volatile organic compounds (VOCs); and metals.

2.0 SITE DESCRIPTION

The Site is located on the north side of Eucalyptus Drive and is within the legal jurisdiction of the City of American Canyon, in conjunction with Napa County and the State of California.

The Hurst Firewood Area is located adjacent to and north of Eucalyptus Drive. The Hurst Firewood Area consists of an approximately rectangular parcel covering an area of approximately 15.7 acres. The area is used as a storage yard and for cutting eucalyptus trees into firewood for sale.

The Paintball Jungle (West) is located northwest of the Hurst Firewood Area and is occupied by a eucalyptus grove covering an area of approximately 47.04 acres. The area is currently used

for paintball games.

3.0 BACKGROUND

Historically, the Site has been a eucalyptus grove. The Site has had numerous uses over the years, including reportedly illegal uses such as methamphetamine labs, hazardous waste storage, and temporary residential shelters. Currently, the southeastern portion of the Site is used as a storage yard and for cutting eucalyptus trees into firewood. Paint ball fields are located at the western portion of the Site.

A Phase I ESA was conducted by Environmental Science Associates of Sacramento, California in October 2004 for the Site and neighboring parcels. Environmental Science Associates' assessment revealed that there was past and present undocumented and illegal storage of hazardous materials and waste at the Hurst Firewood Area. Additionally, Environmental Science Associates reported that a large amount of soil containing some type of oil was deposited at the Hurst Firewood Area in the 1970s for a motorcycle track. A site investigation was recommended based on their findings.

Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005 for the Site and adjacent parcels. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum hydrocarbon constituents, polynuclear aromatic hydrocarbons (PAHs), total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the Regional Water Quality Control Boards Environmental Screening Levels (ESLs, where groundwater is a current or potential source of drinking water) for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the neighboring parcel, located directly north and east of the Site.

ICES conducted a Phase I ESA for the Site and neighboring parcels in March 2006. Based on the findings of the Phase I ESA, ICES recommended that a supplementary investigation be conducted at the Site.

A supplementary site investigation was performed by ICES in March 2006 for the Site and neighboring parcels. Laboratory analytical results indicated that soil samples collected from the Paintball Jungle (West) contained non-detectable concentrations of organochlorine pesticides; and concentrations of arsenic, chromium, lead, and mercury which were within typical background levels and also below their respective residential ESLs, with the exception of arsenic. Arsenic concentrations encountered in the soil samples exceeded the previous residential ESL of 5.5 mg/kg but were below the upper background range of 12 mg/kg. Results of the soil samples that were collected from the Hurst Firewood Area indicated non-detectable concentrations of SVOCs; and non-detectable to low concentrations of TPHd and TPHmo. The detectable TPHd and TPHmo contained in the soil samples were below the previous residential ESLs of 100 mg/kg and 500 mg/kg, respectively. Lead concentrations contained in the samples were within background levels and below the previous residential ESL of 150 mg/kg. Concentrations of arsenic, chromium, and vanadium contained in the soil samples collected from the neighboring parcel, located north and east of the Site, were within typical background levels and generally below their respective residential ESLs, with the exception of arsenic. Arsenic concentrations in nineteen of the twenty soil samples were above the residential ESL but at or below the upper bound of background range of 12 mg/kg.

Kleinfelder prepared an updated Phase I ESA for the Site and neighboring parcels in December 2009. Based on their findings, Kleinfelder recommended that a supplementary site investigation be performed.

4.0 LIMITED SITE INVESTIGATION

ICES collected soil samples on March 25, 2010. A total of eight soil samples were collected from eight sample locations. Samples TP-1 through TP-4 were collected within the Paintball Jungle (West) and samples TP-5 through TP-8 were collected at the Hurst Firewood Area. The approximate sample locations are shown in Figure 2.

Soil samples were collected from the shallow surficial soil at a depth of approximately 6 to 9 inches below the existing ground surface (bgs) by driving a precleaned brass tube into the floor of the shallow test pits.

After being sealed and labeled, the soil samples were immediately

placed in a chilled cooler containing crushed ice for transportation to the laboratory. Proper documentation and field chain-of-custody procedures were followed.

All equipment used during this investigation which might have come into contact with contaminated materials was thoroughly decontaminated before and after each use. This was accomplished by washing with Alconox (a laboratory-grade detergent) and rinsing with deionized or distilled water.

5.0 LABORATORY ANALYSIS

The soil samples were sent to McCampbell Analytical, Inc. of Pittsburg, California, a state-certified laboratory, and analyzed for:

- TPHg, TPHd, and TPHmo using EPA Method 8015B;
- VOCs using EPA Method 8260B; and
- CAM 17 Metals using EPA Method 6020A.

The samples were analyzed on a normal turnaround basis.

6.0 INVESTIGATION RESULTS

The laboratory analytical results are presented below and summarized in Tables 1 and 2. Laboratory certificates are included in Appendix A.

6.1 Laboratory Analytical Results

Analysis of the surficial soil samples indicated that:

Petroleum Hydrocarbons

- TPHg concentrations ranged from less than 1.0 mg/kg (not detected) to 2.6 mg/kg.
- TPHd concentrations ranged from 28 mg/kg to 160 mg/kg.
- TPHmo concentrations ranged from 28 mg/kg to 830 mg/kg.

Volatile Organic Compounds

- Acetone concentrations ranged from less than 0.05 mg/kg (not detected) to 0.066 mg/kg.
- 4-Isopropyl toluene concentrations ranged from less than 0.005 mg/kg (not detected) to 0.017 mg/kg.
- The remaining volatile organic compounds analyzed using EPA Method 8260B were below their respective detection limits.

Metals

- Antimony concentrations ranged from less than 0.5 mg/kg (not detected) to 1.1 mg/kg.
- Arsenic concentrations ranged from 4.9 mg/kg to 10 mg/kg.
- Barium concentrations ranged from 93 mg/kg to 500 mg/kg.
- Beryllium concentrations ranged from less than 0.5 mg/kg (not detected) to 0.60 mg/kg.
- Cadmium concentrations ranged from less than 0.25 mg/kg (not detected) to 0.43 mg/kg.
- Chromium concentrations ranged from 26 mg/kg to 40 mg/kg.
- Cobalt concentrations ranged from 5.5 mg/kg to 32 mg/kg.
- Copper concentrations ranged from 21 mg/kg to 50 mg/kg.
- Lead concentrations ranged from 19 mg/kg to 54 mg/kg.
- Mercury concentrations ranged from less than 0.05 mg/kg (not detected) to 0.29 mg/kg.
- Molybdenum concentrations ranged from less than 0.5 mg/kg (not detected) to 13 mg/kg.
- Nickel concentrations ranged from 27 mg/kg to 37 mg/kg.
- Selenium concentrations were less than 0.5 mg/kg (not detected).

- Silver concentrations were less than 0.5 mg/kg (not detected).
- Thallium concentrations were less than 0.5 mg/kg (not detected).
- Vanadium concentrations ranged from 25 mg/kg to 75 mg/kg.
- Zinc concentrations ranged from 34 mg/kg to 240 mg/kg.

7.0 DISCUSSION

Results of the soil samples collected from Paintball Jungle (West) indicated non-detectable to low concentrations of TPHg, TPHd, TPHmo, and VOCs. The detectable TPHg, TPHd, TPHmo, and VOCs detected in soil samples TP-1 through TP-4 were generally below their residential ESLs with the exception of sample TP-2. The TPHd contained in sample TP-2 of 160 mg/kg exceeded the residential ESL of 83 mg/kg. McCampbell Analytical, Inc. reported that oil range compounds were significant in sample TP-2. Based on the location of sample TP-2 within the eucalyptus grove, it appears that the elevated TPHd detected in the sample maybe the result of natural oil compounds from the eucalyptus trees.

Laboratory analytical results indicated that the samples collected from the Hurst Firewood Area contained non-detectable concentrations of TPHg; and detectable concentrations of TPHd and TPHmo. The detectable TPHd and TPHmo contained in samples TP-5 through TP-8 were generally below their respective residential ESLs with the exception of sample TP-8 (located at the southern portion of the area). Sample TP-8 contained TPHd and TPHmo concentrations of 140 mg/kg and 830 mg/kg which were above their respective residential ESLs of 83 mg/kg and 370 mg/kg.

Metal concentrations contained in the eight samples were generally within background levels and below their respective residential ESLs with the exception of arsenic and vanadium. Arsenic and vanadium concentrations in the soil samples were above their respective residential ESLs of 0.39 mg/kg and 16 mg/kg but within background levels.

Based on the findings of this and the previous investigations, it appears that the surficial soil within the Site has generally not been impacted by previous activities. The petroleum hydrocarbons encountered at the southern portion of the Hurst Firewood appears

to be limited to the surficial sediments within a low area at the entrance to the Hurst Firewood yard. The likely source of the petroleum hydrocarbons is from drips and leaks from the heavy equipment that were formerly used to handle the eucalyptus trees and associated firewood.

8.0 EXCLUSIONS

ICES assumes no responsibility or liability for the reliance hereon or use hereof of information contained in this report by anyone other than the party to whom it is addressed.

The evaluations and recommendations presented in this report are based on the limited site investigation results available at this time and could be revised if new information necessitating further review of the Site becomes available.

ICES

TABLE 1
SOIL SAMPLE RESULTS - PETROLEUM HYDROCARBONS AND VOCs
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

Sample ID	Depth (inches)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	Acetone (mg/kg)	4-Isopropyl toluene (mg/kg)	VOCs (mg/kg)
PAINTBALL JUNGLE (WEST)							
TP-1	6-9	<1.0	74	260	<0.05	<0.005	<0.005-0.1
TP-2	6-9	2.6	160	170	<0.05	0.0078	<0.005-0.1
TP-3	6-9	2.5	75	67	<0.05	<0.005	<0.005-0.1
TP-4	6-9	<1.0	28	28	<0.05	<0.005	<0.005-0.1
HURST FIREWOOD AREA							
TP-5	6-9	<1.0	62	54	0.066	0.017	<0.005-0.1
TP-6	6-9	<1.0	46	250	<0.05	<0.005	<0.005-0.1
TP-7	6-9	<1.0	53	140	0.061	<0.005	<0.005-0.1
TP-8	6-9	<1.0	140	830	<0.05	<0.005	<0.005-0.1
Residential ESL (1)		83.0	83.0	370.0	0.5	NE	---

Notes:
1. Shallow soils (<3m bgs), where groundwater is a current or potential source of drinking water.
NE = Not Established

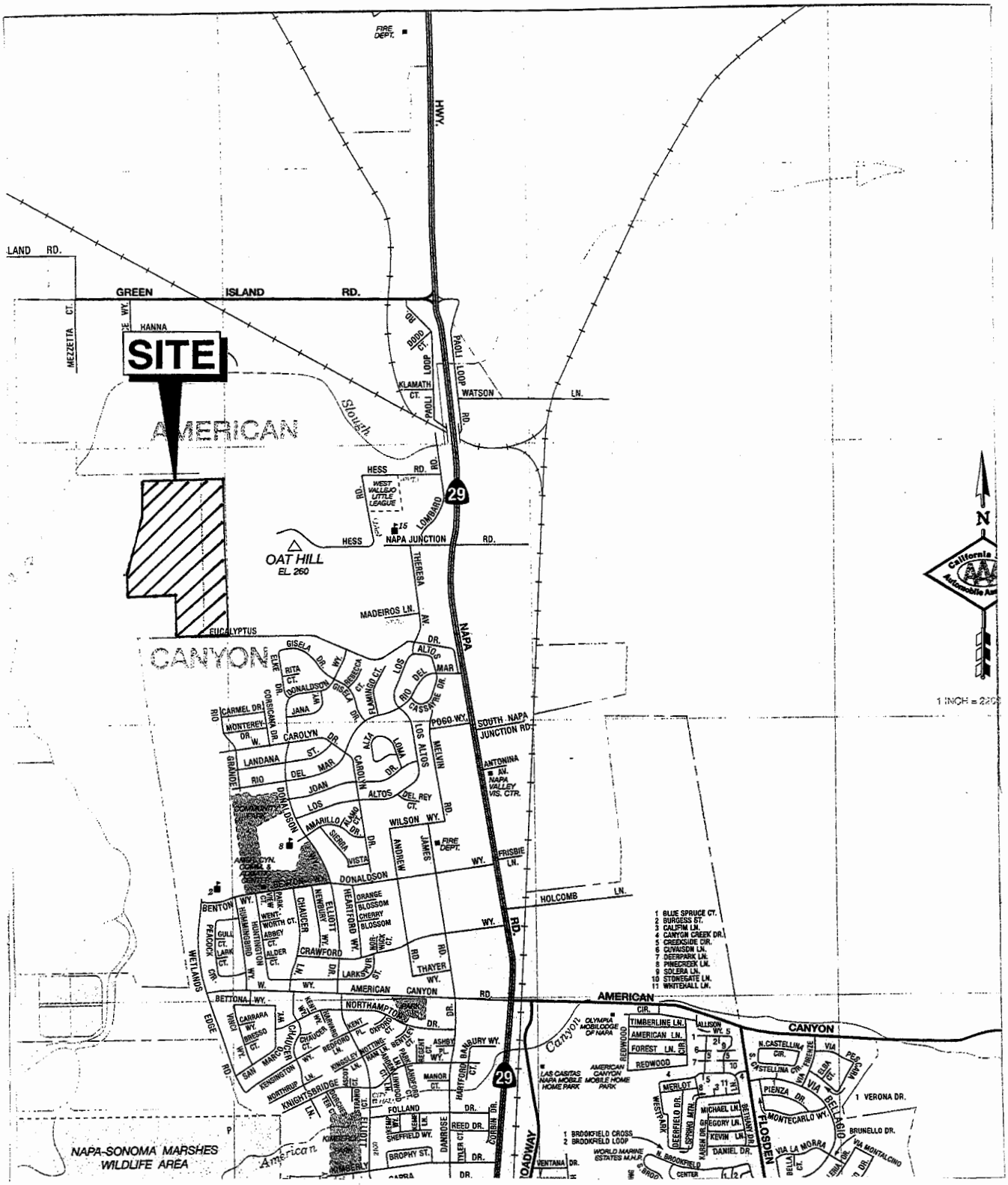
TABLE 2
SOIL SAMPLE RESULTS - METALS
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

Sample ID	Depth (inches)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
PAINTBALL JUNGLE (WEST)																		
TP-1	6-9	<0.5	7.9	500	<0.5	0.29	27	29	26	22	0.071	0.55	36	<0.5	<0.5	<0.5	52	65
TP-2	6-9	0.74	8.8	350	<0.5	0.29	26	32	21	23	0.28	0.52	27	<0.5	<0.5	<0.5	46	34
TP-3	6-9	0.76	8.8	210	0.58	<0.25	38	8.6	30	22	0.074	<0.5	27	<0.5	<0.5	<0.5	63	52
TP-4	6-9	0.87	10	330	0.60	0.30	35	31	31	22	0.059	0.73	37	<0.5	<0.5	<0.5	65	62
HURST FIREWOOD AREA																		
TP-5	6-9	0.72	7.8	220	<0.5	<0.25	30	14	25	19	<0.05	<0.5	27	<0.5	<0.5	<0.5	52	42
TP-6	6-9	<0.5	6.1	120	<0.5	0.43	29	11	41	29	0.29	0.75	36	<0.5	<0.5	<0.5	71	85
TP-7	6-9	1.1	4.9	93	<0.5	0.29	40	5.5	50	54	0.28	13	27	<0.5	<0.5	<0.5	25	240
TP-8	6-9	0.91	9.6	120	0.50	<0.25	32	14	43	46	0.096	1.2	31	<0.5	<0.5	<0.5	75	110
Residential ESL (1)		6.3	0.39	750	4.0	1.7	NE	40	230	200	1.3	40	150	10	20	1.3	16	600

Notes:

1. Shallow soils (<3m bgs), where groundwater is a current or potential source of drinking water.

NE = Not Established



MAP SOURCE : CSAA

Scale: 1" : 2200'	April 2010

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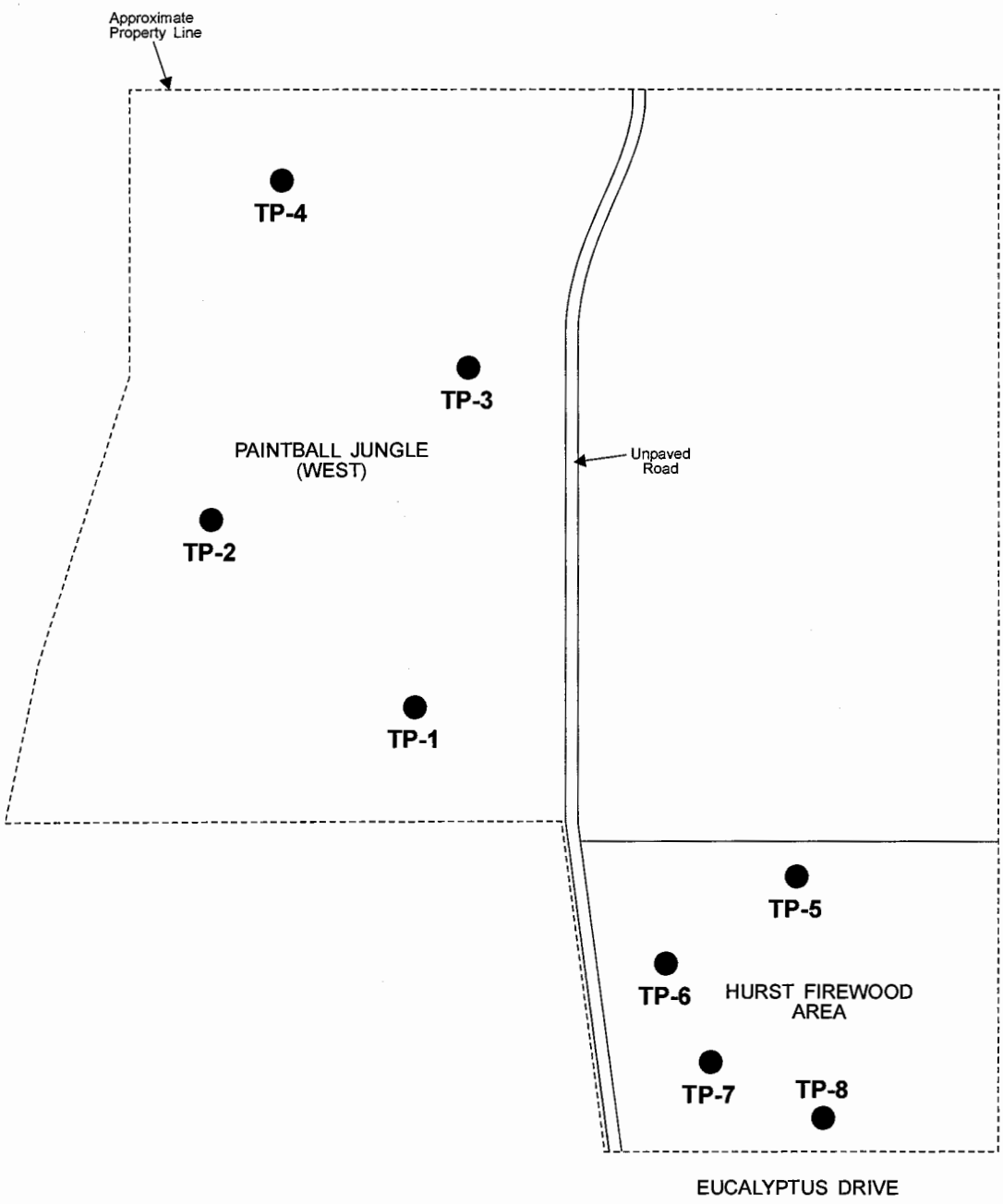
SITE LOCATION

2 Eucalyptus Drive
American Canyon, California

Figure 1

Project 7011



N

EXPLANATION:

TP-1 Sample Location

Not-to-Scale	April 2010

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SAMPLE LOCATIONS

2 Eucalyptus Drive
American Canyon, California

Figure 2

Project 7011

APPENDIX A

LABORATORY CERTIFICATES

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/27/10-04/02/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B Analytical methods SW8015Bm Work Order: 1003757

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	TP-1	S	ND	1	81	
002A	TP-2	S	2.6	1	83	d9
003A	TP-3	S	2.5	1	80	d9
004A	TP-4	S	ND	1	86	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/31/10

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3550C Analytical methods: SW8015B Work Order: 1003757

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1003757-001A	TP-1	S	74	260	20	93	e7,e2
1003757-002A	TP-2	S	160	170	2	109	e7,e2
1003757-003A	TP-3	S	75	67	2	112	e2,e7
1003757-004A	TP-4	S	28	28	1	102	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-001A
Client ID	TP-1
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	100	%SS2:	121
%SS3:	117		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-002A
Client ID	TP-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	0.0078	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	101	%SS2:	121
%SS3:	116		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-003A
Client ID	TP-3
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	101	%SS2:	122
%SS3:	119		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/29/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-004A
Client ID	TP-4
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	109	%SS2:	116
%SS3:	86		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/30/10-04/02/10

CAM / CCR 17 Metals*

Lab ID	1003757-001A	1003757-002A	1003757-003A	1003757-004A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	TP-1	TP-2	TP-3	TP-4		
Matrix	S	S	S	S	S	W
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 1003757

Dilution Factor	1	1	1	1	1	1
Antimony	ND	0.74	0.76	0.87	0.5	NA
Arsenic	7.9	8.8	8.8	10	0.5	NA
Barium	500	350	210	330	5.0	NA
Beryllium	ND	ND	0.58	0.60	0.5	NA
Cadmium	0.29	0.29	ND	0.30	0.25	NA
Chromium	27	26	38	35	0.5	NA
Cobalt	29	32	8.6	31	0.5	NA
Copper	26	21	30	31	0.5	NA
Lead	22	23	22	22	0.5	NA
Mercury	0.071	0.28	0.074	0.059	0.05	NA
Molybdenum	0.55	0.52	ND	0.73	0.5	NA
Nickel	36	27	27	37	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	ND	ND	ND	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	52	46	63	65	0.5	NA
Zinc	65	34	52	62	5.0	NA
%SS:	101	98	115	120		

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 49547 | WorkOrder 1003757

EPA Method SW8015Bm | **Extraction SW5030B** | **Spiked Sample ID: 1003758-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	109	107	2.40	119	110	7.17	70 - 130	20	70 - 130	20
MTBE	ND	0.10	92.2	86.6	6.35	85.7	88.7	3.51	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	98.6	2.92	95	97.4	2.42	70 - 130	20	70 - 130	20
Toluene	ND	0.10	103	102	1.27	99.5	100	0.923	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	105	1.74	103	102	0.535	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	105	105	0	106	105	0.404	70 - 130	20	70 - 130	20
%SS:	87	0.10	108	109	1.12	106	108	2.63	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49547 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	04/02/10 1:16 PM	1003757-002A	03/25/10	03/26/10	03/31/10 9:00 PM
1003757-003A	03/25/10	03/26/10	04/02/10 1:58 PM	1003757-004A	03/25/10	03/26/10	03/27/10 7:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49546 WorkOrder 1003757

EPA Method SW8015B **Extraction SW3550C** **Spiked Sample ID: 1003757-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	28	40	107	115	4.22	104	103	0.684	70 - 130	30	70 - 130	30
%SS:	102	25	102	105	2.93	97	97	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49546 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	03/31/10 1:27 PM	1003757-002A	03/25/10	03/26/10	03/31/10 7:53 PM
1003757-003A	03/25/10	03/26/10	03/31/10 6:45 PM	1003757-004A	03/25/10	03/26/10	03/31/10 11:17 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49537 WorkOrder 1003757

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 1003735-008A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	79.8	80.3	0.577	80.8	81.3	0.620	70 - 130	30	70 - 130	30
Benzene	ND	0.050	116	118	1.62	115	117	1.21	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	79.5	90.9	13.4	81.2	103	23.2	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	113	113	0	115	113	2.00	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	87.6	90.5	3.25	90.8	87.1	4.20	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	97	94.9	2.25	94.7	101	6.52	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	121	116	3.60	119	116	1.84	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	105	105	0	106	107	0.908	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	79	79	0	82.1	80.7	1.82	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	89.8	1.18	88.1	90.7	2.91	70 - 130	30	70 - 130	30
Toluene	ND	0.050	102	104	2.15	110	106	3.14	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	109	108	0.883	109	107	1.11	70 - 130	30	70 - 130	30
%SS1:	100	0.13	91	93	1.34	93	94	1.32	70 - 130	30	70 - 130	30
%SS2:	121	0.13	104	108	3.57	107	104	2.54	70 - 130	30	70 - 130	30
%SS3:	119	0.013	98	101	3.01	99	108	8.46	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49537 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	03/27/10 1:46 AM	1003757-002A	03/25/10	03/26/10	03/27/10 2:24 AM
1003757-003A	03/25/10	03/26/10	03/27/10 3:02 AM	1003757-004A	03/25/10	03/26/10	03/29/10 4:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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QA/QC Officer

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QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 1003757

EPA Method 6020A	Extraction SW3050B					BatchID: 49548			Spiked Sample ID: 1003757-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Antimony	0.87	50	105	105	0	10	103	104	1.45	75 - 125	20	75 - 125	20
Arsenic	10	50	95.6	97.8	1.84	10	101	102	0.990	75 - 125	20	75 - 125	20
Barium	330	500	93.2	95.3	1.28	100	101	103	1.47	75 - 125	20	75 - 125	20
Beryllium	0.60	50	97.9	98.8	0.924	10	107	106	0.469	75 - 125	20	75 - 125	20
Cadmium	0.30	50	100	102	1.81	10	103	105	1.64	75 - 125	20	75 - 125	20
Chromium	35	50	84.2	87.7	2.25	10	101	102	0.296	75 - 125	20	75 - 125	20
Cobalt	31	50	89	89.9	0.596	10	101	102	0.295	75 - 125	20	75 - 125	20
Copper	31	50	93	95.2	1.42	10	108	105	2.73	75 - 125	20	75 - 125	20
Lead	22	50	91.7	93.5	1.31	10	101	101	0	75 - 125	20	75 - 125	20
Mercury	0.059	1.25	99.9	103	2.79	0.25	104	104	0	75 - 125	20	75 - 125	20
Molybdenum	0.73	50	101	102	0.858	10	99.8	101	0.858	75 - 125	20	75 - 125	20
Nickel	37	50	89.7	93.7	2.40	10	104	105	1.06	75 - 125	20	75 - 125	20
Selenium	ND	50	96.6	99.2	2.61	10	98.1	98.2	0.163	75 - 125	20	75 - 125	20
Silver	ND	50	98.8	100	1.19	10	104	104	0	75 - 125	20	75 - 125	20
Thallium	ND	50	96.6	97.9	1.27	10	98.7	98.8	0.111	75 - 125	20	75 - 125	20
Vanadium	65	50	NR	NR	NR	10	102	102	0	75 - 125	20	75 - 125	20
Zinc	62	500	101	103	1.77	100	106	106	0	75 - 125	20	75 - 125	20
%SS:	120	250	103	104	1.50	250	101	102	0.865	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49548 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	04/02/10 12:50 AM	1003757-001A	03/25/10	03/26/10	04/02/10 2:42 PM
1003757-002A	03/25/10	03/26/10	03/30/10 1:19 AM	1003757-002A	03/25/10	03/26/10	03/31/10 10:37 PM
1003757-003A	03/25/10	03/26/10	03/30/10 1:54 AM	1003757-004A	03/25/10	03/26/10	03/30/10 2:12 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

1003757

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

Report To: Peng Leong Bill To: Same

Company: ICES
P.O. Box 99288
Emeryville, CA 94662 E-Mail: derek_ices@yahoo.com
Tele: (510) 652-3222 Fax: (510) 652-3555
Project #: Ices Toil Project Name:
Project Location: 2 Eucalyptus - Paintball Jungle (West)
Sampler Signature: Derek

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
TP-1		3-25-10		1			✓				✓			
TP-2				1			✓				✓			
TP-3				1			✓				✓			
TP-4		↓		1			✓				✓			

Analysis Request

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Other	Other	Comments
✓		✓								✓			✓						Filter Samples for Metals analysis: Yes / No
✓		✓								✓			✓						
✓		✓								✓			✓						
✓		✓								✓			✓						

Relinquished By:	Date:	Time:	Received By:
Derek Wan	3/26/10	1500	
Relinquished By:	Date:	Time:	Received By:
	3/26/10	1925	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.8
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS 1
PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1003757 **ClientCode: ICES**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Peng Leong
ICES
P.O. Box 99288
Emeryville, CA 94662
(510) 652-3222 FAX (510) 652-3555

Email: derek_ices@yahoo.com
cc:
PO:
ProjectNo: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)

Bill to:
Accounts Payable
ICES
P.O. Box 99288
Emeryville, CA 94662

Requested TAT: 5 days

Date Received: **03/26/2010**
Date Printed: **03/26/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1003757-001	TP-1	Soil	3/25/2010	☐	A	A	A									
1003757-002	TP-2	Soil	3/25/2010	☐	A	A	A									
1003757-003	TP-3	Soil	3/25/2010	☐	A	A	A									
1003757-004	TP-4	Soil	3/25/2010	☐	A	A	A									

Test Legend:

1	8260B_S	2	CAM17MS_S	3	G-MBTEX_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/27/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B Analytical methods SW8015Bm Work Order: 1003758

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	TP-5	S	ND	1	88	
002A	TP-6	S	ND	1	84	
003A	TP-7	S	ND	1	85	
004A	TP-8	S	ND	1	87	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

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Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 04/01/00-04/02/10

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3550C Analytical methods: SW8015B Work Order: 1003758

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1003758-001A	TP-5	S	62	54	1	108	e2,e7
1003758-002A	TP-6	S	46	250	20	80	e7,e2
1003758-003A	TP-7	S	53	140	2	110	e7,e2
1003758-004A	TP-8	S	140	830	50	102	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant

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Angela Rydelius, Lab Manager

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-001A
Client ID	TP-5
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.066	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	0.017	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	94	%SS2:	118
%SS3:	122		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-002A
Client ID	TP-6
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	93	%SS2:	118
%SS3:	122		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-003A
Client ID	TP-7
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.061	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	97	%SS2:	116
%SS3:	121		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 04/01/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-004A
Client ID	TP-8
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	104	%SS2:	111
%SS3:	123		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/30/10-04/02/10

CAM / CCR 17 Metals*

Lab ID	1003758-001A	1003758-002A	1003758-003A	1003758-004A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	TP-5	TP-6	TP-7	TP-8		
Matrix	S	S	S	S	S	W
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 1003758

Dilution Factor	1	1	1	1	1	1
Antimony	0.72	ND	1.1	0.91	0.5	NA
Arsenic	7.8	6.1	4.9	9.6	0.5	NA
Barium	220	120	93	120	5.0	NA
Beryllium	ND	ND	ND	0.50	0.5	NA
Cadmium	ND	0.43	0.29	ND	0.25	NA
Chromium	30	29	40	32	0.5	NA
Cobalt	14	11	5.5	14	0.5	NA
Copper	25	41	50	43	0.5	NA
Lead	19	29	54	46	0.5	NA
Mercury	ND	0.29	0.28	0.096	0.05	NA
Molybdenum	ND	0.75	13	1.2	0.5	NA
Nickel	27	36	27	31	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	ND	ND	ND	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	52	71	25	75	0.5	NA
Zinc	42	85	240	110	5.0	NA
%SS:	108	104	120	114		

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49547 WorkOrder 1003758

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1003758-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	109	107	2.40	119	110	7.17	70 - 130	20	70 - 130	20
MTBE	ND	0.10	92.2	86.6	6.35	85.7	88.7	3.51	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	98.6	2.92	95	97.4	2.42	70 - 130	20	70 - 130	20
Toluene	ND	0.10	103	102	1.27	99.5	100	0.923	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	105	1.74	103	102	0.535	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	105	105	0	106	105	0.404	70 - 130	20	70 - 130	20
%SS:	87	0.10	108	109	1.12	106	108	2.63	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49547 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/27/10 2:27 PM	1003758-002A	03/25/10	03/26/10	03/27/10 2:58 PM
1003758-003A	03/25/10	03/26/10	03/27/10 3:28 PM	1003758-004A	03/25/10	03/26/10	03/27/10 8:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49546 WorkOrder 1003758

EPA Method SW8015B **Extraction SW3550C** **Spiked Sample ID: 1003757-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	28	40	107	115	4.22	104	103	0.684	70 - 130	30	70 - 130	30
%SS:	102	25	102	105	2.93	97	97	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49546 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	04/01/00 3:42 PM	1003758-002A	03/25/10	03/26/10	04/01/10 6:36 PM
1003758-003A	03/25/10	03/26/10	04/02/10 12:21 AM	1003758-004A	03/25/10	03/26/10	03/31/10 6:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49537 WorkOrder 1003758

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 1003735-008A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	79.8	80.3	0.577	80.8	81.3	0.620	70 - 130	30	70 - 130	30
Benzene	ND	0.050	116	118	1.62	115	117	1.21	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	79.5	90.9	13.4	81.2	103	23.2	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	113	113	0	115	113	2.00	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	87.6	90.5	3.25	90.8	87.1	4.20	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	97	94.9	2.25	94.7	101	6.52	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	121	116	3.60	119	116	1.84	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	105	105	0	106	107	0.908	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	79	79	0	82.1	80.7	1.82	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	89.8	1.18	88.1	90.7	2.91	70 - 130	30	70 - 130	30
Toluene	ND	0.050	102	104	2.15	110	106	3.14	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	109	108	0.883	109	107	1.11	70 - 130	30	70 - 130	30
%SS1:	100	0.13	91	93	1.34	93	94	1.32	70 - 130	30	70 - 130	30
%SS2:	121	0.13	104	108	3.57	107	104	2.54	70 - 130	30	70 - 130	30
%SS3:	119	0.013	98	101	3.01	99	108	8.46	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49537 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/30/10 2:01 PM	1003758-002A	03/25/10	03/26/10	03/30/10 2:39 PM
1003758-003A	03/25/10	03/26/10	03/30/10 3:17 PM	1003758-004A	03/25/10	03/26/10	04/01/10 9:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 1003758

EPA Method 6020A			Extraction SW3050B			BatchID: 49548			Spiked Sample ID: 1003757-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Antimony	0.87	50	105	105	0	10	103	104	1.45	75 - 125	20	75 - 125	20
Arsenic	10	50	95.6	97.8	1.84	10	101	102	0.990	75 - 125	20	75 - 125	20
Barium	330	500	93.2	95.3	1.28	100	101	103	1.47	75 - 125	20	75 - 125	20
Beryllium	0.60	50	97.9	98.8	0.924	10	107	106	0.469	75 - 125	20	75 - 125	20
Cadmium	0.30	50	100	102	1.81	10	103	105	1.64	75 - 125	20	75 - 125	20
Chromium	35	50	84.2	87.7	2.25	10	101	102	0.296	75 - 125	20	75 - 125	20
Cobalt	31	50	89	89.9	0.596	10	101	102	0.295	75 - 125	20	75 - 125	20
Copper	31	50	93	95.2	1.42	10	108	105	2.73	75 - 125	20	75 - 125	20
Lead	22	50	91.7	93.5	1.31	10	101	101	0	75 - 125	20	75 - 125	20
Mercury	0.059	1.25	99.9	103	2.79	0.25	104	104	0	75 - 125	20	75 - 125	20
Molybdenum	0.73	50	101	102	0.858	10	99.8	101	0.858	75 - 125	20	75 - 125	20
Nickel	37	50	89.7	93.7	2.40	10	104	105	1.06	75 - 125	20	75 - 125	20
Selenium	ND	50	96.6	99.2	2.61	10	98.1	98.2	0.163	75 - 125	20	75 - 125	20
Silver	ND	50	98.8	100	1.19	10	104	104	0	75 - 125	20	75 - 125	20
Thallium	ND	50	96.6	97.9	1.27	10	98.7	98.8	0.111	75 - 125	20	75 - 125	20
Vanadium	65	50	NR	NR	NR	10	102	102	0	75 - 125	20	75 - 125	20
Zinc	62	500	101	103	1.77	100	106	106	0	75 - 125	20	75 - 125	20
%SS:	120	250	103	104	1.50	250	101	102	0.865	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49548 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/30/10 6:18 AM	1003758-002A	03/25/10	03/26/10	04/02/10 1:08 AM
1003758-002A	03/25/10	03/26/10	04/02/10 2:48 PM	1003758-003A	03/25/10	03/26/10	04/02/10 1:16 AM
1003758-003A	03/25/10	03/26/10	04/02/10 2:53 PM	1003758-004A	03/25/10	03/26/10	03/30/10 2:47 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

1003758

McCAMPBELL ANALYTICAL, INC.

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Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

Report To: Peng Leong	Bill To: Same
Company: ICES	
P.O. Box 99288	
Emeryville, CA 94662	E-Mail: derek_ices@yahoo.com
Tele: (510) 652-3222	Fax: (510) 652-3555
Project #: Ices 7011	Project Name:
Project Location: 2 Eucalyptus - Hurst Firewood	
Sampler Signature: Derek	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other	Analysis Request: MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
TP-5		3-25-10		1			✓				✓				✓		✓								✓			✓				Filter Samples for Metals analysis: Yes / No
TP-6		↓		1			✓				✓				✓		✓								✓			✓				
TP-7				1			✓				✓				✓		✓								✓			✓				
TP-8				1			✓				✓				✓		✓								✓			✓				

	Date:	Time:	Received By:
Relinquished By:	3-25-10	1650	
Relinquished By:	3-26-10	425	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.8
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1003758 **ClientCode: ICES**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Peng Leong
ICES
P.O. Box 99288
Emeryville, CA 94662
(510) 652-3222 FAX (510) 652-3555

Email: derek_ices@yahoo.com
cc:
PO:
ProjectNo: #ICES 7011; 2 Encalyptus-Hurst Firewood

Bill to:
Accounts Payable
ICES
P.O. Box 99288
Emeryville, CA 94662

Requested TAT: 5 days

Date Received: **03/26/2010**
Date Printed: **03/26/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1003758-001	TP-5	Soil	3/25/2010	☐	A	A	A									
1003758-002	TP-6	Soil	3/25/2010	☐	A	A	A									
1003758-003	TP-7	Soil	3/25/2010	☐	A	A	A									
1003758-004	TP-8	Soil	3/25/2010	☐	A	A	A									

Test Legend:

1	8260B_S	2	CAM17MS_S	3	G-MBTEX_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

APPENDIX I

RESUMES

Gyan L. Rusconi–Rodrigues

Project Scientist

Branch Location

- San Ramon, California

Education

- BS, Environmental Science, Biology Emphasis, University of California, Berkeley, 5/2016

Professional Registrations/ Certifications

- Registration, #Number, Date
- Registration, #Number, Date

Specialized Training

- CPR and AED Certification

ATC Start Date

- 8/2017

Gyan Rusconi-Rodrigues recently joined the ATC office in San Ramon as a Project Scientist. He will be assisting the Due Diligence Practice Group. Gyan has a background in environmental science, policy, and management with a focus in biology. He is proficient with Geographic Information Systems (GIS) and Global Positioning System (GPS) technologies. Gyan is fluent in Spanish and French and has served as a Spanish-English translator.

Areas of Expertise

- Phase I and II Site Assessment Services
- Construction Environmental Oversight
- Water Resource Management
- Geographic Information Systems (GIS)

Project Experience

Storesund Consulting/Engineering LLC – Kensington, CA

Project Support Specialist: Duties included writing permits, reading blueprints/project plans and specifications, GIS analyses and field surveying for water conservation and ecology restoration projects for trout unlimited, American Rivers, and San Mateo County Resources Conservation District. Also, performed RTK GPS surveys, Nuclear Compaction Testing, Ground Based LiDAR surveys, utilized Quantum GIS software, and created AutoCAD drawings.

Basic Environmental Inc. – Oakland, CA

Environmental Research Intern: Conducted Environmental Transaction Screens and Phase I site reviews for various clients. Reviewed files to identify sites with “known” or “potential” contamination and environmentally sensitive business activities on or adjacent of subject property. Additional duties included: environmental database searches, site reconnaissance, historical searches, interviews, and summarization of reports.

BRYAN CAMPBELL, PG, CHG
Branch Manager

PROFESSIONAL SUMMARY

Mr. Campbell is a dedicated consulting professional with more than 20 years of responsible and diverse experience with expertise in:

- Environmental Assessment
- Vapor Intrusion
- Cost Estimating
- Groundwater Remediation
- Soil Gas/Vapor Assessment
- Peer Reviews
- Hydrogeology
- Soil Remediation
- Project Management

His qualifications include program and project management, the preparation of cost estimates and proposals, fostering client relationships, budget management, staff mentorship and training, and technical/editorial review of deliverables.

Mr. Campbell has acted as the Senior Geologist in charge for sites impacted with hydrocarbons, solvents, metals, pesticides, MTBE, and Volatile and Semi-Volatile Organic Compounds. He has overseen a variety of investigations including:

- Site Assessments: Direct-Push (GeoProbe™), Auger, MIP/CPT and Sonic Methods
- Remediation System: Design of Groundwater, Soil Vapor, and Dual-Phase Systems
- Vapor Intrusion Surveys: Utilizing RWQCB and DTSC Guidelines
- Corrective Action Plans (CAP) and Site Conceptual Models (SCM)
- Aquifer Testing and Analysis / Natural Attenuation Analysis
- Groundwater and Unsaturated Zone Modeling

Mr. Campbell has extensive health and safety training which includes HAZWOPER, behavior-based safety, driver safety training, and others. He has served as a Director of Health and Safety and as a Safety Manager for company-wide and program-wide safety programs. Mr. Campbell has personally performed and overseen hundreds of field inspections and has been the lead investigator on near miss and incident investigations. He has trained and educated staff in safe work practices and implemented new safety policies and procedures company-wide.

He is adept at negotiating environmental solutions with regulators, attorneys and clients. He has performed senior review of technical documents as part of litigation support and financial auditing on complex environmental cases in support of the settlement of environmental claims.

PROJECT EXPERIENCE

- **Program Manager** Preparation of work scopes and cost estimates totalling $18 million for national assessment and remediation projects for sites located in California, Washington, Texas, and Colorado which were impacted with hydrocarbons, solvents, metals, and pesticides. Senior Project Manager for projects with major clients including Wells Fargo Bank, Bank of the West, and JP Morgan Chase.

- **Senior Geologist, Walnut Creek, California** Mentored and trained new staff including project level geologists and engineers as well as Project Managers. Educated staff in both basic and complex environmental consulting practices and procedures. Review of over 600 assessment and remediation reports. Managed advanced remediation projects including those with dual-phase extraction, soil vapor extraction, in-situ remediation, air sparging, and groundwater extraction. Provided cost estimating for entire project lifecycles from assessment to closure.

- **Vapor Intrusion Specialist** Advanced training and experience with vapor intrusion (VI) and considered to be the “go-to” person for VI. Performed vapor intrusion risk assessments using the Johnson and Ettinger model for sites across the country.

- **Program Manager** Responsible for the coordination, tracking, and evaluation of environmental data for a $3.2 million annual portfolio of approximately 40 environmental cases with ExxonMobil over a 5-year period for a total of $16 million overall. Achieved regulatory case closure of 22 sites over a 5-year period. Managed, trained, and supervised an 8-person team of Project Managers, geologists, engineers, and technicians. Reported directly to the Board of Directors of the company.

- **Senior Manager** Part of the contract renewal team for contracts with ExxonMobil totaling $50 million in revenue over 5 years. Personally negotiated directly with upper-level ExxonMobil managers in Houston Texas on behalf of the company to establish new unit rate scopes. Performed scoping, forecasting, and estimating for all projects within the portfolio. Performed the final review of all project invoices and change orders.

- **Senior Geologist** Performed senior review of technical documents as part of litigation support and financial auditing on complex environmental cases in support of the settlement of environmental claims. Senior Geologist in responsible charge for sites impacted with hydrocarbons, MTBE and solvents. Managed the permitting, compliance, and operation of soil and groundwater remedial systems exceeding $400,000 each.

- **Safety Manager** Health and Safety Manager for the company-wide safety program and safety instructor for a behavior-based safety system.

PROFESSIONAL REGISTRATIONS

- Certified Hydrogeologist (CHG) 975 in California
- Professional Geologist (PG) 7724 in California
- Licensed Geologist (LG) 2909 in Washington
- Professional Geologist (PG) 11244 in Texas
- North Carolina Geologist 2022

EDUCATION

- University of California at Berkeley - Bachelors in Geology

TRAINING AND CERTIFICATIONS

- Fundamental Contaminant Chemistry in Soil and Groundwater
- Contaminant Vapor Migration and Intrusion
- UC Berkeley Extension Classes in Remediation, Environmental Law, and Business
- HAZWOPER 29 CFR 1910.120 Training
- Behavior-Based Safety Instructor, CPR, First Aid, and Driver Safety Training

PROFESSIONAL AFFILIATIONS

- Groundwater Resources Association of California (GRAC)

AWARDS AND PRESENTATIONS

- GRAC Technical Review of EPA's Draft Vapor Intrusion Guidance, 2013
- GRAC Technical Committee – Review of Draft Low Threat UST Closure Policy, 2012
- ETIC's Award for "Outstanding Performance, Commitment, and Dedication," 2010
- ExxonMobil's Safety Award for Flawless Execution, 2008 - 2010
- "Subcontractor Stewardship" presentation at ExxonMobil's Annual Safety Forum, 2008
- ExxonMobil's "Best Practices" Award, 2007

APPENDIX J

RECORDS OF COMMUNICATION

HF219
COR

JEROME J. MAUTNER
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
County of Napa
931 Park Way Mall
Napa, California 94559

Attorneys for Plaintiff

MUNICIPAL COURT FOR THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

IN THE MATTER OF THE APPLICATION FOR AN INSPECTION REGARDING:
ROBERT COUCH PROPERTY
APN 058-030-017

NO.

INSPECTION WARRANT

THE PEOPLE OF THE STATE OF CALIFORNIA TO:

Any authorized personnel of the Napa County Department of Environmental Management, and to any peace officer,

Proof, by affidavit, having been made before me by Michael Collins,

THERE IS REASON TO BELIEVE that there exists at the

ROBERT COUCH PROPERTY
#2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA
APN 058-030-017

conditions of nonconformity with the Napa County Code set forth in sections 5500, 5630, with the Health & Safety Code, set forth in sections 5411, 25189 and 25189.2, and with Napa Ordinance No. 213, as required by California Code of Civil Procedure, section 1822.50, et seq., for the issuance of an

ROME J. MAUTNER
DISTRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
1125 THIRD STREET
PA, CALIFORNIA 94559
707-253-4211

inspection warrant:

YOU ARE THEREFORE COMMANDED TO INSPECT, INVESTIGATE AND SEARCH, accompanied by authorized representatives of the establishment operator if present,

THE PROPERTY located at #2 Eucalyptus Dr., American Canyon, California, owned by Robert and Patricia Couch, Assesor's Parcel No. 058-030-017, a 165.05 acre parcel of densely wooded land, bordered on the South by Eucalyptus Dr., on the West by the American Canyon landfill and the Napa River, and on the North and East by a 4-strand barbed-wire fence, including but not limited to all structures of whatever type, nature or design used for habitation or ancillary to habitation uses,

WHICH INSPECTION SHALL INCLUDE the observation of physical conditions or processes, the taking of photographs, the taking of samples of materials, the conducting of any tests, the inspection and copying of documents and papers, and the questioning or conferring with the occupants of the property to obtain information bearing on whether the violations of the regulations and laws set forth above exist.

THIS WARRANT SHALL EXPIRE ON November 30, 1990, and the return must be executed by November 30, 1990.

Dated: 11/16/90

Judge of the Municipal Court

IOME J. MAUTNER
ISTRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
'25 THIRD STREET
A, CALIFORNIA 94559
707-253-4211

HF219
COR

NAPA COUNTY DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT
1195 THIRD ST., ROOM 205
NAPA, CA. (707) 253-4471

FACILITY: Couch Property Fac # HF219 Date: 11-19-90

ADDRESS: Eucalyptus Rd., American Canyon, APN 58-030-17

TO: Robert Couch

FROM: Napa County - Env. Mgmt. Dept.
Sheriff's Dept.

_____ Telephone Conversation
_____ Meeting/Conference
_____ Site Visit
_X_ Other Inspection Warrant

COMMENTS:

ORDER OF QUARANTINE

You are hereby notified that an Order of Quarantine is issued on the hazardous wastes on this property; pursuant to the State of California Health & Safety Code, Division 20, Section 25187.6(a).

Pursuant to Section 25187.6(a)(2) No person shall remove, transfer, or dispose of the hazardous waste until permission for the removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department.

Pursuant to Section 25187.6(a)(c), Chapter 6.5, Division 20, State of California Health & Safety Code this Order of Quarantine shall take effect upon issuance and shall remain effective for thirty (30) days or until an authorized agent as identified in this document shall remove this Order of Quarantine .

Robert T. Couch Jr.
11-19-1990

FOR:
_____ Action
_____ Review
_____ Information

cc: _____

:2-8/22/88

HF219
COR

Couch Property
Report of 11-19-90
HF 219

Photo #	Description
1	Entrance to Couch Property. Note tractor-trailer exiting property.
2	Inside Couch property, west of entrance road. Note compressed gas cylinders lying on the ground.
3	Area near Couch residence. Note the drum, tank abandoned automobiles and debris.
4	Storage building. Note Compressed gas cylinders, paint & oil containers, debris.
5	Cardboard cylinders labeled "Gamma Flame". Either a "paint" game device or other hoax device.
6	Numerous containers of paint and related products.
7	Numerous containers of paint, epoxies, cleaners antifreeze, engine additives, etc.
8	Huge piles of debris.
9	Box of Gamma Flame cylinders.
10	Drums and debris pile. CDF staff labeling drum.
11	Debris & drums.
12	Abandoned autos, debris & living quarters for persons unknown.
13	Asphalt pile in foreground. Bus in the background is living quarters for a family, including small children and an infant. Poly drum on the top of pickup truck has plastic tubing that delivers water to the bus.
14	Apparently a former underground storage tank. CDF staff person is commencing to test it for explosive vapors.

Couch Property
Report 11-19-92
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Photo #	Description
15	Another view of the storage tank and debris pile
16	Eucalyptus tree grove. "Paint" games held here.
17	Toppled, leaking drum.
18	Another drum, full.
19	Another former underground storage tank. This tank contained an oily material. A sample was collected here.
20	Another view of the tank being sampled.
21	Two drums. Both appear to be leaking. One is toppled.
22	Compressed gas cylinders. Ten were labled as containing hydrogen. All of the 21 cylinders observed in this area were in a deteriorated condition.
23	Vehicle on property. Dog's skull nailed to vehicle. Trash in truck bed.
24	A living area for persons unknown.
25	Two horses tethered by chains. No water. Various vehicles in the background, used as living quarters.

HF219
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NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
HAZARDOUS MATERIAL SECTION

625 IMPERIAL WAY, SUITE 9 • NAPA, CA 94559-1329
AREA CODE 707/253-4269 ATSS #528-4269
FAX 707/253-4545

Subject: Couch Property, #2 Eucalyptus Road, Am. Cyn.
APN #58-030-17 - Our File #HF 219

Date of Inspection: November 19, 1990

Purpose: Site Investigation Under Inspection Warrant

Report Prepared by: Catherine Moody, Senior Hazardous Materials Specialist, Department of Environmental Management, Hazardous Materials Section

On November 19, 1990, I accompanied members of the California Department of Forestry to inspect the property and to collect samples, take photographs and make notes regarding hazardous wastes and solid waste at the Couch Property in American Canyon.

The property is a one hundred sixty five acre parcel, heavily forested with eucalyptus trees. There are small dirt roads throughout much of the property. Pinpointing on specific locations on a map is difficult as there is a tremendous amount of all manner of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps and concrete rubble,as well as 3 tanks and a railroad car. Trails and paths wind throughout the property.

Interspersed throughout the property are shelters where people are living, or were recently living. Some of these shelters used the debris piles as walls for their living quarters.

In addition, we found a box containing six cylindrical cardboard tubes, sealed on each end with wax and stenciled with the words "GAMMA-FLAME". The each tube is approximately ten inches in length, four inches in diameter. The cardboard tubing is approximately one-quarter inch in thickness. Inserted in this box was a piece of mail (unsealed) addressed to "Hollis Newman".

Scattered throughout the property are used automobile batteries and small containers of what is probably used oil and used antifreeze. There are also many small unlabeled containers, probably containing paint or automobile related wastes.

We observed many 55-gallon drums on the property however, most were empty, as determined either by observation (many lacked lids) or by tapping on the sides. Five drums were full or partially full. A sample was collected from each.

There are at least three tanks on the property. Two are of approximately ten-thousand gallon capacity and seemed empty. Apparently, these two tanks used to be underground storage tanks. One is of three-thousand capacity and was partially full of an oily liquid. A sample was collected from this tank.

There are many compressed gas cylinders scattered throughout the property; particularly propane cylinders. The propane cylinders was usually found in the garbage and debris piles.

Other compressed gas cylinders were grouped together in two areas: one group of five cylinders is in a wooden garage that presumably belongs to the Couch family. This garage is filled with all manner of clothes, trash, machinery, equipment, boxes and so forth and as well as five cylinders. (See photo #4).

Near the mobile home where the Couch family lives, adjacent to the road, are twenty-one compressed gas cylinders laying on the ground. Several of them were in a deteriorated condition with rust and corrosion forming on them. All of the cylinders looked like they have been outside for a long time; the paint was faded, the cylinders were scarred and rusty, and leaves and dirt had built up on them, partially burying them. We counted six acetylene cylinders, ten hydrogen cylinders, and five freon cylinders in this area.

Mr. Couch told me that he had tried to get the acetylene cylinders refilled but was refused due to the poor condition of the cylinder valves. He told me that he used the hydrogen cylinders to fill balloons. This concerned me since he seemed to me to be confusing hydrogen, a highly explosive and flammable gas, with helium, an inert gas commonly used to fill children's balloons.

In general, the hazardous wastes we observed fell into four categories;

1) oil or oily wastes
2) compressed gas cylinders
3) paints, lacquers, thinners and solvents
4) unknowns in small containers
5) automobile batteries

Sampling Summary:

All samples were collected by the Haz Mat Team composed of staff from of the California Department of Forestry and the American Canyon Fire Protection District. The Haz Mat Team also tested the two empty ten-thousand gallon tanks for the presence of volatile or toxic gases with hand-held meter device. The meter is a direct reading instrument that does not record findings. Neither tanks registered as having volatile or toxic gases.

A total of six liquid samples were collected. Five of the samples were taken from 55-gallon drums. One sample was taken from the three-thousand gallon tank. One of the cardboard cylinders stenciled "GAMMA-FLAME" was taken from the box if six.

One of the samples came from a drum located in area identified as Zone One; which was the southerly portion of the property that is either leased, rented or otherwise occupied by persons other than the Couch family. The drum was labeled Z-1-1. The sample was identified on the sample jar and on our Chain of Custody document as Sample Number One.

The other five liquid samples came from the drums and the tank located in Zone 3 and were identified on the sample jars and on our Chain of Custody document as Sample Numbers Two through Six.

Sample Z-1-2 consisted of one of the cardboard cylinders stenciled "GAMMA-FLAME". It was NOT included on the Chain of Custody document since we could not send it to a laboratory for analysis as there was concern that it might be explosive or incendiary device of some type, or possibly might contain a highly reactive metal. The device was subsequently x-rayed and opened by Sergeant Johnson of the Presidio Bomb Squad. It was found to be empty except for sawdust packing. Sergeant Johnson said he would list it on his report as a hoax device. He did say that the other cylinders were probably empty too.

Sample ID Number	Sample Type	Sample Jar #
Z-1-1	Liquid from drum	One
Z-1-2	Cardboard cylinder (Gamma-Flame)	N/A
Z-3-3	Liquid from ~~drum~~	Two
Z-3-4	Liquid from ~~tank~~	Three
Z-3-5	Liquid from ~~drum~~	Four
Z-3-6	Liquid from drum	Five
Z-3-7	Liquid from drum	Six

Areas of Concern:

In terms of hazard potential, the cylinders of hydrogen would represent the most immediate concern. Also, the cylinders in deteriorated condition or of unknown contents have hazard potential. Neither this Department nor the Department of Forestry have the sampling equipment necessary for obtaining gas samples.

The unlabeled drums and tank represent a hazard in that they are unidentified as to contents. Drum Z-3-1 (lying on its side); showed leakage from the top rim. (See photo #17). Drums Z-3-4- and Z-3-5 were resting on a wooden pallet that is heavily stained, and therefore are believed to be leaking. (See photo #21).
The tank Z-3-3 is resting on the ground, without a cap on the fill hole, instead it had a chunk of wood stuck in it. In addition, the tank is not braced in anyway to prevent overturning and it rests on bare earth. (See photo #20).

There are at least two areas on Zone One where twenty or more small containers (one gallon or less) of what look to be various paints, sealers, epoxies, lacquers, engine treatments, wood stains and so forth area stored. Many are rusty or stained and therefore their contents are uncertain but they are mostly like paint and related materials. One group is stored in a fairly neat fashion on a wooden pallet, another group is stored haphazardly in wooden boxes and on the ground. (see Photo #6 and #7)

I observed a large pile of granular asphalt material and asphalt chunks, which would not usually represent an environment hazard unless placed in or along a waterway. (See photo #13).

Judging by the soil piles, asphalt piles, debris piles and abandoned automobiles on the property it appears that the property owners are allowing dumping to take place on their property, perhaps for revenue. Receiving off-site wastes constitutes operating a Solid Waste facility without a Permit or variance.

In addition, Napa County Ordinance #213 makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit to do so.

An Order of Quarantine that forbids the removal of any hazardous wastes on the property for 30 days unless approval is received from this Department was present to Mr. Robert Couch by a representative of the Sheriff Department. Mr. Couch signed the Order verifying receipt. A copy appears as an attachment to this report.

Violative conditions:

Violative conditions are based wholly or partly on the following:

Section 25117(a), Chapter 6.5, Division 20, Health & Safety Code includes in the definition of a hazardous waste as any wastes or combination of wastes that pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Section 25124(e), Chapter 6.5, Division 20, California Health & Safety Code includes in the definition of waste a material that poses a threat to public health or the environment and is either or both mislabeled or not adequately labeled or is packaged in deteriorated or damaged containers.

Based on those definitions, I have determined the following violations.

1. Section 66471, Title 22, California Code of Regulations. The generator (property owner) failed to determine if the wastes are hazardous wastes pursuant to this section in that five (5) drumsand one tank on the property were found (by laboratory analysis) to be hazardous. These containers were unlabeled and at least one container (drum #Z-3-7) did not contain the type of material Mr. Couch stated it to be. Both Robert Couch and David Couch believed all the containers held "cresote".

2. Section 66508, Title 22, California Code of Regulations. The generator (property owner) failed to satisfy the storage requirements for hazardous and the ninety (90) day accumulation time limit for hazardous wastes in that all five of the drums and the tank that were found to contain hazardous wastes were unlabeled and, according to my conversations with Robert Couch and with David Couch, and by my observations on the condition of the containers, these five drums, the tank and the cylinders have been stored on the property for years.

3. Section 67241, Title 22, California Administrative Code. The generator (property owner) failed to manage hazardous waste properly in that the cylinders were lying on their sides, on the ground, adjacent to a road. Several were severely rusted and all of which appeared to be in a deteriorated condition. At least three of drums were severely rusted, one was definitely leaking (Z-3-1) and two were suspected of leaking (Z-3-3 and Z-3-4).

4. Napa County Ordinance 213, Article VI, Section I makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit from the Health Department to do so. Based on my observations and my discussion with David Couch the property owners have allowed dumping to take place on this property and have allowed refuse to accumulate on this property. (See all photos).

Attachments:
(1) Order of Quarantine
(2) Chain of Custody
(3) Photographs (twenty-five)
(4) Laboratory Results

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HAZARDOUS MATERIALS SECTION
DEPT OF ENVIRONMENTAL MANAGEMENT

COUCH PROPERTY VIOLATIONS

I. Zoning and Building Violations

1. The property is only zoned for one single-family dwelling and for agricultural uses. Despite this, there are twenty other structures (ten of which are inhabited, and ten of which are built for storage or for housing chickens). Also inhabited are ten trailers, two buses, and a camper shell. None of these inhabited structures are permitted uses (NCC 12231, 12107)

2. The twenty stuctures all exceed 120 square feet of roof area and require building permits, which were not obtained (UBC 301(a)).

3. The one permitted dwelling is still under construction and has never been completed. An unapproved, unpermitted underground utility trench has been dug.

4. The owners are living in a mobile home which is to be in dead storage, but is being used as a residence by the owners (NCC 11010).

5. There is no approved water supply and there are two unapproved water wells that have been dug on the property (NCC 5505, 5230).

6. The entire parcel constitutes an illegal junk yard (NCC 6051).

7. Evidence exists regarding the occurrance of paint-ball games which have occurred and been advertised. There is no approved use permit for this activity.

8. All of the residents in the unpermitted structures are renting from the owners, a use not permitted in this zoning. (NCC 12231, 12107).

10. The property is being used to store heavy construction equipment (such as dump trucks, skip loaders, backhoes, and semitrailers), a use not contemplated by the zoning.

11. The entire parcel constitutes a public nuisance (NCC 12903, 11021).

II. Environmental Management-Health and Safety Problems

1. There is no approved sewage disposal or approved septic system present in the park. Sewage disposal ranges from holes in the ground, to merely allowing sewage to run on the ground to an outhouse type structure (NCC 5621, 5622, H&S 5411).

2. There is the illegal accumulation of refuse, debris, trash, and garbage in places located throughout the property. Owners are operating a refuse disposal area without a permit, in violation of Napa County Ordinance No. 213.

3. The property contains unlocked abandoned refrigerators, in violation of Penal Code Section 402(b).

III. Environmental Management-Toxics Problems

1. Small amounts of toxic wastes have been discovered on the property, including oil, compressed gas cylinders, paints, lacquers, thinners, solvents, used auto batteries, containers with antifreeze.

2. In addition, three large old abandoned underground storage tanks are present on the property, one of which is partially full of liquid that tested as hazardous waste.

3. The violations here range from storage of hazardous wastes over 90 days without a permit (22 CCR 66508, and H & S 25189.2) to failure of the generator to determine if his wastes are hazardous (22 CCR 66471) to failure to properly manage hazardous wastes (22 CCR 67243).

IV. Fire and Forestry Violations

1. There is not adequate clearance between combustable debris and material and the various residential structures (NCC 8871, Public Resources Code Section 4291).

2. Residents have been found to be burning their household trash and garbage in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301).

V. CHP/Public Works Violations

1. The property contains over 230 abandoned vechicles (NCC 4700)

2. The proeprty contains numerous dismantled vehicles, for which the certificate of ownership, the registration card, and the license plates were not delivered to DMV before dismantling began (Vehicle Code Section 5500).

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HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH TIME LINE

DATE	PROJECT TO BE ACCOMPLISH	PARAGRAPH REF'D
4-16-93	Deadline for defendants to serve tenants with notices.	Paragraph 1
	Deadline to provide D.A. with names of scrap dealers.	Paragraph 3
5-1-93	Deadline to file unlawful detainer actions and serve tenants with Summons and Complaint.	Paragraph 2
6-15-93	Deadline to receive bids from scrap dealers; highest bid to be accepted.	Paragraph 3
6-30-93	Deadline for defendants to collect in one place all items of property they wish to keep (County should inspect this property).	Paragraph 4
	Deadline for defendants to enter into contract with scrap dealer, requiring dealer to commence work by 7-15-93 and to complete work in 150 days.	Paragraph 5
	Deadline for defendants to commence removal of trees to create fire breaks around their places of residence, work to be completed by 8-29-93.	Paragraph 8
7-15-93	Deadline for scrap dealer to commence removal work.	Paragraph 5
8-14-93	Deadline for defendants to enter into contract with a hazardous waste consultant.	Paragraph 14
8-29-93	Deadline for defendants to complete creation of fire breaks.	Paragraph 8
9-13-93	Deadline for hazardous waste consultant to submit plan.	Paragraph 14
10-13-93	Deadline for hazardous waste consultant to commence removal operations, and to complete all removal within 120 days.	Paragraph 14

12-12-93	Deadline for all scrap to be removed from the property; removal triggers the provisions of paragraph 15. and May trigger paragraph 9.	Paragraph 5 Paragraph 9
2-10-94	Deadline for defendants to remove all garbage if acting on their own.	Paragraph 15
	Deadline for hazardous waste consultant to remove all hazardous waste.	Paragraph 14
3-12-94	Deadline for defendants to obtain bids from a solid waste hauler.	Paragraph 15
3-27-94	Deadline for defendants to enter contract with solid waste hauler.	Paragraph 15
4-11-94	Deadline for solid waste hauler to commence removal operations, with 150 days to complete all removal.	Paragraph 15
9-8-94	Deadline for solid waste hauler to have removed all garbage debris, etc.	Paragraph 15

HF219

ENDORSED

FILED MAR 17 1993

JANICE F. NORTON
COURT EXECUTIVE OFFICER
J. MILES

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MAR 19 1993

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

ANTHONY PEREZ
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559
(707) 253-4211

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

THE PEOPLE OF THE STATE OF CALIFORNIA,

PLAINTIFF,

VS.

ROBERT L. COUCH, et. al.,

DEFENDANTS.

NSC: 64010

FINAL JUDGMENT AND PERMANENT INJUNCTION

This matter came on regularly before the Court for trial on the 17th, 23rd, 24th of February, and the 1st of March, 1993. Appearance on behalf of plaintiff was made by Deputy District Attorney Daryl A. Roberts, appearance on behalf of Defendant Patricia K. Couch was made by Norbert U. Frost of Frost & Healy, and Defendant Robert L. Couch appeared on behalf of himself. Evidence having been presented and accepted by the Court, arguments having been made, the Court having considered the evidence and the pleadings in this matter, good cause appearing, and in the furtherance of justice,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559

I

FINDINGS OF FACT

The Court finds that Robert L. Couch and Patricia K. Couch, defendants herein, are co-owners of the property located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017.

The Court further finds that the evidence produced by plaintiff in this matter establishes the following with regard to defendants' property, located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017:

1. At least 100 and possibly as many as 286 abandoned motor vehicles are on the property, in violation of Napa County Code §4700;

2. Defendants' property contains an unknown but large number of accumulations or piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items, in violation of the Napa County Garbage Ordinance No. 213;

3. Probably less than 10 abandoned refrigerators are located on the property in violation of Penal Code §402(b);

4. There are numerous illegal sewage disposal systems ranging from holes in the ground and outhouses to septic systems installed, in violation of Napa County Code §§5621, 5622 and Health & Safety Code §5411;

5. For property zoned Agricultural-Watershed, of which the

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only permitted use is one single family dwelling, a second dwelling unit and a guest cottage, a number of other inhabited structures existed on the property ranging from lean-tos to trailers and buses, which structures were on plots of land being rented by the defendants to various tenants and none of these structures had legal water supplies or permitted sewage disposal systems, all in violation of Napa County Code §§12231,12107;

6. All of these the inhabited structures, as well as approximately 10 chicken coops with roof areas exceeding 120 square feet, were constructed without benefit of building permits, in violation of the Uniform Building Code §301;

7. One water well had been installed or constructed on the property without benefit of permits, in violation of the Napa County Code §§5505 and 5230;

8. In a number of areas on the property, the storage of heavy construction equipment occurred, a use not allowed by the zoning, in violation of Napa County Code §§12231 and 12107;

9. Small amounts of hazardous waste have been illegally stored or disposed of on the property, in violation of Health & Safety Code §25189.2;

10. Defendants are living in a mobile home for which the use permit has expired, and the one dwelling for which a building permit was issued is still under construction, and contains an unapproved, unpermitted underground utility trench, in violation of Napa County Code §11010;

11. Tenants have burned their household trash or

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agricultural debris, in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301) and the Napa County Garbage Ordinance;

12. Adequate clearance does not exist between combustible debris and material and the residences of defendants in violation of Napa County Code §8871 and Public Resources Code §4291;

In addition to the above specific findings, the Court finds that Patricia K. Couch has cooperated with Plaintiff in its efforts to remedy the above-described conditions of defendants' property, including but not limited to, serving tenants with notices terminating tenancies and notices of building code violations, and cleaning and removing certain debris, garbage, refuse, trash and other similar items.

The Court finds that Robert L. Couch has accepted rent from at least one tenant in violation of the preliminary injunction issued by this Court.

II
CONCLUSIONS OF LAW

The Court finds that, based upon the evidence produced by plaintiff during trial, the defendants have been and are presently maintaining upon their property a public nuisance. Specifically, the Court bases this conclusion on both a public nuisance per se theory, as numerous conditions of defendants' property violate specific Napa County Code Sections relating to nuisances, as well as a common law nuisance theory, as the condition of the property meets the criteria as set forth in California case law regarding the existence of public nuisances.

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In addition, based upon the evidence produced at trial, the Court finds that the defendants, by renting or leasing of portions of their property to tenants either for living on the property or for storage of belongings, engaged in unfair competition, as defined by Business & Professions Code §17200, as such activity was a business activity which violated the zoning laws of the County of Napa, and provisions of the Uniform Housing Code.

III
JURSIDICTION AND APPLICABILITY

The Court has jurisdiction of the subject matter hereof and the parties hereto.

The provisions of this final judgment are applicable to defendants Robert L. Couch and Patricia K. Couch, and to their agents, servants, employees, representatives, heirs, successors in interest, and any and all other persons acting in concert with or participating with defendants who have actual or constructive notice of this judgment.

IV
PROHIBITORY INJUNCTION

Defendants are permanently enjoined and restrained, pursuant to Civil Code §3494 and Business & Professions Code §17203, from doing, directly or indirectly, any of the following:

1. From leasing or renting any portion of the property unless any such lease or rental is in conformance with the zoning of the property and the terms of this judgment.

2. From bringing onto their property or causing to be

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brought onto their property any of the following items:

a. Any junk, scrap, or dismantled or abandoned motor vehicles of any kind, including but not limited to automobiles, trucks, vans, buses, or motorcycles;

b. Any debris of any kind including but not limited to scrap lumber, scrap metal, broken concrete, other types of spoils, dirt, rubble, rock, or gravel unless the presence of such debris is consistent with the zoning of the property or not violative of any applicable law or ordinance;

c. Any junk of any kind, including but not limited to abandoned vehicle parts or components, junked appliances, junked appliance parts or components, tanks, machines, machinery parts or components;

d. Any garbage, rubbish, refuse, trash, or other similar type material;

e. Any hazardous wastes, including but not limited to waste oil, spent gasoline, gasoline products, gas cylinders, paints, lacquers, thinners, solvents, batteries, anti-freeze, or other similar material.

3. From constructing or maintaining any sewage disposal system unless defendants procure a valid and current permit to do so, and follow all conditions and requirements of said permit.

4. From erecting, constructing, enlarging, altering, repairing, moving, improving, or demolishing any structure or building on defendants property unless defendants comply with the provisions of Uniform Building Code §301, and follow all

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conditions and requirements of any building permit required pursuant to the provisions of this section.

5. From installing or maintaining any water well on the property unless defendants procure a valid permit to do so, and follow all conditions and requirements of said permit.

6. From storing heavy construction equipment on the property unless the presence of such equipment would be consistent with the zoning of the property, or the equipment is being used to fulfill defendants' obligations under this judgment, or any construction or development performed is pursuant to a valid permit.

7. From storing or disposing of hazardous waste unless defendants do so in compliance with the provisions of the Hazardous Waste Control Act.

8. From allowing inadequate clearance between combustible debris material and any inhabited structure as required by Public Resources Code §4291.

9. From dismantling any motor vehicle unless done in compliance with the zoning laws of the parcel, and in compliance with Vehicle Code §5500.

10. From burning trash or other similar type debris, including agricultural debris, except as allowed by regulations promulgated by the Bay Area Air Quality Management District.

V
MANDATORY INJUNCTION

Defendants, are hereby ordered and mandated as follows:

1. Within 30 days from the filing of this judgment, Robert

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DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
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L. Couch or Patricia K. Couch shall do the following:

a. Personally serve a written notice upon each person (other than defendants or members of their immediate family) residing on defendants' property, #2 Eucalyptus Drive, American Canyon, Napa County, California, which provides that each resident has 30 days from the receipt of the notice to remove themselves and all their personal belongings from defendants' property, and that their failure to move their belongings off the property within the time indicated in the notice will constitute an abandonment of those belongings and may be disposed of pursuant to Civil Code §1980 et. seq.

b. Personally serve each and every person who has left personal belongings on defendants' property but does not reside there with a notice requiring them, within 30 days of receipt of the notice, to remove those personal belongings from defendants' property, and that any property left on the premises after the 30 day period will be deemed abandoned and may be disposed of pursuant to Civil Code §1980 et. seq.

c. In the event defendants are unable to personally serve any person, defendants shall cause such notice to be posted in a conspicuous area where the belongings are situated and a copy of the notice mailed to such persons at their last known address. If defendants are unable to locate tenants or their last known address,

ANTHONY PEREZ
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they may apply to this Court for an order permitting publication of any notices required herein in the Napa Register, a newspaper of general circulation, to give tenants notice.

2. Within 45 days from the filing of this judgment, defendants shall cause to be filed unlawful detainer complaints against any and all tenants who remain on the property after the 30 day notice period has expired (as referred to above in paragraph 1), and shall properly serve each tenant with summons and complaint as required by law. In addition, defendants are hereby ordered to diligently pursue these unlawful detainer actions until all tenants have been removed from the property, and their property has been removed or been deemed abandoned. It is further ordered that to the extent the service of any tenants with required process and/or pursuit of these unlawful detainer actions prohibits defendants from meeting any time deadline, as set forth in this mandatory injunction, defendants shall be given an extension of time for meeting that deadline equivilant to the amount of time spent by defendant in pursuing these unlawful detainer actions.

3. Within 30 days of the filing of this judgment, each party to this action shall provide to the District Attorney's Office the name, address, and phone number of a scrap or junk dealer. The District Attorney's Office shall prepare a list of the scrap or junk dealers designated by each party and serve the list on defendants. Further, Defendants shall allow any scrap or

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NAPA, CALIFORNIA 94559

junk dealer so named to enter the property during reasonable times (8:00 a.m. to 6:00 p.m. Monday through Friday) for the purpose of assessing the status of the property and coming up with a bid for how much money that scrap or junk dealer would pay to remove all valuable items of scrap and abandoned motor vehicles (but excluding those items set aside by defendants pursuant to the provisions of paragraph 4, below) on the property. Only bids obtained within 90 days of the filing of this judgment shall be considered. The dealer offering the highest bid shall be chosen.

4. Defendants shall, within 105 days of the filing of this judgment, collect in one place on their property, unless physically impossible to do so, all operable motor vehicles, operable pieces of construction equipment or vehicle whose purpose is consistent with the agricultural zoning of the property, and any and all other valuable items that defendants contend are not scrap or junk, or an abandoned motor vehicle, and whose storage on the property is consistent with the zoning of the property. Once this has occurred, defendants shall then allow county officials to enter the property to inspect this collection of items to determine if their storage on the property would be consistent with the zoning of the property. If so, none of these items of property would be subject to any of the provisions set forth in paragraphs 5 and 15, below. In the event there is a dispute between defendants and county officials regarding any or all of these items of property, such dispute

ANTHONY PEREZ
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shall be brought to hearing before this court upon 15 days written notice by either party. Opposition papers shall be filed at least 5 days before the hearing and reply papers shall be filed at least 3 days before the hearing. Defendants will be deemed to have abandoned all other items of scrap, junk, debris and abandoned motor vehicles on the property if not collected and set aside by the deadline set forth in this paragraph, or if ordered by court after hearing.

5. Robert L. Couch and/or Patricia K. Couch shall, within 105 days of the filing of this judgment, enter into a contract with the scrap or junk dealer chosen pursuant to paragraph 3, above, which contract will provide for the following:

a. It will set forth the price to be paid by the dealer for the abandoned motor vehicles and scrap to be removed from the property and it will require the dealer to remove all abandoned motor vehicles and not merely select and remove the motor vehicles and scrap bringing the dealer the highest and/or best price.

b. It will set forth a time period within which the scrap dealer is to remove all abandoned motor vehicles and valuable scrap from the property, with the period not to exceed 150 days, and the period to commence no later than 120 days from the filing of this judgment.

c. It will require the scrap dealer to keep legible records regarding the numbers of abandoned motor vehicles removed, and the weight of scrap removed, as well as legible records regarding

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the payment of moneys on either a price per vehicle or price per weight basis. Further, it will require the scrap dealer to, on weekly basis, provide these records both to defendants and to the District Attorney's Office.

d. The bid will require the dealer to handle and dispose of, in a lawful manner, all hazardous waste that may be generated by the removal of motor vehicles, including motor oil, gasoline, diesel fuel, brake fluid, transmission fluid, batteries, and catalytic converters, and any other similar hazardous materials that are commonly found in motor vehicles.

e. The bid will require the dealer to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of abandoned motor vehicles and valuable scrap items to a trust fund, to be maintained by the District Attorney's Office, as more fully described in paragraph 13, below.

6. Defendants shall allow the chosen scrap or junk dealer to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the dealer's efforts to remove from the property all abandoned motor vehicles and valuable scrap items.

7. Defendants shall not in any manner interfere with or obstruct any and all County officials who may enter the property during reasonable hours to do the following: appraise any or all abandoned motor vehicles on the property for the purpose of issuing salvage certificates; monitor efforts to remove and properly dispose of hazardous wastes; monitor efforts to properly

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remove abandoned motor vehicles and scrap from the property; monitor efforts to remove or destroy all illegal sewage disposal systems on the property; monitor efforts to raze all structures which are abandoned or condemned; monitor all efforts to remove from the property all garbage, rubbish, trash, spoils, and other similar unpermitted materials.

8. Within 105 days of the date of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall commence to remove or have others undertake the removal of trees, bushes, and shrubs required to create an approximate 30 foot firebreak around the mobile home in which defendants are residing, and any other structure inhabited by any other member of defendants' immediate family. Such removal shall be completed within 165 days of the filing of this judgment.

9. In the event the District Attorneys Office determines, at any time, that income generated from the removal of abandoned motor vehicles and other valuable scrap is insufficient to pay for the removal of hazardous waste, debris, garbage, rubbish, trash (and all other items referred to in paragraph 13), the razing of structures on the property and subsequent removal of razed debris, and the removal or destruction of the illegal sewage disposal systems, then the District Attorney's Office may notify the defendants in writing of such situation.

10. Within 30 days of receipt of the notice from the District Attorney's Office referred to in paragraph 9, above, each party shall provide to the District Attorney's Office the

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name, address, and phone number of a commercial harvester wood pulp processor or other wood products dealer for the purpose of obtaining a bid to remove or thin out the eucalyptus trees present on defendants property, and to sell the trees for firewood or other income generating purposes. Either defendant may designate the areas where the trees may be removed or thinned out. Further, Defendants shall allow any commercial harvester or processor so named to enter the property during reasonable times for the purpose of assessing the status of the property and arriving at a bid for how much money that harvester or processor would pay to remove or thin out trees for the purpose of resale as firewood or other purpose. Only bids obtained within 60 days of defendants receipt of the notice referred to in paragraph 10 shall be considered. The harvester or processor offering the highest bid shall be chosen.

11. Robert L. Couch and/or Patricia K. Couch shall, within 75 days of receipt of the notice referred to in paragraph 9, enter into a contract with the chosen harvester, which contract will provide for the following:

a. It will set forth the price to be paid by the harvester or processor for the removal of trees from the property, and the approximate number of trees, or cords of firewood or weight of wood pulp, to be removed from the property.

b. It will set forth a time period within which the harvester is to remove trees from the property, with the period not to exceed 120 days, and the period to commence no later than

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120 days from the date of defendants' receipt of the notice referred to in paragraph 9.

c. It will require the harvester or processor to apply for a timber harvest plan with the California Department of Forestry, and will require the harvester or processor to follow all conditions and requirements of any such plan as approved by said Department of Forestry.

d. It will require the harvester or processor to keep legible records regarding the numbers of trees removed or the cords of firewood removed or weight of wood pulp removed, as well as legible records regarding the payment of moneys on either a price per tree or price per cord basis. Further, it will require the harvester to, on a weekly basis, provide these records both to defendants and to the District Attorney's Office.

e. The contract will require the harvester or processor to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of trees to the trust fund to be maintained by the District Attorney's Office, as described in paragraph 13, below.

12. Defendants shall to allow the chosen harvester or processor to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the harvester's or processor's efforts to remove designated trees from the property.

13. The District Attorney's office shall maintain a trust fund whose primary purpose shall be to pay for removing from

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defendants' property hazardous waste, the various piles and accumulations of debris, garbage, rubbish, trash, metals, scrap lumber, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, junked furniture and appliances, and oth similar items from the property, removing and destroying all illegal sewage disposal systems, and razing all structures whi are abandoned or condemned and removing the debris produced from such razing. Defendants may be reimbursed from this trust fund for costs they have incurred themselves in cleaning up the property, upon presenting bills, receipts or invoices, but only after the primary purpose of the fund, as set forth above, has been met, and there is money remaining in the trust fund for such reimbursement. Any funds remaining in the trust fund after completion of all clean up activities required under this injunction shall be paid to defendants.

14. Within 150 days of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall enter into a contract to retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present. The contract shall contain the following provisions:

a. It shall set forth a time period within which the consultant, hauler or dealer shall produce a plan to identify and remove all hazardous waste on defendants' property, with the plan to be produced by a date no later than 30 days from the date the

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contract is entered into.

b. It shall provide a time period for which all hazardous wastes shall to be removed, with the period not to exceed 120 days, and to commence no later than 60 days from the date the contract is entered into;

c. It will set forth the price to be paid by the consultant, hauler or dealer for any hazardous waste removed from the property which has some value and will set forth the cost for properly disposing of all other hazardous wastes which are present on the property.

d. It would provide for the maintenance of hazardous waste manifests for the tracking of the hazardous waste removed and properly disposed of, with the requirement that the consultant, hauler or dealer shall provide forthwith copies of these manifests both to the defendants and to the District Attorneys Office.

15. Once all valuable scrap, abandoned motor vehicles, and designated trees for firebreak purposes have been removed from the property, defendants shall either obtain bids from solid waste haulers for the cost to clean up, raze structures and remove from the property all remaining items of waste or garbage (including all piles of debris, garbage, rubbish, trash, and similar materials on the property, all debris created from the razing of structures on the property, along with any items of scrap, and motor vehicles that were left on the property because they were not valuable or income generating and were not picked

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up by any scrap dealer) or defendants or their designees may clean up and remove from the property all of these remaining items of waste or garbage.

a. If defendants act upon their own, they shall remove all remaining items of waste or garbage and any necessary clean up shall be completed within 60 days of the date that all valuable scrap, motor vehicles, and trees for firebreak purposes have been removed.

b. In the event defendants or their designees fail to meet the 60 day requirement as set forth in subparagraph a, above, then defendants shall within 30 days after the 60 day period has expired, obtain bids from solid waste haulers for the cost to clean up the property, as set forth above.

c. Within 45 days after the end of the 60 day period, Robert L. Couch and/or Patricia K. Couch shall enter into a contract with the solid waste hauler giving the lowest bid, which contract shall provide for the following:

(1) It shall provide a time period for which all structures shall be razed and all remaining wastes on the property shall be removed, with the period not to exceed 150 days, and to commence no later than 60 days after the expiration of the 60 day period noted above;

(2) It will set forth the price to be charged by the solid waste hauler for the removal of the remaining waste on the property, including the cost of properly disposing of all of these wastes at a State licensed solid waste landfill. It will

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require the solid waste hauler to maintain legible records regarding the removal of the waste from the property and the costs incurred.

VI
RESERVATION OF JURISDICTION

The Court hereby reserves jurisdiction with regard to the following issues:

1. Issues pertaining to the need for defendants to obtain use permits or building permits for the structures on their property that they or their immediate family members reside in or otherwise intend to occupy;

2. Issues regarding the destruction of any unpermitted water wells that exist on the property;

3. Issues regarding the burning of household trash, garbage, or agricultural debris on the property;

4. Issues regarding the destruction or removal of any illegal sewage disposal systems on the property.

5. Issues regarding the razing of agricultural structures constructed on the property without benefit of building permits.

6. Issues regarding authorizing the County of Napa to enter defendants' property and conduct all clean-up and removal activities, including the removal of income generating items as have been addressed by this judgment, in the event defendants or either defendant fail to comply with the provisions of the mandatory injunction.

6. Issues regarding the issuance of civil penalties pursuant to Business & Professions Code §17206.

ANTHONY PEREZ
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VII
MODIFICATION AND ENFORCEMENT

Any party to this judgment may seek leave of the court upon 15 days notice to the parties hereto and upon a showing of good cause, to modify, amend, or add to any of the provisions of this judgment.

The Court retains jurisdiction, in the event either Robert L. Couch or Patricia K. Couch individually, or both, interfere with, impede, refuse or fail to comply with any provision of this judgment, to make such orders as will prevent further contempt, prevent waste, and protect the property or title to the property, including but not limited to, appointing the defendant who is not in contempt, or a non-party, as a receiver for the purpose of ensuring compliance with this judgment, managing the subject property, and executing any agreements required to comply with this judgment. Further, jurisdiction is retained for the purpose of enabling any party to apply to the Court for such further orders and direction as may be necessary and appropriate for the construction or carrying out of this judgment, for the enforcement of compliance herewith, or for the punishment of violations thereof.

VIII
EFFECT AND ENTRY

This final judgment shall take effect immediately upon entry.

The Clerk is ordered to enter this final judgment forthwith.

Date: March 17, 1993

PHILIP A. CHAMPLIN
JUDGE OF THE SUPERIOR COURT

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PUBLIC GUARDIAN
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NAPA, CALIFORNIA 94559
707-253-4211

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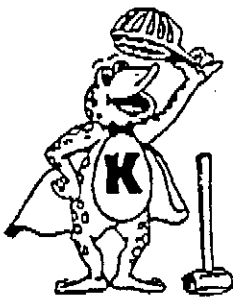

KROEKER, Inc.

Demolition and Environmental Contractors

CA License #621866 A C12 C21 C57 C61/D06 HAZ ASB HIC & AZ License #131453 A

www.KROEKERINC.com

April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

HF219
COR

SUBJECT: Status of Enforcement Action:
- Couch's Eucalyptus Grove
- Green Island Road Vehicle Dismantling Yards.

DATE: April 25, 2003

Eucalyptus Grove

On April 16, 2003, in response to a request by Chief Keith Caldwell, ACFPD, Deputy District Attorney, Rich Zimmerman and myself, plus the City of American Canyon's Chief Building Inspector, Joe Willer and newly-hired Code Enforcement Officer, James Cannon, drove through Eucalyptus Grove to make a visual inspection of the Couch's cleanup attempt. We observed many remaining chicken enclosures, another occupied area exhibiting a trailer and misc. storage and a vastly increased wood-cutting and processing operation leased by Bruce Hurst. Oak is now imported and processed at this location in addition to the on-site removal and cutting of existing eucalyptus trees. There are also two operating paintball game facilities on the property, one of which has not complied with the conditions of approval of its' use permit. Deputy District Attorney Rich Zimmerman is researching the current status of any existing legal action by the Napa Superior Court in Daryl Robert's absence. My plan is to send letters of violation to Mike Sinatra, the lessee/operator of "Sherwood Forest" and Bruce Hurst, the lessee/operator of "Oregon Firewood". Robert and Patricia Couch will, of course, be notified as property owners.

I did make two previous inspections of Eucalyptus Grove on October 22, 2001 and January 14, 2002, in response to a request by Deputy District Attorney Daryl Roberts. I have attached a copy of each inter-office memo for your review.

Green Island Road Dismantling Yards

There are four vehicle dismantling yards still operating on Green Island Road and a previously existing yard that was located at 2600 G. I. Road (*Uribe-Pantoja*, use permit revoked in 1999) that still continues to be a legal problem for the District Attorney's office. *California Auto Dismantling*, located at 1578 and *Brian Abbott Dismantling* located at 2580 Green Island Road are operating in compliance with their use permit conditions of approval. *Baker Auto Dismantling*, at 1678 G. I. Road, has been offered for sale and presently exhibits vehicle storage outside of the perimeter fencing. *Vallejo Pull-A-Part*, owned by Isiah ("Poochie") Lewis, located at 2744 Green Island Road, has been a long-standing problem and should be

the focus of our next public nuisance abatement action. There are no current actions taken against any of the yards mentioned above with the exception of the District Attorney's case against Celerino Uribe and Juan Pantoja-Guzman, owners of 2600 Green Island Road. Periodic monitoring of the dismantling yards along Green Island Road, as well as other south county locations, continues by this department and the Department of Environmental Management and often with the American Canyon Fire Protection District.

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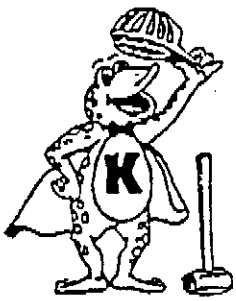

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April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

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John

NAPA COUNTY

OFFICE OF COUNTY COUNSEL
1195 THIRD STREET, SUITE 301, NAPA, CALIFORNIA 94559
AREA CODE 707/253-4521 FAX 707/259-8220

ROBERT WESTMEYER, County Counsel

MARGARET L. WOODBURY, Chief Deputy
LAURA J. ANDERSON, Deputy
JACQUELINE M. GONG, Deputy
SILVA DARBINIAN, Deputy
STEPHEN G. STANTON, Deputy
ROBERT C. MARTIN, Deputy

PATRICIA L. TYRRELL, Deputy
ROBERT W. PAUL, Deputy
JENNIFER YASUMOTO, Deputy
KRISHAN CHOPRA, Deputy
CARRIE R. GALLAGHER, Deputy

January 25, 2005

Norbert Frost, Esq.
Law Offices of Norbert Frost
1517 Tennessee Street
Vallejo, CA 94590

Re: City of American Canyon v. Couch

Dear Mr. Frost:

On December 9, 2004, I sent you a letter requesting an accounting of the trust funds being held to perform the required cleanup of the Couch property. To date, I have not received anything from you in this regard and would appreciate receiving such an accounting in the near future. I believe it is beneficial for all parties to know where we stand as to what funds remain to perform the necessary cleanup activities that remain.

There also remain numerous tasks listed in the Stipulated Order that need to be performed. I believe the following summarizes the major issues that remain (the identified paragraph numbers coincide with the Order):

1. Paragraph 1 - Identification of all tenants/occupants on the property. Other than Hurst Firewood and Sherwood Forest, please provide an update on who remains on the property or has some tenancy interest.

2. Paragraph 7 - The Order required the five trailers to be removed from the property by February 15, 2004, or obtain the appropriate permits for them to remain. This work remains uncompleted.

3. Paragraph 8 - The Couch's were required to demolish/remove the four underground tanks no later than May 1, 2004. These items still remain on the property.

4. Paragraph 10 - Scrap metal was to have been removed from the property by May 31, 2004. Although some has been removed, there still remain some such items on the property.

5. Paragraph 11 - By May 1, 2004, the Couch's were to remove all abandoned or dismantled motor vehicles (other than those belonging to the Couch's), and remove the fifteen pieces of heavy equipment. Numerous motor vehicles remain, and the County would like assurances that those remaining are in fact the personal property of the Couch's. Various pieces of heavy equipment have not yet been removed.

6. Paragraph 13 - All motor vehicle tires were to have been removed by March 1, 2004. Although the vast majority has been removed, there still remain some tires on the property.

7. Paragraph 15 - Appropriate permits were to have been obtained for Dave Couch's barn by May 1, 2004, or be demolished and removed by May 31, 2004. The barn remains and has not been permitted.

8. Paragraph 16 - Appropriate permits were to have been obtained for Robert Couch's garage and sheds or be demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

9. Paragraph 18 - All structures in Area 5 used by Glen Couch were to have been demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

10. Paragraph 19 - All structures in Area 5 used by George Couch were to have obtained necessary permits or have been demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

The timelines established in the Stipulated Order for completing the above referenced tasks have not been complied with. I would hope that your clients would continue with their cooperative efforts to bring the property into compliance with the terms and conditions set forth in the Stipulated Order. To that end, please provide me with a timeline in which your clients believe they can accomplish the necessary remaining work in the near future. Hopefully their proposal will be acceptable, which will obviate the need for the County to seek judicial assistance in having these tasks completed. Your prompt attention to these matters is requested.

Very truly yours,

Robert Paul

Robert Paul, Deputy County Counsel

cc: Daryl Roberts - District Attorney Office
Trent Cave - Director Environmental Management
Ed Colby - County Code Enforcement

HF219

LIST OF REPORTS
COUCH PROPERTY
2 EUCALYPTUS DRIVE, AMERICAN CANYON, CA
NAPA COUNTY SITE LOP-219

Report No.	Report Date	Report Title/Description
#1	not shown	Analytical report (samples collected 11/09/1990

HF219
RPT

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-1

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM ONE	Aqueous	STEVEN WALLIS	19 NOV 90/13:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Chloride	15.	1.0	mg/L	(325.3)	12-11-90	FH	
pH	<0.5		Units	(150.1)	12-11-90	FH	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit
** Qualitative analysis indicated a high level of sulfate.

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

CALTEST ANALYTICAL LABORATORY
CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-6

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM SIX	Aqueous	STEVEN WALLIS	19 NOV 90/16:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Phenol	65.5	0.02	mg/L	9065	12-12-90	MT	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number 90-11288-1 & 6

PROJECT: ROBERT COUCH PROPERTY

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

The quality control data pertinent to the above samples submitted on November 21, 1990 is as follows:

CONSTITUENT	DUPLICATION (mg/L)	SPIKE RECOVERY (%)	EXT.STD.RECOVERY (%)
Chloride	120 / 120	105	96
Phenol	0.114 / 0.113	114	88

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Lab Director

MA:ct
1/22/91

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacterio & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
M8D5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#446A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/arc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: NB-1449
Collected: 11/19/90
Received: 11/21/90
Tested: 11/30/90
Collected by: S. Wallis

FUEL FINGERPRINT ANALYSIS
CAL DHS (TPH Draft) Method & EPA Method 8240/8260-(GC/MS)
Extracted by EPA Method 5030 (purge-and-trap)**

Napa County Department of
Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

SAMPLE DESCRIPTION:
Proj #APN 58-030-17, Robert Couch Property
C#9011-288-6
Drum #6, Liquid

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Total Purgeable Petroleum Hydrocarbons		
(Diesel #2)	100.	4400.
(Gasoline, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits.....	100.	not found
Percent Surrogate Recoveries		93/97/87

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

NOTE: High concentration of some analytes caused the sample to be run diluted, resulting in raised Practical Quantitation Limits for all analytes. Refer to instrument Blank for undiluted Practical Quantitation Limits.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/04
NB1449F2.wr1/FFP57
MH/hc/gb/gb/hc

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: B113ØØ
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:

Fuel Fingerprint Analysis - CAL DHS TPH Method & EPA Method 824Ø/826Ø-(GC/MS)
Extracted by EPA Method 5Ø3Ø (purge-and-trop)**

CCAS-NAPA

SAMPLE DESCRIPTION:
Instrument Blank for 11/3Ø/9Ø MSD#1

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Benzene	Ø.1	not found
Toluene	Ø.5	not found
Ethylbenzene	Ø.5	not found
Xylenes	Ø.5	not found
1,2-Dichloroethane (EDC)	Ø.1	not found
Ethylene Dibromide (EDB)	Ø.1	not found
Total Purgeoble Petroleum Hydrocarbons (Gasoline)	5Ø.	not found
(Diesel #2, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits) ...	5Ø.	not found
BTX os a Percent of Total Fuel		n/a
Percent Surrogate Recoveries		73/83/1Ø4

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/Ø4
B113ØØFW.wr1/FFP57
MH/hc/gb/hc

COAST - TO - COAST ANALYTICAL SERVICES

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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
POLYNUCLEAR AROMATICS				
Acenaphthylene	(208968)	50.	ND	
Acenaphthene	(83329)	50.	150.	
Anthracene	(120127)	50.	60.	
Benzo(a)anthracene	(56553)	50.	ND	
Benzo(b)fluoranthene	(205992)	50.	ND	
Benzo(k)fluoranthene	(207089)	50.	ND	
Benzo(a)pyrene	(50328)	50.	ND	
Benzo(ghi)perylene	(191242)	50.	ND	
Chrysene	(218019)	50.	ND	
Dibenzo(a,h)anthracene	(53703)	50.	ND	
Fluoranthene	(206440)	10.	20.	
Fluorene	(86737)	50.	440.	
Indeno(1,2,3-cd)pyrene	(193395)	50.	ND	
Naphthalene	(91203)	50.	850.	
Phenanthrene	(85018)	50.	910.	
Pyrene	(129000)	10.	50.	
Methylnaphthalenes		50.	9400.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/11/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
SPECIFIC PHENOLS-ACID FRACTION				
4-Chloro-3-methylphenol	(59507)	50.	ND	
2-Chlorophenol	(95578)	50.	ND	
2,4-Dichlorophenol	(120832)	50.	ND	
2,4-Dimethylphenol	(105679)	50.	1400.	
2-Methylphenol	(95487)	50.	130.	
4-Methylphenol	(106445)	50.	1300.	
Pentachlorophenol	(87865)	50.	ND	
Phenol	(108952)	50.	ND	
2,3,4,6-Tetrachlorophenol	(95487)	50.	ND	
2,4,5-Trichlorophenol	(95954)	50.	ND	
2,4,6-Trichlorophenol	(88062)	50.	ND	
Total Listed Chlorophenols		50.	ND	
Total Listed Phenols		50.	2800.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/09/91
MSD5/#K44A
MH/erc

Respectfully submitted,
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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 934Ø1
(8Ø5) 543-2553

Lab Number: QS-112Ø-1
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:
Extracted on: 11/2Ø/9Ø

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/827Ø (GC/MS)

CCAS

SAMPLE DESCRIPTION:
ANALYTE-FREE WATER SPIKE, Spiked to 16ØØØ ug/L with Diesel #2

Component Determined	Detection Limit in ug/L (PQL)*	Concentration w/spike in ug/L	Percent Recovery
Total Petroleum Hydrocarbons (Diesel #2)	2ØØ.	8ØØØ.	5Ø.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 351Ø.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/Ø7/9Ø
QS112Øt1.wr1/71
MH/dp/lp/co

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: QL-1120
Collected:
Received:
Tested: 11/30/90
Collected by:
Extracted on: 11/20/90

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/8270 (GC/MS)

CCAS

SAMPLE DESCRIPTION:
EPA METHOD 3510 METHOD BLANK

Component Determined	Detection Limit in ug/L (PQL)*	Concentration in ug/L
Total Petroleum Hydrocarbons	200.	<200.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 3510.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/07/90
QL1120t.wr1/71
MH/dp/dp/co

RECEIVED

JAN 24 1991

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CHAIN-OF-CUSTODY RECORD

AHF 2/19
RPF

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

Note: Level One QC gross work only

Date of Sample Collection		Turnaround Time
NOV 19, 1990	APN 58-030-17	standard

Responsible Party	Site Name	
Robert Couch and Occupants	Robert Couch Property	
Site Address	**City**	**Zip Code**
#2 Eucalyptus Drive	American Canyon	

Signature of Sample Collector	Name of Collector (print)	Company/Agency
Steven Wallis [signature]	Steven Wallis	CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT approx	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
rum one	liquid	glass jar one pint	1:00pm	pH, chlorides	pH ≈ 1, suspect HCL
drum two			2:00pm	tph, heavy	dark red-brown, viscous
rum three			2:30pm	tph, heavy	dark red-brown, viscous
rank four			3:00pm	tph, heavy	dark red-brown viscous
drum five			3:45pm	tph, heavy	dark red-brown viscous
drum six	liquid	glass jar one pint	4:00pm	tph, light, phenol	brown-green, non-viscous

Samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

	Relinquished by (Sign & Print)	Company/Agency	Time and Date
1	[signature]	County Haz Mat	1625
2	Catherine S. Moody	Napa County Dept of Env. Mgmt	1625
3	Catherine S. Moody	Napa County Dept. of Env. Mgmt	1125 11-21-90
4	Peter W. Halpin	Caltest Laboratory	1125 11-21-90
5			
6			

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks:

White-Remains with Samples Returned from Lab with Results Yellow-Courier Pink-Sampler

CALTEST ANALYTICAL LABORATORY
Certified Environmental Services

INVOICE NO. 5698

1885 North Kelly Rd. • Napa, California 94558
(707) 258-4000 • FAX: 707-226-1001

]
Napa County Department of
/Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

INVOICE DATE	LAB NUMBER	
January 29, 1991	9011-288-1 to 6	
PROJECT NUMBER	**PURCHASE ORDER NUMBER**	**TERMS**
#2 Eucalyptus Drive - Robert Couch Property	Sampled 11/19/90	Net 30 Days

QTY.	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
	Professional Services		
4	EPA 8270 Semivolatile Petroleum Hydrocarbons	160.	$ 640.
	EPA 8015 Total Purgeable Petroleum Hydrocar	80.	80.
	EPA 8270 Acid Fraction + PNA	140.	140.
	pH	10.	10.
	Chloride	20.	20.
	Phenols	40.	40.
			$ 930.

Our File HF219

See [illegible]
[illegible] questions

Accounts past due will atuomatically receive a FINANCE CHARGE of 1.5% per month on the upaid balance.

REMITTANCE

1860

Environmental

Cover Sheet

APN	058 - 030 - 066 - 000
Permit #	
Program	SD
DocType	pmt
Street #	2
Street Name	Eucalyptus Dr
Year	1966



58-030-17

OWNER Robert Caudle Job Address Napa Disposal Dumps Rd.

HOME ADDRESS 1899 Bdwy., Vjo. Phone Date 6-3-66

CONTRACTOR Self Phone

LOT SIZE 1.65 ac. X LOT BLOCK IN SUBDIV.

WATER SYSTEM ☐ PUBLIC ☑ INDIVIDUAL WELL ☐ Building Dept. Form Received

SEWAGE DISPOSAL PERMIT

County of Napa — Department of Public Health

P. O. Box 749 — 2281 Elm Street — BAldwin 4-5433

No. 2730

WORK APPLIED FOR:

- ☑ Dwelling ☐ Other
- ☑ New Construction
- ☐ Additions, alterations, repairs
- ☑ Private ☐ Subdivision
- ☑ No. Bedrooms ☐ Garbage Grinder

Pre. Inspection: Date Initial

TANK 1200

DISPOSAL FIELD 6 - 100' lines

(See specification sheets)

Location: Napa Disposal Dumps Rd. PERMIT FEE $ 10.00

PAID 6-3-66 RECEIPT NO. 27115

Form by DJS SIGNED Robert F. Caudle

1862

(A) FORMS, TRENCHES: Date 9-24-73 Initials JM Tank Level ____/____

inspected 1,200 gal. septic tank and 3-100' leach lines — (2 more lines must be installed and inspected). JM

(B) FINAL: Date Approved 10-9-73 Initials JM / ____

inspection of final 2 100' lines — system completed —

House Set Back ____ Soil Type ____ Slope / 100 ____ Direction ____

Drain Field

Nearest Lot Line Front ☐ Side ☐ Rear ☐ No. of Lines ____ Length Each ____

Distance Between ____

Distance, Lines from Foundation ____ Gravel under ____ over ____ Top of Tile to Finish Grade ____

Distance well from drainfield 100+ No. of Bathrooms 5 No. of Family Units 2

Remarks ____

Zoned M-2 - Use Permit Req.

FROM: Napa County Planning Commission TO: Napa County Health Department

Please review the following proposed development for conformance with laws and ordinances enforced by your department.

Name Robert L. Couch
Owner, Contractor, Subdivider (Circle one)

Job Address

Mailing Address 58-030-17

Type of Development Dwelling

Signed J. Hughes Date 3-11-66
Planning Commission

Approved: Date 6-3-66 By: D. F. Barlow
Health Department

Remarks:

BOARD'S APPROVAL GIVEN ON 11-26-66
PLANNING COMM. DENIED REQUEST ON 4-4-66

Form: HD-BD #1 (1-1-64)

Environmental

Cover Sheet

APN	058 -030 -006 -000
Permit #	
Program	up
DocType	COR
Street #	2
Street Name	Eucalyptus Dr
Year	

NAPA COUNTY CONSERVATION, DEVELOPMENT and PLANNING DEPARTMENT

Charles Wilson
Director

1195 Third Street, Room 210 • Napa, CA 94559-3092
Telephone 707/253-4416 FAX 707/253-4336

July 3, 2001

Michael Sinatra
SHERWOOD FOREST PAINTBALL
1236 Spring Street
St Helena CA 94574

RE: Use Permit #00308-UP
APN 58-030-~~017~~ 06

Dear Mr. Sinatra:

Please be advised that the above-referenced **Use Permit** was **APPROVED** by the Napa County Conservation, Development & Planning Commission on June 6, 2001 based on the attached conditions. The permit became effective on June 21, 2001, pursuant to Napa County Code Chapter 2.88.

Pursuant to Section 18.124.080 of the Napa County Code, the use permit must be activated within one year and ten calendar days from the approval date, or it shall automatically expire and become void on **June 17, 2002.**

An extension of time in which to activate the permit may be granted for a maximum of 12 months, upon application no more than 45 days prior to expiration, and payment of fees in effect at the time of application.

This letter is your only notice regarding expiration and procedures for extension of this permission.

Very truly yours,

Robert Miller for
Michael Miller
Deputy Planning Director

RECEIVED
JUL 06 2001
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

cc. John Tuteur, Assessor
Gary Brewen, Building Codes Administrator
Larry Bogner, Public Works
Christine Secheli, Environmental Management
Barbara Easter, County Fire Department
Charles Meibeyer, Attorney
Robert Couch, property owner

CONDITIONS OF APPROVAL
Use Permit #00308-UP (Sinatra/Couch)

1. The permit is limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 50 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration. Days and hours of operation shall be limited to weekends for general public use and weekdays by groups on a prior appointment basis, sunrise to sunset.

2. The permit shall be limited to a ten (10) year period, with department review at three (3) and six (6) years. The permit holder shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The permit holder may seek use permit approval at the end of the ten (10) years.

3. A written maintenance agreement, which provides for annual inspections and recommended improvements of the on-site access road by the permit-holders engineer, shall be submitted to the Director and to the Department of Public Works on an annual basis.

4. A minimum of twenty (20) off-street parking spaces shall be maintained on a surface approved by the Department of Public Works.

5. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

6. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to the County's Risk Manager.

7. The permit holder shall comply with all applicable building codes, zoning standards and requirements of various County departments and other agencies as stated in the following:
   Department of Public Works letter of ~~April 25, 2001.~~ MAY 18, 2001 RP
   Department of Environmental Management memo of February 2, 2001.
   Napa County Fire Department memo of January 30, 2001.

8. An overflight and noise easement, acceptable to the Director of Aviation, shall be dedicated to the County of Napa prior to conducting any paintball games.

9. No tournaments or special events shall be conducted on the property.

10. No overnight camping or overnight stay in vehicles shall be allowed.

11. Fires and/or outdoor cooking shall be prohibited.

12. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

13. No alcoholic beverages shall be consumed on-site.

14. The playing field boundary shall be clearly marked.

15. Access roads shall remain clear and gates unlocked during playing hours.

16. Security personnel shall be provided from among those in attendance.

17. At the end of each playing day, the site, access road and surrounding area shall be left in a clean and orderly condition.

18. All staff costs associated with monitoring compliance with these conditions and project revisions shall be borne by the applicant and/or property owner, other than those costs related to investigation of complaints of non-compliance which are determined to be unfounded. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time.

PUBLIC WORKS DEPARTMENT
INTER-OFFICE MEMO

May 18, 2001

TO: Conservation Development and Planning Department

FROM: Annamaria Martinez, Junior Engineer

SUBJECT: **REVISED:** Sinatra/Sherwood Forest Paintball,
#2 Eucalyptus Drive, American Canyon
APN# 058-030-017, File #00308-UP

This application will allow the applicant to establish a paintball recreational operation and to construct eight new parking spaces on a 10-acre portion of a 165.5-acre parcel located on the north side of Eucalyptus Drive approximately 4,000-feet west of Donaldson Way.

EXISTING CONDITIONS:

1. Existing access road is 12-feet wide at the connection with Eucalyptus Drive, varying in width from 11 to 14-feet to the proposed entrance to the Paintball Park. The access road is roughly a four-inch thick gravel road.

2. An existing swale along Eucalyptus Drive is in disrepair near the access driveway and there is no visible culvert.

3. Parking surface is currently dirt and gravel.

RECOMMENDED CONDITIONS:

1. Access drive shall be a minimum of 18 feet wide with 2 feet of shoulder. Structural section shall be a minimum 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent. (County Road and Street Standards, Page 9, Par. 12)

   An exception to the Napa County Road and Street Standards was granted to the previous use permit holder for said property. The Public Works Department granted the exception for the access road due to the limited use of the property, i.e. weekend and dry-weather use only, and a letter written by a registered Civil Engineer, in which the engineer states that access road is acceptable for intended uses. The current applicant also proposes limited use of the property and has submitted, along with his application, a letter from Bartelt Engineering; therefore, the conditions of the previous exception also apply to this applicant.

2. Any parking proposed by the applicant or required by the Planning Commission as a condition of this use permit must have a minimum structural section of 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent.

   An exception to the Napa County Road and Street Standards for commercial parking areas was also granted to the previous use permit holder based on the limited use of the facility and the assertion by a licensed civil engineer that the access road and parking areas are acceptable for the intended use. (See #1 above)

3. Parking lot details shall conform to the requirements of the latest edition of the "Napa County Road and Street Standards."

4. Any necessary storm drainage improvements shall conform to the latest "Napa County Road and Street Standards."

   This includes the addition of a culvert and repair of the swale at the driveway connection with Eucalyptus Drive.

5. The applicant must obtain an encroachment permit for any work performed within the Napa County Right-of-Way, including item number 4, above.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items at this time please contact Annamaria Martinez or Larry Bogner of this office.

cc: Michael Sinatra, 1236 Spring Street, St. Helena, CA 94574
Robert and Patricia Couch, c/o #2 Eucalyptus Drive, American Canyon, CA 94588

MEMORANDUM

RECEIVED
FEB 05 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEP

February 2, 2001

TO: Napa County Planning Department, Jeff Redding, Director

FROM: Napa County Environmental Management Department,
Christine Secheli, R.E.H.S., Environmental Health Manager

Use Permit Application for Michael Sinatra/Sherwood Forest Paintball
Located at2 Eucalyptus Drive
Assessor Parcel # 58-030-17
File # 00308-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

3. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

cc: Mr. Michael Sinatra, 1236 Spring St., St. Helena, CA 94574
Mr. Robert Couch, c/o #2 Eucalyptus Dr., American Canyon, CA 94588

RECEIVED
JAN 30 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

INTER-OFFICE MEMO

TO: Jeffrey Redding, Director
Conservation, Development, and Planning Department

FROM: Barbara Easter, Fire Department

DATE: January 30, 2001

SUBJECT: Sinatra/Sherwood Forest Paintball Use Permit Comments
Apn: 058-030-017 00308-UP

Site Address: 2 Eucalyptus Drive, American Canyon

The Napa County Fire Marshal staff has reviewed the Sinatra/Sherwood Forest Paintball Use Permit application to establish a paintball recreational operation on a 10-acre site. We recommend that the following items be incorporated as project conditions or mitigation measures if the commission approves the project.

1. Access roads from the public and/or private right-of- ways to the project/ building site shall comply with Napa County Road and Street Standards and shall be reviewed by the Napa County Public Works Department.

2. The request for beneficial occupancy ***will not*** be consider until all fire and life safety issues have been installed, tested and final.

3. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide driving capabilities in all weather conditions. Said access shall be provided prior to any construction or storage of combustible materials on site.

4. The approved address numbers shall be placed on each building by the applicant in such a position as to be plainly visible and legible from the street fronting the property and shall be placed as to be seen from all entrances. Proposed address shall be indicated on the elevation drawings contained within the building plan submittal. The address numbers shall be a minimum of 10" in height, contrasting in color with their background and shall be illuminated.

5. An approved project sign shall be placed at vehicle access points into the project during construction to assist emergency responders. The sign shall identify the project name and address. Such signs shall be clearly visible and legible from the street fronting the project.

6. A Knox box or a Knox Cabinet shall be installed at approved location by the Napa County Fire Marshal's Office. If the building/suites are protected by a fire or burglar alarm system, the boxes will require "*tamper*" monitoring.

7. The Knox rapid entry system shall have one or all of the following items placed in the Knox box or Knox cabinet, dependant on requirements of this facility:

    1. A minimum of 2 master keys to the building(s) for emergency access.
    2. Scaled site plan of the facility, identifying all buildings, hydrants, fire department access around the facility, and location of all water, electric, and gas shut-off valves.
    3. Scaled floor plans of all buildings showing doors, offices, etc.
    4. Napa County Hazardous Materials Business including all MSDS forms, etc.

8. "Fire Plan Review and Inspection" fees shall be paid to the Fire Department for all applicable plan review and inspection work at the established deposit basis plus project consultation time at the hourly rate of $59 per hour (Napa County Resolution 92-65).

BYRON J. CARNIGLIA
Fire Chief

By: Barbara A. Easter

Barbara Easter
County Fire Inspector

BJC/be/be
cc: Applicant, D-1404 Loveless,
B-1416 Streblew, CFM Files, Chron

MEMORANDUM

February 2, 2001

TO: Napa County Planning Department, Jeff Redding, Director

FROM: Napa County Environmental Management Department,
Christine Secheli, R.E.H.S., Environmental Health Manager

Use Permit Application for Michael Sinatra/Sherwood Forest Paintball
Located at2 Eucalyptus Drive
Assessor Parcel # 58-030-~~17~~ 66
File # 00308-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

3. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

cc: Mr. Michael Sinatra, 1236 Spring St., St. Helena, CA 94574
Mr. Robert Couch, c/o #2 Eucalyptus Dr., American Canyon, CA 94588

UP/ SE-1. adequate Any permanent.....
SW-4, 1

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
JAN 19 2001
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

60-1366

TO: Environmental Management 58-030-17

APPLICATION TITLE: SINATRA/SHERWOOD FOREST PAINTBALL FILE #: 00368 UP

RESPONSE REQUEST DATE: 01/19/01 RESPONSE RETURN DATE: 02/05/01
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 • (707) 253-4416

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW:AC

FILE NO: 00308-UP

REQUEST:

Use Permit request to establish a paintball recreational operation on a 10 ac. portion of a 165.5 ac. parcel located on the north side of Eucalyptus Drive approximately 4000 feet west of Donaldson Way within an AW:AC zoning district. (APN 58-030-017)

Date Submitted: 17 Jan 01

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Michael Sinatra Telephone#: (707) 522-7566

Site Address: #2 Eucalyptus Drive, American Canyon, CA 94588
No Street City State Zip

Mailing Address: 1236 Spring Street, St. Helena, CA 94574
No Street City State Zip

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert & Patricia Couch Telephone#: (707) 644-6239

Mailing Address: c/o #2 Eucalyptus Drive, American Canyon, CA 94588
No Street City State Zip

Assessor's Parcel #(s): Portion of 58-030-017 **Existing Parcel Size:** 165.5 Acres

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Michael Sinatra 10-16-2000 Robert L. Couch, Jr. 10/16/2000
Signature of Applicant **Date** **Signature of Property Owner** **Date**

Michael Sinatra
PRINT NAME

Robert L. Couch, Jr
PRINT NAME

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

Total Fee: ~~$1376.00~~ 125.00 + 1251.00 = $1376.00 Receipt# 99901 Received by: W. F. Sellick Date: 17 Jan 01

($125.00 pre-applicationfee + $1251.00 balance due)

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Opereration of a recreational paintball playfield within a eucalyptus grove on weekends for public useand on weekdays by private appointment only.

B. Project Phases: [x] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date ~~for Each Phase:~~ Phase 1 Spring, 2001 Phase 2: _____

D. Actual Construction Time Required for Each Phase: [ ] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: Upgrade of access road for customer use and for use by emergency vehicles.

F. Additional Licenses/Approval Required: N/A

District: _____ Regional: _____
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): proposed total floor area on site: N/A
new construction: N/A

existing structures or portions thereof to be utilized: N/A

existing structures or portions thereof to be moved: N/A

B. Floor Area Devoted to each separate use (in square ft): N/A

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: N/A new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Height of Crane necessary for construction of new buildings (*airport environs*): N/A

F. Type of Exterior Night Lighting Proposed: N/A

III. PARKING	Existing	Proposed
A. Total On-Site Parking Spaces:	12	20
B. Customer Parking Spaces:	11	18
C. Employee Parking Spaces:	1	2
D. Loading Areas:	N/A	

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:		Weekends & weekdays by prior appointmen
B. Expected Hours of Operation:	Sunrise-Sunset	Same
C. Anticipated Number of Shifts:		One
D. Expected Number of Full-Time Employees/Shift:		One
E. Expected Number of Part-Time Employees/Shift:		None
F. Anticipated Number of Visitors • busiest day:		50
• average/week:		250
G. Anticipated Number of Deliveries/Pickups • busiest day:		2
• average/week:		4

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities N/A

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers N/A

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc.)	Bottled Water	
B. Name of Proposed Water Supplier (if water company, city, district):		
annexation needed?	Yes___ No___	Yes___ No___
C. Current Water Use (in gallons/day):		
Current water source:		
D. Anticipated Future Water Demand (in gallons/day)		
E. Water Availability (in gallons/minute):		
F. Capacity of Water Storage System (gallons):		
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):		

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g., on-site septic system on-site ponds, community system, district, etc.):	portable/chemical toilets	
B. Name of Disposal Agency (if sewage district, city, community system):	by operator	
annexation needed?	Yes___ NoXX	Yes___ NoXX
C. Current Waste Flows (peak flow in gallons/day):	N/A	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	N/A	
E. Future Waste Disposal Capacity (in gallons/day):	N/A	

III. SOLID WASTE DISPOSAL		
A. Operational Wastes (on-site, landfill, garbage co., etc.)	Landfill	
B. Grading Spoils (on-site, landfill, construction, etc.)	on-site	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (on-site, landfill, garbage co., waste hauler, etc.):	N/A	
B. Name of Disposal Agency (if landfill, garbage co., private hauler, etc.):		

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NAPA CO. CONSERVATION DEVELOPMENT & PLANNING

COPY

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

PROJECT STATEMENT FOR MICHAEL SINATRA USE PERMIT APPLICATION

This application is for a use permit on behalf of Michael Sinatra doing business as "Sherwood Forest Paintball" for the operation of a paintball playing field on a 10-acre portion of a 165.5-acre parcel owned by Robert and Patricia Couch. That entire parcel is known as APN 58-030-17.

The applicant, Michael Sinatra, is an experienced operator of this type of recreational playing field. Since 1992 Mr. Sinatra operated a similar playing field on Mare Island and has operated another in the City of Rohnert Park since 1995. Due to a development project undertaken by the California Department of Transportation, Mr. Sinatra was forced to relocate his Mare Island operations with essentially no notice when Highway 37 improvements commenced. After an exhaustive search, the Couch property has been determined to be the only suitable location for Mr. Sinatra's business in the greater Bay Area.

This particular area of American Canyon has long since been associated with paint ball playing fields. With apparent recognition of the entertainment value of this activity for diverse segments of the population, these operations have been consistently granted use permits by the County to operate on the Couch property. Examples include:

1. Mr. Dean Laing previously operated a paintball playing field, use permit #93388-UP, on just one half of the 10-acre space covered by this application. With a lease on only approximately 5 acres, Mr. Laing obtained approval from the County for 20 people to use his playing field each day. That number of people was served by 12 parking spaces.

2. The "Paintball Jungle" business (known in Permit #94354-UP, as "Vallejo Paint Ball Park") is operating under a ten year use permit. This site is directly adjacent to the Sherwood Forest site and is operated by Robert D'Elia. It was first granted a use permit by the County in May of 1994. That use permit allows up to 50 people each day to play paintball games at this site. To accommodate them, a total of 20 parking spaces were created by the operator and approved by the County. One issue that caused particular concern to the County when that application was considered was the lack of quality access roads. In particular, there was concern that emergency vehicles would not have access to the playing field during winter months. That concern was subsequently addressed when the applicant presented an engineer's report in which he agreed to improve the access roads to conform with the Napa County Fire Department's standards.

3. Finally, Use Permit # 91541-UP previously was in effect for a paintball operation on another section of the Couch property.

Mr. Sinatra proposes to operate his playing field similar to the preexisting paintball operations on the Couch Property. As such, his playing field will be open from sunrise to sunset on weekends for general public use. Due to the success of paintball fields for a greater audience in recent years, he also proposes to use the playing field for weekdays by groups on a prior private appointment basis. The audiences he can reach with this weekday use include church groups, non-profit organizations, and youth civic, and corporate groups. With twice the space as Dean Laing, Mr. Sinatra has requested an increase in the operation's capacity up to 50 people each day. To accommodate these additional users, Mr. Sinatra proposes to increase his parking by 8 spaces up to a total of 20 spaces, the same number as has been required for the D'Elia operation, which also is permitted for up to 50 customers per day.

Mr. Sinatra is aware of concerns that the access road leading to his playing field may not permit emergency vehicles to reach his playing field in winter months. To this end, consistent with the requirements imposed on Mr. Elia, Mr. Sinatra proposes to retain the services of a qualified engineer to advise him regarding the work that needs to be performed to provide all weather access to the site. This plan would be submitted for approval by the Public Works Department as a condition of approval for the project. Customers will access Mr. Sinatra's portion of the Couch Property by turning off Eucalyptus Drive on the easterly edge of the eucalyptus grove in which the paintball activities take place, driving in a northerly direction along an existing uninmproved access road that Mr. Sinatra will improve. These improvements will substantially improve the quality of the access road serving Mr. Sinatra's site. They will also serve to improve the safety of the access to the entire Couch property.

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DEVELOPMENT & PLANNING DEPT.

Sherwood Forest Paintball Player History

I have operated Mare Island Paintball in Vallejo on land leased to me by the City of Vallejo for approximately ten years. I have been displaced by Cal Trans due to the Highway 37 widening project. It is important to stay in the same area because a majority of my players come from the local area of Napa, the Highway 29 corrider, American Canyon and Vallejo. This year at the Napa County Fair we had a booth promoting Paintball. The only advertising I am currently doing is on the AT&T cable message channel which covers Napa. I have many players from all walks of life from Napa who have enjoyed Paintball. This new location off Highway 29 brings me several miles closer to my playership.

BARTELT engineering

January 11, 2001
#00-83

Jeff Redding
Napa County Conservation, Development
and Planning Department
1195 Third Street, Room 210
Napa, CA 94559

Re: Sherwood Forest Paintball Facility, Eucalyptus Drive, Napa County, CA, APN 058-030-017

Dear Mr. Redding:

At the direction of Michael Sinatra, proprietor of Sherwood Forest Paintball Facility, I have evaluated the current condition of the existing access road. The location of the existing facility is in Napa County west of the city limits of American Canyon. The facility is accessed by an existing road north of Eucalyptus Drive, approximately 4,000 feet west of Donaldson Way. The road in question proceeds north approximately 650 feet from it's intersection with Eucalyptus Drive to the parking lot as shown on the attached site plan. My review included emergency vehicle accessibility to the site year round.

A site reconnaissance revealed that the existing access road and parking lot has a 2 inch to 4 inch layer of 1"-1½" clean, crushed drain rock over a firm, sound base. There was no evidence of base weakness throughout the roadway or parking lot. Additionally, there is sufficient roadway width, height and turning radii's for emergency vehicles access. I concluded that the site can be accessed all year round by appropriate emergency vehicles.

If you have any questions or comments regarding this project please feel free to call me.

Sincerely,

Paul N. Bartelt, P.E.
Principal

PNB:sd

cc: Michael Sinatra, Sherwood Forest Paintball Facility
Chuck Meibeyer

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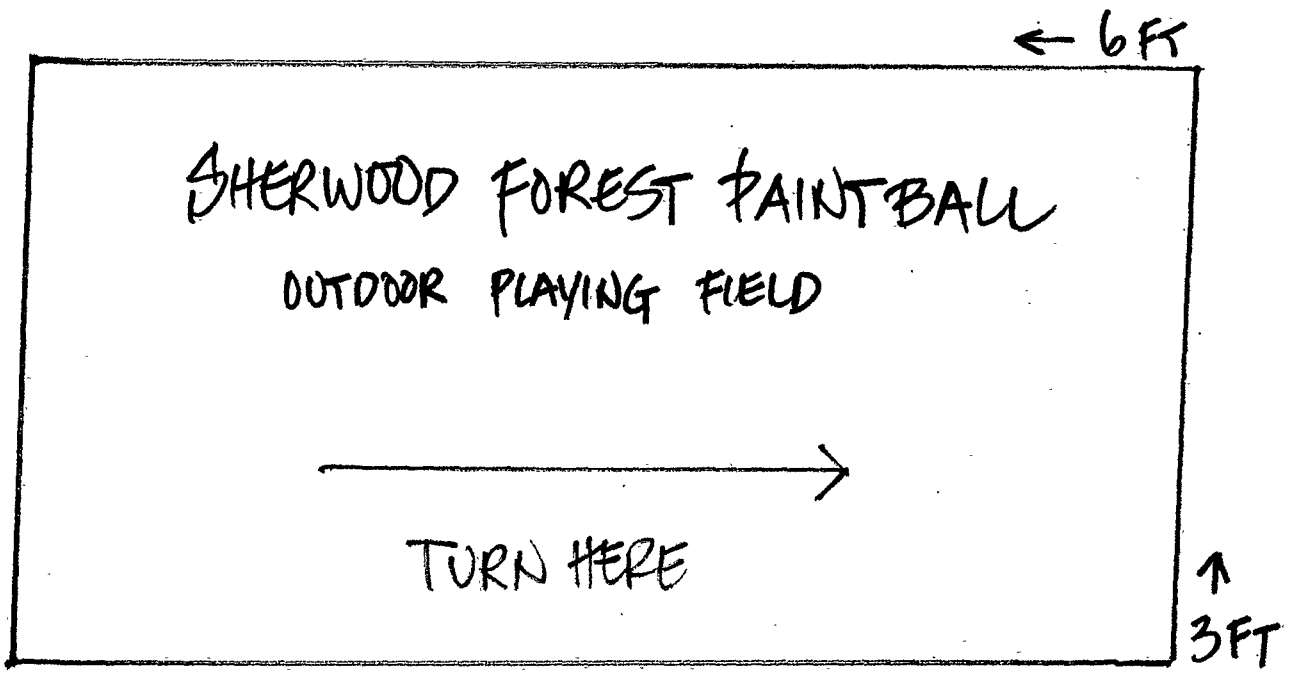
JAN 17 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

civil engineering
land planning
1339 pearl street #205
napa, california 94559
(707) 258-1301
(707) 258-2926 fax

1883

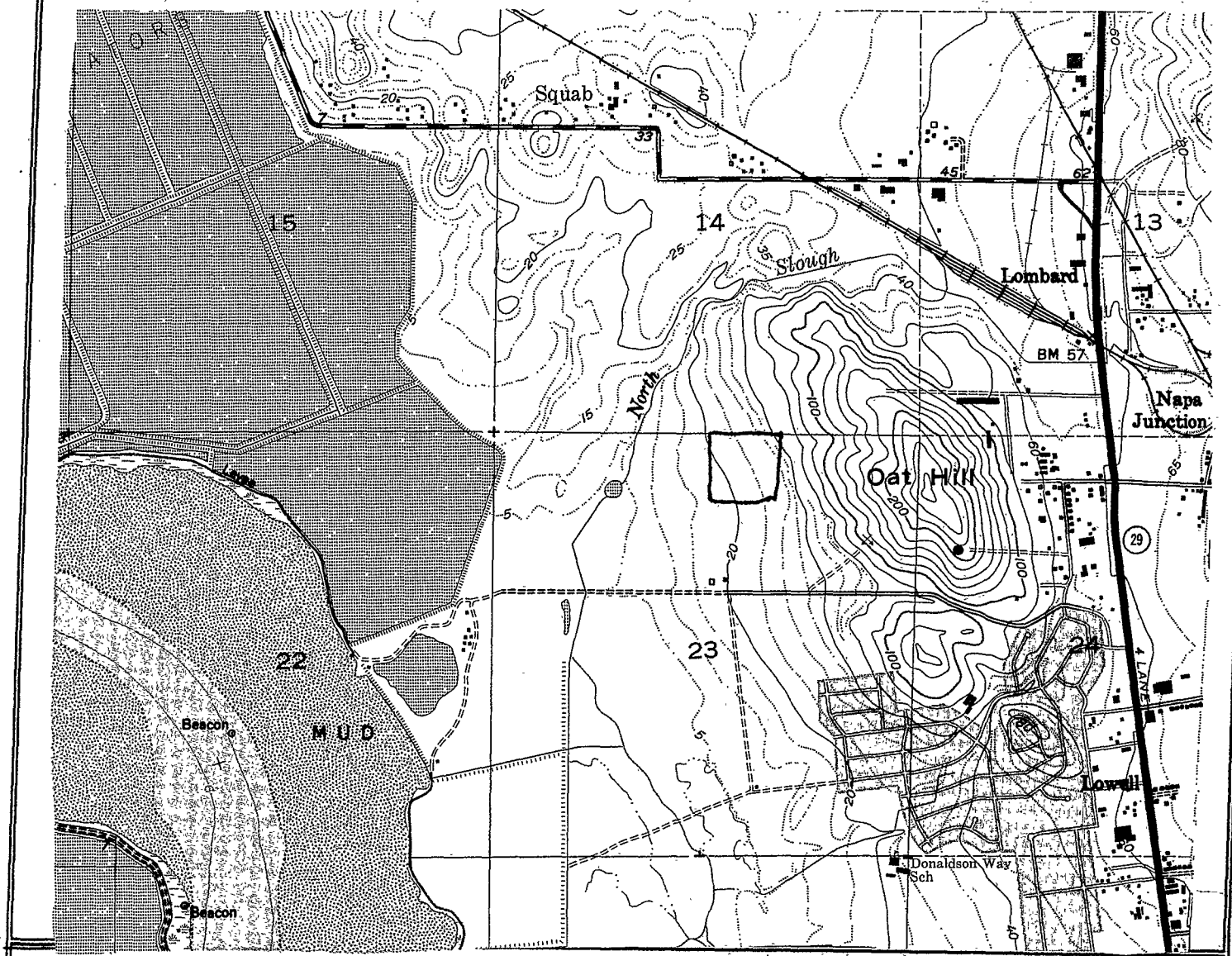
Sherwood Forest Paintball Sign Detail

The sign is made of exterior plywood. It is three feet tall. Six feet wide. One half inch thick. It is painted white with black vinyl letters. The top letters are three and one quarter inches tall. The lower letters are two and one half inches tall. It is attached to two four by fours which will be cemented in the ground.



Sinatra Application **SITE LOCATION MAP (U.S. GEOLOGICAL SURVEY)**

GEOLOGICAL SURVEY QUADRANGLE TITLE: Cuttings Wharf	COUNTY FILE NO. _____

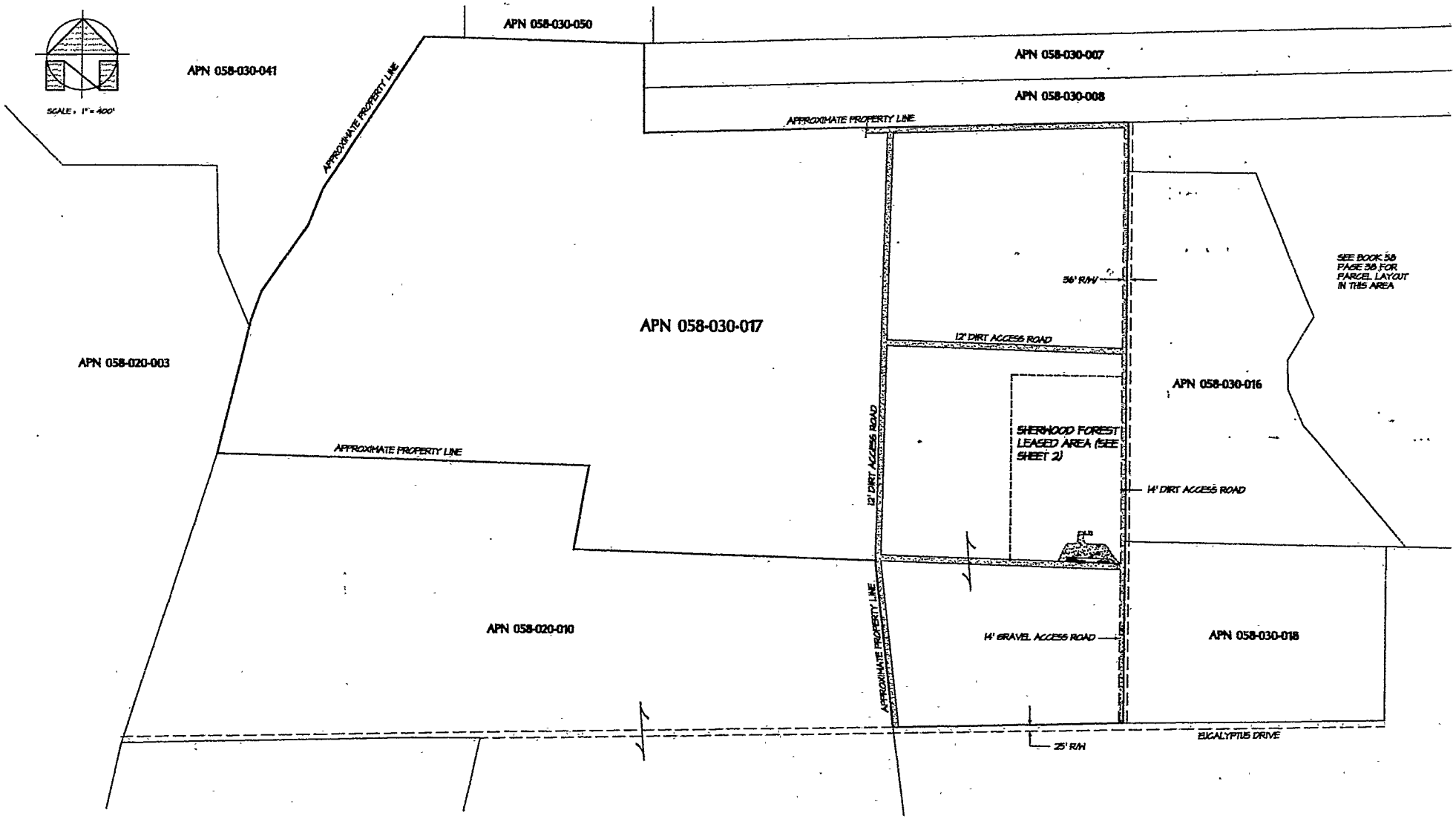


LEGEND

Show the following information on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		

APPLICANT NAME: John Doe

AP NO: 000-000-000
DATE: April 8, 1996

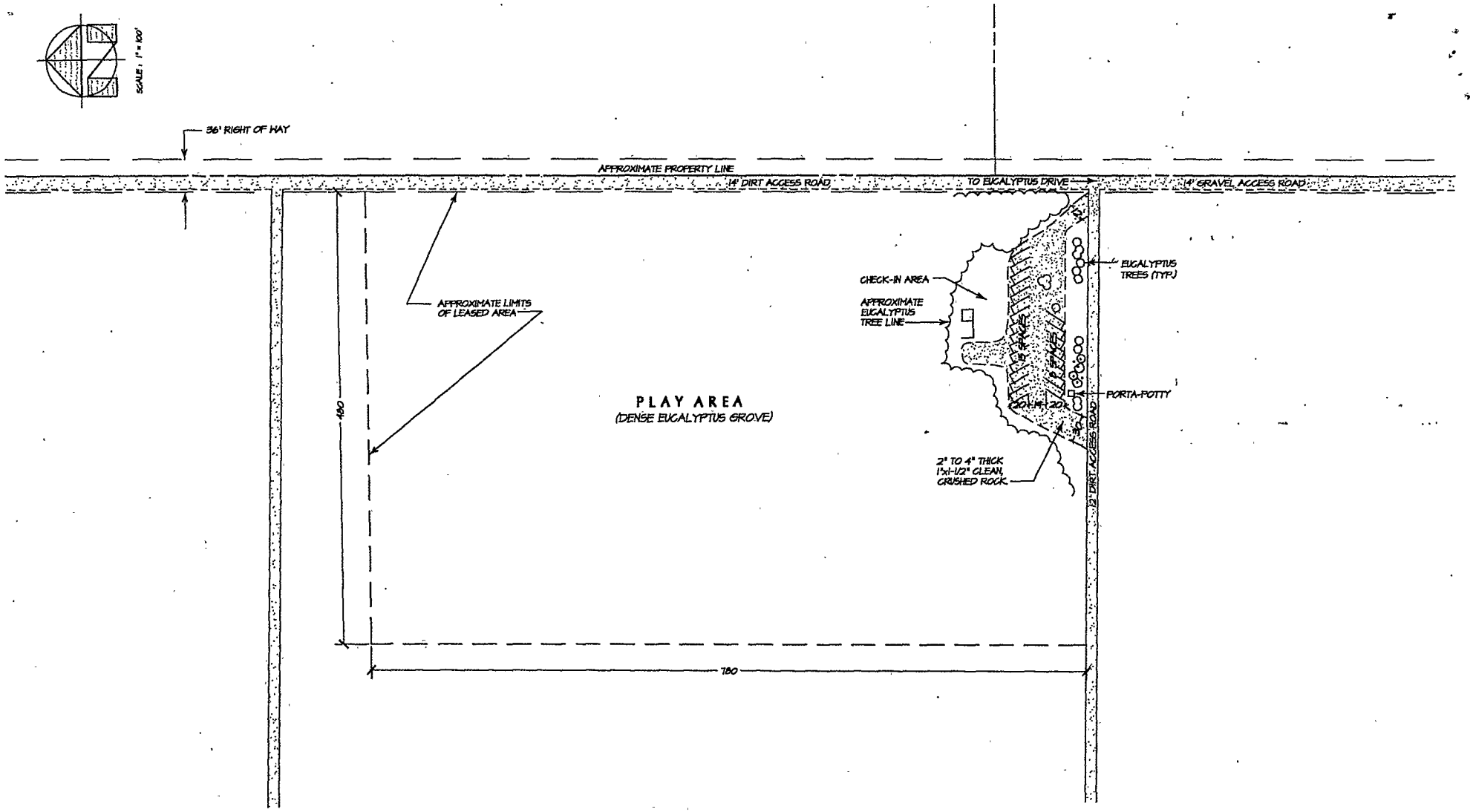


BARTELT engineering
civil engineering · land planning
1339 pearl street #205, napa, ca 94559
(707) 258-1301 · fax (707) 258-2926

OVERALL SITE PLAN

SCALE : 1" = 400'

Sherwood Forest Paintball Facility
#2 Eucalyptus Drive
American Canyon, CA
January 2001
APN 058-030-017
Job no. 00-83
Sheet 1 of 2



BARTELT engineering
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1339 pearl street #205, napa, ca 94559
(707) 258-1301 · fax (707) 258-2926

PARKING LAYOUT

SCALE : 1" = 100'

Sherwood Forest Paintball Facility
#2 Eucalyptus Drive
American Canyon, CA
January 2001
PTN APN 058-030-017
Job no. 00-83
Sheet 2 of 2

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: **Napa County Planning Dept. - Jeffrey Redding, Director**

FROM: **Department of Environmental Management - Chris Secheli, R.E.H.S.**

SUBJECT: **Use Permit Application for Robert D'Elia/Patricia Couch**

DATE: **June 19, 1995**

APN 58-030-~~17~~ 66 **FILE # 94354-UP**

Located at 2 Eucalyptus Dr.

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors. That adequate containers be provided for the collection of recyclables.

cc: Robert D'Elia, 516 Temple Way, Vallejo, CA 94591
COUNTY/9411

UP
SE-1 adequate
SE-9

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

#9411

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY R. REDDING
Director

RECEIVED
JUN 16 1995
DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY
REQUEST FOR COMMENTS

TO: Env. Mgmt.

APPLICATION TITLE: Robert D'Elia/Patricia Couch FILE #: 94354-UP

RESPONSE REQUEST DATE: 6-15-95 RESPONSE RETURN DATE: 6-29-95
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____
   Response Prepared by: _____
   Title: _____
   Date: _____

jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 (707) 253-4416

RECEIVED
JUN 13 1995
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW:AC

FILE NO: 94354-UP

REQUEST: To renew permit for a paintball parks practice field and expand the daily number of participants from 30 to 50 on a 40 ac. portion of a 165 ac. parcel north of Eucalyptus Dr. approx. 4200 ft west of Donaldson Way (AP# 58-030-17)

Date Submitted: 13 June 95

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: (707) 552-2426

Address: 516 (No) Temple Way (Street), Vallejo (City), CA (State) 94591 (ZIP)

Status of Applicant's Interest in Property: Lessee

Property Owner's Name: Patricia Couch Telephone #: (707) 553-2423

Address: POB 4191 (No Street) Vallejo (City), CA (State) 94590 (ZIP)

Site Address (if any): 2 (No) Eucalyptus Dr. (portion only) (Street) American Canyon (City)

Assessor's Parcel #: 58-030-17 Existing Parcel Size: 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert D'Elia 6/12/95
Signature of Applicant Date

Robert D'Elia
PRINT NAME

Patricia K. Couch 6/11/95
Signature of Property Owner Date

Patricia K. Couch
PRINT NAME

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 00847 Received by: Barbara Abate Date 6/13/95

CDPD#2-17-92)

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paintball Park & Practice Field; Indefinite renewal & expand daily participants from 20 to 50.

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: NA Regional: NA
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	25	25
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

IV. TYPICAL OPERATION		Existing	Proposed
A.	Days of Operation:	weekends	weekends
B.	Expected Hours of Operation:	9-4	9-4
C.	Anticipated Number of Shifts:	1	1
D.	Expected Number of Full-Time Employees/Shift:	0	0
E.	Expected Number of Part-Time Employees/Shift:	0	0
F.	Anticipated Number of Visitors •busiest day:	20	50
	•average/week:	30	60
G.	Anticipated Number of Deliveries/Pickups •busiest day:	1	1
	•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

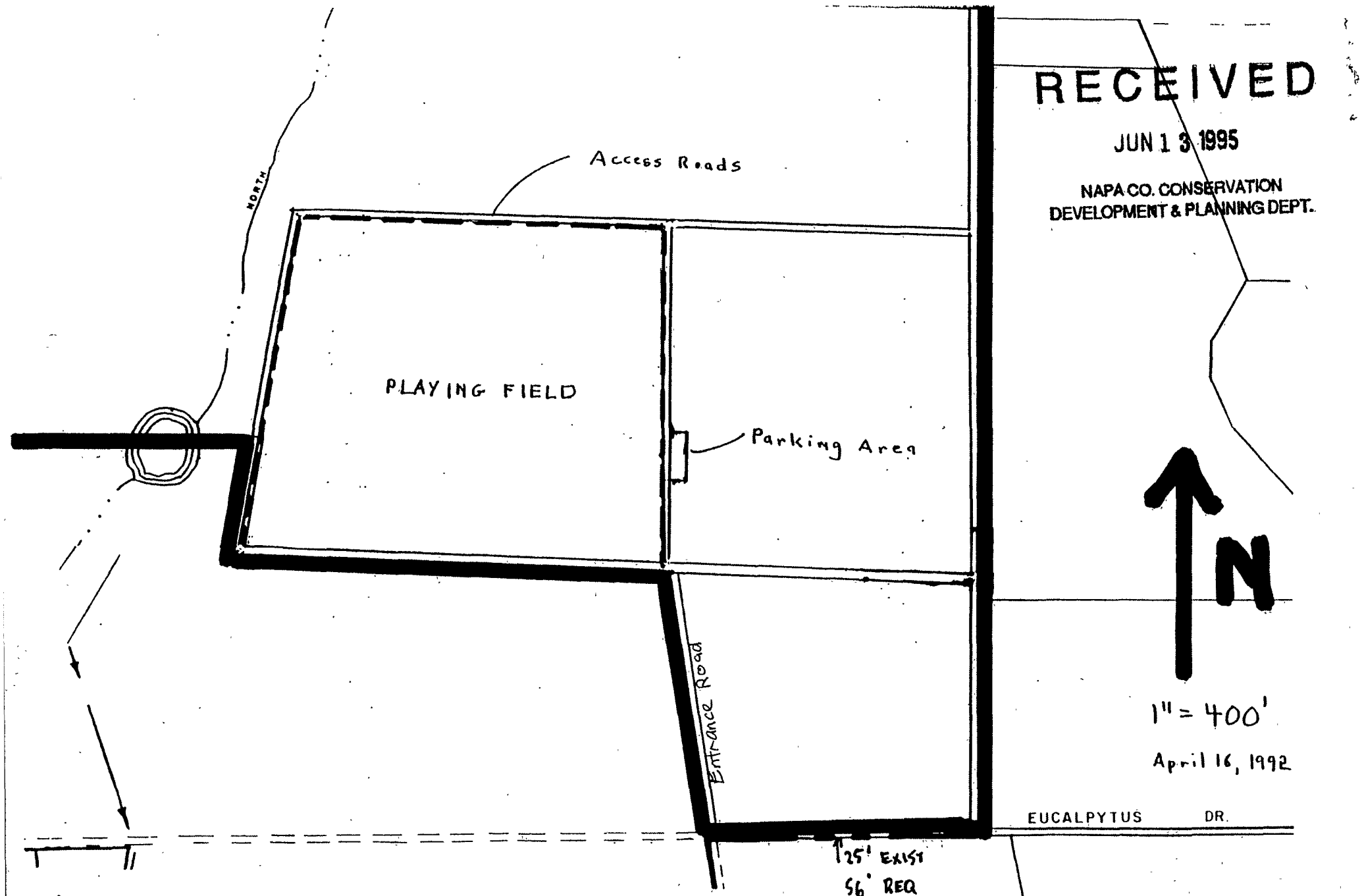
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled & Cooler	—
B. Name of Proposed Water Supplier (if water company, city, district):	none	—
annexation needed?	Yes___ No✓	Yes___ No✓
C. Current Water Use (in gallons/day):	0	0
Current water source:	—	—
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-john	
B. Name of Disposal Agency (if sewage district, city, community system):	M&M Sanitary	
annexation needed?	Yes___ No✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL		
A. Operational Wastes (on-site, landfill, garbage co., etc.)	private contract	
B. Grading Spoils (on-site, landfill, construction, etc.)	none	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (on-site, landfill, garbage co., waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage co., private hauler, etc.):	none	



RECEIVED

JUN 13 1995

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RDE

VALLEJO PAINTBALL PARK

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Jarquin/Couch-Paintball

DATE: August 31, 1994

APN 58-030-~~17~~ 66 **FILE #** 91541-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables.

cc: Gladis Jarquin, 964 Santa Lucia Ave., San Bruno, CA 94066
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/6010

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Christine M. Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Dean J. Laing, D.B.A. Storm Paintball Park

DATE: March 3, 1994

APN 58-030-~~17~~ 66 FILE # 93388-UP

Located at No. 2 Eucalyptus Drive

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Any permanent toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Dean J. Laing, 1989-7 Peabody Road, #268, Vacaville, CA 95687

usr/pamela/planning/COUNTY/7959

Chris

UP
SE-1 adequate chemical toilet facilities bet# 7959
provided....
SW-1,4

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY R. REDDING
Director

RECEIVED
FEB 28 1994
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: Dean Laing / Storm Paintball FILE #: 93388-UP

RESPONSE REQUEST DATE: 2-28-94 RESPONSE RETURN DATE: 3-14-94
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
FEB 24 1994
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

Currently Approved For Paintball Permit # 91435-UP

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 93388-UP

REQUEST: To operate Paintball Playing Field on weekends, For Aprx 20 people on A 5Ac Portion of 165.5 Parcel # APN 5803017

Date Submitted: 2-24-94

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

D.B.A STORM PAINTBALL PARK

TO BE COMPLETED BY APPLICANT (please print or type)

Applicant's Name: Dean J Laing **Telephone #:** (707) 446-7786

Address: 1989-7 Peabody Rd #268 Vacaville CA 95687
No Street City State ZIP

Status of Applicant's Interest in Property: STORM PAINTBALL FIELD

Property Owner's Name: Robert couch and Patrica **Telephone #:** (707) 642-2887

Address: 2 Eucalyptus dr American Canyon CA 94589
No Street City State ZIP

Site Address (if any): NO # Eucalyptus DR American canyon
No Street City

Assessor's Parcel #: 058-030-017-000 **Existing Parcel Size:** 165.5

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

D Laing 2/11/94
Signature of Applicant Date

Patricia K Couch
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 54744 Received by: R. Nolan Date 2-24-94

CDPD(12-17-92)

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Field FOR playing PAINT Ball

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): None proposed total floor area on site: None

new construction: N/A

existing structures or portions thereof to be utilized: None

existing structures or portions thereof to be removed: None

B. Floor Area Devoted to each separate use (in square ft):

living: N/A storage/warehouse: N/A offices: OFFSite
sales: N/A other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Type of Exterior Night Lighting Proposed: N/A

III. PARKING	**Existing**	**Proposed**
A. Total On-Site Parking Spaces:	50	~~20~~
B. Customer Parking Spaces:	—	—
C. Employee Parking Spaces:	—	—
D. Loading Areas:	—	—

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DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	~~weekends~~ 2	SAT SUN
B. Expected Hours of Operation:	[illegible]	9-4 Dawn to Dusk
C. Anticipated Number of Shifts:	0	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	[illegible]0	20
•average/week:	[illegible]0	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	N/A [illegible] month	1 per month as needed
•average/week:	N/A [illegible] per month	2 per month

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: N/A
- bar seating capacity: N/A
- public meeting room seating capacity: N/A
- assembly capacity: N/A

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:	N/A	—
• total number of guests/children:	N/A	—
• total number of bedrooms:	N/A	—
• distance to nearest existing/approved facility/center:	N/A	—

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	None Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0 —	— —
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Septic John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	MSM Sanitary (Napa) Yes___ No ✓	 Yes___ No ✓
C. Current Waste Flows (peak flow in gallons/day):	0	—
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	—
E. Future Waste Disposal Capacity (in gallons/day):	0	—

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	Private contract	Private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None	NA
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	NA

RP Scherer NORTH AMERICA
DIVISION OF R. P. SCHERER CORPORATION
P.O. BOX 5600, CLEARWATER, FLORIDA 34618-5600 • AREA CODE 813-572-4000

RECEIVED
FEB 24 1994
NAPA CO. CONSERVATION, DEVELOPMENT & PLANNING

March 25, 1988

Mr. Ron Childress
623 Trenton Way
Burlingame, CA 94010

Dear Mr. Childress:

Reference is made to your inquiry as to the toxicity of paintballs to the skin and environment.

The ingredients used in Scherer paintballs are listed by the U.S. Food and Drug Adminstration's Center for Food Safety and Applied Nutrition as suitable for use in food products. In addition, the color additives are specifically listed as permitted for use in cosmetic products.

We wish you success on starting your indoor game.

Sincerely,

William E. Heary

William E. Heary
Director, Quality Assurance

WEH/pac

bcc: J. Perlmutter
L. Kelly

Experience the
**** Excitement!***
**** Rush of adrenaline!***
**** Challenge of surviving!***
**** Sweet taste of victory!!***

CONGRATULATIONS! You're about to be introduced to the most thrilling and fastest growing sport of the 90's. PAINTBALL ADVENTURE GAMES. We're sure that once you've experienced a day of this exciting game, you and your friends will be back for more. A day of fun is GUARANTEED!

WHAT IS THE GAME OF PAINTBALL?
The basic two-team game is to capture the flag from the opposing team and successfully return with it to your own flag camp. Each player is armed with a special constant air gun designed to fire harmless paint pellets which mark their target on impact. Once a player is marked, he/she is eliminated. The game provides an opportunity to test your individual skills of stealth and tactics as well as stressing team work, planning and good humored competition.

WHO PLAYS THE GAME?
Anyone and everyone---men and women , all walks of life; office worker, college students, housewives, lawyers---everyone who wants to have a blast!
An ever increasing number of companies, both small and large, are discovering the game and forming department teams to challenge one another. (How about challenging your supervisory staff?!)

DO I NEED MY OWN EQUIPMENT?
No. Everything you need is at the field for rent. Once you get hooked you will most likely want to buy your own equipment. We also have limited equipment and supplies available for purchase.

IS THE GAME SAFE?
Absolutely. It is safer than most any competitive sports. Safety is stressed at our field. The CO2 powered pistol has been specifically engineered for this use. The "pellets" are soft water color marking capsules that are water soluble and do not harm the environment. SAFETY GOGGLES ARE PROVIDED AND WEARING THEM AT ALL TIMES IS REQUIRED.

IS THIS A RADICAL OR MILITANT ORGANIZATION?
Absolutely not! It's a game of strategy, hide and seek, cowboys and Indians all rolled up into one. These games are not a preparation for real combat. We have no affiliation with actual military groups. We're just here to have fun----- and lots of it!!

DO I NEED A TEAM TO PLAY?
No. You can come solo, with a couple of friends or a big group. We will divide everyone into two teams to ensure equitable levels of experience. Private games can also be arranged for groups of 30 or more.

WHAT DO I WEAR?
Any type of comfortable clothing (jeans, sweat shirt) is fine. Long-sleeves are recommended. The water dye should wash right out. We also have camouflage clothing available for rent on the field.

WHERE ARE THE GAMES PLAYED?
The field is outdoors on 36 acres located in a eucalyptus grove in Vallejo with thick brush, forts, bunkers and towers providing lots of cover to hide from the opposing team.

WHEN IS THE GAME PLAYED?
Every Saturday and Sunday. (Special arrangements to play during the week can be made for groups of 30 or more.) Players arrive usually around 9:00 a.m. and we wrap up the day approximately 4:00 p.m. (or later if players desire). Each game lasts approximately 20 to 30 minutes.

*** HOW MUCH DOES IT COST?**
Admission: $ 13.00 per person with own equipment.
Gun rentals: $ 10.00 for constant air gun. Includes 1st tank of air free,bulk loader, barrel plug, face mask + goggles . $ 20.00 for limited No. of semi-auto guns.
Paint pellets: $ 13.00 per box of 200 (save on purchase by the case.)

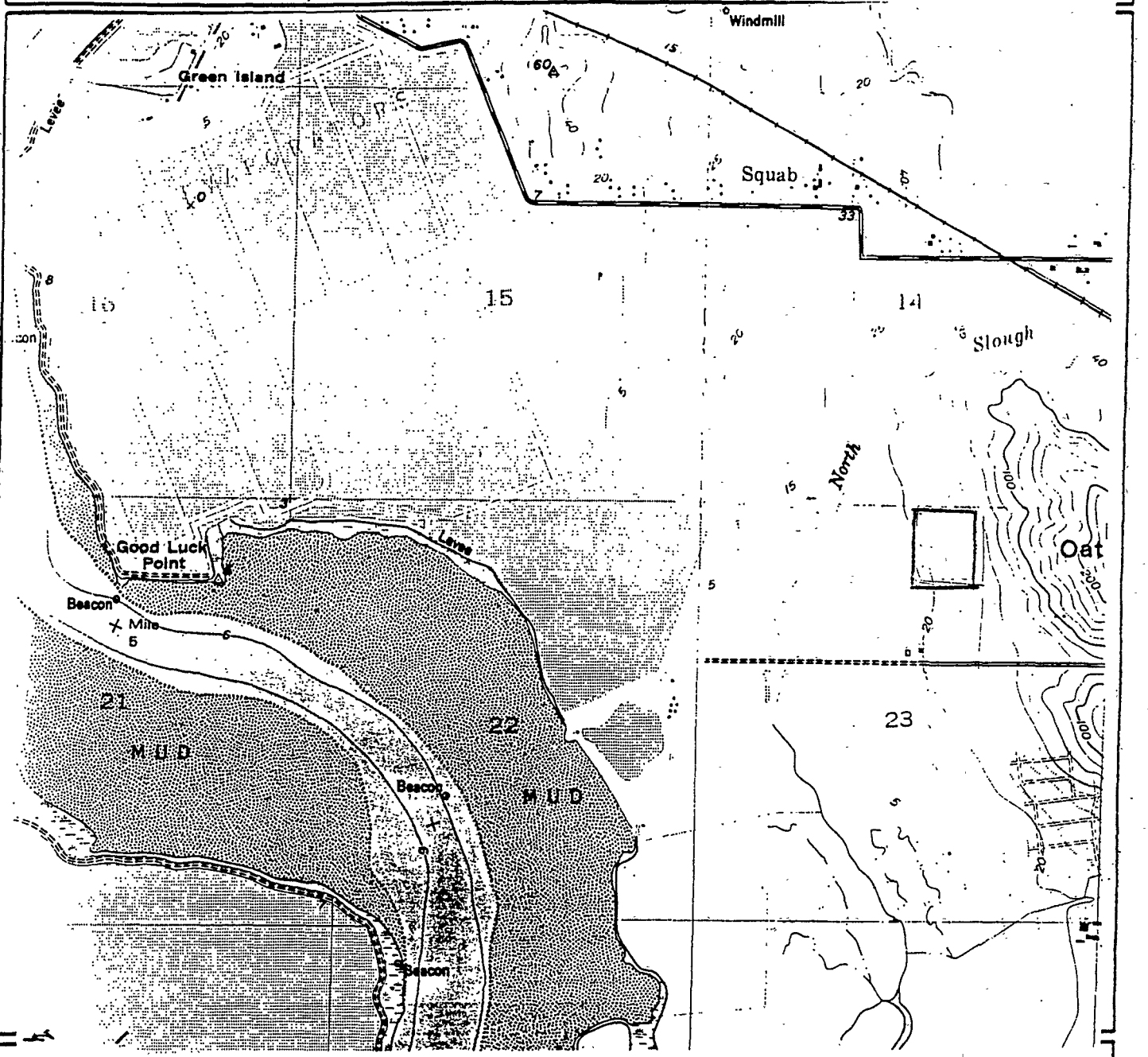
*** CLUB MEMBERSHIP**
A $ 10.00 membership card (valid for 3 months) will allow you to save substantially on all of the above costs.

HOW DO I ARRANGE TO PLAY?
Large groups require advance reservations + a deposit. Please call for information. Walk-ons may show up at the field but we suggest calling prior to the day of play to let us know you are coming.

OUR #1 GOAL IS CUSTOMER SATISFACTION. PLAN ON JOINING US SOON!

U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 91541-UP

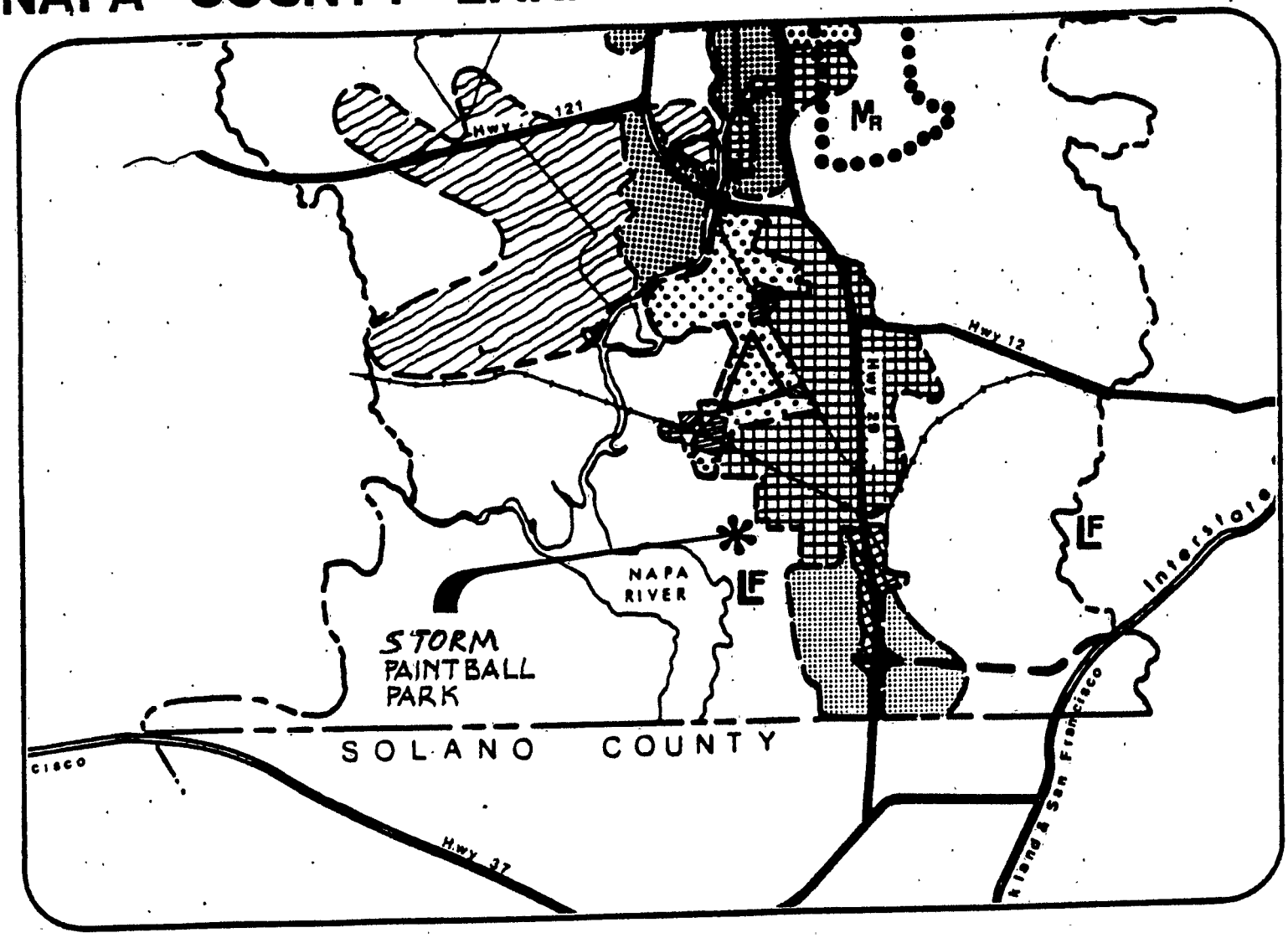


LEGEND

The following information shall be shown on the topographic map:

	Existing	Proposed
Parcel Boundary	— — — —	— — —
Structure	■	▭
Septic System	≡	▭
Well	•	o
Spring	~	
Reservoir	▰	▱
Road	~	- - -
Parking Lot or Outdoor Storage Area	▭	▨

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

OPEN SPACE

- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

SCALE IN MILES
0 2

APN
58-030-17

1905

EXHIBIT "A"

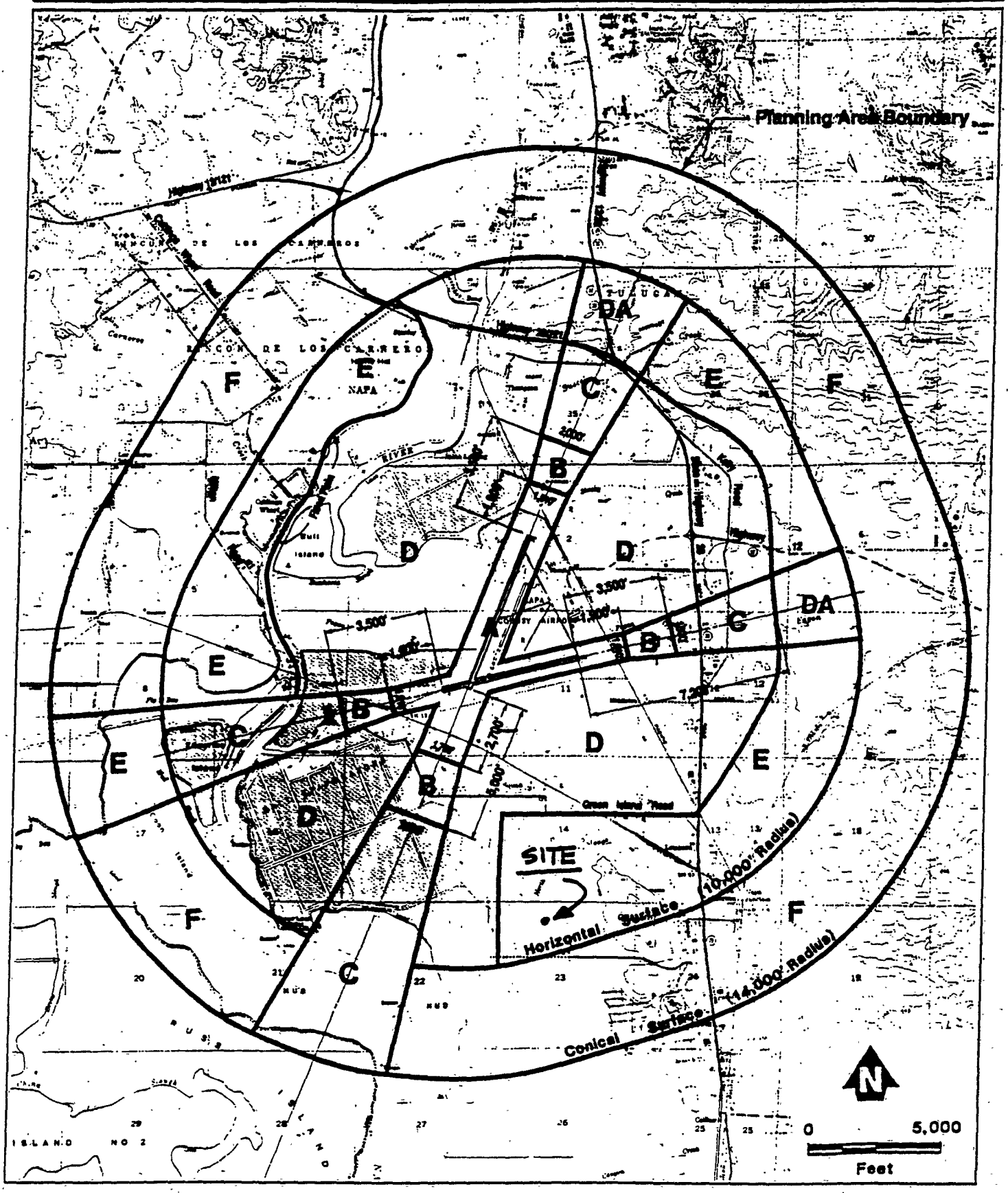
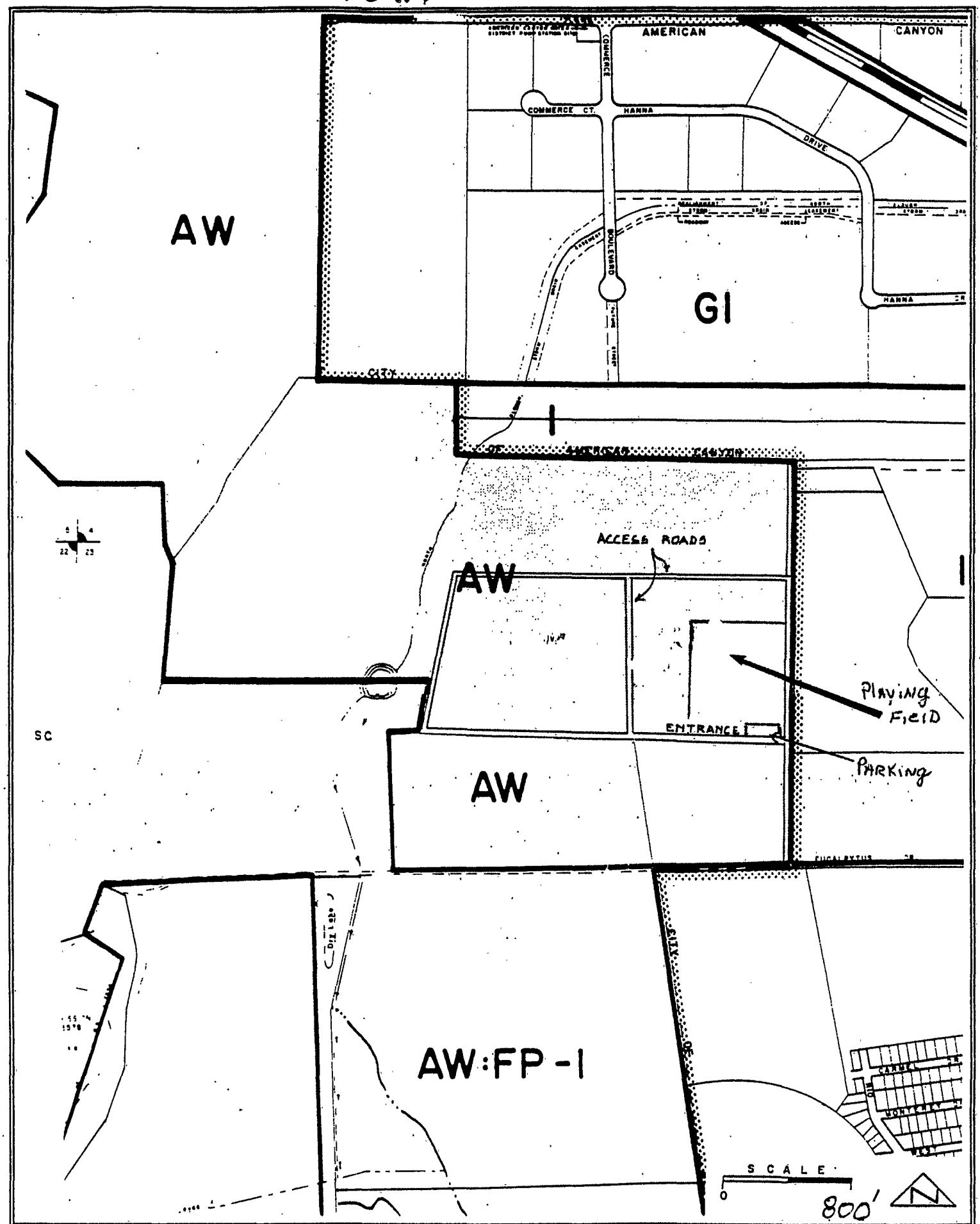


Figure 3A

Compatibility Plan

Napa County Airport

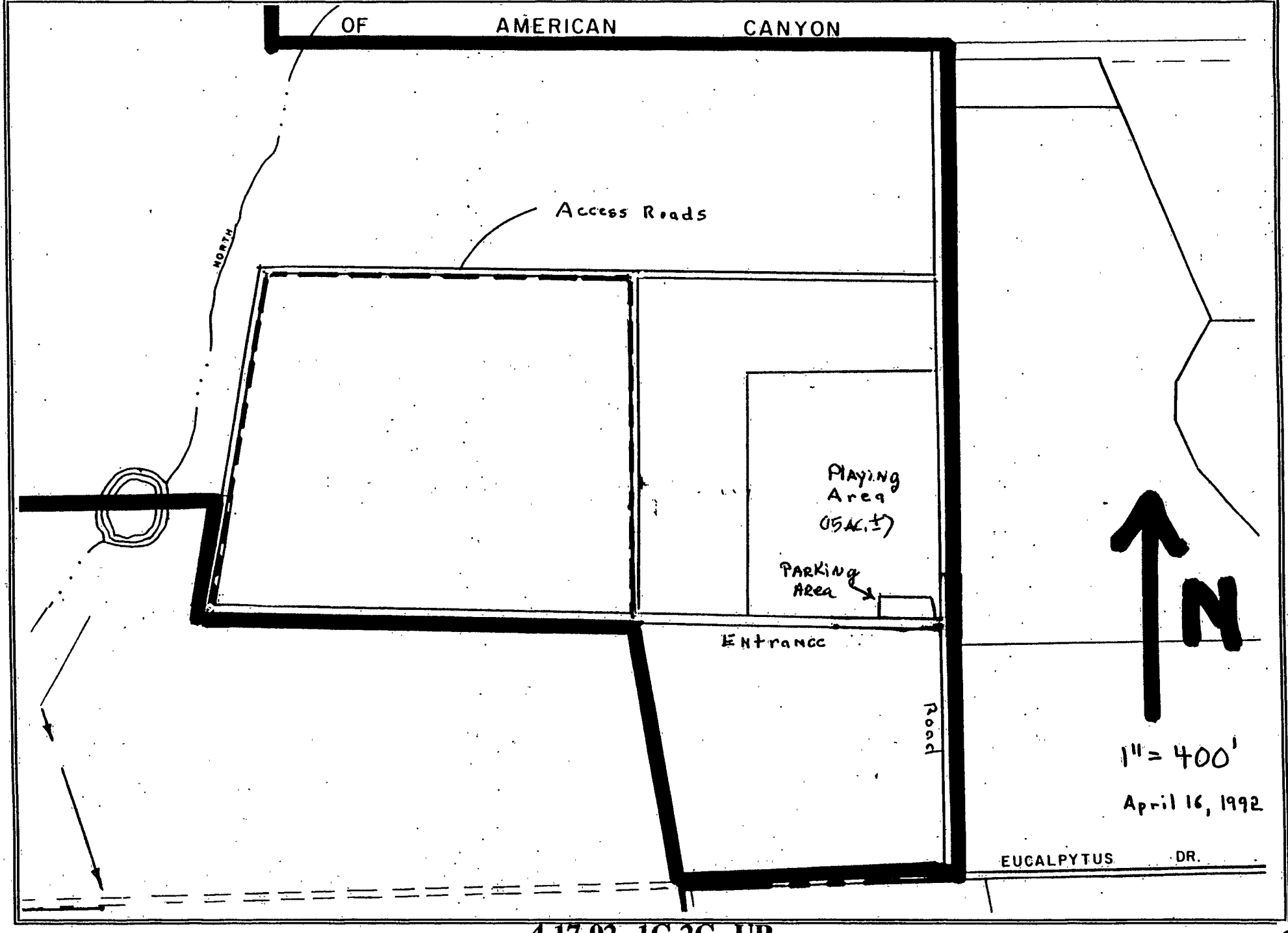
STORM PAINTBALL PARK



4-17-92 1C,2C UP

1907

STORM PAINTBALL PARK



4-17-92 1C,2C UP

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: **Napa County Planning Dept. - Jeff Redding, Director**

FROM: **Dept. of Environmental Mgmt. - Chris Sechrist, R.E.H.S.**

SUBJECT: **Use Permit Application for Jarquin/Couch-Paintball**

DATE: **August 13, 1992**

APN 58-030-17 66 FILE # 91541-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Gladis Jarquin, 964 Santa Lucia Ave., San Bruno, CA 94066
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/6010

see planning/county/5635

6060

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
AUG 07 1992
DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: JARQUIN / COUNTRY CLUB FILE #: 91541-UP

RESPONSE REQUEST DATE: 8/7/92 RESPONSE RETURN DATE: 8/21/92
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____
   Response Prepared by: _____
   Title: _____
   Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91541-UP

REQUEST: Use Permit for Paint Ball Club ON WEEKENDS FOR 30 PEOPLE (AW Zone) AGRICULTURAL WATERSHED DIST. ON A 36 ACRE PORTION OF A 165 ACRE PARCEL LOCATED NORTH OF EUCALYPTUS DRIVE APP. 7000 FT WEST OF DONALDSON WAY (APN # 58-030-017) AND ACCESSED THEREFROM

Date Submitted: JUNE 29, 1992

Date Complete: AUG. 5, 1992

Date Published: _____

	ZA	CDPC	BS APPEAL
Hearing	—	—	_____
Action	—	—	_____

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Gladis F. Jarquin Telephone #: (415) 583-9105

Address: 964 Santa Lucia Ave. San Bruno CA 94066
No Street City State ZIP

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert L. Couch, Jr. Telephone #: (707) 642-3887

Address: 2 Eucalyptus Drive American Canyon, CA
No Street City State ZIP

Site Address (if any): 2 Eucalyptus Drive, American Canyon, CA
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Gladis F Jarquin
Signature of Applicant Date

Robert L. Couch Jr. 5-2-1992
Signature of Property Owner Date

EC 42848
$750.00

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

Received by: _____

RECEIVED
JUN 29 1992
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Recreational and practice paintball games

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) Now

C. Estimated Completion Date for Each Phase: Phase 1: completed Phase 2: _____

D. Actual Construction Time Required for Each Phase: [ ] less than 3 months [ ] More than 3 months Not applicable

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: None Regional: None
State: None Federal: None

II. BUILDINGS

A. Floor Area of Project (in square ft): None proposed total floor area on site: _____

new construction: None

existing structures or portions thereof to be utilized: NONE

existing structures or portions thereof to be removed: None

B. Floor Area Devoted to each separate use (in square ft):

living: None storage/warehouse: None offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: None

D. Type of New Construction (e.g., wood-frame): None

E. Type of Exterior Night Lighting Proposed: None

III. PARKING	Existing	Proposed
A. Total On-Site Parking Spaces:	30	30
B. Customer Parking Spaces:	"	"
C. Employee Parking Spaces:	—	—
D. Loading Areas:	N/A	N/A

		Existing	Proposed
IV.	**TYPICAL OPERATION**		
A.	**Days of Operation:** FAIR WEATHER	Sat. + Sun.	Same
B.	**Expected Hours of Operation:**	9-4	Same
C.	**Anticipated Number of Shifts:**	1	1
D.	**Expected Number of Full-Time Employees/Shift:**	0	0
E.	**Expected Number of Part-Time Employees/Shift:**	0	0
F.	**Anticipated Number of Visitors**		
	•busiest day:	25	30
	•average/week:	25	30
G.	**Anticipated Number of Deliveries/Pickups**		
	•busiest day:	0	0
	•average/week:	0	0

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A.	**Commercial Meeting Facilities**	
	Food Serving Facilities	
	• restaurant/deli seating capacity:	N/A
	• bar seating capacity:	N/A
	• public meeting room seating capacity:	N/A
	• assembly capacity:	N/A

		Existing	Proposed
B.	**Residential Care Facilities** (6 or more residents)		
	Day Care Centers		
	• type of care:	N/A	N/A
	• total number of guests/children:	N/A	N/A
	• total number of bedrooms:	N/A	N/A
	• distance to nearest existing/approved facility/center:	N/A	N/A

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Water coolers and Bottled Water	Same
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	N/A Yes___ No___	N/A Yes___ No___
C. Current Water Use (in gallons/day): Current water source:	Ø —	Ø —
D. Anticipated Future Water Demand (in gallons/day)	Ø	Ø
E. Water Availability (in gallons/minute):	Ø	Ø
F. Capacity of Water Storage System (in gallons):	Ø	Ø
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	Ø	Ø

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	Ø
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M+M Sanitary Yes___ No✓	Ø Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	Ø	Ø
D. Anticipated Future Waste Flows (peak flows in gallons/day):	Ø	Ø
E. Future Waste Disposal Capacity (in gallons/day):	Ø	Ø

III. SOLID WASTE DISPOSAL	
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	M+M Sanitary

IV. HAZARDOUS/TOXIC MATERIALS	
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	None

HAZARDOUS MATERIALS INFORMATION SHEET

List all acutely\extremely hazardous materials that will be used or stored at the site:

C.A.S.#	Chemical Name	Physical State	Largest Amount
None			

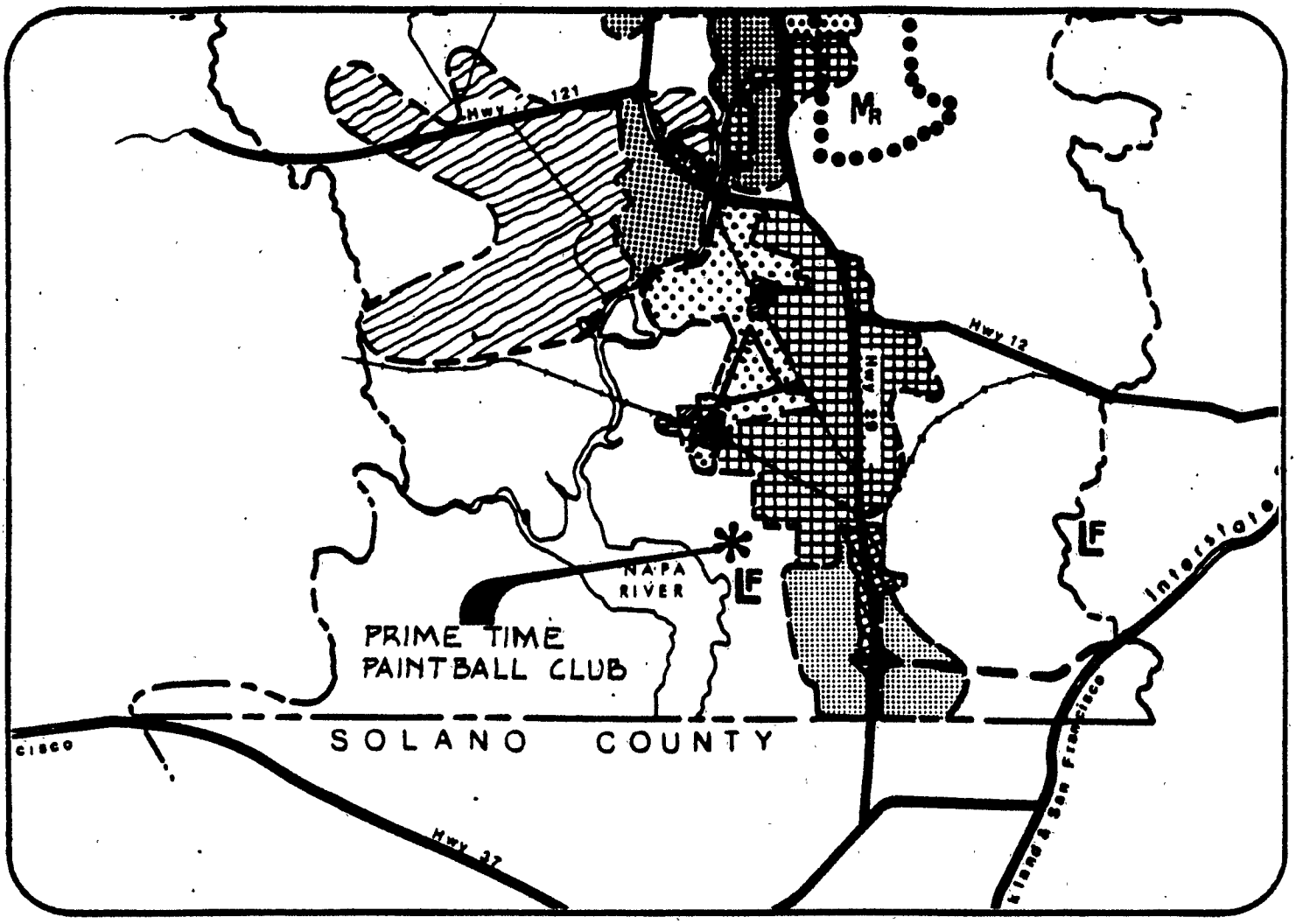
List the hazardous materials that are stored or handled at any one time, equal to or greater than any one of the following amounts: 500 pounds of solids, 55 gallons of liquids, 200 cubic feet of compressed gasses (s.t.p.). Aggregate amounts of the same hazard class are considered one type of hazardous material and must be listed individually below.

C.A.S.#	Chemical Name	Physical State	Largest Amount
	CO^2	Liquid	50 lbs.

If you are unsure about the C.A.S. #, etc., your distributor or supplier should be able to provide you with a M.S.D.S. (Material Safety Data Sheet) which will contain that information. Your Workman's Compensation Insurer and the local libraries may also have access to this information.

If you are a tenant, you are responsible for proper notification to the property owner.

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

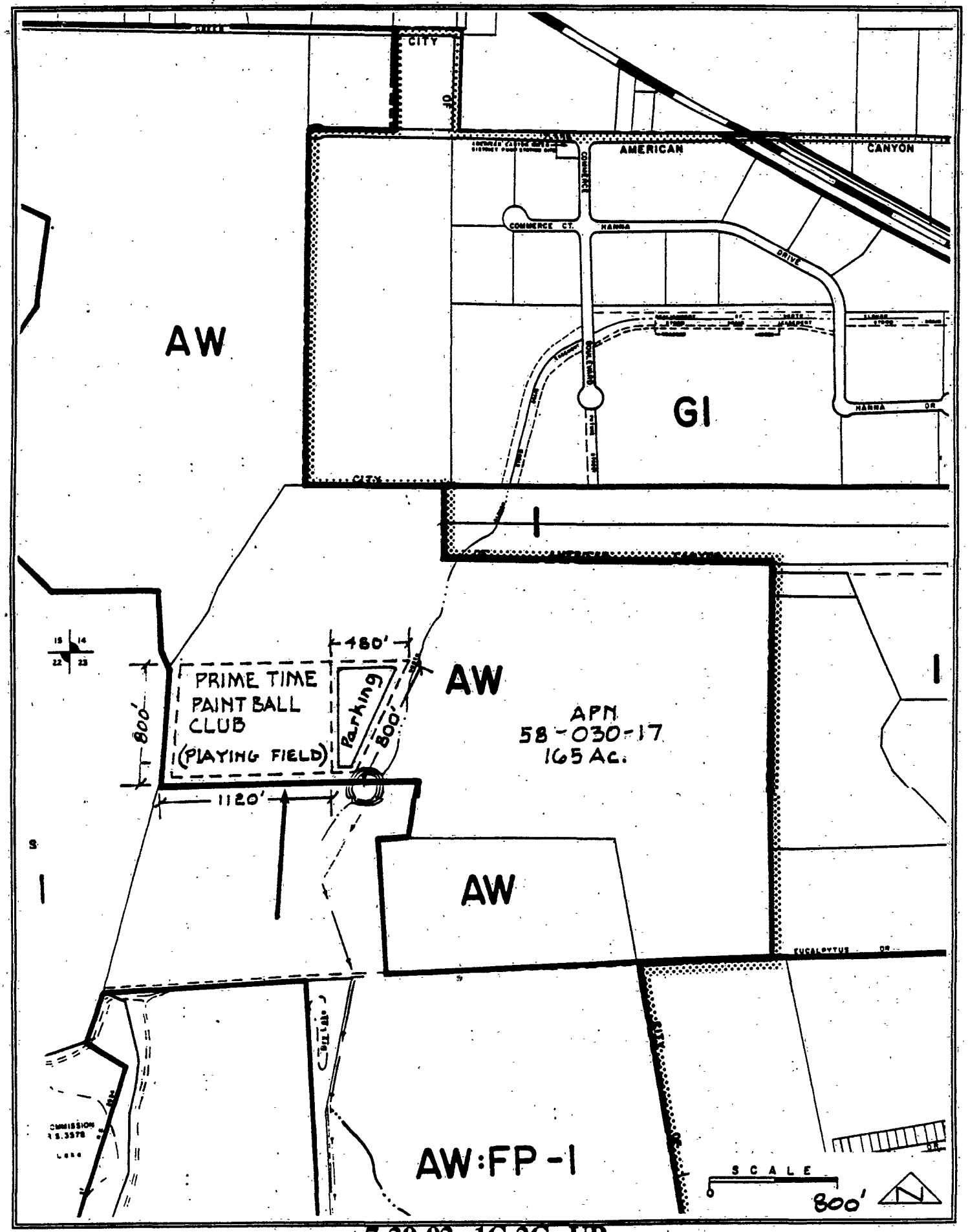
OPEN SPACE

- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

SCALE IN MILES
0 2

APN
58-030-17
7-29-92
10.2C UP

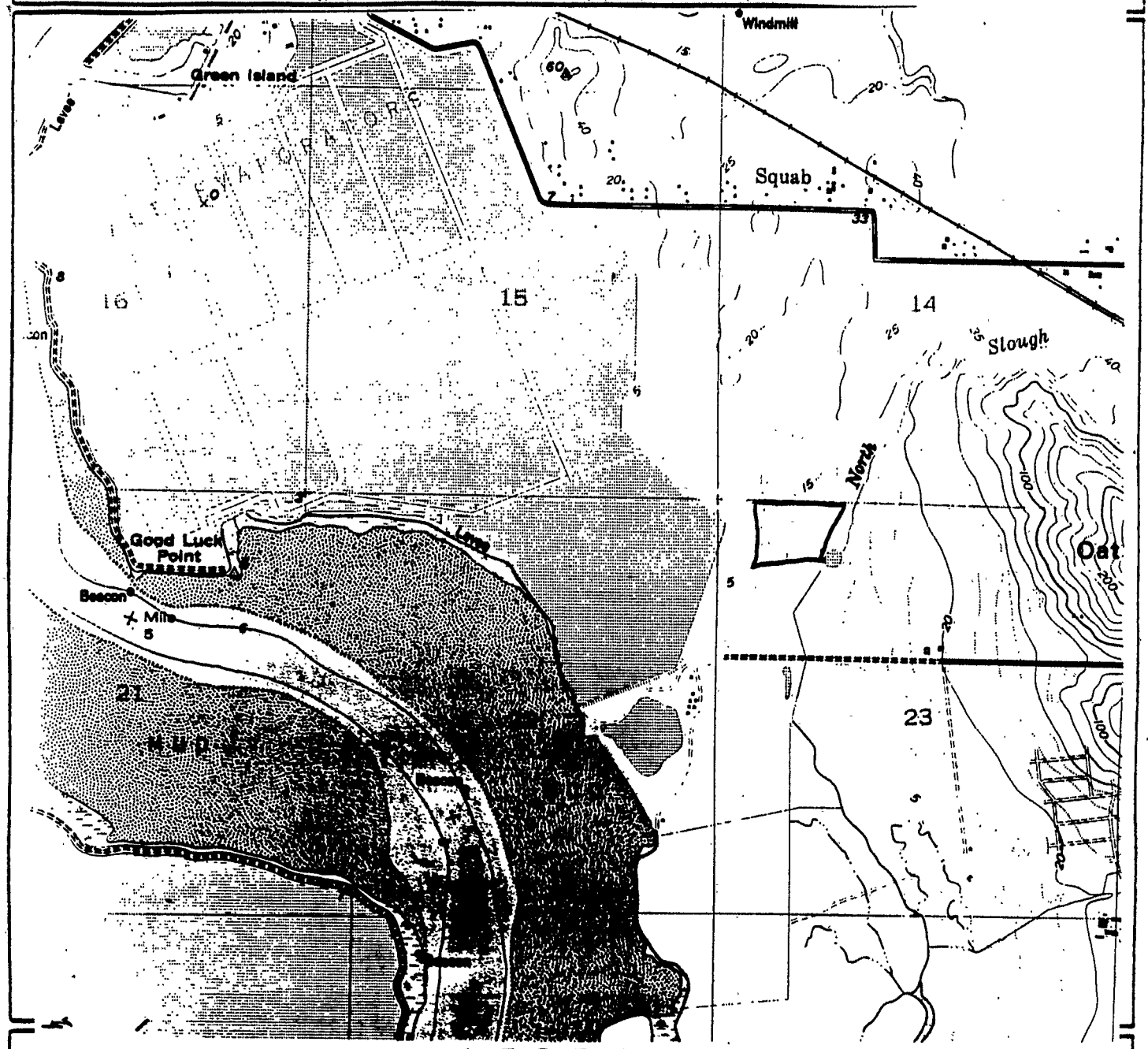
JARQUIN / PRIME TIME PAINTBALL CLUB



7-29-92 1C,2C UP

U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 91541-UP



LEGEND

The following information shall be shown on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		

#5635

NAPA COUNTY

CONSERVATION -- DEVELOPMENT AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY REDDING
Director

July 13, 1992

RECEIVED
JUL 15 1992
DEPT. OF
ENVIRONMENTAL MANAGEMENT

Assessor's Parcel # 58-030-17

Robert D'Elia
3496 Hillsborough Dr.
Concord, CA 94520

Dear Mr. D'Elia:

Please be advised that **Use Permit Application Number 91435-UP** has been approved by the Napa County Conservation, Development and Planning Commission based upon the following conditions.

(SEE ATTACHED LIST OF CONDITIONS OF APPROVAL)

APPROVAL DATE: July 8, 1992 **EXPIRATION DATE: July 18, 1993**

The use permit becomes effective ten (10) working days from the approval date unless an appeal is filed with the Napa County Board of Supervisors pursuant to Title XIII of the Napa County Code. You may appeal the conditions of approval. In the event an appeal is made to the Board by another, you will be notified.

Pursuant to Section 12806 of the Napa County Code, the use permit must be activated by actual use of the facilities for the permitted purposes within one (1) year and ten (10) calendar days from the approval date or the use permit shall automatically expire and become void. A one-year extension of time in which to activate the use permit may be granted by the County provided that such extension request is made thirty (30) days prior to the expiration date. A request for an extension of time is subject to payment of a $300.00 filing fee.

This letter serves as the only notice you will receive regarding the expiration date of your permit or procedures for extension.

Very truly yours,

MICHAEL MILLER
Deputy Planning Director

cc: Jeffrey Redding, Director
John Tuteur, County Assessor
Gary Brewen, Building Codes Administrator
Bill Bickell, Director of Public Works
Trent Cave, Director of Environmental Management
Robert L. Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589

CONDITIONS OF APPROVAL
Use Permit #91435-UP (Robert D'Elia) July 8, 1992

1. The permit be limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 20 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration.

2. The permit be limited to a three (3) year period. The applicant shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The applicant may seek use permit approval at the end of the three (3) years.

3. No tournaments or special events shall be conducted on the property.

4. The hours of operation shall be limited to weekends and weekday holidays, sunrise to sunset.

5. No overnight camping or overnight stay in vehicles shall be allowed.

6. Fires or outdoor cooking is prohibited.

7. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

8. No alcoholic beverages shall be consumed on-site.

9. Provision for twenty (20) off-street parking spaces shall be maintained on a surface approved by Public works.

10. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

11. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to County Counsel.

12. The playing field boundary shall be clearly marked.

13. Access roads shall remain clear and gates unlocked during playing hours.

14. Security personnel shall be provided from among those in attendance.

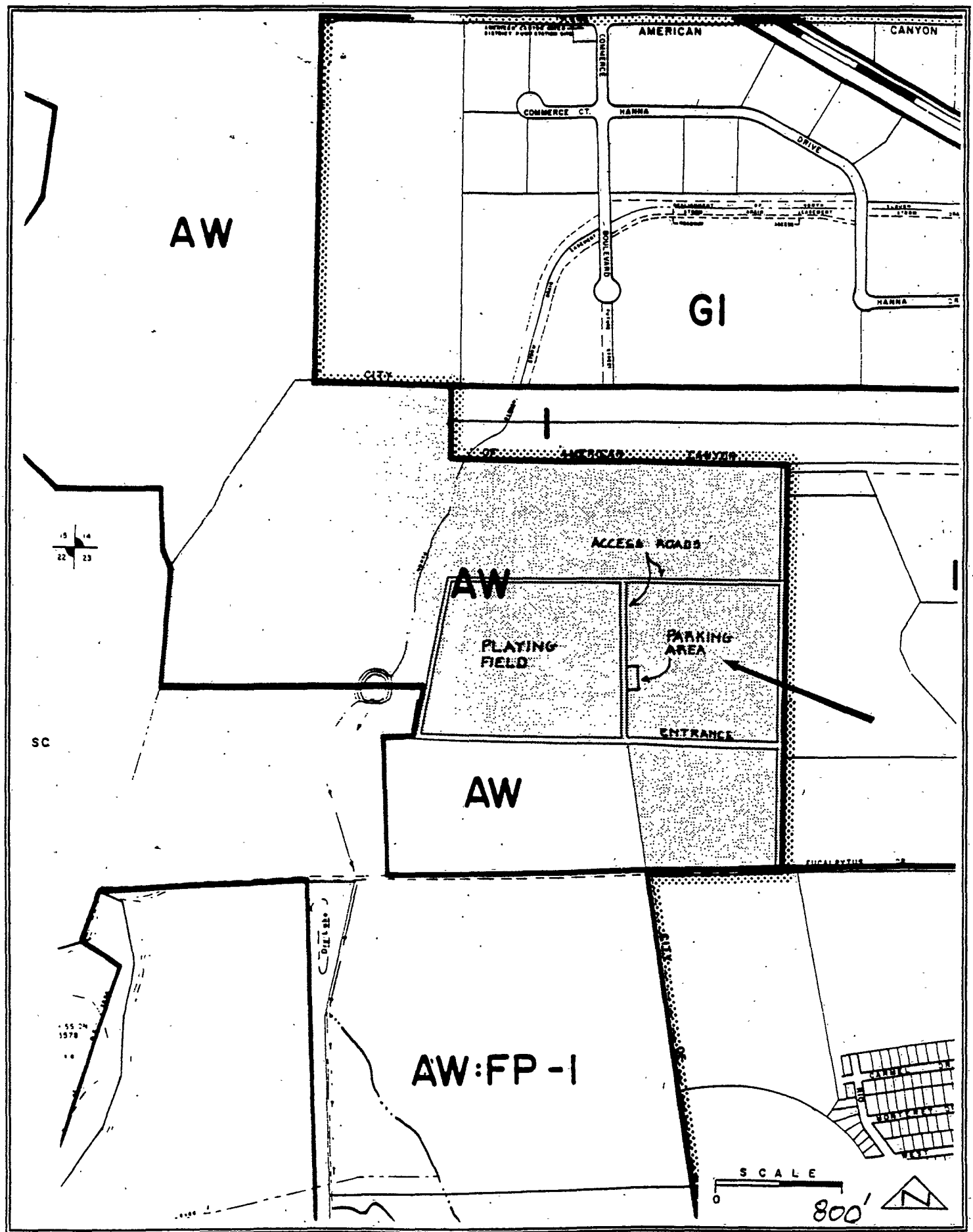
15. At the end of each playing day, the site shall be left in a clean and orderly condition.

16. An overflight and noise easement shall be dedicated to the County of Napa prior to conducting any paintball games. The easement shall be acceptable to and approved by the Director of Aviation and the County Counsel.

17. Compliance with all applicable building codes, zoning standards and requirements of various County departments and other agencies.

mmp10

VALLEJO PAINTBALL PARK



4-17-92 1C,2C UP

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Robert D'Elia/Vjo Paintball Park

DATE: June 22, 1992

APN 58-030-17 66 FILE # 914235-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Robert D'Elia, 3496 Hillsborough Dr., Concord, 94520
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/5635

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Robert D'Elia/Vjo Paintball Park

DATE: May 5, 1992

APN 58-030-17 FILE # 914235-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of two toilets will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Robert D'Elia, 3496 Hillsborough Dr., Concord, 94520
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/5635

UP "THAT ADEQUATE CHEMICAL TOILET FACILITIES BE PROVIDED BY A CHEMICAL TOILET SERVICE COMPANY WITH A VALID PERMIT ISSUED BY THE NCDEM, A MINIMUM OF TWO TOILETS WILL BE REQUIRED."

SW-1
SW-4

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
APR 21 1992
DEPT. OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: VALLEJO PAINTBALL PARK FILE #: 91435-UP

RESPONSE REQUEST DATE: 4/20/92 RESPONSE RETURN DATE: 5/4/92
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91435-UP

REQUEST: TO OPERATE A PAINTBALL PLAYING FIELD ON WEEKENDS FOR 20 PEOPLE ON A 40± ACRE PORTION OF A 165.05-ACRE PARCEL (APN 58-030-17) SITUATED NORTH OF EUCALYPTUS DR APPROXIMATELY 4200 FT WEST OF ITS INTERSECTION WITH DONALDSON WAY

Date Submitted: 16 April '92

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: 510 827-9727

Address: 3496 Hillsborough Dr., Concord, CA 94520
No Street City State ZIP

Status of Applicant's Interest in Property: Lessee

Property Owner's Name: Robert L. Couch JR Telephone #: (707) 642-2887

Address: 2 Eucalyptus Dr., American Canyon, CA 94589
No Street City State ZIP

Site Address (if any): no number, Eucalyptus Dr., American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: ~~±~~ 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert B D'Elia
Signature of Applicant Date

Robert L. Couch Jr. 4/12/1992
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$750.00 GC 41614 Check # 4113 Received by:

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Park + Practice field

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: NA Regional: NA
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING	**Existing**	**Proposed**
A. Total On-Site Parking Spaces:	60	20
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	weekends	weekends
B. Expected Hours of Operation:	9-4	9-4
C. Anticipated Number of Shifts:	1	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	20	20
•average/week:	30	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	1	1
•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

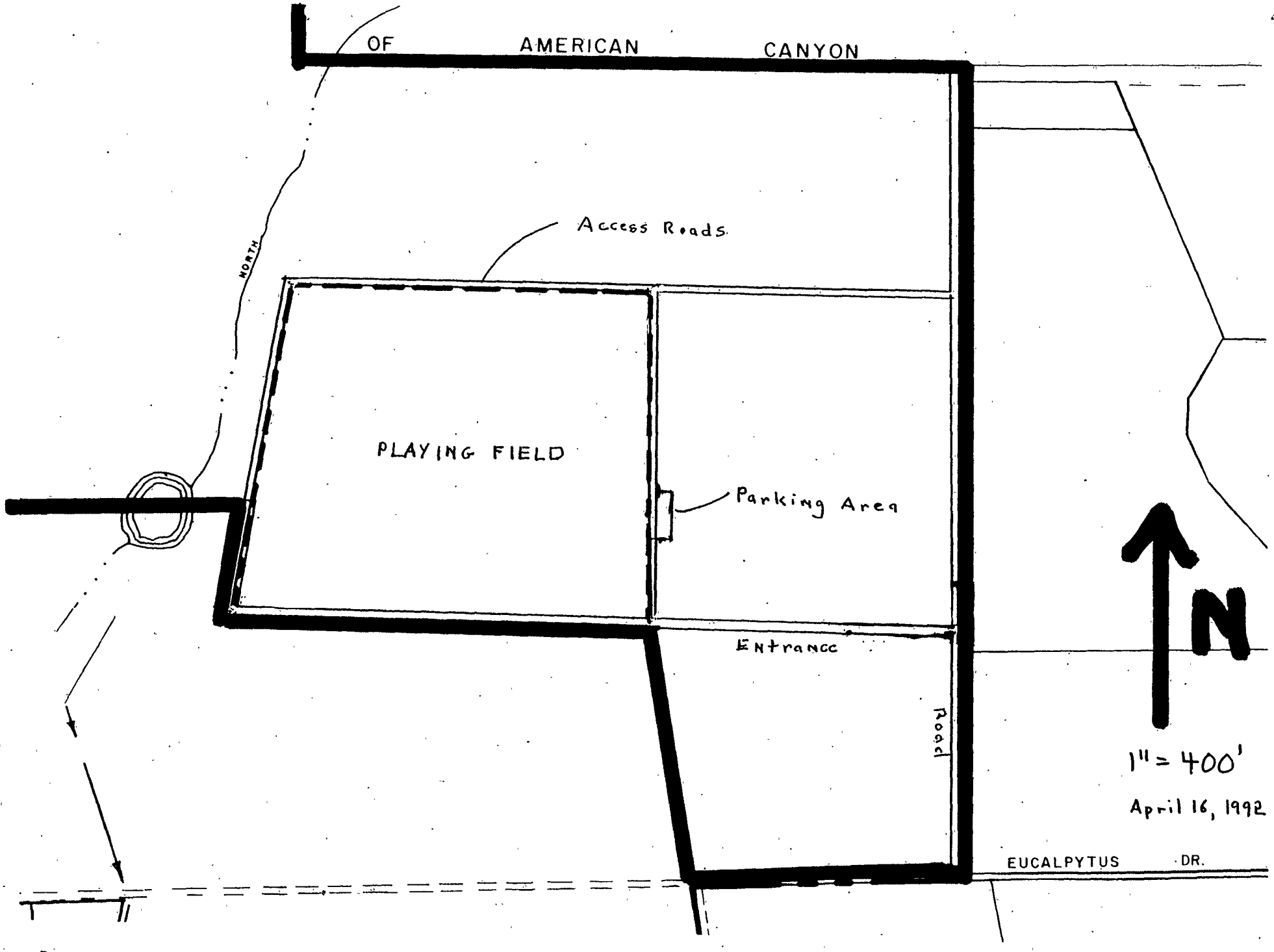
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled + Cooler ~~none~~	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	none Yes___ No✓	— Yes___ No✓
C. Current Water Use (in gallons/day): Current water source:	0	0
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M&M Sanitary Yes___ No✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL	
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	



Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RDE

VALLEJO PAINTBALL PARK

DIVISION OF ENVIRONMENTAL HEALTH
1195 Third Street, Room 205
Napa, CA 94559 (253-4471)

TO FILE

FROM CMS

DATE 4-16-92

SUBJECT PAINT BALL USE PERMIT

FOR ( ) Initial ( ) Signature ( ) Approval ( ) Comments ( ) Discussion ( ) Info.

PLEASE ( ) File ( ) Return ( ) Draft Reply ( ) Route To

MESSAGE PRE-APP MEETING OF THIS DATE — 2 DAYS/WEEK (SAT/SUN.) MAX # PEOPLE 30/WEEKEND. BOTTLED WATER TO BE PROVIDED, CHEMICAL TOILETS TO BE PROVIDED. GARBAGE TO GO TO AN APPROVED GARBAGE HAULER.

ONLY USING A 40 AC. PORTION OF THE LAND.

EH 121
Revised 5/81

1930

#5-635

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
MAY 08 1992
DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY
REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: VALLEJO PAINTBALL PARK FILE #: 91435-UP

RESPONSE REQUEST DATE: 4/20/92 RESPONSE RETURN DATE: 5/4/92
FINAL REQUEST DATE: 5/8/92 FINAL RESPONSE DATE: 5/15/92

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91435-UP

REQUEST: TO OPERATE A PAINTBALL PLAYING FIELD ON WEEKENDS FOR 20 PEOPLE ON A 40± ACRE PORTION OF A 165.05-ACRE PARCEL (A.P.N. 58-030-17) SITUATED NORTH OF EUCALPYTUS DR APPROXIMATELY 4200 FT WEST OF ITS INTERSECTION WITH DONALDSON WAY

Date Submitted: 16 April '92

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: 510 827-9727

Address: 3496 Hillsborough Dr., Concord, CA 94520
No Street City State ZIP

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert L. Couch JR Telephone #: (707) 642-2887

Address: 2 Eucalyptus Dr., American Canyon, CA 94589
No Street City State ZIP

Site Address (if any): no number, Eucalyptus Dr., American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: ~~A~~ 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert B D'Elia
Signature of Applicant Date

Robert L. Couch Jr. 4/12/1992
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$750.00 GC 41614 Check # 4113 Received by: WES

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Park + Practice field

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: NA Regional: NA
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	60	70
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	weekends	weekends
B. Expected Hours of Operation:	9-4	9-4
C. Anticipated Number of Shifts:	1	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	20	20
•average/week:	30	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	1	1
•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

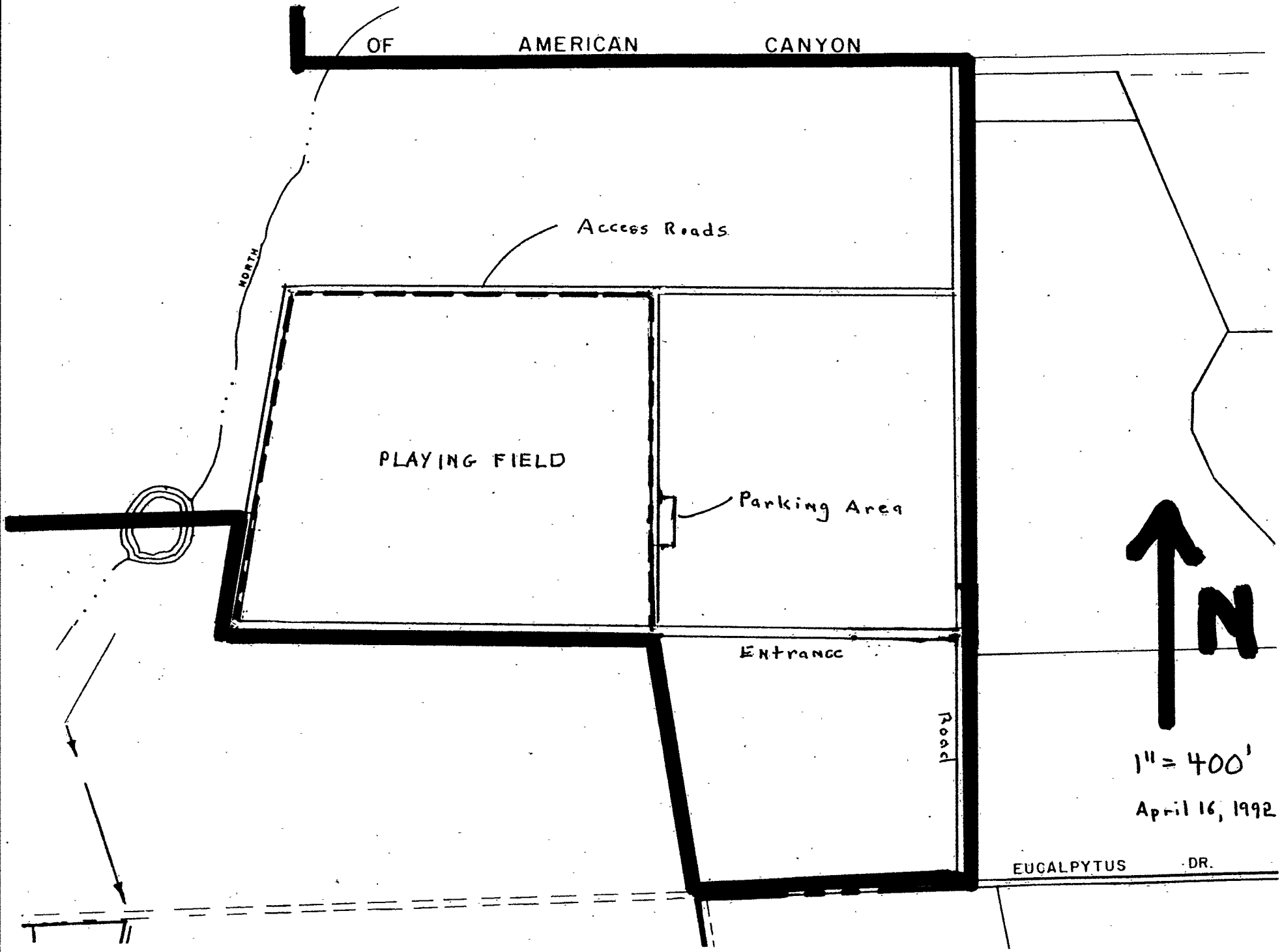
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled + Cooler ~~none~~	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	none Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0	0
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M&M Sanitary Yes___ No ✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	private contract	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	



Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RBD

VALLEJO PAINTBALL PARK

1936

INTERDEPARTMENTAL MEMORANDUM

DATE 10-11-73

66

FROM:
- ___ PLANNING DEPARTMENT
- X BUILDING DEPARTMENT
- ___ HEALTH DEPARTMENT

TO:
- ___ PLANNING DEPARTMENT
- ___ BUILDING DEPARTMENT
- X HEALTH DEPARTMENT

REGARDING:
A.P. FILE # 58-030-47
TYPE OF DEVELOPMENT
Dwlg

FLOOD PRONE AREA
YES ☐ NO ☒

FORM BY: D. Silvestre

NAME Robert L. Couch

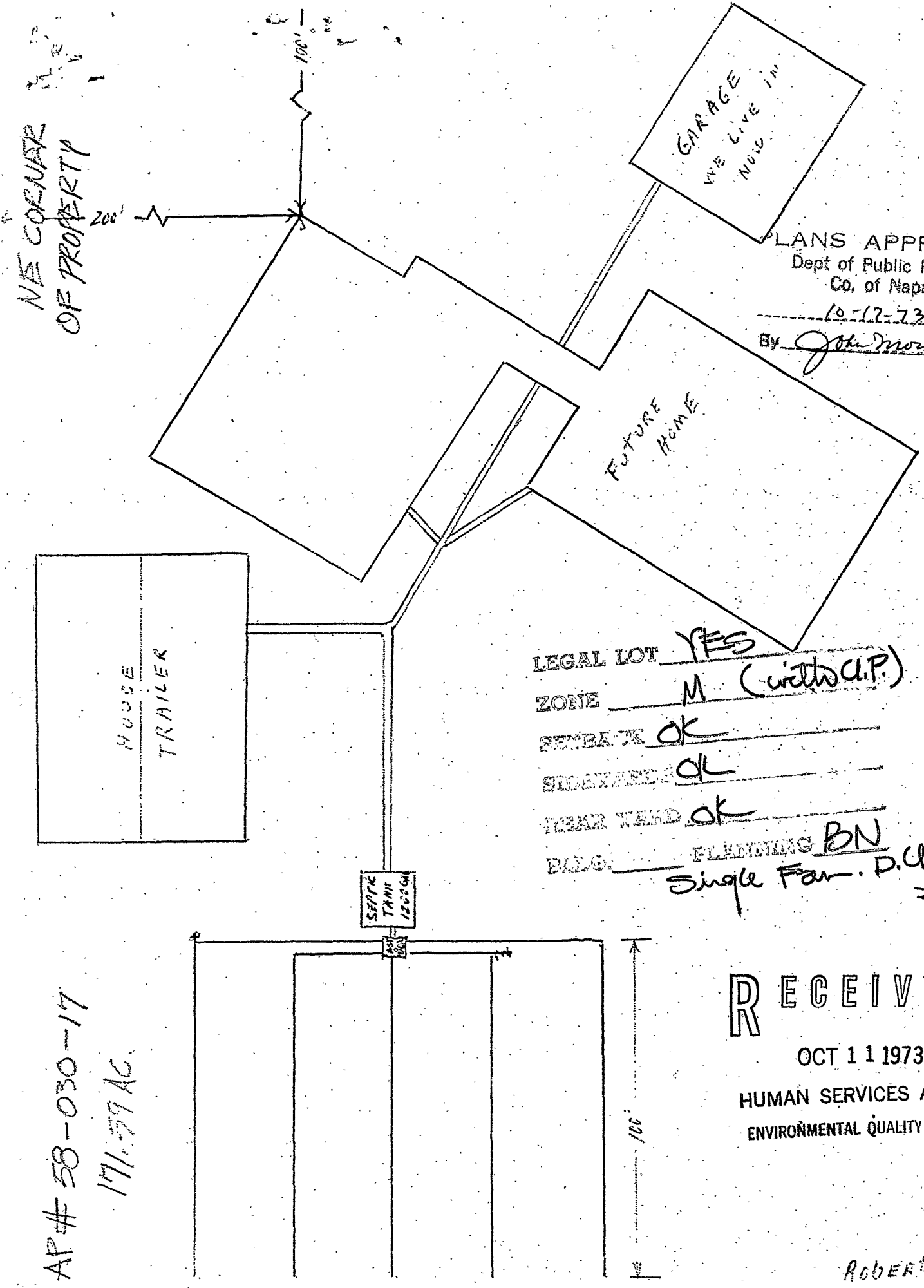
ADDRESS Eucalyptus Dr.

PURPOSE:
- X APPROVE AND RETURN
- ___ INFORMATION

APPROVED: BY John Monaco DATE 10-17-73

MEMO OR REMARKS Sewage disposal system has been installed.

H.D. - B.D. - P.D. #1 12/71 1937



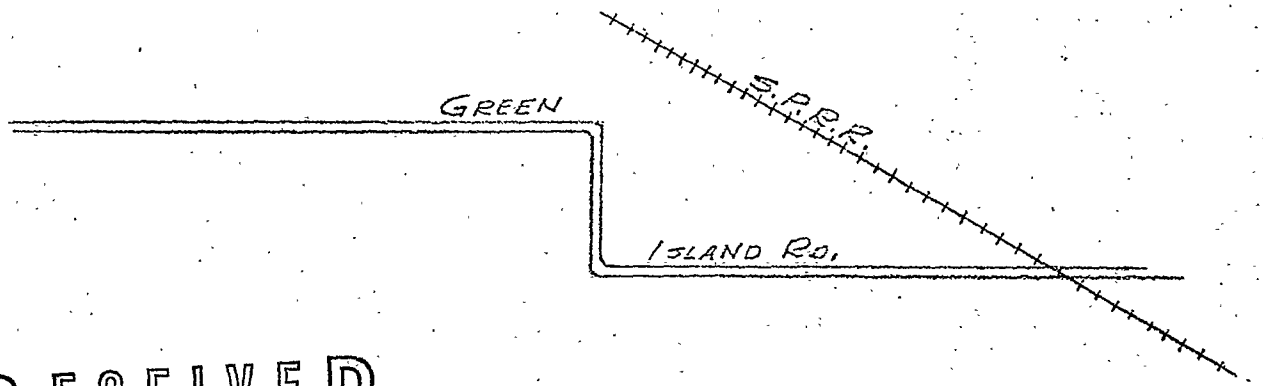
PLANS APPROVED
Dept of Public Health
Co. of Napa
10-17-73
By John Moroni

LEGAL LOT YES
ZONE M (with U.P.)
SETBACK OK
SIDEYARDS OK
REAR YARD OK
BLDG. PLANNING BN
Single Fam. D.U.

RECEIVED
OCT 11 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

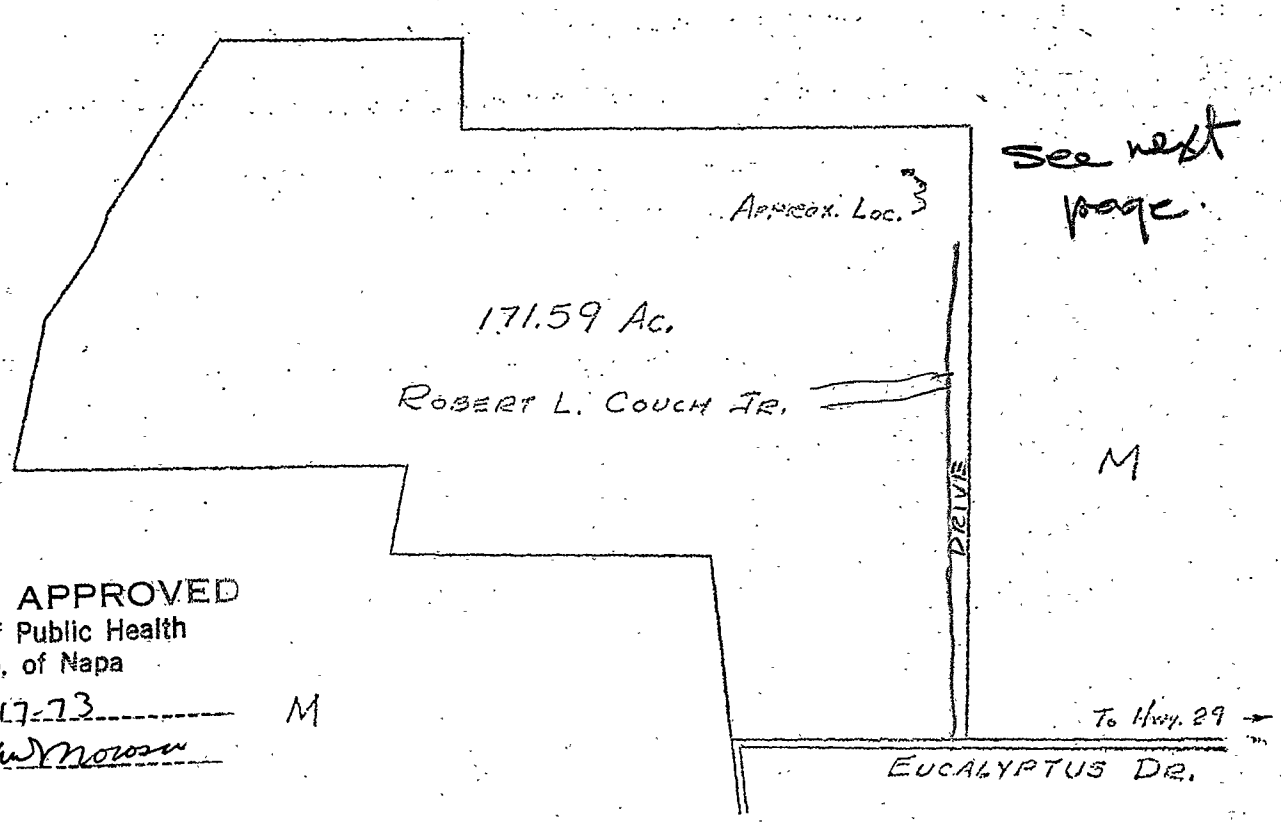
AP # 58-030-17
171.59 AC

Robert L. Couch
2 Eucalyptus Dr.
Vallejo, C 1938-
44590



RECEIVED
OCT 11 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

M



PLANS APPROVED
Dept of Public Health
Co. of Napa
10-17-73
By John Monroe

M

SCALE 1" = 800'

N

Informational Trailer Permit Map
Conservation, Development & Planning Department 1939

ROBERT L. COUCH
TRAILER PERMIT
REQUEST

To obtain a temporary trailer permit for watchman/caretaker purposes on a 171-acre parcel of land located approximately 3,200 feet west of State Highway 29 and 2,500 feet south of Green Island Road within an "M" District. (Assessor's Parcel #58-030-17)

The Director reported that this proposal had been continued by the Commission from the September 5th meeting pending review of use permit and building permit applications on file with the Conservation, Development and Planning Department. Department records, he said, had indicated that a Use Permit to build a residence on the property had been denied by the Commission on April 4, 1966 but approved by the Board of Supervisors on appeal on May 26, 1966. A building permit and certificate of occupancy had been issued to the applicant in March of 1967, within one year of Board approval, for the construction of a garage. Related electrical and plumbing permits had also been issued. It would appear, he continued, that that action had been taken within the required one-year period to start the construction of a residence on the property.

Based on the submitted information and further discussion with the applicant, it would also appear that a temporary construction trailer would be more appropriate to the situation than the request for a temporary watchman trailer. It was the recommendation of the Department, therefore, that the applicant's request for a temporary watchman trailer permit be denied and he be allowed to apply for a temporary construction trailer pending issuance of a building permit and with a waiver of the additional filing fee.

During public hearing, Mr. Couch appeared briefly in support of the proposal indicating his concurrence with the Department's recommendations.

No opponents were present

MOTION BY PELISSA, SECONDED BY MC FARLAND

that the Temporary Trailer Permit Request of Robert L. Couch be denied based on the findings of the Department and that he be allowed to file a new application without additional filing fee in the future for a temporary construction trailer when he was prepared to proceed with construction.

This motion carried on the following roll call vote:

AYES: Blaufuss, Ingalls, McFarland, Pellissa and Vanderschoot
NOES: None
ABSENT: None

Findings and recommendations on which the Commission based their denial of this request are as follows:

FINDINGS:

1. This proposal was continued by the Commission from its September 5, 1973 meeting pending review of use permit and building permit applications on file with the Conservation, Development and Planning Department. Department records indicate that:

   a. A use permit to construct a single-family residence on the property was denied by the Commission on April 4, 1966, but approved on appeal by the Board of Supervisors on May 26, 1966.
   b. The site and surrounding area was zoned M-2 at the time of use permit application. The M-2 zone allowed residences under use permit at the discretion of the Commission. The area was rezoned "M" in 1970. The "M" District does not allow permanent residences under any conditions.
   c. Since the Commission denied the use permit, there were no conditions of approval. The Board of Supervisors' minutes do not indicate any conditions of approval.
   d. Department files indicate problems with the Division of Environmental Quality Control in 1969 regarding methods of water supply and sewage disposal.
   e. Building division files show an application for building permit (#9653) and certificate of occupancy was issued to Robert Couch, Jr. on March 10, 1967, within one year of Board approval, for a garage. A plumbing permit (#5558) was also issued on March 10, 1967 for such fixtures as showers, lavatories, automatic washers, water closets, and water heater.

Building files also contain several electrical permits issued from March 10, 1967 to June 20, 1968.

2. Based on the submitted application, the applicant is:
   a. Living on the property in a garage.
   b. Requests permission to live in a trailer to be located adjacent to the garage until a permanent residence can be constructed on the property.
3. The garage is shown as being detached from a "future house". Construction of permanent residences is not allowed within "M" Districts.
4. An environmental assessment of this project is not required under adopted County guidelines.

CONCLUSION:
It appears that on approval by the Board of Supervisors in 1966, action was taken within one year to start construction of a residence on the property.

Based on the submitted information and further discussion with the applicant, it also appears sthat a temporary construction trailer permit would be more appropriate to this situation rather than the applicant's request for a temporary watchman trailer.

RECOMMENDATION: DENIAL

On the basis that:
1. The applicant be allowed to apply for a temporary construction trailer pending issuance of a building permit to finish construction of the residence started in 1967.
2. Fees paid for the temporary watchman trailer permit be applied to the temporary construction trailer permit.
3. Questions regarding the conversion of the garage to non-occupancy status be resolved with conditions to be attached to final approval of the building permit for completion of the residence.

Environmental

Cover Sheet

APN	059 - 030 - 066 - 000
Permit #	
Program	up
DocType	pmt
Street #	2
Street Name	Eucalyptis DR
Year	1994



approved 5-0

NAPA COUNTY
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

USE PERMITS

DEPARTMENT REPORT AND RECOMMENDATION
Meeting of May 18, 1994
Agenda Item: #11

APPLICATION DATA:

APPLICANT: **Dean Laing/Storm Paintball Park**
Use Permit Request #93388-UP Filed: 2/24/94

REQUEST FOR: Approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people.

LOCATION: On a 5 acre portion of a 165.5 acre parcel located north of Eucalyptus Drive approximately 4,200 feet west of its intersection with Donaldson Way in an AW (Agricultural Watershed) zoning District. (Assessor's Parcel #58-030-~~17~~ 066

FINDINGS:

SPECIAL INFORMATION:

1. Details of the proposal are contained in the attached supplemental information sheet.

2. Comments and recommendations from various County departments and other agencies are attached.

3. Two other parts of the site have been used as a paintball playing field since 1987. The requested use of the site is for twenty (20) or fewer players during weekend daylight hours. Air guns are used to propel gelatin covered balls filled with water-soluble paint in games of hide and seek over a marked playing field with temporary wood barricades. Included is a staging and parking area with a portable latrine and a temporary open sided plastic or fabric shelter. The two other paintball playing fields previously approved on the parcel by the Commission are the Vallejo Paint Ball Park (D'Elia applicant) for maximum of 20 users, and the Prime Time Paintball Club (Jarquin applicant) for maximum of 30 users.

4. The proposed access road is a rutted dirt road with a fairly hard base. It is passable for passenger cars except in wet weather. The first part of the access road from Eucalyptus Drive to a point approximately 1,000 feet north is used by customers of both the Vallejo Paint Ball and Primetime Paint Ball. The access road for Primetime continues approximately another 700 feet northerly and approximately 2,400 feet westerly. The Department of Public Works requires paving the road from Eucalyptus Drive to the parking lot. Ambulances and fire

AGENDA ITEM NO. 11

engines can not reach a majority of the property due to seasonal mud.

5. Airport compatibility with Zone E and implementation of airport overflight avigation easement is necessary.

ENVIRONMENTAL ANALYSIS:

6. The project proposal limits the number of participants to maximum of 20 per day on weekends and holidays between sunrise and sunset and includes in the instruction manual procedures for litter control and cleanup of the site as well as sanitary facilities minimizing any potential noise and litter problems.

7. Impacts associated with the establishment of a paintball playing field would not be environmentally significant, individually or cumulatively. The eucalyptus grove is not being harvested. There would be no significant impact on wildlife or water habitat resources, as defined in Section 711.2 of the Fish and Game Code. The Department of Fish & Game offers no comments on this proposal. A Negative Declaration is recommended. (see attached copy).

PLANNING AND ZONING ANALYSIS:

8. The following findings must be made in order to approve the use permit:

   A. The Commission has the power to issue a Use Permit under the Zoning Regulations in effect as applied to the property.

      Analysis: Pursuant to Section 12232 (a) of the County Zoning Ordinance, the establishment of a paintball playing field is permitted in the AW zoning district with a use permit.

   B. The procedural requirements for a Use Permit set forth in Title XII of the Napa County Code (zoning regulations) have been met.

      Analysis: All applicable procedural requirements have been met.

   C. The grant of the Use Permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.

      Analysis: The proposed use is compatible with the open space character of an area which includes agriculture, a sanitary landfill, a dirt quarry, residential development, industrial development and an incorporated city. Transitional land use of the site is important as an open space buffer strip between the following nearby uses:

      a) General Industrial District on Green Island Road northerly,
      b) Residential part of the City of American Canyon southeasterly,

c) Eventual reuse of the landfill southwesterly,
d) Port of Oakland marshland mitigation westerly, and
e) Cargill Salt Company land reuse northwesterly.

The proximity of the City of American Canyon and unincorporated industrial lands increases the possibility of this site and adjacent parcels being considered for more intensive land uses within the next few years. Therefore, the permit should be timed for future review.

D. The proposed use, as conditioned, complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan. The proposal is in conformance with the General Plan designation of Agriculture, Watershed and Open Space and the AW (Agriculture Watershed) zoning specified for the property.

Analysis:

- The activity proposed is a use which may be permitted within the AW zoning district. Outdoor parks and recreation facilities are compatible with agriculture.

- The proposed use is open space oriented and is consistent with Recreational Policy 2.2 of the Napa County General Plan, which encourages private recreational development that is beneficial to residents and visitors.

- The playing field is within the Airport Land Use Commission's referral area and Zone E of the Airport Land Use Compatibility Zones (see Exhibit "A"). Zone E is characterized as a zone of common flight paths and subject to limited risk and frequent noise intrusion. Overflight easements are required. A paintball playing field with a peak usage of 20 persons is an acceptable density in this zone.

RECOMMENDATION:

ENVIRONMENTAL:

1. Find that the Planning Commission has read and considered the Negative Declaration prior to taking action on said negative declaration and the proposed project.

2. Adopt the Negative Declaration.

PLANNING:

3. **APPROVAL** with Findings and subject to the attached Conditions of Approval.

JO:pjcB21\Laingpai.SR

CONDITIONS OF APPROVAL
Use Permit #93388-UP (Laing)

1. The permit be limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 20 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration. The hours of operation shall be limited to weekends and weekday holidays, sunrise to sunset.

2. The permit be limited to a three (3) year period. The applicant shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The applicant may seek use permit approval at the end of the three (3) years.

3. No tournaments or special events shall be conducted on the property.

4. No overnight camping or overnight stay in vehicles shall be allowed.

5. Fires or outdoor cooking is prohibited.

6. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

7. No alcoholic beverages shall be consumed on-site.

8. Provision for minimum of twenty (20) off-street parking spaces shall be maintained on a surface approved by Public works.

9. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

10. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to County Counsel.

11. The playing field boundary shall be clearly marked.

12. Access roads shall remain clear and gates unlocked during playing hours.

13. Security personnel shall be provided from among those in attendance.

14. At the end of each playing day, the site and surrounding area shall be left in a clean and orderly condition.

15. An overflight and noise easement, acceptable to the Director of Aviation, shall be dedicated to the County of Napa prior to conducting any paintball games.

16. Compliance with all applicable building codes, zoning standards and requirements of various County departments and other agencies as stated in the following:

    (a) Department of Environmental Management memo of March 3, 1994.
    (b) Department of Public Works letter of March 15, 1994.
    (c) American Canyon Fire Department comments of March 23, 1994.

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NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

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NAPA COUNTY
PLANNING, BUILDING & ENVIRONMENTAL SERVICES

APPLICATION FOR USE PERMIT

Currently Approved For PaintBall Permit # 91435-UP

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 93388-UP

REQUEST: To operate Paintball playing Field on weekends. For Aprx 20 people on A 165Ac Portion of 165.5 Parcel # APN 058030017

Date Submitted: 2-14-94

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

D.B.A STORM PAINTBALL PARK

TO BE COMPLETED BY APPLICANT (please print or type)

Applicant's Name: Dean J Laing Telephone #: (707) 446-7786

Address: 1989-7 Peabody Rd #268 Vacaville CA 95687
No Street City State ZIP

Status of Applicant's Interest in Property: STORM PAINTBALL FIELD

Property Owner's Name: Robert Court and Patricia Telephone #: (707) 642-2887

Address: 2 Eucalyptus dr American Canyon CA 94589
No Street City State ZIP

Site Address (if any): No # Eucalyptus DR American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: 165.5

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

D Laing 2/11/94
Signature of Applicant Date

Patricia K Court
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 54716 Received by: R. Nolan Date 2-24-94

CDPD(12-17-92)

7

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Field for playing PAINT Ball

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): NONE proposed total floor area on site: None

new construction: N/A

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: N/A storage/warehouse: N/A offices: offsite
sales: N/A other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Type of Exterior Night Lighting Proposed: N/A

III. PARKING	Existing	Proposed
A. Total On-Site Parking Spaces:	50	20
B. Customer Parking Spaces:	—	—
C. Employee Parking Spaces:	—	—
D. Loading Areas:	—	—

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IV.	TYPICAL OPERATION	Existing	Proposed
A.	Days of Operation:	~~Weekends~~ 2	SAT SUN 9-4
B.	Expected Hours of Operation:	[illegible]	Dawn to Dusk
C.	Anticipated Number of Shifts:	0	1
D.	Expected Number of Full-Time Employees/Shift:	0	0
E.	Expected Number of Part-Time Employees/Shift:	0	0
F.	Anticipated Number of Visitors •busiest day:	[illegible]0	20
	•average/week:	[illegible]0	30
G.	Anticipated Number of Deliveries/Pickups •busiest day:	N/A [illegible]	1 per month as needed
	•average/week:	N/A [illegible] month	2 per month

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: N/A
- bar seating capacity: N/A
- public meeting room seating capacity: N/A
- assembly capacity: N/A

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:	N/A	—
• total number of guests/children:	N/A	—
• total number of bedrooms:	N/A	—
• distance to nearest existing/approved facility/center:	N/A	—

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	None Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0 —	— —
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Septic Tank	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	NBM Sanitary (Napa) Yes___ No ✓	 Yes___ No ✓
C. Current Waste Flows (peak flow in gallons/day):	0	—
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	—
E. Future Waste Disposal Capacity (in gallons/day):	0	—

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	Private contract	Private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None	NA
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	NA

DRAFT
NEGATIVE DECLARATION

The Conservation, Development and Planning Director of Napa County has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Conservation, Development and Planning Department Office, 1195 Third St., Room 210, Napa California 94559. For further information call (707) 253-4416.

PROJECT NAME: **DEAN LAING/STORM PAINTBALL PARK**
FILE NO: **93388-up**

PROJECT DESCRIPTION: Request for use permit approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people on a 5 acre portion of a 165.5 acre parcel located on APN 58-030-17 north of Eucalyptus Drive approximately 4200 feet west of its intersection with Donaldson Way in an AW:AC (Agricultural Watershed:Airport Compatibility) Zoning District.

WRITTEN COMMENT PERIOD:
April 26, 1994 to May 17, 1994

DATE: April 21, 1994

BY THE ORDER OF

JEFFREY REDDING
Director
Napa County Conservation, Development and Planning Department

Agg.ND

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT
1195 Third Street, Rm. 210
Napa, California, 94559
(707) 253-4416

INITIAL STUDY

PROJECT NAME: Dean Laing\Storm Paintball Park
FILE NO: 93388-UP

PROJECT DESCRIPTION: Request for use permit approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people on a 5 acre portion of a 165.5 acre parcel located north of Eucalyptus Drive approximately 4200 feet west of its intersection with Donaldson Way in an AW:AC (Agricultural Watershed:Airport Compatibility) zoning district (Assessor's parcel #58-030-17).

JURISDICTIONAL BACKGROUND:
Public Plans and Policies

Based on an initial review, the following findings have been made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

Is the project consistent with:	YES	NO	N/A
a) Regional and Subregional Plans and Policies?	X	—	—
b) LAFCOM Plans and Policies?	X	—	—
c) The County General Plan?	X	—	—
d) Appropriate City General Plans?	—	—	X
e) Adopted Environmental Plans and Goals of the Community?	X	—	—
f) Pertinent Zoning?	X	—	—

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Responsible (R) and Trustee (T) Agencies	Other Agencies Contacted
None	Napa County Airport-American Canyon Fire Protection Dist.-Environmental Management City of American Canyon-California Division of Forestry-Public Works-Sheriff

ENVIRONMENTAL SETTING:

A nearly level site west of Oat Hill within a grove of eucalyptus trees at an elevation of approximately 20 feet above sea level adjacent to North Slough and the City of American Canyon. Surrounding land uses on the same parcel are the Vallejo Paintball Park with Robert B. D'Elia applicant located on a 40 acre portion of the parcel app. 400 feet westerly and the Prime Time Paint Ball Park of applicant Gladis Jarquin located on a 36 acre portion of the parcel approx. 2,400 feet westerly of the Vallejo Paintball Park. Also on Parcel #58-030-17 are abandoned vehicles, an illegal mobile home, and several illegal accessory buildings.

Surrounding land uses include open space northerly, westerly and southerly, a quarry easterly, and residences southeasterly.

ENVIRONMENTAL EFFECTS:
Normally Significant Individual Impacts

YES	NO		
		(Geology)	
__	X	1.	Exposure of new site users to substantial life and/or property hazards from geologic processes (*e.g.*, severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
__	X	2.	Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
__	X	3.	Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		(Meteorology)	
__	X	4.	Substantial modification of climatic or microclimatic conditions (*e.g.*, temperature, rainfall, wind, shadow patterns, etc.).
		(Hydrology)	
__	X	5.	Exposure of new site users to substantial life and/or property hazards from flooding (*e.g.*, stream flooding, tsunamis, seiches, dam or levee failure, etc.).
__	X	6.	Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
__	X	7.	Substantial temporary construction period increase in erosion and/or sedimentation.
__	X	8.	Substantial permanent increase in erosion and/or sedimentation.
__	X	9.	Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		(Water Quality)	
__	X	10.	Substantial degradation of the quality of waters present in a stream, lake, or pond.
__	X	11.	Substantial degradation of the quality of groundwater supplies.
__	X	12.	Substantial contamination of a public or private water supply.
		(Air Quality)	
__	X	13.	Exposure of new site users to substantial health hazards from breathing polluted air.
__	X	14.	Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
__	X	15.	Substantial degradation of local or regional air quality.
__	X	16.	Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		(Noise)	
__	X	17.	Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	18.	Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	19.	Exposure of people to high construction noise levels for substantial periods of time.
__	X	20.	Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Ecosystem)	
__	X	21.	Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
__	X	22.	Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (*e.g.*, marshes, riparian galleries, vernal pools, etc.).
__	X	23.	Substantial reduction in habitat for plants, fish, and/or wildlife.
__	X	24.	Substantial modification in the number or diversity of plant or animal species present.
__	X	25.	Substantial interference with the movement of a resident or migratory fish or wildlife species.
		(Social)	
__	X	26.	Disruption or division of an established community.
__	X	27.	Displacement of a large number of people.
		(Aesthetic)	
__	X	28.	Blockage or substantial degradation of important public or private views.
__	X	29.	Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare.
__	X	30.	Creation of a litter problem.
		(Cultural)	
__	X	31.	Destruction of or substantial damage to a recognized archaeological site.
__	X	32.	Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
__	X	33.	Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
		(Traffic)	
__	X	34.	Exposure of new site users to substantial life and/or property hazards from traffic accidents.
__	X	35.	Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
__	X	36.	Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
__	X	37.	Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
__	X	38.	Creation of a substantial local parking problem.
		(Energy)	
__	X	39.	Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
__	X	40.	Creation of a facility or development which will use fuel or energy in a wasteful manner.
__	X	41.	Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
		(Public Health)	
__	X	42.	Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	43.	Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	44.	Exposure of new site users to substantial life and/or property hazards from fire.
__	X	45.	Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Public Health)	
__	X	46.	Exposure of new site users to substantial life and/or property hazards from air crashes.
__	X	47.	Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes.
__	X	48.	Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.
		(Community Services)	
__	X	49.	Increase in the demand for a community service (*e.g.*, sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.
		(Commercial Resources)	
__	X	50.	Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
__	X	51.	Removal of a substantial amount of agricultural or grazing land from current or potential production.
		(Fiscal)	
__	X	52.	Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.
		(Growth Inducement)	
__	X	53.	Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

		YES	NO
Does the project:			
a)	Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	__	X
b)	Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	__	X
c)	Have possible environmental effects which are individually limited but cumulatively considerable?	__	X
d)	Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	__	X

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Impact Discussion

[All items checked above "YES", "YES, mitigable", or "YES, cumulatively significant" must be discussed below.]

Noise

Limited hours of operation, small number of participants (20) and use of air guns utilizing gelatin - coated paintballs (about the size of a marble) will keep noise levels at an insignificant level. The hours of operation for this field and the other nearby fields is proposed to be limited to weekends and weekday holidays, sunrise to sunset.

Litter

The operations manual for the activity includes that at the end of each playing day the site will be left in a clean and orderly condition. This will keep the playing area from becoming unsightly and unsanitary over time. Those items generally not removed on a daily basis include: staging area tent, portable latrine, temporary wood barricades and playing area markers. Also left behind is the multi-colored effects of the paint on the trees and temporary structures. The paint is non-toxic and water-soluble but tends to remain in place during the dry months of the year.

Fire

The property is located within a general area identified as low fire risk. Access roads should be kept clear and locked gates should remain open during playing hours.

MITIGATION MEASURES:

- X None Required
- ___ Identified By This Study - Unadopted (see attached Draft Project Revision Statement)
- ___ Included By Applicant As Part of Project (see attached Project Revision Statement)
- ___ Recommended For Inclusion As Part of Public Project (see attached Recommended Mitigation Measure List)

BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information Form contained in the permanent file on this project.

Dean Laing/Storm Paintball Park
Initial Study

AGENCY STAFF PARTICIPATING IN THE INITIAL STUDY:

Resource Evaluation:	James O'Loughlin	Date: April 21, 1994
Site Review:	James O'Loughlin	Date: September 1, 1992
Planning/Zoning Review:	James O'Loughlin	Date: April 21, 1994

PRELIMINARY DETERMINATION:

X No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

___ A Negative Declaration cannot be prepared unless all identified impacts are reduced to a level of insignificance or avoided.

DATE: April 21, 1994

BY: James O'Loughlin

James O'Loughlin
Planner III

FINAL DETERMINATION:

On the basis of this preliminary evaluation:

X I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be approved.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION should therefore be approved.

___ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT would be required:

___ Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.

___ A previously-certified Environmental Impact Report will fully address the impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.

___ A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: _____ BY: _____

A:da:AmCyn2\liangpb.ia

NAPA COUNTY DEPARTMENT OF PUBLIC WORKS

1195 THIRD STREET • ROOM 201 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4351

WILLIAM E. BICKELL
Director of Public Works
County Surveyor—County Engineer
Road Commissioner

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MAR 15 1994

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

March 15, 1994

Napa County Department of
Conservation, Development, and
Planning
1195 Third Street - Room 210
Napa, California 94559

RE: Storm Paintball Park
Use Permit #93388
APN: 58-030-17
Eucalyptus Dr.

Commissioners:

This permit will allow the applicant to establish a 15 acre paintball playing field on a portion of a 165 acre parcel off of Eucalyptus Drive in southern Napa County.

The following conditions have been provided by the Napa County Public Works Department in order to help the applicant meet applicable County ordinances and standards:

EXISTING:

1. The access road is a rutted dirt road and is 12 to 15 feet wide.

CONDITIONS:

1. The applicant shall construct a sixteen foot Low Density Common Drive from Eucalyptus Drive to the proposed parking area. The minimum structural section on the roadway will be a double seal coat on five inches of Class II aggregate base.

2. The proposed parking area will have a dust free all weather surface i.e. a double seal coat on five inches of Class II aggregate base.

3. All Public Works related improvements will conform to the latest adopted "Napa County Road and Street Standards."

4. Parking lot, grading, and drainage improvements shall be constructed according to plans prepared by a registered civil engineer which are reviewed and approved by this office.

5. An engineering and inspection fee shall be paid to Napa County Public Works prior to approval of the engineered plans. This fee will be three percent of the cost of public works improvements as estimated by the applicant's engineer and approved by this office.

6. Any work performed within the right-of-way of Eucalyptus drive will be performed in accordance with an encroachment permit issued by this office.

The above requirements will become conditions of this use permit upon County approval of this application. If there are any questions regarding the above conditions, please do not hesitate to contact our office.

Very truly yours,

WILLIAM E. BICKELL
Director of Public Works

by

DENNIS FONG
Associate Civil Engineer

cc: Dean J. Laing
1989-7 Peabody Road #268
Vacaville, CA 95687

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

RECEIVED
MAR 7 - 1994
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Christine M. Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Dean J. Laing, D.B.A. Storm Paintball Park

DATE: March 3, 1994

APN 58-030-17 FILE # 93388-UP

Located at No. 2 Eucalyptus Drive

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Any permanent toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Dean J. Laing, 1989-7 Peabody Road, #268, Vacaville, CA 95687
usr/pamela/planning/COUNTY/7959

NAPA COUNTY

CONSERVATION — DEVELOPMENT AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
MAR 24 1994
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: American Canyon Fire Dept.

APPLICATION TITLE: Dean Laing / Storm Paintball FILE #: 93388-up

RESPONSE REQUEST DATE: 3-11-94 RESPONSE RETURN DATE: 3-24-94
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☒ No
   If yes, indicate required permits: _____

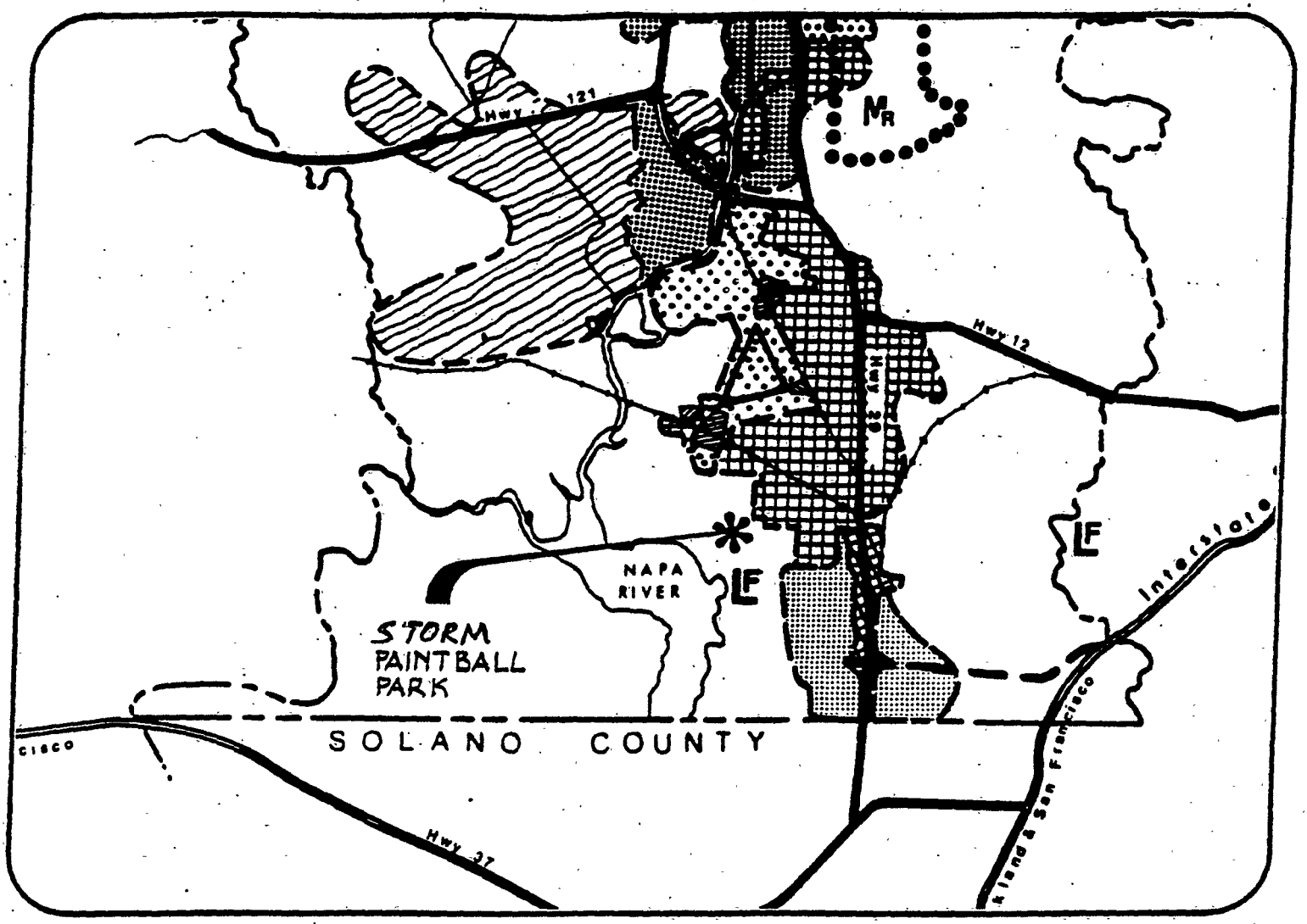
2. Indicate areas of environmental concern and availability of appropriate technical data:
   None At This Time

3. Do you recommend: ☒ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed):
   Applicant should provide all-weather access roads and also provide public telephone for emergency notification. Parking area should be kept clear of combustible grasses and debri. Applicant to maintain fire breaks in and around proposed area.

5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☒ No
6. Name of contact person: Keith Caldwell Telephone: (707) 642-2747
   Response Prepared by: Keith Caldwell
   Title: Fire Chief
   Date: 3/23/94

:jcmas2/comments2

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

OPEN SPACE

- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

SCALE IN MILES
0 2

APN
58-030-17

33

1964

EXHIBIT "A"

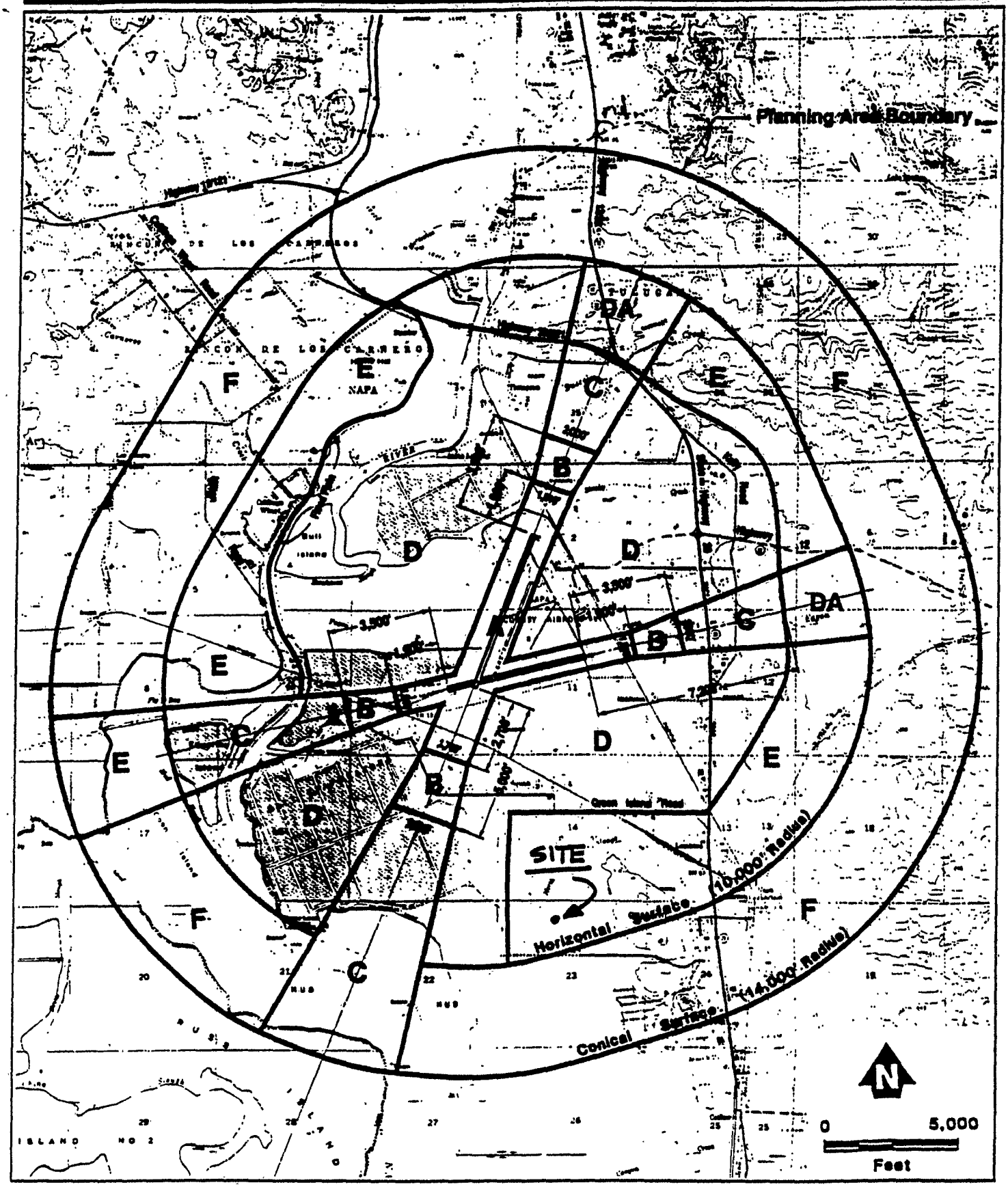
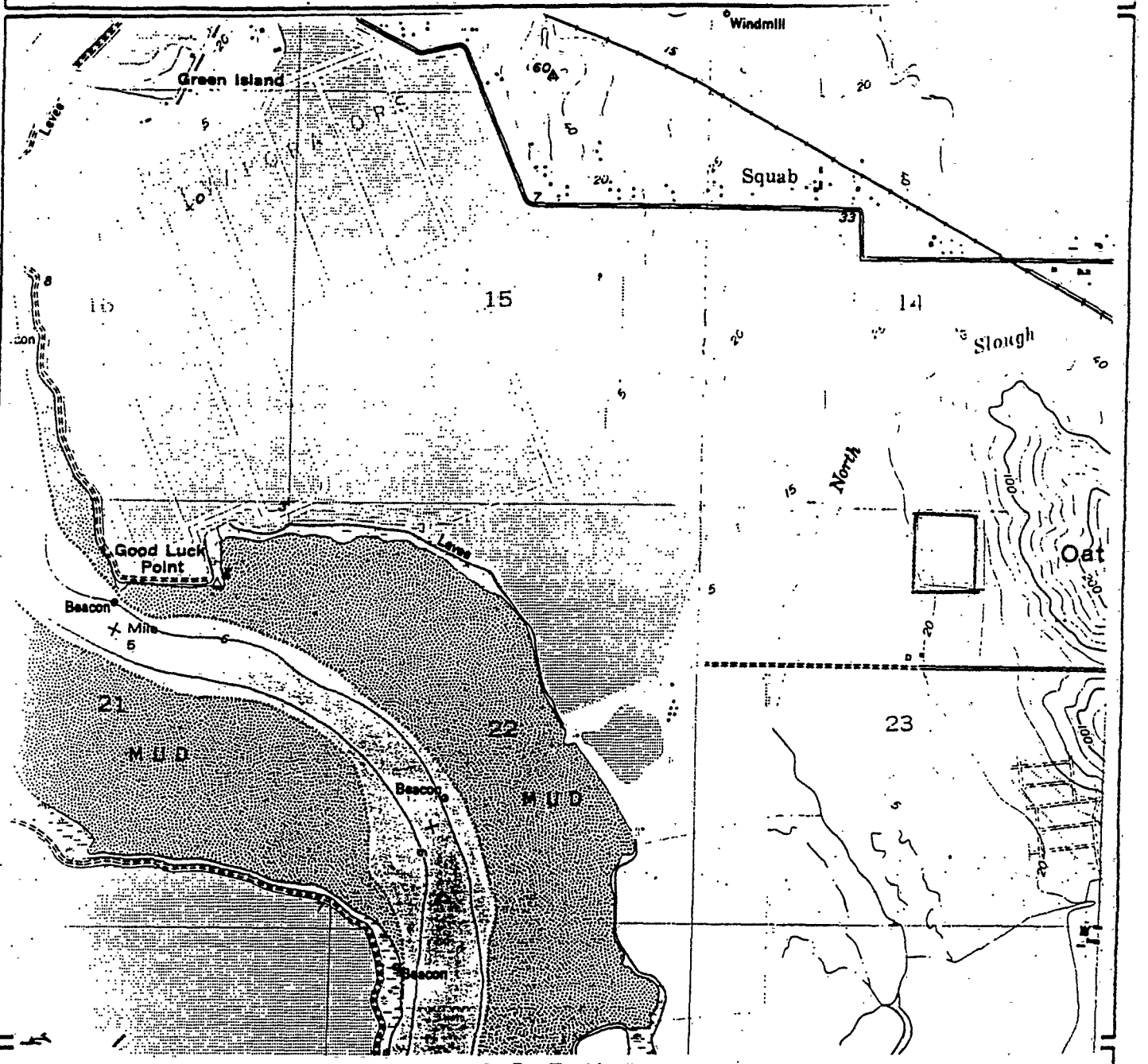


Figure 3A

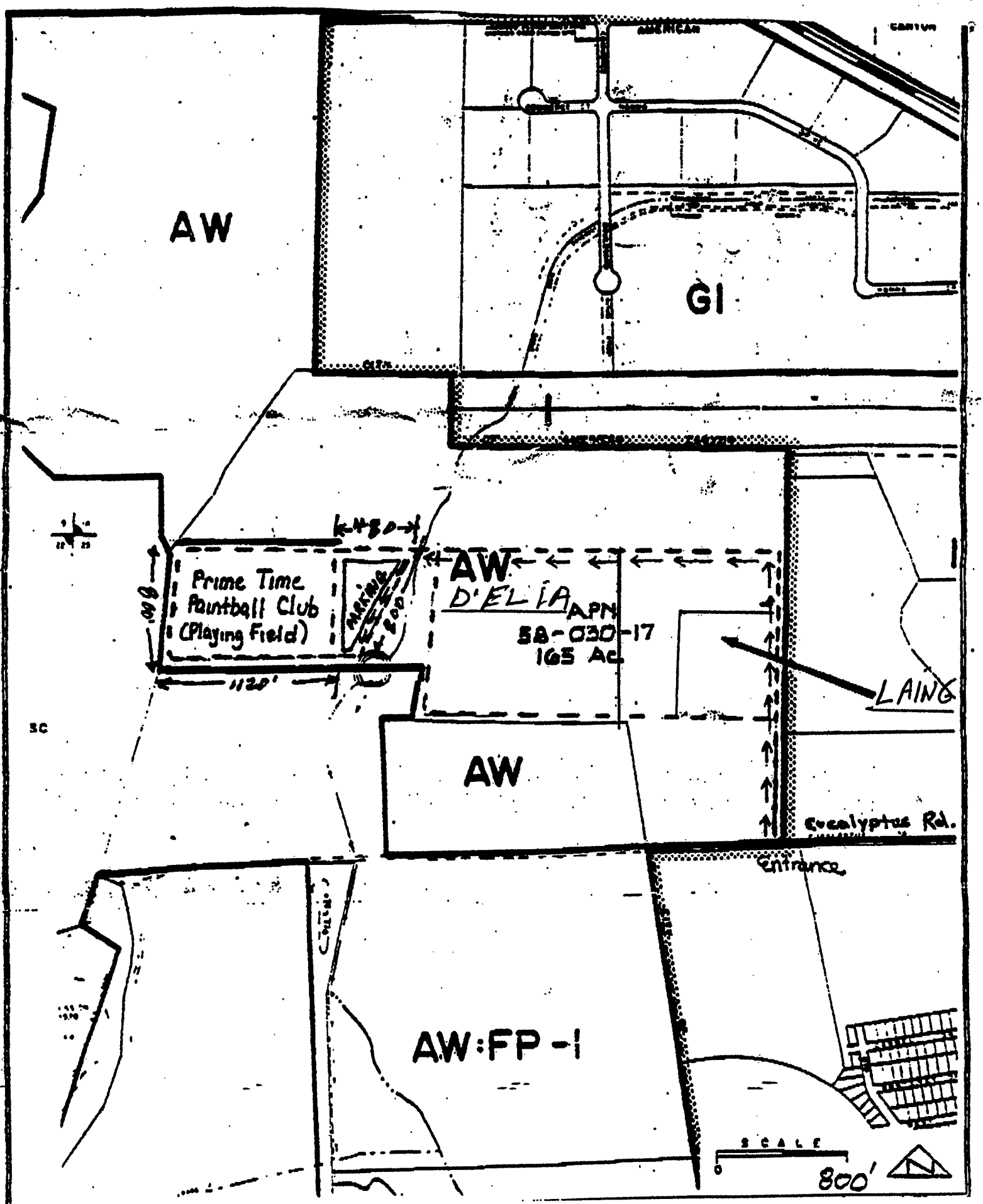
U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 91541-UP



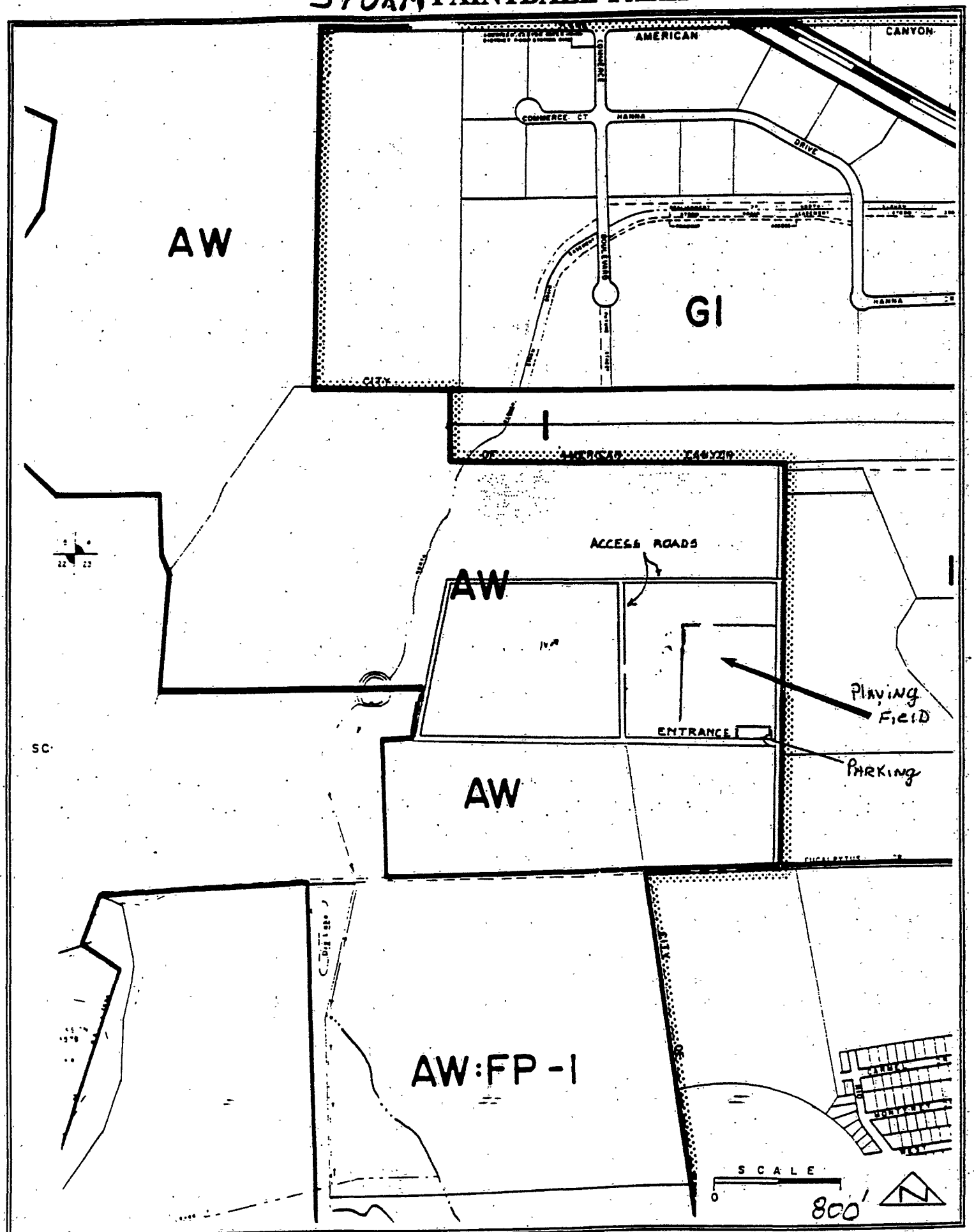
LEGEND

The following information shall be shown on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		


AW
GI
AW
D'ELIA
APN
58-030-17
165 Ac.
Prime Time
Paintball Club
(Playing Field)
1320'
LAING
AW
Eucalyptus Rd.
Entrance
AW:FP-1
SCALE
0
800'

1967

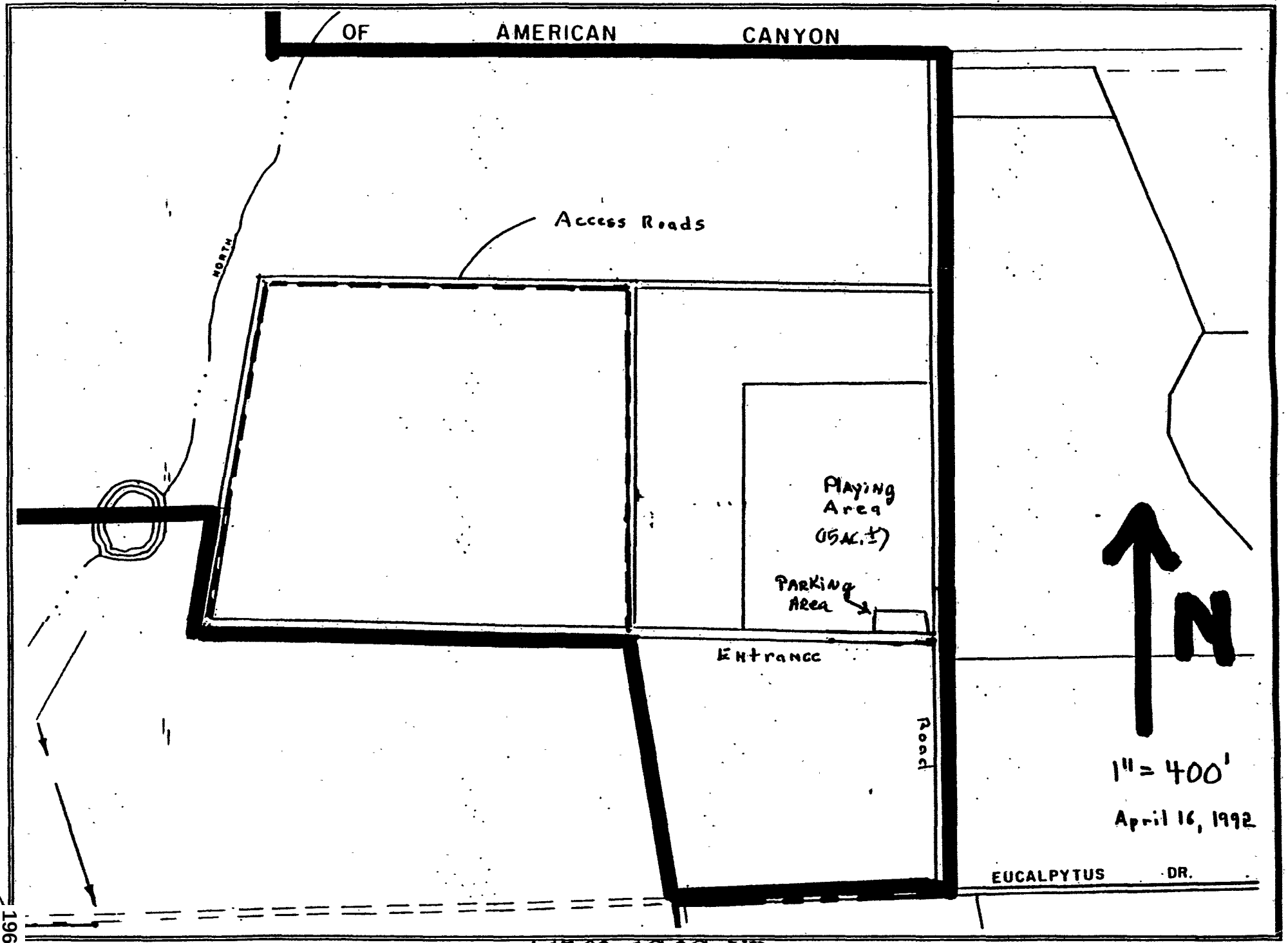
STORM PAINTBALL PARK



4-17-92 1C,2C UP

1968

STORM PAINTBALL PARK



4-17-92 1C,2C UP

1969

Environmental

Cover Sheet

APN	058 - 030 - 066 - 000
Permit #	
Program	Well
DocType	pmt
Street #	2
Street Name	Eucalyptis Rd
Year	



FEE 40.00 DATE 7-5-79
RECEIPT NO 6749 BY [illegible]

A.P. NO 58-030-17 066

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT A WATER WELL

NAME Robert Couch (Owner) ADDRESS 2 Eucalyptus Dr. Vallejo (Job Location)
NAME Dochier-Gregson Drilling Inc (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy DATE 7-5-79

TYPE OF WORK NEW WELL ✓ RECONDITIONING ____ DEEPENING ____
TYPE I PERMIT ✓ DESTROY ____ OTHER ____
TYPE II PERMIT ____

PROPOSED USE DOMESTIC ✓ IRRIGATION ____ INDUSTRIAL ____ MUNICIPAL ____
TEST WELL ____ OTHER ____

Sewage Disposal on site (existing or proposed) Public ____ Individual ✓ Private ____
Distance from well to any part of nearest sewage disposal system 100 + feet.
(Sketch of site to accompany application) County road setback ____ feet from centerline.

TYPE OF EQUIPMENT TO BE USED: Rotary ✓ Cable ____ Hand Dug ____ Other ____

WORKER'S COMPENSATION COVERAGE: (Check one of the following)

☑ A certificate of current Worker's Compensation Insurance coverage is presently on file with this office.

☐ A certificate of current Worker's Cpmpensation Insurance is being filed with this application.

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws in California.

Ronald M Oneal
Signature of Applicant

7-5-79
Date

FOR OFFICE USE ONLY

	Date	By	Remarks
Pre-Inspection			
Class II Approval			
Permit Issued	6 July 79	[illegible]	
Const. Inspection	6 July 79	[illegible]	20'sem
Final Inspection			
Final Approval			

Remarks:

EH 91
Revised 11/78

1971

HEALTH DEPT. USE ONLY
FEE: 12.00
DATE: 11-26-75
RECEIPT NO: 2111
BY: MG

066

A.P. # 58-030-17

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

NAME Robert Cornell (Owner) ADDRESS 2 Eucalyptus (Job Location) DATE 11-26-75

NAME Doshier-Gregson (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy

TYPE OF WORK
NEW WELL ✓ RECONDITIONING ___ DEEPENING ___
TEST HOLES ___ DESTROYING ___ OTHER ___
TYPE I PERMIT ✓ TYPE II PERMIT ___ FEE ___

PROPOSED USE
DOMESTIC ✓ IRRIGATION ___ INDUSTRIAL ___ MUNICIPAL ___
TEST WELL ___ OTHER ___

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual ✓ Private ___
Distance from well to any part of nearest sewage disposal system 1004 feet.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED
Rotary ✓ Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED
Diameter of casing 6" Material Plastic Annular Space: Size 2"
Sealed with: Concrete ___ Grout ___ Neat Cement ✓ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No ✓ Material ___
Chlorination By: Owner ✓ Pump Co ___ Driller ___

Ruby Gregson (SIGNATURE OF APPLICANT) 11-26-75 (DATE)

HEALTH DEPARTMENT USE ONLY

	Date	Initial	Remarks
Pre-Inspection			
Const. Inspection			
Final Inspection	11/28/75	AWO	OK. (241)

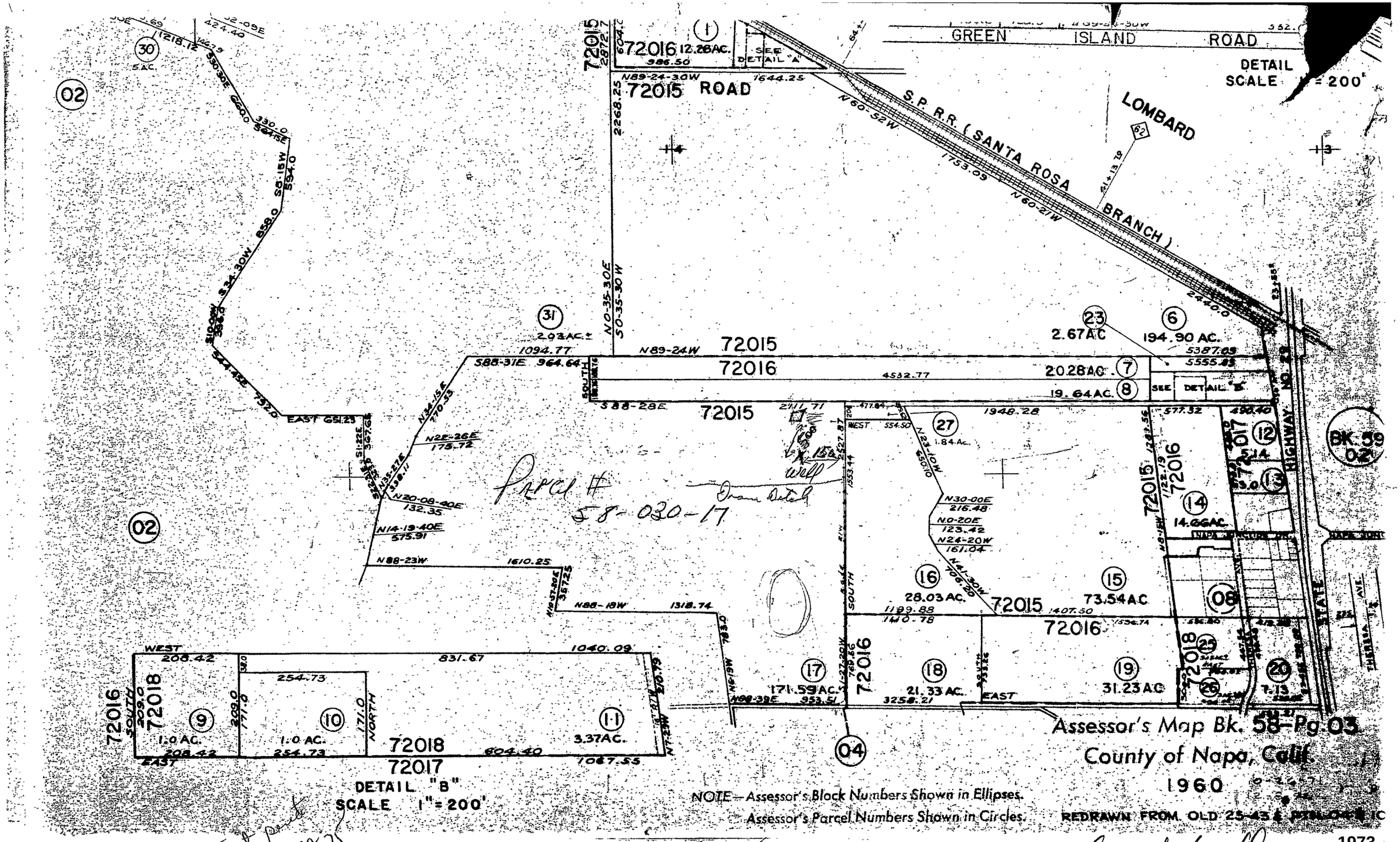
PUMP AND STORAGE

Type of Pump: Shallow ___ Jet ___ Turbine ___ Submersible ___
Type of Storage: Pressure ___ gallons; Gravity ___ gallons
DESCRIBE ___
Well Cover Satisfactory Yes ___ No ___

Pink - Health Dept. Copy
Blue - Well Driller
Yellow - Owner

Form WWD/10/20/70.

1972



Contract Price 11-20-73

642-4335 Robert L. Couch, Jr. 2 Eucalyptus Ln.

HEALTH DEPT. USE ONLY
FEE: 0341
DATE: 4-30-73
RECEIPT NO: 0341
BY: Sue Travis

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

A.P. # 58-030-17

Plot Plan in file on regular plot plan

NAME Couch, Robert L. (Owner) ADDRESS #2 Eucalyptus (Job Location) Vallejo DATE 4-30-73

NAME Vaca Drilling Co (Well Driller) ADDRESS Rt 1 Box 4452 Vacaville, Ca 95688

TYPE OF WORK

NEW WELL	X	RECONDITIONING		DEEPENING	
TEST HOLES		DESTROYING		OTHER	
TYPE I PERMIT	X	TYPE II PERMIT		FEE	

PROPOSED USE

DOMESTIC	X	IRRIGATION		INDUSTRIAL		MUNICIPAL	
TEST WELL		OTHER					

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual X Private ___
Distance from well to any part of nearest sewage disposal system 150 feet. approx.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED

Rotary X Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED

Diameter of casing 6" Material Plastic Annular Space: Size 2½"
Sealed with: Concrete X Grout ___ Neat Cement ___ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No X Material ___
Chlorination By: Owner X Pump Co ___ Driller ___

X Robert L. Couch Jr. (SIGNATURE OF APPLICANT) ___ (DATE)

HEALTH DEPARTMENT USE ONLY

	Date	Initial	Remarks
Pre-Inspection			
Const. Inspection	11/2/73	JCP	37' seal - seal w - neat cement
Final Inspection			

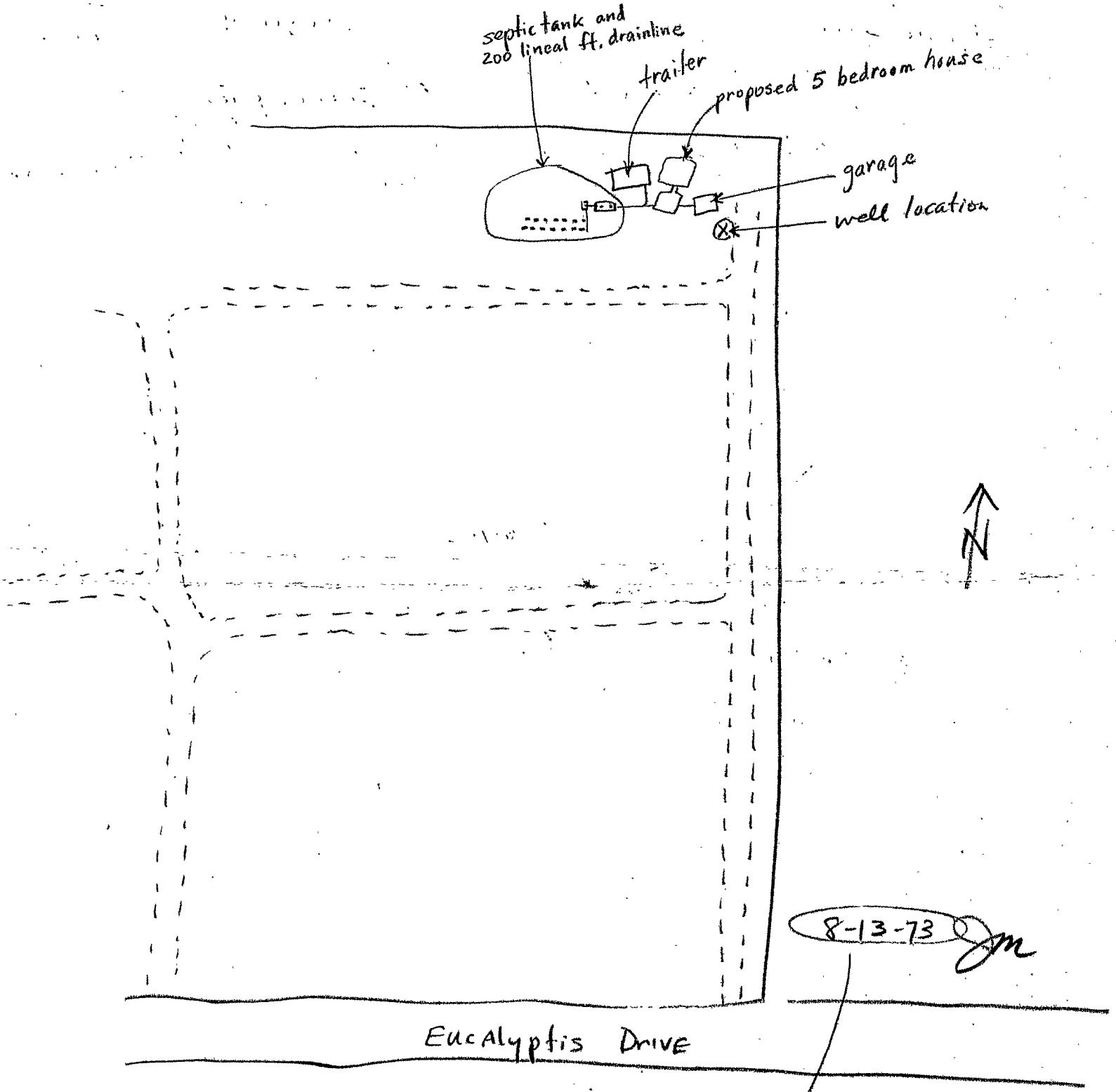
PUMP AND STORAGE

Type of Pump: Shallow ___ Jet ___ Turbine ___ Submersible ___
Type of Storage: Pressure ___ gallons; Gravity ___ gallons
DESCRIBE ___
Well Cover Satisfactory Yes ___ No ___

Pink - Health Dept. Copy
Blue - Well Driller
Yellow - Owner

Form WWD/10/20/70.

1974


septic tank and
200 lineal ft. drainline
trailer
proposed 5 bedroom house
garage
well location
N
8-13-73
JM
Eucalyptis Drive
information gathered upon inspection of property.

Environmental

Cover Sheet

APN	058 -030 -066 -000
Permit #	
Program	Well
DocType	WL
Street #	2
Street Name	Eucalyptis DR
Year	



FEE ____ DATE 7-5-79
RECEIPT NO. 1044 BY ____

A.P. NO. 58-030-17

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT A WATER WELL

NAME [redacted] (Owner) ADDRESS [redacted] (Job Location)

NAME Dashiell-Gregson Drilling Inc (Well Driller) ADDRESS 5365 NAPA-VALLEJO DATE 7-5-79

TYPE OF WORK
NEW WELL ____ RECONDITIONING ____ DEEPENING ____
TYPE I PERMIT ✓ DESTROY ____ OTHER ____
TYPE II PERMIT ____

PROPOSED USE
DOMESTIC ✓ IRRIGATION ____ INDUSTRIAL ____ MUNICIPAL ____
TEST WELL ____ OTHER ____

Sewage Disposal on site (existing or proposed) Public ____ Individual ✓ Private ____
Distance from well to any part of nearest sewage disposal system 100 + feet.
(Sketch of site to accompany application) County road setback ____ feet from centerline.

TYPE OF EQUIPMENT TO BE USED: Rotary ✓ Cable ____ Hand Dug ____ Other ____

WORKER'S COMPENSATION COVERAGE: (Check one of the following)

☑ A certificate of current Worker's Compensation Insurance coverage is presently on file with this office.

☐ A certificate of current Worker's Cpmpensation Insurance is being filed with this application.

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws in California.

Signature of Applicant ____ Date 7-5-79

CASING

CONSTRUCTION:

Total Depth ____ Ft. Depth of Casing ____
Surface Seal to ____ Ft.
Any Stratas Sealed: Yes ____ No ____
If yes, depth of stratas: ____
From ____ Ft. to ____ Ft./From ____ Ft. to ____ Ft.
Perforations:
From ____ Ft. to ____ Ft./From ____ Ft. to ____ Ft.
From ____ Ft. to ____ Ft.

WATER LEVELS

First Water at ____ Ft. Static level at ____ Ft.

WELL TESTS

How performed ____
Yield ____ GPM with ____ Ft. Drawdown after ____
Hrs. Annular space depth ____ Ft./Thickness ____
____ in. Diameter of casing ____ Material ____
Gravel Pack: Yes ____ No ____ Conductor Casing:
Yes ____ No ____ Sealed with: Concrete ____
Grout ____ Neat Cement ____ Pudd. Clay ____
Other ____ Chlorination by: Owner ____
Pump Co. ____ Driller ____

WELL LOG

(Formation; described by color, size of material, structure)

Ft.	to	Ft.

CONTRACTOR'S STATEMENT: I, ____, contractor for the above work, hereby certify that the above was installed according to all applicable rules and regulations covered by this permit, and that the information is true and correct to the best of my knowledge.

Contractor's Signature ____

1977

66

HEALTH DEPT. USE ONLY
FEE: 12.00
DATE: 11-26-75
RECEIPT NO: 2111
BY: JL

A.P. # 58-030-TT
4-4-23
SP

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

NAME [redacted] (Owner) ADDRES [redacted] (Job Location) DATE 11-26-75

NAME Doshier-Gregson (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy

TYPE OF WORK
NEW WELL ✓ RECONDITIONING ___ DEEPENING ___
TEST HOLES ___ DESTROYING ___ OTHER ___
TYPE I PERMIT ✓ TYPE II PERMIT ___ FEE ___

PROPOSED USE
DOMESTIC ✓ IRRIGATION ___ INDUSTRIAL ___ MUNICIPAL ___
TEST WELL ___ OTHER ___

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual ✓ Private ___
Distance from well to any part of nearest sewage disposal system 100+ feet.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED
Rotary ✓ Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED
Diameter of casing 6" Material Plastic Annular Space: Size 2"
Sealed with: Concrete ___ Grout ___ Neat Cement ✓ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No ✓ Material ___
Chlorination By: Owner ✓ Pump Co ___ Driller ___

Ruby Gregson (SIGNATURE OF APPLICANT) 11-26-75 (DATE)

NOTICE TO DRILLER: COMPLETE THIS PORTION AND PROVIDE OWNER WITH THIS COPY.

CASING

CONSTRUCTION

Total Depth 210 Ft.
Surface Seal to 20 Ft.
Any Stratas sealed: Yes ___ No X
If yes, depth of Stratas
From ___ Ft. to ___ Feet
From ___ Ft. to ___ Feet
Perforations
From 70 Ft. to 210 Feet
From ___ Ft. to ___ Feet
From ___ Ft. to ___ Feet

WATER LEVELS
First water at 155 Feet
Static level at 25 Feet

WELL TESTS
How performed by bailing
Yield ½ GPM with bailer Feet dry
Drawdown ___ Ft. after ___ Hrs.

WELL LOG

(Formation; describe by color, size of material, structure)

Ft.	to Ft/	
0	5	Soil
5	17	Brown shale
17	23	Brown clay
23	37	Ble shale
37	46	Brown shale
46	49	Sand stone
49	102	Blue shale & sand stone
102	105	Hard Sand stone
105	154	Blue shale (soft)
154	210	Blue shale & sand stone

Signed: J D Doshier
License # 294001 1978

TRS 4-4-14
Dry — 100

QUADRUPLICATE
Use to comply with local requirements

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in
No. 103372

Notice of Intent No.
Local Permit No. or Date
State Well No.
Other Well No.

(1) OWNER: Name [redacted]
Address [redacted] Dr.
City Vallejo Zip [redacted]

(2) LOCATION OF WELL (See instructions): 58-030-17 6b
County Napa Owner's Well Number
Well address if different from above Dump Rd
Township Range Section
Distance from cities, roads, railroads, fences, etc.

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well X ☐ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic X
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:
Rotary X ☐ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes X ☐ No ☐ Size pea gravel
Diameter of bore 12"
Packed from 20 to 100 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic X ☐ Concrete ☐

(8) PERFORATIONS: machine
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	25	6	160	25	100	1/8x3

(9) WELL SEAL:
Was surface sanitary seal provided? Yes X ☐ No ☐ If yes, to depth 20 ft.
Were strata sealed against pollution? Yes ☐ No X ☐ Interval ft.
Method of sealing grout

(10) WATER LEVELS:
Depth of first water, if known none ft.
Standing level after well completion -0- ft.

(11) WELL TESTS:
Was well test made? Yes X ☐ No ☐ If yes, by whom? Driller
Type of test Pump ☐ Bailer X ☐ Air lift ☐
Depth to water at start of test ft. At end of test ft
Discharge 9 gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No X ☐ If yes, by whom?
Was electric log made? Yes ☐ No X ☐ If yes, attach copy to this report

(12) WELL LOG: Total depth 100 ft. Depth of completed well 100 ft.
from ft. to ft. Formation (Describe by color, character, size or material)
0 - 100 Brown clay

ONLY FOR PUBLIC USE
WATER CODE SEC 13752
NOT FOR PUBLIC USE
INITIAL
RECEIVED
JUL 18 1979
ENVIRONMENTAL

Work started 7/5 1979 Completed 7/5 1979

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED (Well Driller)
NAME Doshier-Gregson Drilling, Inc (Person, firm, or corporation) (Typed or printed)
Address 5365 Napa-Vallejo Hwy
City Vallejo, Ca Zip 94590
License No. 294001 Date of this report 7/9/79

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

1979

DUPLICATE
Retain this copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do Not Fill In

№ 123282

State Well No. _____

Other Well No. _____

(1) OWNER:

Name [redacted] L. Gooch

Address [redacted]

(2) LOCATION OF WELL:

County Napa Owner's number, if any

Township, Range, and Section T.4N R.5W Sec. 23

Distance from cities, roads, railroads, etc.

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☒
Cable ☐
Other ☐

(6) CASING INSTALLED:

STEEL: OTHER: Plastic
SINGLE ☐ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore
0	193	6"	1/4"	8"

If gravel packed

From ft.	To ft.
0	191

Size of shoe or well ring: Plug
Size of gravel: 1/4 X 1/2"
Describe joint Collars - Glue

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen Slot

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
40	191	10	1	1/8 X 6"

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 39 ft.

Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing Cement Grout

(9) WATER LEVELS:

Depth at which water was first found, if known ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 200 ft. Depth of completed well 200 ft.

Formation: *Describe by color, character, size of material, and structure*

	ft. to	ft.
Soil	0	2
Clay	2	10
Sand Rock & Clay	10	32
Blue Shale with layers of Rock	32	200

RECEIVED
NOV 15 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

8" I.D. Steel Pipe cemented into 12¼" hole from 0 to 39 ft.

Work started 11-2 19 73 , Completed 11-5 19 73

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME VACA DRILLING CO.
(Person, firm, or corporation) *(Typed or printed)*

Address Rt. 1 Box 4452
Vacaville, Calif. 95688

[SIGNED] _____
(Well Driller)

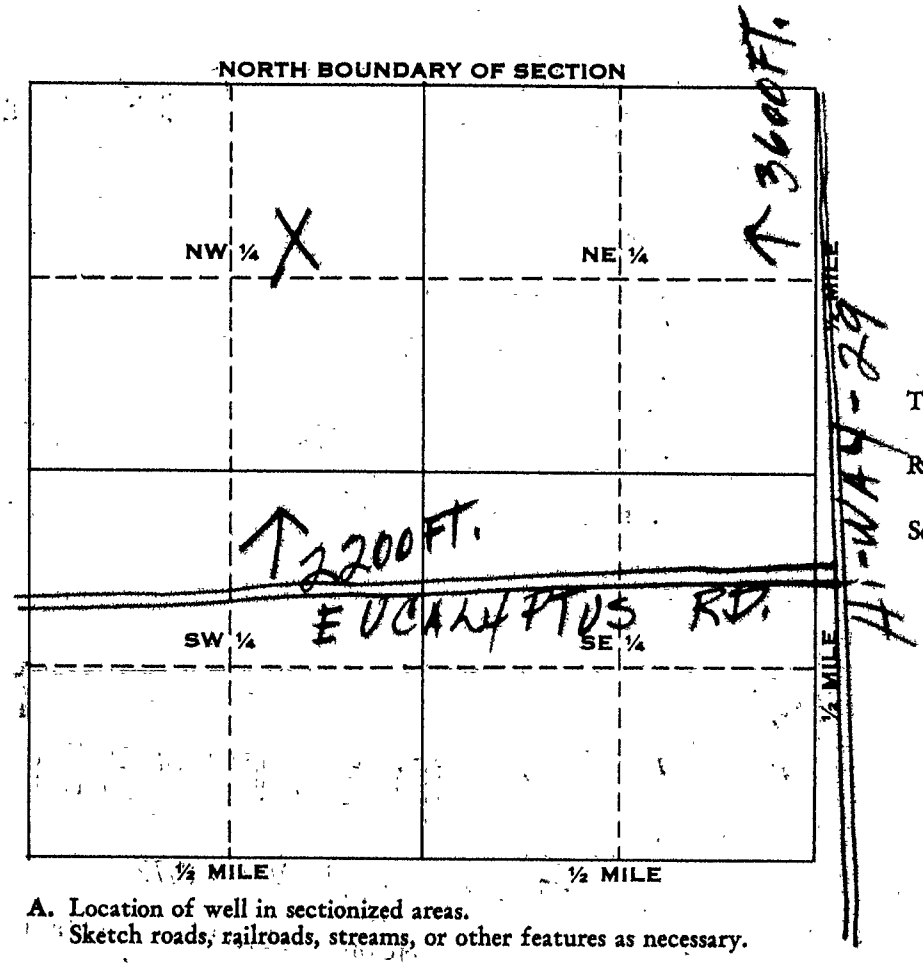
License No. 98441 Dated 11-14, 1973

SKETCH LOCATION OF WELL ON REVERSE SIDE

67139-750 8-72 30M TRIP

1980

WELL LOCATION SKETCH

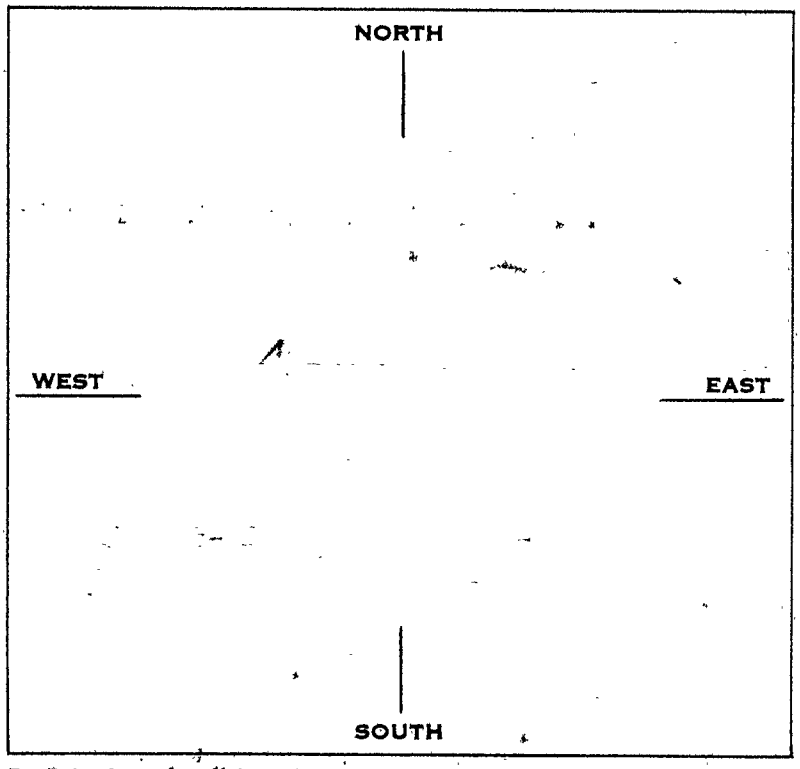


Township T. 4 N. N/S

Range R. 5 W E/W

Section No. - 23 -

A. Location of well in sectionized areas.
Sketch roads, railroads, streams, or other features as necessary.



B. Location of well in areas not sectionized.
Sketch roads, railroads, streams, or other features as necessary.
Indicate distances.

1981

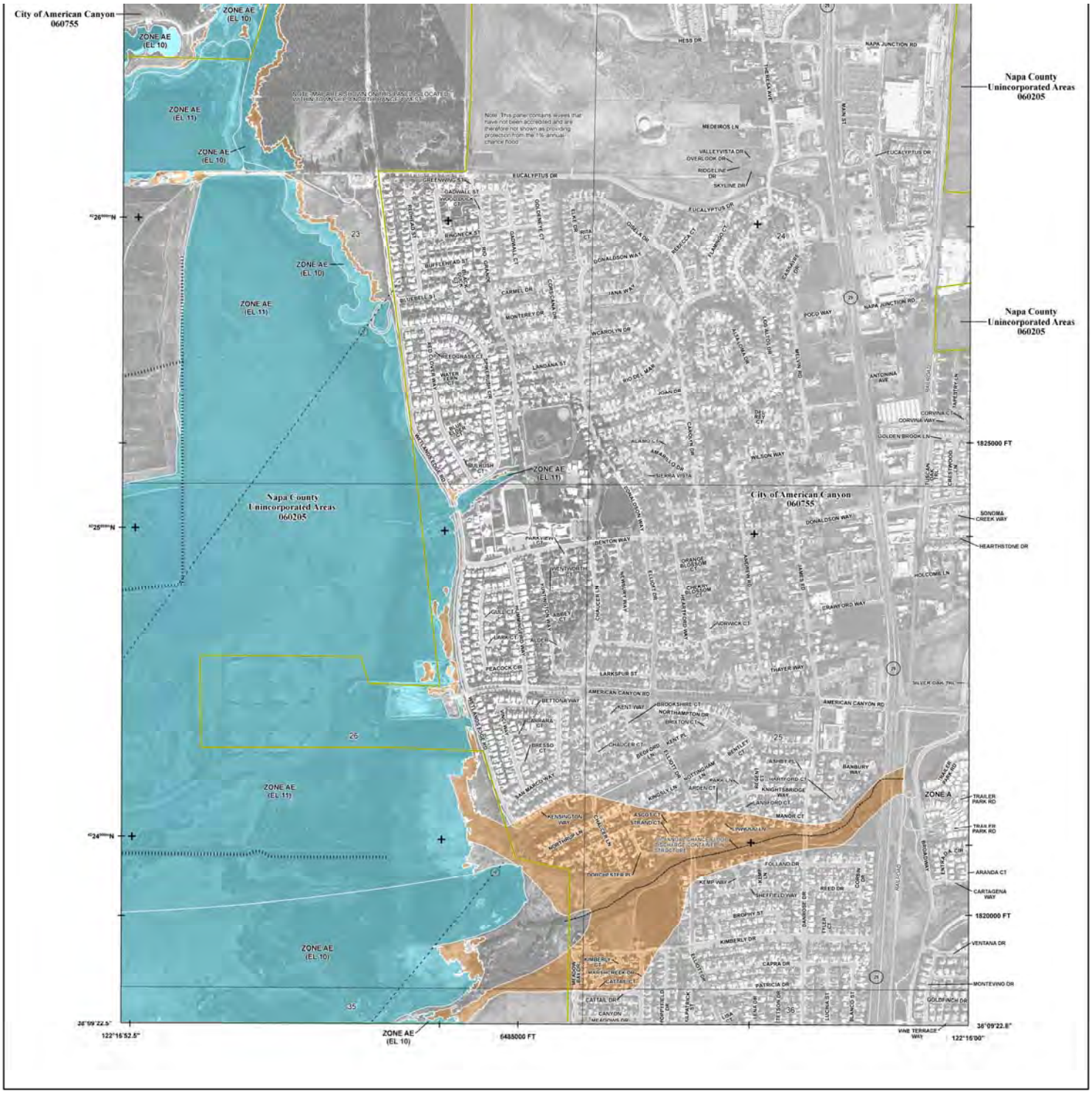
APPENDIX K

LABORATORY REPORTS

THIS SECTION NOT USED

APPENDIX L

OTHER SUPPORTING DOCUMENTATION



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*

OTHER AREAS
- NO SCREEN Areas of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike or Floodwall
- Non-accredited Levee, Dike or Floodwall
- 15.2 Cross Sections with 1% Annual Chance

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was derived from Coastal California LiDAR and Digital Imagery dated 2011. USDA NAIP 2012 imagery is used in areas not covered by the Coastal California imagery.

SCALE

Map Projection: State Plane Lambert Conformal Conic. California II Zone (Ferris Adjusted) Datum: NAD 83. Vertical Datum: Vertical Datum: NAVD 88

N

1 inch = 500ft 1:6,000

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

NAPA COUNTY, CALIFORNIA and Incorporated Areas

Panel 617 of 650

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
AMERICAN CANYON, CITY OF	060755	0617	F
NAPA COUNTY, CITY OF	060205	0617	F

1985

NETRonline

PROPERTY DETAIL REPORT

Prepared Exclusively for Bryan Campbell

Created: 4/11/2018
Expires: 5/11/2018

TARGET PROPERTY

, CA -

Owner Information

Owner Name:	AMERICAN CANYON FLAT LAND CO I		
Mailing Address:	17674 N WOODSON AVE FRESNO CA 93711-		
Phone Number:		**Vesting Codes:**	
Owner Occupied Indicator:	UNKNOWN	**Pending Record Indicator:**	
Corporate Owner:			

Location Information

Legal Description:			
County:	NAPA	**APN:**	058-030-065-000
Census Tract / Block:	2010.05	**Alternate APN:**	
Township-Range-Sect:		**Subdivision:**	
Legal Book - Page:		**Map Reference:**	/
Legal Lot:		**Tract #:**	
Legal Block:		**School District:**	NAPA VLY
Market Area:		**Munic / Township:**	
Neighbor Code:			

Owner Transfer Information

Recording / Sale Date:	12/02/2016	**Sale Price:**	
Document #:		**Deed Type:**	QUIT CLAIM DEED
Instrument #:	000000032608	**1st Mtg Document #:**	
Book - Page:			

Last Market Sale Information

Recording / Sale Date:	/	**1st Mtg Amount / Type:**	/
Sale Price:		**1st Mtg Int. Rate / Type:**	/
Sale Type:		**1st Mtg Term:**	
Document #:		**1st Mtg Document #:**	
Instrument #:		**1st Mtg Instrument #:**	
Book - Page:		**1st Mtg Book - Page:**	
Deed Type:		**2nd Mtg Amount / Type:**	/
Transfer Document #:		**2nd Mtg Int. Rate / Type:**	/
New Construction:		**2nd Mtg Term:**	
Multi / Split Sale:		**Price per SqFt:**	
Cash Down Payment:		**Stamps Amount:**	
Title Company:			
Lender:			
Seller Name:			

Prior Sale Information

Prior Rec / Sale Date:	/	**Prior Deed Type:**	
Prior Sale Price:		**Prior Lender:**	
Prior Sale Type:		**Prior 1stMtg Amount/Type:**	/
Prior Doc #:		**Prior 1stMtg Int. Rate/Type:**	/
Prior Instrument #:		**Prior Stamps Amount:**	
Prior Book - Page:			

Site Information

Land Use:	AGRICULTURAL LAND	**Acres:**	35.85	**County Use:**	VACANT LAND-RURAL

Flood Zone:		**Lot Area:**	1561626	**State Use:**	
Flood Zone Map:		**Lot Width / Depth:**	/	**Site Influence:**	
Flood Panel Date:		**Usable Lot:**		**Sewer Type:**	
Res / Comm Units:		**Lot Shape:**		**Topography:**	
# of Buildings:		**Bldg Width / Depth:**	/	**Water Type:**	
Zoning:		**Building Class:**		**Water District:**	

Tax Information

Total Value:	$1,657,150.00	**Assessed Year:**	2017	**Property Tax:**	$18,792.12
Land Value:	$1,657,150.00	**Improve %:**		**Tax Area:**	005029
Improvement Value:		**Dist:**		**Tax Year:**	2017
Total Taxable Value:	$1,657,150.00	**Fire Dist:**	AMERICAN CANYON	**Tax Exemption:**	
Market Value:		**Garbage Dist:**		**Equal Rate:**	
		Delinquent Date:		**Equal Year:**	

Property Characteristics

Gross Area:		**Parking Type:**		**Construction:**	
Living Area:		**Garage Area:**		**Heat Type:**	
Tot Adj Area:		**Garage 2 Area:**		**Heat Fuel:**	
Above Grade:		**Garage Capacity:**		**Parcel Fuel:**	
Ground Floor Area:		**Parking Spaces:**		**Exterior Wall:**	
Base / Main Area:	/	**Carport:**		**Interior Wall:**	
Upper Area:		**Basement Area:**		**Foundation:**	
2nd Floor Area:		**Finish Bsmnt Area:**		**Air Cond:**	
3rd Floor Area:		**Basement Type:**		**Roof Type:**	
Rentable Area:		**Attic Type:**		**Roof Shape:**	
Additional Area:		**Porch Type:**		**Roof Frame:**	
Total Rooms:		**Porch 1 Area:**		**Roof Material:**	
Bedrooms:		**Porch 2 Area:**		**Floor Type:**	
Bath (F/H):	/	**Patio Type:**		**Floor Cover:**	
Total Baths / Fixtures:	/	**Patio 1 Area:**		**Style:**	
Year Built / Eff:	/	**Pool:**		**Quality:**	
Fireplace:		**Pool Area:**		**Condition:**	
Fireplace Description:				**# of Stories:**	
Basement Description:				**Other Rooms:**	
Other Improvements:					
Bldg Comments:					
Parcel Comments:					

Extra Features

Description:	Unit:	Size / Qty:	Width:	Depth:	Year Built:	Improvement Value:

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Search

Map Unit Legend

Napa County, California (CA055)

Napa County, California (CA055)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
116	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 14	0.4	1.0%
148	Haire clay loam, 2 to 9 percent slopes	37.7	99.0%
Totals for Area of Interest		**38.0**	**100.0%**

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Map done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The de and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapp of soil line placement. The maps do not show the small areas of contrasting soils that could have bee detailed scale.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands



April 11, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (N **1989**
This page was produced by the NWI mapper

Attachment 1, Exhibit A:
Geotechnical Report
Subsurface Investigation

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Telephone 925-460-5300
Fax 925-328-1090
www.atcgroupservices.com

March 25, 2019

Brian Doswald
Stravinski Development Group
413 W. Yosemite Avenue, Suite 105
Madera, CA 93637

Subject: **Limited Phase II Subsurface Investigation**
35.85 Acre Parcel, APN 058-030-065, American Canyon, California
ATC Project Number: 118EM01181

Dear Mr. Doswald:

ATC Group Services LLC (ATC) has prepared this report to document field activities and findings for the Limited Phase II Subsurface Investigation (Phase II) for the above-referenced property for Stravinski Development Group (herein referred to as the Client). The Phase II was completed in accordance with our proposal (ATC Proposal 118-2018-0065).

SITE DESCRIPTION

The Land referred to in this report is situated in the City of American Canyon, County of Napa, State of California (Figures 1 and 2), and is described as follows: Parcel 3, as shown on that certain Map entitled "Lands of Couch Parcel Map", filed November 8, 2012 in "Book 26 of Parcel Maps at pages 87 - 90 in the office of the Napa County Recorder of Napa County. The property is located within the northern section of the City of American Canyon in an area characterized by industrial uses and undeveloped land (Figure 2). The property consists of one parcel totaling approximately 35.85 acres of undeveloped land. The property is located to the north of Eucalyptus Drive and to the west of the city utility access road.

The nearest water body is a tributary of the North Slough which is located approximately 200 feet to the west of the property.

Based on the United States Geological Survey (USGS) 7.5-Minute Topographic Maps, Cuttings Wharf, California and Cordelia, California Quadrangles, dated 2012, the property is located approximately 19 feet above mean sea level (MSL) and has a sloping topography towards the west (Figure 1).

Based on the California Department of Conservation, California Geological Survey, Preliminary geologic map of Solano County and Parts of Napa, Contra Costa, Marin, and Yolo Counties, the property is primarily underlain by older alluvium, consisting of mainly flood-plain and alluvial-fan deposits adjacent to mountainous areas. These deposits are comprised of sand, gravel, silt, and clay, and is irregularly interstratified and commonly unconsolidated. This series is of the Quaternary era.

Considering the surface topography for the property area, as interpreted from the Cuttings Wharf, California and Cordelia, California topographic quadrangles, local groundwater is expected to flow towards the west. Depth to groundwater beneath the site has not been determined.

BACKGROUND

According to ATC's *Phase I Environmental Site Assessment* (Phase I ESA), dated June 6, 2018 (Attachment D), the site reconnaissance of the Couch Property identified small quantities of hazardous wastes, including drums containing hazardous materials, two 10,000-gallon former USTs, and the other containers of hazardous materials. These hazardous materials were first noted by Napa County in 1990 and appear to have been removed by the property owners except for some gas cylinders and a 3,000-gallon former underground storage tank (UST). The location of the removed items is unknown, however, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. Based on the fact that the locations of the former USTs and drums noted above is unknown and the lack of sampling including groundwater sampling, ATC considered the potential impacts from the USTs to be a *recognized environmental condition*. Therefore, ATC recommended a Phase II for the property.

SCOPE OF WORK

ATC was requested to conduct Limited Phase II ESA consisting of advancing soil borings for the collection of soil and groundwater to determine potential subsurface impacts at the property due to the concerns noted above. This work was performed under the oversight of a California state-licensed professional geologist.

Pre-Field Activities

Prior to initiating field activities, ATC prepared a site specific Health and Safety Plan (HASP) for the site. The HASP complied with Title 29 of the Code of Federal Regulations (CFR) Section 1920.120(j), the California General Industry Safety Order (GISO) and Title 8, California Code of Regulations (CCR) Section 5192. A copy of the HASP was on-site during all field activities.

A drilling permit for temporary soil borings was obtained from the Napa County Department of Environmental Management (NCDEM) (Attachment A).

The public underground utility locating service USA North was notified to identify public utilities in the work area. Private utility locating was conducted by GPRS of San Francisco, California to identify underground utilities on the subject property.

Drilling and Soil Sampling Activities

On November 6, 2018, drilling using direct-push technology was performed on the property by Cascade Drilling of Richmond, California. Originally three (3) soil borings (SB-1, SB-2, and SB-3) were planned to be advanced for the collection of soil and groundwater samples. However, due to issues encountered in the field, only borings SB-2 and SB-3 were advanced.

Boring SB-2 was advanced to a depth of 40 feet below ground surface (bgs). The boring was advanced using approximately 2-inch outer diameter rods and soil samples were collected by advancing the rods with acetate sample liners in discrete intervals. After each interval, the core was retrieved, core barrel disassembled, and the sample liner was removed and transferred to the onsite geologist for sample collection, field screening, and logging. Down-hole equipment was decontaminated prior to use.

The soil boring was logged using the Unified Soil Classification System. A photo ionization detector (PID) was used to screen soil samples in the field and the PID readings for each sample were included on the boring logs (Attachment B). Selected soil samples were sealed with Teflon tape and plastic end caps. Samples selected for laboratory analysis from SB-2 were from depths of 10, 20, and 38 feet bgs.

Following completion of sample collection and removal of tooling, the borings were backfilled with neat cement grout as required by the NCDEM. Investigation derived waste was left onsite in a drum.

Groundwater Sampling

Attempts were made to sample groundwater in borings SB-2 and SB-3. In boring SB-2, groundwater was not encountered to a depth of 40 feet bgs, the maximum depth explored. Boring SB-3 was advanced to a depth of 40 feet bgs using a hydropunch sampler in an attempt to collect groundwater samples only, therefore no soil samples were collected. The hydropunch sampler was advanced to a depth of 40 feet and then the sampler was pulled up to expose the sampling screen. However, after waiting at least 30 minutes, no groundwater was found in the boring.

Laboratory Analysis

The soil samples were labeled and placed into a cooler with ice following sampling. All samples were transferred under appropriate chain-of-custody documentation to McCampbell Analytical, Inc. of Pittsburg, California. Laboratory analytical documentation is provided in Attachment C.

Laboratory analysis of the soil samples consisted of the following:

- Total Petroleum Hydrocarbons (TPH) multi-range (gasoline, diesel, and motor oil) by EPA Method 8015
- Volatile Organic Compounds (VOCs) by EPA Method 8260
- CAM 17 by EPA Methods

RESULTS

The soil encountered in boring SB-2 consisted of well-graded gravel to a depth of 3 feet which was underlain by clay from 3 to 14 feet bgs, sandy silt and silty sand layers from 14 to 23.5 feet bgs, silt from 23.5 to 32 feet bgs, and clay from 32 feet bgs to 40 feet bgs, the maximum depth explored. Groundwater sampling was attempted in borings SB-2 and SB-3 but groundwater was not encountered in either boring to a depth of 40 feet bgs.

Laboratory analytical documentation is provided in Table 1 and in Attachment A. The results of this assessment were compared to the Tier 1 Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board (RWQCB) dated February 2016. The ESLs are considered to be conservative. Under most circumstances, and within the limitations described in the ESL guidance document, the presence of a chemical at concentrations below the corresponding ESL can generally be assumed to not pose a significant threat to human health and the environment. Additional evaluation will generally be necessary at sites where a chemical is present at concentrations above the corresponding ESL.

The results of the analysis of the soil samples indicated the following:

- Concentrations of TPH as gasoline, diesel, and motor oil were not detected above the laboratory method detection limits.
- Concentrations of VOCs were not detected above the laboratory method detection limits.
- Arsenic was detected at a maximum concentration of 11 milligrams per kilogram (mg/kg) which is above the ESL of 0.067 mg/kg. It should be noted that the maximum concentration of background levels of arsenic in California soils is 11 mg/kg as indicated in a study entitled Background Concentrations of Trace and Major Elements in California Soils by Bradford dated March 1996.
- The remaining metals were either detected at concentrations below the ESLs or below the laboratory method detection limits.

SUMMARY AND CONCLUSIONS

In the Phase I ESA by ATC dated June 6, 2018, ATC considered the potential impacts from the former USTs and drums on the Couch Property to be a *recognized environmental condition* and this conclusion

was based on the fact that the locations of the former USTs and drums are unknown and the lack of sampling including groundwater sampling.

On November 6, 2018, three (3) soil borings (SB-1, SB-2, and SB-3) were advanced at the property. Groundwater sampling was attempted in borings SB-2 and SB-3 but groundwater was not encountered in either boring to a depth of 40 feet bgs. With the exception of arsenic, no analytes were detected in the soil samples collected above the ESLs. The maximum concentration of arsenic was noted at the maximum background level for California soils. Concentrations of TPH as gasoline, diesel, and motor oil and VOCs were not detected above the laboratory detection limits.

In order for potential impacts from the Couch property to impact the subsurface of the subject property the following conditions would have to be satisfied:

1. The potential contaminants would have to be released and the release would have to migrate to the subsurface,
2. The impacts would then have to travel through the soil column to groundwater which is at a depth below 40 feet bgs,
3. The contaminants would then have to migrate in the groundwater in the direction of the subject property, and
4. The contaminants would have to arrive beneath the property in sufficient concentrations to be a concern.

As such, although a degree of uncertainty exists, based on these enumerated factors taken altogether, it would appear to be unlikely that impacts from the Couch property could impact the subject property.

As noted in the ASTM standard, the term *recognized environmental condition* means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property. Since this investigation indicates that it would appear to be unlikely that impacts from the Couch property could impact the subject property, the *recognized environmental condition* noted in the Phase I ESA by ATC dated June 6, 2018 is no longer considered to exist. Further investigation of potential impacts from the Couch property on the subject property is not recommend at this time.

LIMITATIONS AND RELIANCE

This report was prepared in accordance with the scope of work outlined in ATC's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. To the extent this report is based on information provided to ATC by third parties, ATC may have made efforts to verify this third party information, but ATC cannot guarantee the completeness or accuracy of this third party information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by ATC.

This report is for the use and benefit of, and may be relied upon by SDG Commerce 330, LLC, Stravinski Development Group, LLC, Peter T. Stravinski, and any affiliates and their respective successors and assigns, in conjunction with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

This report is for the use and benefit of, and may be relied upon by Metlife Investment Advisors, LLC and any affiliates and their respective successors assigns, in conjunction with a commercial real estate transaction involving the southerly 15.24 acres of the land that is the subject of this report more particularly described in Exhibit A.

ATC Group Services LLC agrees that, at its sole cost and expense, it shall maintain in full force and effect, in form and content (including deductible and self-insurance retentions, if any), and with carriers, acceptable to MetLife, the following primary and noncontributory policy of insurance: Professional Liability Insurance covering liability imposed by law or by contract arising out of negligence, errors, omissions or intentional misconduct in the performance of its services, in an amount of not less than five-million Dollars ($5,000,000). The foregoing insurance shall be kept in force for a period of at least two (2) years following the date of this letter.

ATC Group Services LLC represents that they have used the degree of care and skill ordinarily exercised by consultants in the preparation of this report and in the assembling of data and information related thereto, and that there are no other reports prepared by ATC Group Services LLC related to the Property that have not been appended to this report.

ATC appreciates the opportunity to assist you on this project. If you have any questions or require additional information, please contact Bryan Campbell at 925-804-2858.

Respectfully submitted,
ATC Group Services LLC



Bryan Campbell, PG, CHG
Branch Manager
925-804-2858
bryan.campbell@atcgs.com

Attachments:

Exhibit A	Geographic Description
Figure 1	Site Vicinity Map
Figure 2	Site Plan
Table 1	Summary of Soil Analytical Results
Attachment A	Drilling Permit
Attachment B	Boring Logs

Attachment C Laboratory Analytical Results
Attachment D Phase I Environmental Site Assessment

Exhibit A

Geographic Description

4118010.0
Description
January 21, 2019

EXHIBIT A

GEOGRAPHIC DESCIPTION

All that real property situated in the County of Napa, State of California described as follows.

Beginning at the southwest corner of Parcel 3 as shown on the Map entitled "Lands of Couch Parcel Map", filed November 8, 2012, in Book 26 of Parcel Maps at pages 87-90, Napa County Records; thence along the west line of said Parcel 3, North 12° 37' 04" East, 679.60 feet; thence leaving said west line, South 89° 06' 01" East, 889.31 feet to the beginning of a non-tangent curve to the west having a radius of 50.00 feet and to which a radial line bears North 71° 07' 11" West; thence southerly along said curve 79.85 feet through a central angle of 91° 29' 51" to the east line of said Parcel 3; thence along said east line, South 00° 55' 04" East, 602.36 feet to the southeast corner of said Parcel 3; thence along the south line of said Parcel 3, North 89° 06' 01" West, 1079.81 feet to the **Point of Beginning**.

Basis of bearings being the monumented South line of said Parcel 3, shown as North 89° 14' 00" West and assumed to be South 89° 06' 01" East.

END DESCRIPTION



Figures



SOURCE: CUTTINGS WARF, 2012, 7.5-MINUTE QUADRANGLE, OBTAINED BY ENVIRONMENTAL DATA RESOURCES, INC. (EDR)

0 2,000
Scale (feet)

LEGEND

SUBJECT PROPERTY

N

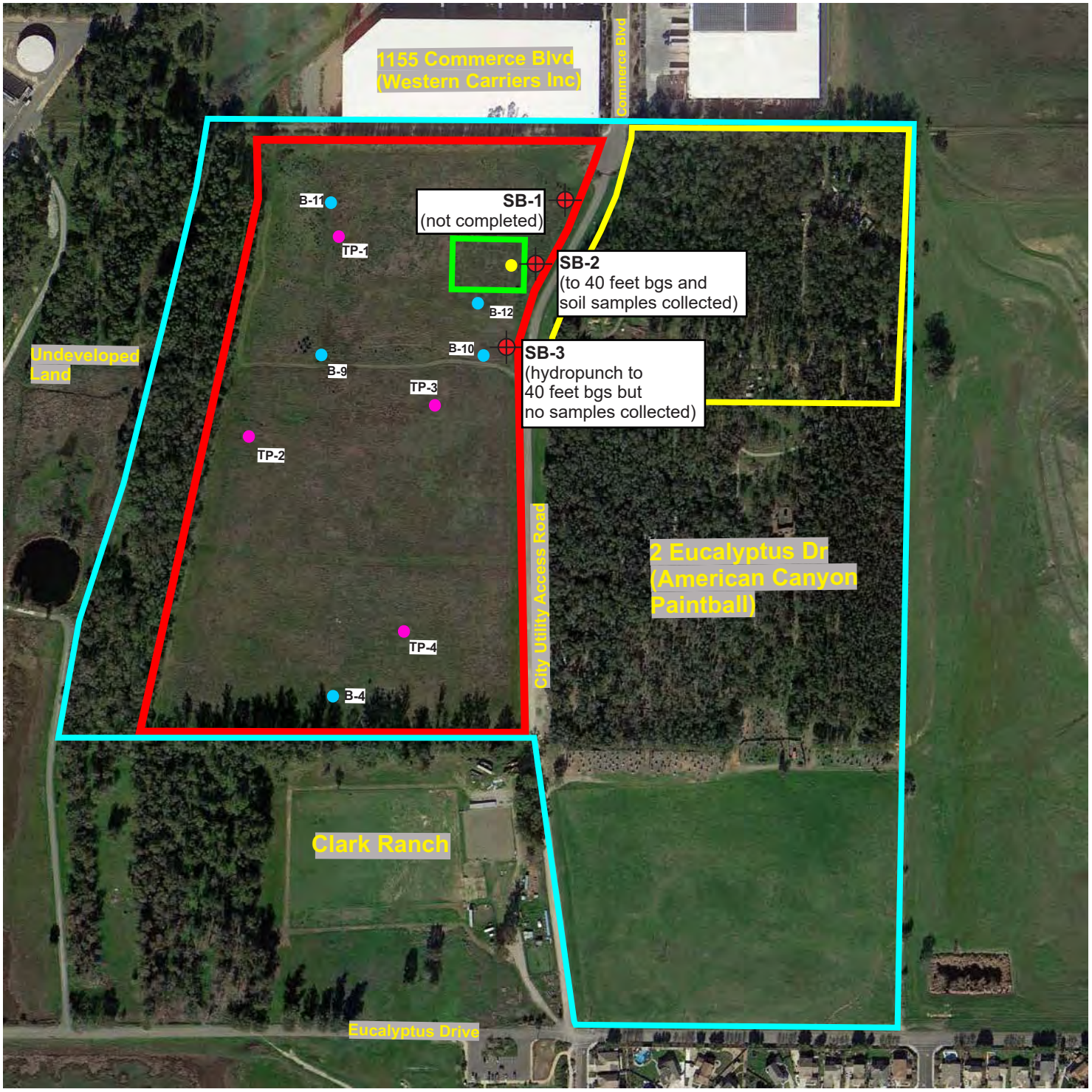
2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118EM01181

DESIGNED BY: GRR	SCALE: 1"=500'	REVIEWED BY: DSH
DRAWN BY: GRR	DATE: 4/12/18	FILE: SITE VISCINITY MAP

SITE VICINITY MAP

SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN, CALIFORNIA



Legend

- Subject Property
- Concentrated Area according to Kleinfelder, December 2009
- Couch Property
- Reported Methamphetamine Lab
- Boring by Kleinfelder, July 2005
- Test Pit by ICES, April 2010
- Features noted in prior reports
- Soil Borings by ATC, November 2018

bgs Below Ground Surface

N

2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118EM01181

DESIGNED BY: BMC	1"=100'	REVIEWED BY: BMC
DRAWN BY: BMC	DATE: 12/6/2018	FILE: SITE PLAN

SITE PLAN

SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN, CALIFORNIA

Tables

Table 1
Summary of Soil Analytical Results
SDG Commerce 330 Distribution Center, American Canyon, California

Sample ID	Date	Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	VOCs (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
SB-2	11/6/2018	10	ND	ND	ND	ND	0.55	**8.3**	370	0.74	0.43	27	10	34	10	ND	0.54	30	ND	ND	ND	54	78
SB-2	11/6/2018	20	ND	ND	ND	ND	ND	**5.6**	160	ND	ND	17	9.5	18	5.2	ND	1.5	19	ND	ND	ND	37	50
SB-2	11/6/2018	38	ND	ND	ND	ND	0.64	**11**	100	0.67	ND	38	18	59	11	0.072	0.57	47	ND	ND	ND	80	93
ESLs			100	230	5,100	varies	31	0.067	3,000	42	39	120,000	23	3,100	80	13	390	86	390	390	0.78	390	23,000

Notes:
mg/kg Milligrams per Kilogram
bgs Below Ground Surface
ND Not Detected
TPH-g Total Petroleum Hydrocarbons as gasoline
TPH-d Total Petroleum Hydrocarbons as diesel
TPH-mo Total Petroleum Hydrocarbons as motor oil
Bold Result Exceeds Screening Level

ESLs: Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Soil Tier 1 ESL, February 2016 (Revision 3)

Attachment A

Drilling Permit

Planning, Building & Environmental Services

1195 Third Street, 2nd Floor
Napa CA 94559
www.countyofnapa.org
Main: (707) 253-4417

David Morrison
Director

A Tradition of Stewardship
A Commitment to Service

JOB SET

Soil Boring Permit

Application Type:	Soil Borings	**File Date:**	10/24/2018
Permit Number:	E18-00851	**Issued Date:**	10/31/2018
Parcel Number:	058-030-065-000	**Expiration Date:**	10/30/2020
Site Address:			
Owner:	AMERICAN CANYON FLAT LAND CO INC	**Phone:**	(000) 000-0000
Address:	7674 NORTH WOODSON AVE FRESNO CA 93711		
Applicant:	Bryan Campbell	**Phone:**	(000) 000-0000
Business Name:	CASCADE DRILLING L P	**License #:**	938110
Project Type:	Soil Borings		

Type of Investigation: Phase 2 **Number of Borings:** 3

LOP Site Number:

Are all borings covered by this application on a single parcel and not on adjoining parcels or public or utility rights-of-way?
Yes X No _.

Is an Encroachment Permit Required? No

Encroachment Permit Number:

Is Worker's Compensation insurance confirmed? Yes **Expires:** 11/1/2019

Disposal Methods

Soil Cuttings:	Removed	**Development/Rinsate Water:**	Removed

Specifications

Bore Hole Diameter:	3.00	**Depth of Seal:**	50
Maximum Depth:	50.00	**Type of Grout:**	Neat Cement
Method of Seal Placement:	Tremie Pipe/Pump	**Other:**	

TO PERMITEE:

Any work performed or operations conducted under the auspices of this permit constitutes acceptance of all conditions, inspections and comments contained in the this permit, and the incorporation of all requirements as set forth in the permit application.

Staff Signature: Date: 10/31/2018

2004

CONDITIONS / INSPECTIONS / COMMENTS

Application Type:	Soil Borings	**File Date:**	10/24/2018
Permit Number:	E18-00851	**Issued Date:**	10/31/2018
Parcel Number:	058-030-065-000	**Expiration Date:**	10/30/2020
Owner:	AMERICAN CANYON FLAT LAND CO INC	**Phone:**	(000) 000-0000
Applicant:	Bryan Campbell	**Phone:**	(000) 000-0000

CONDITIONS

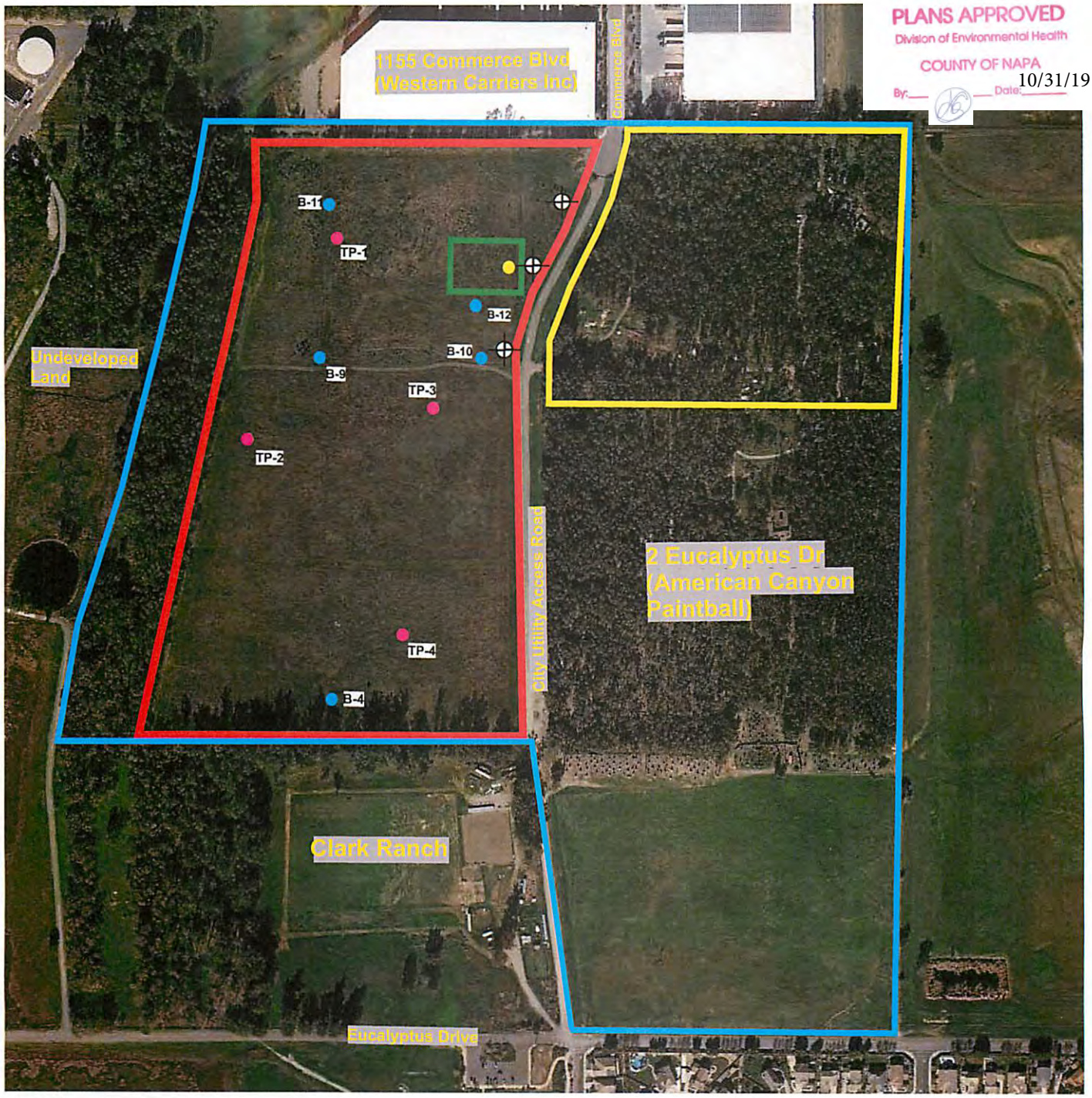
Code:	Condition:
STRM-02	The owner shall comply with the Napa Countywide Stormwater Pollution Prevention Program, “Erosion and Sediment Control Measures for Construction Projects”. Failure to comply with best management practices for erosion and sediment control will result in issuance of a stop-work order.
SB-1	In applying for this permit, I understand that the drilling contractor and the consultant are responsible for the following: 1)Compliance with the State of California Worker’s Compensation Laws; 2)Compliance with the State and Federal Worker Health and Safety Laws; 3)Location of all underground and aboveground utilities which might be impacted by the proposed work; 4)Compliance with the Napa County and State of California well requirements; 5)Notification to Napa County PBES at least two (2) workdays before work is initiated; 6)Notification to Napa County within two (2) workdays of discovery of contaminated soil or ground water.

INSPECTIONS

Inspection Type:	Inspected By:	Inspection Date:
Destruction Inspection		11/1/2018

COMMENTS

Date:	Comment:
10/31/2018	Call 253-4135 at least 24 hours in advance during normal business hours to schedule inspection requests. Inspections are taken on a first-come-first-served basis so if you need a specific date and time be sure to call well in advance Well permits are issued only to licensed well drillers. A copy of the well driller's license (C-57) must be on file with DEM. If a claim is to be submitted for a refund, per County Code, a 25% processing fee will be retained. Such claims must be made within one year of the date on the receipt.



PLANS APPROVED
Division of Environmental Health
COUNTY OF NAPA
By: ___ Date: 10/31/19

Legend
- Subject Property
- Concentrated Area according to Kleinfelder, December 2009
- Couch Property
- Reported Methamphetamine Lab
- Boring by Kleinfelder, July 2005
- Test Pit by ICES, April 2010
- Proposed soil borings
- Features noted in prior reports

N

ATC
2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

DESIGNED BY: GRR	1"=400'	REVIEWED BY: BMC
DRAWN BY: GRR	DATE: 05/29/2018	FILE: SITE PLAN

SITE PLAN

PHASE II SUBSURFACE INVESTIGATION
SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN, CALIFORNIA

Monitoring Well/Soil Boring Permit Application
Napa County Planning, Building & Environmental Services

E18-00851

Napa County Use Only
FEE EXEMPT SITE: Y / (N)
If NO, FEE $ 740.35
Date 10/24/18 By AB
Receipt # 131834
Permit # E18-00851

Application for: Monitoring Wells ____ Extraction Wells ____ Other ____
Cathodic Protection Wells ____ Exploratory Hole (boring) X
(Please check one)

Type of Investigation: Geotechnical ____ Phase 2 X LOP ____ Other ____
(Please check one)

LOP SITE NUMBER: ____

ASSESSOR'S PARCEL NUMBER: 058-030-065

The following **MUST** be included before this permit application can be processed:
1. Assessor's Parcel Number
2. Well location map (showing both proposed and existing wells)
3. Permission document(s) (if required)
4. Encroachment permit(s) (if required)
5. Clearance from public agency(ies) (if required)

Site Name: 330 Commerce Boulevard	Property Owner: AMERICAN CANYON FLAT LAND CO INC
Site Address: Commerce Boulevard	City: American Canyon Zip: 94503
Owner's Mailing Address: 17674 N Woodson Avenue	City: Fresno, CA Zip: 93711
Drilling Contractor: Cascade Drilling	Type of License: C57 DONALD WINGLEMIRE II
Mailing Address: 120 South 23rd Street	License #: C-57 #938110 Exp. 11/1/18
City: Richmond State: CA Zip: 94804	11/1/19 CERT. RCVD. (AG)
Consultant: ATC Group Services LLC	Telephone #: 925-804-2858
Address: 2400 Camino Ramon, Suite 360 City: San Ramon State: CA Zip: 94583	
Responsible Person at Site: Bryan Campbell	Cell Phone # 925-250-5256

Type of Work

New Construction of wells - _____, # of wells _____ Destruction of wells - _____, # of wells _____
Reconditioning of wells (reconstruct or repair) - _____ - # of wells _____
Wells currently on Site? - _____ - # of wells _____ New Construction of borings 3 , # of borings ____

Reason for Well Installation (Check as many as apply):

Underground tank site:	Surface Impoundment:
Tanks Still Present:	Landfill Site:
Spill or Discharge Site:	Cathodic Protection:
Baseline Study:	Other: Possible impacts from nearby property

Other Site Information:

Closest Distance to:

Septic System: None Onsite	Sewer Line: None Onsite	Water Wells: None Onsite	Rivers, Creeks, or Lakes: 1,000 feet
Underground Utilities: None	Underground Storage Tanks: None		

Riparian Cover Permit Required? Yes _____ No X
Issued by the County Public Works Dept. *(Attach Copy)*
May apply to any site outside City limits and within 150 feet of a designated waterway.

gyan.rusconi@atcgs.com NOV 16th

Permit Application
Page 2 of 2

Well/Boring Location: Are all wells/borings covered by this application on a single parcel and not on adjoining parcels or public or utility rights-of-way? Yes X No_____ If no, list other parcels, public rights-of-way or utility rights-of-way.
Note: Each parcel with a new well or new boring must have a separate permit for that parcel.

1. Owner or R/W Owner:	Site Address:		APN:
Owner address:	City:	State:	Zip:
Number of Wells:	Permission Document Attached:		
2. Owner or R/W Owner:	Site Address:		APN:
Owner address:	City:	State:	Zip:
Number of Wells:	Permission Document Attached:		
3. Owner or R/W Owner:	Site Address:		APN:
Owner address:	City:	State:	Zip:
Number of Wells:	Permission Document Attached:		

NOTE: For each parcel listed above which is under different ownership, a letter authorizing access and work on the property must be submitted.The letter must include address, Assessor's parcel number and the notarized signature of the owner or legal agent for the owner. If any wells are proposed on public or utility rights-of-way, a written clearance and/or encroachment permit must accompany application.

Well/Boring Construction

Bore Hole Diameter: 3 in.	Maximum Depth: 50 feet	Annular Space: N/A
Casing: Diameter: N/A	Gauge: N/A	Material: N/A
Grout: Depth of Seal: N/A	Type of Grout: Boring will be filled with neat cement grout when done	
Conductor Casing: Yes_____	No X	

_____ Check if wells are intended to be constructed into aquifers below the first encountered one. Indicate how cross contamination will be prevented on a separate sheet.

Well reconstruction and destruction applications must include a written description of work proposed and existing well information.

Disposal Methods

Soil Cuttings Drum, transportation, and disposal Development/Rinsate Water Drum, transportation, and disposa

In applying for this permit, I understand that the drilling contractor and the consultant are responsible for the following:

1) Compliance with the State of California Worker's Compensation Laws;
2) Compliance with the State and Federal Worker Health and Safety Laws;
3) Location of all underground and aboveground utilities which might be impacted by the proposed work;
4) Compliance with the Napa County and State of California well requirements;
5) Notification to Napa County PBES at least two (2) workdays before work is initiated,
6) Notification to Napa County within two (2) workdays of the discovery of contaminated soil or ground water and;
7) Filing a completed well log for each well within four (4) months of completion to Napa County and the State Department Water Resources.

Signature of Authorized Agent of Drilling Contractor — Date: 10-24-18

FOR OFFICIAL USE ONLY:

____ Required certificate of current worker's compensation insurance is on file with DEM;
Consultant: Exp. Date:_____ Confirmed:_____
X Contractor: Exp. Date: 11/1/19 Confirmed: 10/31/18 AC

Permit Issued by: SEE BELOW Date: 10/31/18

Permit is valid for one (1) year from date of issuance.

2008

Attachment B

Boring Logs

ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583

BORING NUMBER SB-2

CLIENT Stravinski Development Group
PROJECT NAME SDG Commerce 330 Distribution Center
PROJECT NUMBER 118EM01181
PROJECT LOCATION American Canyon, CA
DATE STARTED 11/6/18 **COMPLETED** 11/6/18
GROUND ELEVATION _____ **HOLE SIZE** 2 inches
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD Direct-Push
AT TIME OF DRILLING ---
LOGGED BY B. Campbell **CHECKED BY** B. Campbell
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					(GW) Well-Graded Gravel, brown (10YR 5/3), minor coarse sand, weak, angular, non-plastic fines, dry.	
					3.0	
					(CL) Clay, brown (10YR 4/3), firm, medium plasticity, moist.	
5	1030		PID = 0			
10	1035		PID = 0			
					14.0	
15	1040		PID = 0		(ML) Sandy Silt, brownish yellow (10YR 6/6), soft, low plasticity, dry.	
					18.0	
20	1100		PID = 0		(SM) Silty Sand, yellowish brown (10YR 5/4), soft, low plasticity, dry.	
					23.5	
25					(ML) Silt, yellowish brown (10YR 5/4), very hard, medium plastic, dry.	
30	1220		PID = 0			
					32.0	
35					(CL) Clay, yellowish brown (10YR 5/4), hard, high plasticity, moist.	

(Continued Next Page)

ENVIRONMENTAL BH - GINT STD US.GDT - 12/6/18 10:01 - R:\PROJECTS\STRAVINSKI - 13680\330 COMMERCE BOULEVARD\BORING LOGS\BORING LOGS.GPJ

ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583

BORING NUMBER SB-2

CLIENT Stravinski Development Group **PROJECT NAME** SDG Commerce 330 Distribution Center

PROJECT NUMBER 118EM01181 **PROJECT LOCATION** American Canyon, CA

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35						
40	1400		PID = 0	40.0	(CL) Clay, yellowish brown (10YR 5/4), hard, high plasticity, moist. *(continued)*	

Bottom of borehole at 40.0 feet.

ENVIRONMENTAL BH - GINT STD US.GDT - 12/6/18 10:01 - R:\PROJECTS\STRAVINSKI - 13680\330 COMMERCE BOULEVARD\BORING LOGS\BORING LOGS.GPJ

Attachment C

Laboratory Analytical Reports

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1811490

Report Created for: ATC Group Services

2400 Camino Ramon, Suite 360
San Ramon, CA 94583

Project Contact: Bryan Campbell
Project P.O.:
Project: 118EMO1181; Stravinski

Project Received: 11/07/2018

Analytical Report reviewed & approved for release on 11/19/2018 by:

Susan Thompson
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: ATC Group Services
Project: 118EMO1181; Stravinski
WorkOrder: 1811490

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Quality Control Qualifiers

F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.

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"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	GC10 11161863.D	168247

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/18/2018 02:07
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/18/2018 02:07
Benzene	ND	0.0050	1	11/18/2018 02:07
Bromobenzene	ND	0.0050	1	11/18/2018 02:07
Bromochloromethane	ND	0.0050	1	11/18/2018 02:07
Bromodichloromethane	ND	0.0050	1	11/18/2018 02:07
Bromoform	ND	0.0050	1	11/18/2018 02:07
Bromomethane	ND	0.0050	1	11/18/2018 02:07
2-Butanone (MEK)	ND	0.020	1	11/18/2018 02:07
t-Butyl alcohol (TBA)	ND	0.050	1	11/18/2018 02:07
n-Butyl benzene	ND	0.0050	1	11/18/2018 02:07
sec-Butyl benzene	ND	0.0050	1	11/18/2018 02:07
tert-Butyl benzene	ND	0.0050	1	11/18/2018 02:07
Carbon Disulfide	ND	0.0050	1	11/18/2018 02:07
Carbon Tetrachloride	ND	0.0050	1	11/18/2018 02:07
Chlorobenzene	ND	0.0050	1	11/18/2018 02:07
Chloroethane	ND	0.0050	1	11/18/2018 02:07
Chloroform	ND	0.0050	1	11/18/2018 02:07
Chloromethane	ND	0.0050	1	11/18/2018 02:07
2-Chlorotoluene	ND	0.0050	1	11/18/2018 02:07
4-Chlorotoluene	ND	0.0050	1	11/18/2018 02:07
Dibromochloromethane	ND	0.0050	1	11/18/2018 02:07
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/18/2018 02:07
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/18/2018 02:07
Dibromomethane	ND	0.0050	1	11/18/2018 02:07
1,2-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:07
1,3-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:07
1,4-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:07
Dichlorodifluoromethane	ND	0.0050	1	11/18/2018 02:07
1,1-Dichloroethane	ND	0.0050	1	11/18/2018 02:07
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/18/2018 02:07
1,1-Dichloroethene	ND	0.0050	1	11/18/2018 02:07
cis-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 02:07
trans-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 02:07
1,2-Dichloropropane	ND	0.0050	1	11/18/2018 02:07
1,3-Dichloropropane	ND	0.0050	1	11/18/2018 02:07
2,2-Dichloropropane	ND	0.0050	1	11/18/2018 02:07

(Cont.)

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	GC10 11161863.D	168247

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/18/2018 02:07
cis-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 02:07
trans-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 02:07
Diisopropyl ether (DIPE)	ND	0.0050	1	11/18/2018 02:07
Ethylbenzene	ND	0.0050	1	11/18/2018 02:07
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/18/2018 02:07
Freon 113	ND	0.0050	1	11/18/2018 02:07
Hexachlorobutadiene	ND	0.0050	1	11/18/2018 02:07
Hexachloroethane	ND	0.0050	1	11/18/2018 02:07
2-Hexanone	ND	0.0050	1	11/18/2018 02:07
Isopropylbenzene	ND	0.0050	1	11/18/2018 02:07
4-Isopropyl toluene	ND	0.0050	1	11/18/2018 02:07
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/18/2018 02:07
Methylene chloride	ND	0.010	1	11/18/2018 02:07
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/18/2018 02:07
Naphthalene	ND	0.0050	1	11/18/2018 02:07
n-Propyl benzene	ND	0.0050	1	11/18/2018 02:07
Styrene	ND	0.0050	1	11/18/2018 02:07
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 02:07
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 02:07
Tetrachloroethene	ND	0.0050	1	11/18/2018 02:07
Toluene	ND	0.0050	1	11/18/2018 02:07
1,2,3-Trichlorobenzene	ND	0.0050	1	11/18/2018 02:07
1,2,4-Trichlorobenzene	ND	0.0050	1	11/18/2018 02:07
1,1,1-Trichloroethane	ND	0.0050	1	11/18/2018 02:07
1,1,2-Trichloroethane	ND	0.0050	1	11/18/2018 02:07
Trichloroethene	ND	0.0050	1	11/18/2018 02:07
Trichlorofluoromethane	ND	0.0050	1	11/18/2018 02:07
1,2,3-Trichloropropane	ND	0.0050	1	11/18/2018 02:07
1,2,4-Trimethylbenzene	ND	0.0050	1	11/18/2018 02:07
1,3,5-Trimethylbenzene	ND	0.0050	1	11/18/2018 02:07
Vinyl Chloride	ND	0.0050	1	11/18/2018 02:07
m,p-Xylene	ND	0.0050	1	11/18/2018 02:07
o-Xylene	ND	0.0050	1	11/18/2018 02:07
Xylenes, Total	ND	0.0050	1	11/18/2018 02:07

(Cont.)

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	GC10 11161863.D	168247

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	82	82-136		11/18/2018 02:07
Toluene-d8	99	92-139		11/18/2018 02:07
4-BFB	84	82-135		11/18/2018 02:07
Benzene-d6	93	55-122		11/18/2018 02:07
Ethylbenzene-d10	105	58-141		11/18/2018 02:07
1,2-DCB-d4	86	51-107		11/18/2018 02:07

Analyst(s): TK

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	GC10 11161864.D	168247

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/18/2018 02:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/18/2018 02:46
Benzene	ND	0.0050	1	11/18/2018 02:46
Bromobenzene	ND	0.0050	1	11/18/2018 02:46
Bromochloromethane	ND	0.0050	1	11/18/2018 02:46
Bromodichloromethane	ND	0.0050	1	11/18/2018 02:46
Bromoform	ND	0.0050	1	11/18/2018 02:46
Bromomethane	ND	0.0050	1	11/18/2018 02:46
2-Butanone (MEK)	ND	0.020	1	11/18/2018 02:46
t-Butyl alcohol (TBA)	ND	0.050	1	11/18/2018 02:46
n-Butyl benzene	ND	0.0050	1	11/18/2018 02:46
sec-Butyl benzene	ND	0.0050	1	11/18/2018 02:46
tert-Butyl benzene	ND	0.0050	1	11/18/2018 02:46
Carbon Disulfide	ND	0.0050	1	11/18/2018 02:46
Carbon Tetrachloride	ND	0.0050	1	11/18/2018 02:46
Chlorobenzene	ND	0.0050	1	11/18/2018 02:46
Chloroethane	ND	0.0050	1	11/18/2018 02:46
Chloroform	ND	0.0050	1	11/18/2018 02:46
Chloromethane	ND	0.0050	1	11/18/2018 02:46
2-Chlorotoluene	ND	0.0050	1	11/18/2018 02:46
4-Chlorotoluene	ND	0.0050	1	11/18/2018 02:46
Dibromochloromethane	ND	0.0050	1	11/18/2018 02:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/18/2018 02:46
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/18/2018 02:46
Dibromomethane	ND	0.0050	1	11/18/2018 02:46
1,2-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:46
1,3-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:46
1,4-Dichlorobenzene	ND	0.0050	1	11/18/2018 02:46
Dichlorodifluoromethane	ND	0.0050	1	11/18/2018 02:46
1,1-Dichloroethane	ND	0.0050	1	11/18/2018 02:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/18/2018 02:46
1,1-Dichloroethene	ND	0.0050	1	11/18/2018 02:46
cis-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 02:46
trans-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 02:46
1,2-Dichloropropane	ND	0.0050	1	11/18/2018 02:46
1,3-Dichloropropane	ND	0.0050	1	11/18/2018 02:46
2,2-Dichloropropane	ND	0.0050	1	11/18/2018 02:46

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	GC10 11161864.D	168247

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/18/2018 02:46
cis-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 02:46
trans-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 02:46
Diisopropyl ether (DIPE)	ND	0.0050	1	11/18/2018 02:46
Ethylbenzene	ND	0.0050	1	11/18/2018 02:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/18/2018 02:46
Freon 113	ND	0.0050	1	11/18/2018 02:46
Hexachlorobutadiene	ND	0.0050	1	11/18/2018 02:46
Hexachloroethane	ND	0.0050	1	11/18/2018 02:46
2-Hexanone	ND	0.0050	1	11/18/2018 02:46
Isopropylbenzene	ND	0.0050	1	11/18/2018 02:46
4-Isopropyl toluene	ND	0.0050	1	11/18/2018 02:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/18/2018 02:46
Methylene chloride	ND	0.010	1	11/18/2018 02:46
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/18/2018 02:46
Naphthalene	ND	0.0050	1	11/18/2018 02:46
n-Propyl benzene	ND	0.0050	1	11/18/2018 02:46
Styrene	ND	0.0050	1	11/18/2018 02:46
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 02:46
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 02:46
Tetrachloroethene	ND	0.0050	1	11/18/2018 02:46
Toluene	ND	0.0050	1	11/18/2018 02:46
1,2,3-Trichlorobenzene	ND	0.0050	1	11/18/2018 02:46
1,2,4-Trichlorobenzene	ND	0.0050	1	11/18/2018 02:46
1,1,1-Trichloroethane	ND	0.0050	1	11/18/2018 02:46
1,1,2-Trichloroethane	ND	0.0050	1	11/18/2018 02:46
Trichloroethene	ND	0.0050	1	11/18/2018 02:46
Trichlorofluoromethane	ND	0.0050	1	11/18/2018 02:46
1,2,3-Trichloropropane	ND	0.0050	1	11/18/2018 02:46
1,2,4-Trimethylbenzene	ND	0.0050	1	11/18/2018 02:46
1,3,5-Trimethylbenzene	ND	0.0050	1	11/18/2018 02:46
Vinyl Chloride	ND	0.0050	1	11/18/2018 02:46
m,p-Xylene	ND	0.0050	1	11/18/2018 02:46
o-Xylene	ND	0.0050	1	11/18/2018 02:46
Xylenes, Total	ND	0.0050	1	11/18/2018 02:46

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	GC10 11161864.D	168247

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	82	82-136		11/18/2018 02:46
Toluene-d8	100	92-139		11/18/2018 02:46
4-BFB	86	82-135		11/18/2018 02:46
Benzene-d6	85	55-122		11/18/2018 02:46
Ethylbenzene-d10	98	58-141		11/18/2018 02:46
1,2-DCB-d4	81	51-107		11/18/2018 02:46

Analyst(s): TK

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	GC10 11161865.D	168247

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/18/2018 03:26
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/18/2018 03:26
Benzene	ND	0.0050	1	11/18/2018 03:26
Bromobenzene	ND	0.0050	1	11/18/2018 03:26
Bromochloromethane	ND	0.0050	1	11/18/2018 03:26
Bromodichloromethane	ND	0.0050	1	11/18/2018 03:26
Bromoform	ND	0.0050	1	11/18/2018 03:26
Bromomethane	ND	0.0050	1	11/18/2018 03:26
2-Butanone (MEK)	ND	0.020	1	11/18/2018 03:26
t-Butyl alcohol (TBA)	ND	0.050	1	11/18/2018 03:26
n-Butyl benzene	ND	0.0050	1	11/18/2018 03:26
sec-Butyl benzene	ND	0.0050	1	11/18/2018 03:26
tert-Butyl benzene	ND	0.0050	1	11/18/2018 03:26
Carbon Disulfide	ND	0.0050	1	11/18/2018 03:26
Carbon Tetrachloride	ND	0.0050	1	11/18/2018 03:26
Chlorobenzene	ND	0.0050	1	11/18/2018 03:26
Chloroethane	ND	0.0050	1	11/18/2018 03:26
Chloroform	ND	0.0050	1	11/18/2018 03:26
Chloromethane	ND	0.0050	1	11/18/2018 03:26
2-Chlorotoluene	ND	0.0050	1	11/18/2018 03:26
4-Chlorotoluene	ND	0.0050	1	11/18/2018 03:26
Dibromochloromethane	ND	0.0050	1	11/18/2018 03:26
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/18/2018 03:26
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/18/2018 03:26
Dibromomethane	ND	0.0050	1	11/18/2018 03:26
1,2-Dichlorobenzene	ND	0.0050	1	11/18/2018 03:26
1,3-Dichlorobenzene	ND	0.0050	1	11/18/2018 03:26
1,4-Dichlorobenzene	ND	0.0050	1	11/18/2018 03:26
Dichlorodifluoromethane	ND	0.0050	1	11/18/2018 03:26
1,1-Dichloroethane	ND	0.0050	1	11/18/2018 03:26
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/18/2018 03:26
1,1-Dichloroethene	ND	0.0050	1	11/18/2018 03:26
cis-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 03:26
trans-1,2-Dichloroethene	ND	0.0050	1	11/18/2018 03:26
1,2-Dichloropropane	ND	0.0050	1	11/18/2018 03:26
1,3-Dichloropropane	ND	0.0050	1	11/18/2018 03:26
2,2-Dichloropropane	ND	0.0050	1	11/18/2018 03:26

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	GC10 11161865.D	168247

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	11/18/2018 03:26
cis-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 03:26
trans-1,3-Dichloropropene	ND	0.0050	1	11/18/2018 03:26
Diisopropyl ether (DIPE)	ND	0.0050	1	11/18/2018 03:26
Ethylbenzene	ND	0.0050	1	11/18/2018 03:26
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/18/2018 03:26
Freon 113	ND	0.0050	1	11/18/2018 03:26
Hexachlorobutadiene	ND	0.0050	1	11/18/2018 03:26
Hexachloroethane	ND	0.0050	1	11/18/2018 03:26
2-Hexanone	ND	0.0050	1	11/18/2018 03:26
Isopropylbenzene	ND	0.0050	1	11/18/2018 03:26
4-Isopropyl toluene	ND	0.0050	1	11/18/2018 03:26
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/18/2018 03:26
Methylene chloride	ND	0.010	1	11/18/2018 03:26
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/18/2018 03:26
Naphthalene	ND	0.0050	1	11/18/2018 03:26
n-Propyl benzene	ND	0.0050	1	11/18/2018 03:26
Styrene	ND	0.0050	1	11/18/2018 03:26
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 03:26
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/18/2018 03:26
Tetrachloroethene	ND	0.0050	1	11/18/2018 03:26
Toluene	ND	0.0050	1	11/18/2018 03:26
1,2,3-Trichlorobenzene	ND	0.0050	1	11/18/2018 03:26
1,2,4-Trichlorobenzene	ND	0.0050	1	11/18/2018 03:26
1,1,1-Trichloroethane	ND	0.0050	1	11/18/2018 03:26
1,1,2-Trichloroethane	ND	0.0050	1	11/18/2018 03:26
Trichloroethene	ND	0.0050	1	11/18/2018 03:26
Trichlorofluoromethane	ND	0.0050	1	11/18/2018 03:26
1,2,3-Trichloropropane	ND	0.0050	1	11/18/2018 03:26
1,2,4-Trimethylbenzene	ND	0.0050	1	11/18/2018 03:26
1,3,5-Trimethylbenzene	ND	0.0050	1	11/18/2018 03:26
Vinyl Chloride	ND	0.0050	1	11/18/2018 03:26
m,p-Xylene	ND	0.0050	1	11/18/2018 03:26
o-Xylene	ND	0.0050	1	11/18/2018 03:26
Xylenes, Total	ND	0.0050	1	11/18/2018 03:26

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8260B
Project:	118EMO1181; Stravinski	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	GC10 11161865.D	168247

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	84	82-136		11/18/2018 03:26
Toluene-d8	100	92-139		11/18/2018 03:26
4-BFB	86	82-135		11/18/2018 03:26
Benzene-d6	94	55-122		11/18/2018 03:26
Ethylbenzene-d10	108	58-141		11/18/2018 03:26
1,2-DCB-d4	87	51-107		11/18/2018 03:26

Analyst(s): TK

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW3050B
Date Prepared:	11/12/18	**Analytical Method:**	SW6020
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	ICP-MS1 077SMPL.D	168291

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.55**	0.50	1	11/14/2018 15:52
Arsenic	**8.3**	0.50	1	11/14/2018 15:52
Barium	**370**	5.0	1	11/14/2018 15:52
Beryllium	**0.74**	0.50	1	11/14/2018 15:52
Cadmium	**0.43**	0.25	1	11/14/2018 15:52
Chromium	**27**	0.50	1	11/14/2018 15:52
Cobalt	**10**	0.50	1	11/14/2018 15:52
Copper	**34**	0.50	1	11/14/2018 15:52
Lead	**10**	0.50	1	11/14/2018 15:52
Mercury	ND	0.050	1	11/14/2018 15:52
Molybdenum	**0.54**	0.50	1	11/14/2018 15:52
Nickel	**30**	0.50	1	11/14/2018 15:52
Selenium	ND	0.50	1	11/14/2018 15:52
Silver	ND	0.50	1	11/14/2018 15:52
Thallium	ND	0.50	1	11/14/2018 15:52
Vanadium	**54**	0.50	1	11/14/2018 15:52
Zinc	**78**	5.0	1	11/14/2018 15:52

Surrogates	REC (%)	Limits	
Terbium	107	70-130	11/14/2018 15:52

Analyst(s): JC

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW3050B
Date Prepared:	11/12/18	**Analytical Method:**	SW6020
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	ICP-MS1 078SMPL.D	168291

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/14/2018 15:58
Arsenic	**5.6**	0.50	1	11/14/2018 15:58
Barium	**160**	5.0	1	11/14/2018 15:58
Beryllium	ND	0.50	1	11/14/2018 15:58
Cadmium	ND	0.25	1	11/14/2018 15:58
Chromium	**17**	0.50	1	11/14/2018 15:58
Cobalt	**9.5**	0.50	1	11/14/2018 15:58
Copper	**18**	0.50	1	11/14/2018 15:58
Lead	**5.2**	0.50	1	11/14/2018 15:58
Mercury	ND	0.050	1	11/14/2018 15:58
Molybdenum	**1.5**	0.50	1	11/14/2018 15:58
Nickel	**19**	0.50	1	11/14/2018 15:58
Selenium	ND	0.50	1	11/14/2018 15:58
Silver	ND	0.50	1	11/14/2018 15:58
Thallium	ND	0.50	1	11/14/2018 15:58
Vanadium	**37**	0.50	1	11/14/2018 15:58
Zinc	**50**	5.0	1	11/14/2018 15:58

Surrogates	REC (%)	Limits	
Terbium	107	70-130	11/14/2018 15:58

Analyst(s): JC

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW3050B
Date Prepared:	11/12/18	**Analytical Method:**	SW6020
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	ICP-MS1 082SMPL.D	168291

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.64**	0.50	1	11/14/2018 16:23
Arsenic	**11**	0.50	1	11/14/2018 16:23
Barium	**100**	5.0	1	11/14/2018 16:23
Beryllium	**0.67**	0.50	1	11/14/2018 16:23
Cadmium	ND	0.25	1	11/14/2018 16:23
Chromium	**38**	0.50	1	11/14/2018 16:23
Cobalt	**18**	0.50	1	11/14/2018 16:23
Copper	**59**	0.50	1	11/14/2018 16:23
Lead	**11**	0.50	1	11/14/2018 16:23
Mercury	**0.072**	0.050	1	11/14/2018 16:23
Molybdenum	**0.57**	0.50	1	11/14/2018 16:23
Nickel	**47**	0.50	1	11/14/2018 16:23
Selenium	ND	0.50	1	11/14/2018 16:23
Silver	ND	0.50	1	11/14/2018 16:23
Thallium	ND	0.50	1	11/14/2018 16:23
Vanadium	**80**	0.50	1	11/14/2018 16:23
Zinc	**93**	5.0	1	11/14/2018 16:23

Surrogates	REC (%)	Limits	
Terbium	106	70-130	11/14/2018 16:23

Analyst(s): MIG

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8021B/8015Bm
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	GC7 11191813.D	168285

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/19/2018 12:14
MTBE	---	0.050	1	11/19/2018 12:14
Benzene	---	0.0050	1	11/19/2018 12:14
Toluene	---	0.0050	1	11/19/2018 12:14
Ethylbenzene	---	0.0050	1	11/19/2018 12:14
m,p-Xylene	---	0.010	1	11/19/2018 12:14
o-Xylene	---	0.0050	1	11/19/2018 12:14
Xylenes	---	0.0050	1	11/19/2018 12:14

Surrogates	REC (%)	Limits	
2-Fluorotoluene	73	62-126	11/19/2018 12:14

Analyst(s): HD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	GC7 11191814.D	168285

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/19/2018 12:44
MTBE	---	0.050	1	11/19/2018 12:44
Benzene	---	0.0050	1	11/19/2018 12:44
Toluene	---	0.0050	1	11/19/2018 12:44
Ethylbenzene	---	0.0050	1	11/19/2018 12:44
m,p-Xylene	---	0.010	1	11/19/2018 12:44
o-Xylene	---	0.0050	1	11/19/2018 12:44
Xylenes	---	0.0050	1	11/19/2018 12:44

Surrogates	REC (%)	Limits	
2-Fluorotoluene	77	62-126	11/19/2018 12:44

Analyst(s): HD

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW5030B
Date Prepared:	11/12/18	**Analytical Method:**	SW8021B/8015Bm
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	GC7 11191815.D	168285

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	11/19/2018 13:15
MTBE	---	0.050	1	11/19/2018 13:15
Benzene	---	0.0050	1	11/19/2018 13:15
Toluene	---	0.0050	1	11/19/2018 13:15
Ethylbenzene	---	0.0050	1	11/19/2018 13:15
m,p-Xylene	---	0.010	1	11/19/2018 13:15
o-Xylene	---	0.0050	1	11/19/2018 13:15
Xylenes	---	0.0050	1	11/19/2018 13:15

Surrogates	REC (%)	Limits	
2-Fluorotoluene	76	62-126	11/19/2018 13:15

Analyst(s): HD

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Analytical Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Received:	11/7/18 16:25	**Extraction Method:**	SW3550B
Date Prepared:	11/12/18	**Analytical Method:**	SW8015B
Project:	118EMO1181; Stravinski	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 10-10.5	1811490-002A	Soil	11/06/2018 10:35	GC9b 11181821.D	168288

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/18/2018 16:18
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/18/2018 16:18

Surrogates	REC (%)	Limits	
C9	83	74-123	11/18/2018 16:18

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 20-20.5	1811490-004A	Soil	11/06/2018 11:00	GC9b 11181817.D	168288

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/18/2018 15:00
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/18/2018 15:00

Surrogates	REC (%)	Limits	
C9	82	74-123	11/18/2018 15:00

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2, 38-38.5	1811490-006A	Soil	11/06/2018 14:00	GC6A 11191822.D	168288

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/19/2018 15:38
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/19/2018 15:38

Surrogates	REC (%)	Limits	
C9	107	74-123	11/19/2018 15:38

Analyst(s): JIS

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0050	-	-	-
Benzene	ND	0.0050	-	-	-
Bromobenzene	ND	0.0050	-	-	-
Bromochloromethane	ND	0.0050	-	-	-
Bromodichloromethane	ND	0.0050	-	-	-
Bromoform	ND	0.0050	-	-	-
Bromomethane	ND	0.0050	-	-	-
2-Butanone (MEK)	ND	0.020	-	-	-
t-Butyl alcohol (TBA)	ND	0.050	-	-	-
n-Butyl benzene	ND	0.0050	-	-	-
sec-Butyl benzene	ND	0.0050	-	-	-
tert-Butyl benzene	ND	0.0050	-	-	-
Carbon Disulfide	ND	0.0050	-	-	-
Carbon Tetrachloride	ND	0.0050	-	-	-
Chlorobenzene	ND	0.0050	-	-	-
Chloroethane	ND	0.0050	-	-	-
Chloroform	ND	0.0050	-	-	-
Chloromethane	ND	0.0050	-	-	-
2-Chlorotoluene	ND	0.0050	-	-	-
4-Chlorotoluene	ND	0.0050	-	-	-
Dibromochloromethane	ND	0.0050	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0040	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0040	-	-	-
Dibromomethane	ND	0.0050	-	-	-
1,2-Dichlorobenzene	ND	0.0050	-	-	-
1,3-Dichlorobenzene	ND	0.0050	-	-	-
1,4-Dichlorobenzene	ND	0.0050	-	-	-
Dichlorodifluoromethane	ND	0.0050	-	-	-
1,1-Dichloroethane	ND	0.0050	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	-	-	-
1,1-Dichloroethene	ND	0.0050	-	-	-
cis-1,2-Dichloroethene	ND	0.0050	-	-	-
trans-1,2-Dichloroethene	ND	0.0050	-	-	-
1,2-Dichloropropane	ND	0.0050	-	-	-
1,3-Dichloropropane	ND	0.0050	-	-	-
2,2-Dichloropropane	ND	0.0050	-	-	-
1,1-Dichloropropene	ND	0.0050	-	-	-

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.0050	-	-	-
trans-1,3-Dichloropropene	ND	0.0050	-	-	-
Diisopropyl ether (DIPE)	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0050	-	-	-
Freon 113	ND	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0050	-	-	-
Hexachloroethane	ND	0.0050	-	-	-
2-Hexanone	ND	0.0050	-	-	-
Isopropylbenzene	ND	0.0050	-	-	-
4-Isopropyl toluene	ND	0.0050	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0050	-	-	-
Methylene chloride	ND	0.010	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.0050	-	-	-
Naphthalene	ND	0.0050	-	-	-
n-Propyl benzene	ND	0.0050	-	-	-
Styrene	ND	0.0050	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0050	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0050	-	-	-
Tetrachloroethene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
1,2,3-Trichlorobenzene	ND	0.0050	-	-	-
1,2,4-Trichlorobenzene	ND	0.0050	-	-	-
1,1,1-Trichloroethane	ND	0.0050	-	-	-
1,1,2-Trichloroethane	ND	0.0050	-	-	-
Trichloroethene	ND	0.0050	-	-	-
Trichlorofluoromethane	ND	0.0050	-	-	-
1,2,3-Trichloropropane	ND	0.0050	-	-	-
1,2,4-Trimethylbenzene	ND	0.0050	-	-	-
1,3,5-Trimethylbenzene	ND	0.0050	-	-	-
Vinyl Chloride	ND	0.0050	-	-	-
m,p-Xylene	ND	0.0050	-	-	-
o-Xylene	ND	0.0050	-	-	-
Xylenes, Total	ND	0.0050	-	-	-

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery					
Dibromofluoromethane	0.11		0.12	88	87-127
Toluene-d8	0.12		0.12	98	93-141
4-BFB	0.011		0.012	86	84-137
Benzene-d6	0.12		0.10	124	60-140
Ethylbenzene-d10	0.12		0.10	122	60-140
1,2-DCB-d4	0.085		0.10	85	60-140

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	0.97	0.87	1	97	87	48-156	10.8	20
tert-Amyl methyl ether (TAME)	0.039	0.035	0.050	79	71	56-115	10.5	20
Benzene	0.047	0.042	0.050	95	84	63-131	12.3	20
Bromobenzene	0.046	0.040	0.050	91	80	66-127	12.7	20
Bromochloromethane	0.044	0.039	0.050	89	79	64-124	12.1	20
Bromodichloromethane	0.043	0.039	0.050	87	78	64-120	10.3	20
Bromoform	0.034	0.031	0.050	67	61	48-92	9.72	20
Bromomethane	0.066	0.056	0.050	133	112	25-163	17.5	20
2-Butanone (MEK)	0.18	0.16	0.20	88	79	51-133	11.0	20
t-Butyl alcohol (TBA)	0.16	0.14	0.20	78	70	52-129	11.3	20
n-Butyl benzene	0.064	0.055	0.050	127	111	83-200	14.1	20
sec-Butyl benzene	0.065	0.056	0.050	131	111	81-199	16.2	20
tert-Butyl benzene	0.059	0.051	0.050	118	101	79-178	15.3	20
Carbon Disulfide	0.050	0.043	0.050	100	86	64-136	14.8	20
Carbon Tetrachloride	0.049	0.043	0.050	97	85	66-140	12.9	20
Chlorobenzene	0.046	0.041	0.050	92	81	73-116	12.2	20
Chloroethane	0.063	0.052	0.050	126	105	35-147	18.1	20
Chloroform	0.047	0.042	0.050	94	83	65-130	11.5	20
Chloromethane	0.053	0.044	0.050	105	88	30-137	18.0	20
2-Chlorotoluene	0.058	0.050	0.050	115	101	75-152	13.4	20
4-Chlorotoluene	0.053	0.046	0.050	107	93	71-148	14.0	20
Dibromochloromethane	0.042	0.037	0.050	83	75	61-106	11.0	20
1,2-Dibromo-3-chloropropane	0.014	0.013	0.020	70	65	36-120	7.42	20
1,2-Dibromoethane (EDB)	0.042	0.038	0.050	85	76	67-118	10.8	20
Dibromomethane	0.040	0.036	0.050	81	73	61-116	10.7	20
1,2-Dichlorobenzene	0.039	0.036	0.050	79	72	59-106	9.30	20
1,3-Dichlorobenzene	0.052	0.046	0.050	104	91	75-129	13.2	20
1,4-Dichlorobenzene	0.046	0.040	0.050	92	81	66-127	12.8	20
Dichlorodifluoromethane	0.031	0.024	0.050	62	49	13-74	24.4,F2	20
1,1-Dichloroethane	0.047	0.042	0.050	95	84	65-134	12.1	20
1,2-Dichloroethane (1,2-DCA)	0.042	0.038	0.050	84	76	57-131	9.70	20
1,1-Dichloroethene	0.048	0.042	0.050	96	84	62-127	13.6	20
cis-1,2-Dichloroethene	0.046	0.041	0.050	92	82	66-130	11.4	20
trans-1,2-Dichloroethene	0.048	0.042	0.050	96	84	60-131	13.8	20
1,2-Dichloropropane	0.045	0.041	0.050	91	81	63-127	11.0	20
1,3-Dichloropropane	0.044	0.039	0.050	87	79	68-124	10.5	20
2,2-Dichloropropane	0.048	0.042	0.050	95	84	63-150	12.7	20
1,1-Dichloropropene	0.048	0.042	0.050	97	85	67-134	13.4	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.048	0.043	0.050	96	85	65-138	11.6	20
trans-1,3-Dichloropropene	0.048	0.043	0.050	96	86	66-124	11.3	20
Diisopropyl ether (DIPE)	0.045	0.040	0.050	90	81	58-129	11.2	20
Ethylbenzene	0.051	0.044	0.050	102	89	73-145	14.2	20
Ethyl tert-butyl ether (ETBE)	0.044	0.039	0.050	87	79	62-125	10.2	20
Freon 113	0.043	0.037	0.050	86	73	55-116	15.1	20
Hexachlorobutadiene	0.056	0.050	0.050	112	100	75-178	11.8	20
Hexachloroethane	0.061	0.053	0.050	121	106	75-152	13.4	20
2-Hexanone	0.036	0.033	0.050	73	66	41-113	10.4	20
Isopropylbenzene	0.054	0.047	0.050	108	93	67-172	14.4	20
4-Isopropyl toluene	0.061	0.052	0.050	123	105	88-171	15.6	20
Methyl-t-butyl ether (MTBE)	0.042	0.037	0.050	83	75	58-122	10.6	20
Methylene chloride	0.046	0.041	0.050	93	82	57-140	12.9	20
4-Methyl-2-pentanone (MIBK)	0.037	0.032	0.050	73	65	42-117	12.2	20
Naphthalene	0.022	0.020	0.050	44	39	29-65	10.4	20
n-Propyl benzene	0.064	0.054	0.050	128	108	85-174	16.7	20
Styrene	0.044	0.038	0.050	87	77	63-126	12.7	20
1,1,1,2-Tetrachloroethane	0.045	0.041	0.050	91	82	68-131	10.8	20
1,1,2,2-Tetrachloroethane	0.039	0.033	0.050	77	66	45-121	16.6	20
Tetrachloroethene	0.051	0.045	0.050	102	89	65-150	13.6	20
Toluene	0.050	0.043	0.050	100	87	72-135	14.3	20
1,2,3-Trichlorobenzene	0.026	0.025	0.050	53	51	35-80	4.39	20
1,2,4-Trichlorobenzene	0.033	0.031	0.050	67	62	45-103	6.76	20
1,1,1-Trichloroethane	0.046	0.041	0.050	93	82	67-137	12.1	20
1,1,2-Trichloroethane	0.042	0.038	0.050	85	76	67-117	11.0	20
Trichloroethene	0.047	0.043	0.050	94	86	62-135	9.01	20
Trichlorofluoromethane	0.043	0.037	0.050	86	75	56-124	14.6	20
1,2,3-Trichloropropane	0.044	0.038	0.050	88	76	58-133	13.9	20
1,2,4-Trimethylbenzene	0.055	0.049	0.050	110	98	78-161	12.3	20
1,3,5-Trimethylbenzene	0.058	0.051	0.050	116	102	85-170	12.6	20
Vinyl Chloride	0.055	0.045	0.050	109	91	32-142	18.7	20
m,p-Xylene	0.10	0.089	0.10	102	89	70-138	13.8	20
o-Xylene	0.050	0.043	0.050	99	87	69-135	13.2	20
Xylenes, Total	0.15	0.13	0.15	101	88	70-137	13.6	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168247
Date Analyzed:	11/13/18 - 11/14/18	**Extraction Method:**	SW5030B
Instrument:	GC16, GC18	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168247

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.11	0.11	0.12	91	91	87-127	0	20
Toluene-d8	0.12	0.12	0.12	99	97	93-141	1.12	20
4-BFB	0.011	0.011	0.012	85	86	84-137	0.828	20
Benzene-d6	0.11	0.10	0.10	110	101	60-140	9.07	30
Ethylbenzene-d10	0.11	0.10	0.10	113	102	60-140	9.77	30
1,2-DCB-d4	0.085	0.080	0.10	85	80	60-140	6.63	30

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168291
Date Analyzed:	11/13/18	**Extraction Method:**	SW3050B
Instrument:	ICP-MS3	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/Kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168291

QC Summary Report for Metals

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.50	-	-	-
Arsenic	ND	0.50	-	-	-
Barium	ND	5.0	-	-	-
Beryllium	ND	0.50	-	-	-
Cadmium	ND	0.25	-	-	-
Chromium	ND	0.50	-	-	-
Cobalt	ND	0.50	-	-	-
Copper	ND	0.50	-	-	-
Lead	ND	0.50	-	-	-
Mercury	ND	0.050	-	-	-
Molybdenum	ND	0.50	-	-	-
Nickel	ND	0.50	-	-	-
Selenium	ND	0.50	-	-	-
Silver	ND	0.50	-	-	-
Thallium	ND	0.50	-	-	-
Vanadium	ND	0.50	-	-	-
Zinc	ND	5.0	-	-	-
Surrogate Recovery					
Terbium	510		500	101	70-130

(Cont.)

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168291
Date Analyzed:	11/13/18	**Extraction Method:**	SW3050B
Instrument:	ICP-MS3	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/Kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168291

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	53	54	50	107	108	75-125	1.12	20
Arsenic	49	48	50	99	97	75-125	1.86	20
Barium	510	510	500	102	102	75-125	0	20
Beryllium	49	49	50	98	97	75-125	1.19	20
Cadmium	50	49	50	99	98	75-125	1.07	20
Chromium	49	49	50	99	98	75-125	0.446	20
Cobalt	51	50	50	101	100	75-125	1.59	20
Copper	49	49	50	98	98	75-125	0	20
Lead	50	50	50	100	99	75-125	1.16	20
Mercury	1.3	1.3	1.25	101	101	75-125	0	20
Molybdenum	50	51	50	100	101	75-125	1.23	20
Nickel	50	49	50	99	99	75-125	0	20
Selenium	50	50	50	100	100	75-125	0	20
Silver	47	48	50	95	95	75-125	0	20
Thallium	48	48	50	95	96	75-125	0.294	20
Vanadium	49	49	50	99	98	75-125	0.549	20
Zinc	500	490	500	100	99	75-125	0.907	20
Surrogate Recovery								
Terbium	510	510	500	102	102	70-130	0	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168285
Date Analyzed:	11/13/18	**Extraction Method:**	SW5030B
Instrument:	GC7	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Soil	**Unit:**	mg/Kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168285

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
m,p-Xylene	ND	0.010	-	-	-
o-Xylene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-
Surrogate Recovery					
2-Fluorotoluene	0.11		0.10	111	75-134

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.63	0.63	0.60	105	105	82-118	0	20
MTBE	0.087	0.087	0.10	87	87	61-119	0	20
Benzene	0.10	0.11	0.10	104	110	77-128	5.18	20
Toluene	0.11	0.12	0.10	110	115	74-132	4.18	20
Ethylbenzene	0.10	0.11	0.10	104	108	84-127	3.77	20
m,p-Xylene	0.22	0.23	0.20	112	116	80-120	2.95	20
o-Xylene	0.11	0.11	0.10	105	108	80-120	2.41	20
Xylenes	0.33	0.34	0.30	110	113	86-129	2.78	20
Surrogate Recovery								
2-Fluorotoluene	0.078	0.079	0.10	78	79	75-134	1.25	20

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Quality Control Report

Client:	ATC Group Services	**WorkOrder:**	1811490
Date Prepared:	11/12/18	**BatchID:**	168288
Date Analyzed:	11/13/18	**Extraction Method:**	SW3550B
Instrument:	GC11B	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	118EMO1181; Stravinski	**Sample ID:**	MB/LCS/LCSD-168288

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	1.0	-	-	-
TPH-Motor Oil (C18-C36)	ND	5.0	-	-	-
Surrogate Recovery					
C9	26		25	102	72-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	38	39	40	95	96	75-128	1.60	30
Surrogate Recovery								
C9	25	25	25	100	101	72-122	0.687	30

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1811490 **ClientCode: ATCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ▣ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
▣ Detection Summary ▣ Dry-Weight

Report to:
Bryan Campbell
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
(925) 460-5300 FAX: (925) 328-1090

Email: bryan.campbell@atcassociates.com
cc/3rd Party:
PO:
Project: 118EMO1181; Stravinski

Bill to:
Accounts Payable
ATC Group Services
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
kim.neep@atcgs.com

Requested TAT: **5 days;**

Date Received: **11/07/2018**
Date Logged: **11/12/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1811490-002	SB-2, 10-10.5	Soil	11/6/2018 10:35	☐	A	A	A	A								
1811490-004	SB-2, 20-20.5	Soil	11/6/2018 11:00	☐	A	A	A	A								
1811490-006	SB-2, 38-38.5	Soil	11/6/2018 14:00	☐	A	A	A	A								

Test Legend:

1	8260B_S	2	CAM17MS_TTLC_S	3	G-MBTEX_S	4	TPH(DMO)_S
5		6		7		8	
9		10		11		12	

Prepared by: Lilly Ortiz

The following SampIDs: 002A, 004A, 006A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: ATC GROUP SERVICES
Client Contact: Bryan Campbell
Contact's Email: bryan.campbell@atcassociates.com

Project: 118EMO1181; Stravinski
Comments

Work Order: 1811490
QC Level: LEVEL 2
Date Logged: 11/12/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1811490-001A	SB-2, 5-5.5	Soil		1	Acetate Liner	☐	11/6/2018 10:30			☑	
1811490-002A	SB-2, 10-10.5	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	☐	11/6/2018 10:35	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
1811490-003A	SB-2, 15-15.5	Soil		1	Acetate Liner	☐	11/6/2018 10:40			☑	
1811490-004A	SB-2, 20-20.5	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	☐	11/6/2018 11:00	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
1811490-005A	SB-2, 27-27.5	Soil		1	Acetate Liner	☐	11/6/2018 12:20			☑	
1811490-006A	SB-2, 38-38.5	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	☐	11/6/2018 14:00	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

MAI Work Order # 18114490

2042

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: PDF ● | GeoTracker EDF | EDD | Write On (DW) | EQuIS

Report To: Bryan Campbell — Bill To: ATC Group Services LLC
Company: ATC Group Services LLC
Email: bryan.campbell@atcgs.com
Alt Email: Tele: 925-804-2858
Project Name: Stravinski — Project #: 118EM01181
Project Location: American Canyon, CA — PO #
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	TPH by 8015	VOCs by 8260	CAM 17 Metals	HOLD
SB-2, 5-5.5	11/6/2018	1030	1	SOIL					●
SB-2, 10-10.5	11/6/2018	1035	1	SOIL		X	X	X	●
SB-2, 15-15.5	11/6/2018	1040	1	SOIL					●
SB-2, 20-20.5	11/6/2018	1100	1	SOIL		X	X	X	●
SB-2, 27-27.5	11/6/2018	1220	1	SOIL					●
SB-2, 38-38.5	11/6/2018	1400	1	SOIL		X	X	X	●

Analysis Requested

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions: All samples preserved with ice

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
ATC	11/6/2018	1900		11/7/18	1445
	11/7/18	1625	Libby Ortiz	11/7/18	1625

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 4.8 °C Initials

* Taken off hold today per client email. 11/12/18

Page 1 of 1

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Sample Receipt Checklist

Client Name: **ATC Group Services**
Project: **118EMO1181; Stravinski**

WorkOrder №: **1811490** Matrix: Soil
Carrier: Benjamin Yslas (MAI Courier)

Date and Time Received: **11/7/2018 16:25**
Date Logged: **11/12/2018**
Received by: Lilly Ortiz
Logged by: Lilly Ortiz

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 4.8°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

Attachment D

Phase I Environmental Site Assessment



PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF

SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN CANYON, CALIFORNIA 94503

ATC PROJECT NO. 118EM01173

JUNE 6, 2018

Prepared by:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, California 94583
Phone: (925) 460-5300
Fax: (925) 328-1090

Prepared for:

Mr. Brian Doswald
Stravinski Development Group
413 West Yosemite Avenue, Suite 105
Madera, California 93637
Email: bdoswald@icc-stravinski.com

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1.0 EXECUTIVE SUMMARY

1.1 General Information

Project Information:
SDG Commerce 330 Distribution Center
118EM01173

Consultant Information:
ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, California 94583
Telephone: (925) 460-5300
Fax: (925) 328-1090
Reconnaissance Date: April 5, 2018
Site Assessor: Gyan Rusconi-Rodrigues
Senior Reviewer: Bryan Campbell
Environmental Professional: Bryan Campbell

Site Information:
SDG Commerce 330 Distribution Center
Commerce Boulevard
American Canyon, California 94503
Napa County

Site Access Contact:
Mr. Brian Doswald
Stravinski Development Group

Client Information:
Stravinski Development Group
Mr. Brian Doswald
413 East Yosemite Avenue, Suite 105
Madera, California 93637
Phone: (559) 674-0906
Fax: (559) 661-7506

Environmental Professional Statement:
I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in § 312.10 part of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Gyan Rusconi-Rodrigues, Project Scientist
Site Assessor/Report Author



Bryan Campbell, EP
Senior Reviewer



Bryan Campbell, PG, GHG, Project Manager
Branch Manager

1.2 Findings and Conclusions Summary

ATC has performed this Phase I Environmental Site Assessment (ESA) of the property in conformance with the scope and limitations of ASTM Standard Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property, except as noted in the summary of report findings and conclusions below.

FINDINGS AND CONCLUSIONS SUMMARY							
Report Section		Further Action?	De minimis Condition	REC and/or CREC	Historical REC	ASTM Non-Scope Condition	Description
4.0	User Provided Information	No					
5.1.1	Federal Database Findings	No					
5.1.2	State and Tribal Database Findings	No					
5.1.3	Local Environmental Record Sources	No					
5.3	Historical Records Sources	Yes	X	X	X		Refer to Note 1, 2, and 3
6.2	Hazardous Substance Use, Storage and Disposal	No					
6.3	Underground Storage Tanks	No					
6.4	Aboveground Storage Tanks	No					
6.5	Other Petroleum Products	No					
6.6	Polychlorinated Biphenyls (PCBs)	No					
6.7	Unidentified Substance Containers	No					
6.8	Nonhazardous Solid Waste	No					
6.9	Wastewater	No					
6.10	Waste Pits, Ponds and Lagoons	No					
6.11	Sumps	No					
6.12	Septic Systems	No					
6.13	Stormwater Management System	No					
6.14	Wells	No					
7.0	Subsurface Vapor Migration	No					
8.0	Interviews	No					
9.1	Asbestos-Containing Material (ACM)	No					
9.2	Radon	No					
9.3	Lead in Drinking Water	No					
9.4	Lead-Based Paint (LBP)	No					
9.5	Mold Screening	No					
9.6	Additional User Requested Services	No					

Note 1) A Phase I Environmental Site Assessment was conducted by Environmental Science Associates in 2004. The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former underground storage tanks (USTs), and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners. Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*.

Note 2) A Phase II Soil Investigation by Kleinfelder dated July 25, 2005. The investigation was conducted in response to several r*ecognized environmental conditions* which were noted in the report by Environmental Science Associates. The investigation was conducted in March through May 2005 and

consisted of nine Hollow-stem auger borings, four hand auger borings, and two test pits. A total of 34 soil samples were submitted for analysis. Groundwater was not sampled or analyzed during this investigation. Analytical tables were referenced in the report but no tables were included in the copy of the report obtained by ATC. Although this investigation was conducted on the approximately 106-acre Couch Property, only borings B-4 through B-12 (Appendix B) were advanced on the 35.85-acre property which is the subject of this report. The concentration of Chromium in B-12 at 15 feet bgs was noted at 130 milligrams per kilogram (mg/kg) which was noted above the screening levels used. However, concentrations of chromium in two samples collected at shallower levels from the same boring were noted below this level and, therefore, Kleinfelder determined the elevated concentration of chromium at 15 feet bgs was not due to a significant release. It should be noted that although the concentration of chromium noted above in boring B-12 at 130 mg/kg is above the 2005 ESLs, the concentration is below the current version of the February 2016 ESLs. As such the noted levels of chromium is considered an *historical recognized environmental concern*.

Note 3) Based on Kleinfelder's Phase I investigation completed in 2009, the Concentrated Area was reportedly previously occupied by a trailer and a methamphetamine lab in 2000. EPA guidelines note that soil sampling in areas of methamphetamine labs may be warranted if the ground is visibly stained or otherwise affected (e.g., odors burn piles, dead vegetation, or remnants of reaction waste. ATC did not observe evidence of dead vegetation or discarded waste on the day of the site reconnaissance (refer to Section 6.0). Thus, ATC considers the previous methamphetamine lab site to be a *de minimus condition* to the property.

1.3 Significant Data Gap Summary

Data gaps may have been encountered during the performance of this Phase I ESA and are discussed within the section of the report where they were encountered. However, according to ASTM Standard Practice E1527-13, data gaps are only significant if "other information and/or professional experience raise reasonable concerns involving the data gap." The following is a summary of *significant data gaps* identified in this report.

SIGNIFICANT DATA GAP SUMMARY		
Report Section		**Description**
3.5	**Current Uses of Adjoining Properties**	No *significant data gap* identified.
4.2	**Environmental Liens or Activity and Use Limitations (AULs)**	No *significant data gap* identified.
5.1	**Standard Environmental Records**	No *significant data gap* identified.
5.2	**Physical Setting Sources**	No *significant data gap* identified.
5.3	**Historical Records Sources**	No *significant data gap* identified.
6.1	**Methodology and Limiting Conditions**	No *significant data gap* identified.
7.0	**Interviews**	No *significant data gap* identified.

1.4 Recommendations

Based on information collected from the Phase I ESA, ATC offers the following recommendations:

- A Phase I Environmental Site Assessment was conducted by Environmental Science Associates in 2004. The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former USTs, and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners. Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*. Therefore, ATC recommends a Phase II ESA for the property.

- If the property is to be developed, ATC recommends that a soil management plan be implemented. The plan would include contingencies for impacted areas. Also, if any septic systems and/or heating oil USTs are uncovered, they should be removed and disposed of per applicable regulations. In addition, if any wells are uncovered during development, it should be properly abandoned per applicable regulations.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to identify recognized environmental conditions in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of ASTM Standard Practice E1527-13 as listed below. This report documents the findings, opinions and conclusions of the Phase I ESA.

2.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to ASTM Standard Practice E1527-13 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.

- Usage of the property, adjoining properties and surrounding area through a review of referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.

- Observations and interviews regarding current property usage and conditions including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.

- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties in, on or at the property.

- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the property.

- Potential for subsurface vapor migration in, on or at the property as described in Section 7.0.

The scope of the assessment also included consideration of the following potential environmental issues or conditions that are beyond the scope of ASTM Standard Practice E1527-13:

- Radon document review, consisting of the review of published radon data with regard to the potential for elevated levels of radon gas in the surrounding area of the property. No radon sampling was conducted.

- Lead in Drinking Water Data review, consisting of contacting the water supplier for information regarding whether or not the potable water provided to the property meets the drinking water standards for lead.

- Wetlands document review, consisting of a review of a current National Wetlands Inventory map of the surrounding area to note if the property is identified as having a wetland.

- Flood plain document review, consisting of a review of a reasonably ascertainable flood plain map of the surrounding area to note if the property is identified as being located within a flood plain.

- Regulatory Agency File and Records Review, consisting of conducting a file review (i.e., via Freedom of Information Act (FOIA) request or alternative method/source) for the property and/or one adjoining property at one regulatory agency, as warranted by the findings of the ESA.

2.3 Significant Assumption

The assumptions in this report were not considered as having significant impact on the determination of *recognized environmental conditions* associated with the property.

2.4 Limitations and Exceptions

ATC has prepared this Phase I ESA report using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products in, on or at the property. Findings contained within this report are based on information collected from observations made on the day(s) of the site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E1527-13 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- *Uncertainty Not Eliminated* – A Phase I ESA cannot completely eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with any property.

- *Not Exhaustive* – A Phase I ESA is not an exhaustive investigation of the property and environmental conditions on such property.

- *Past Uses of the Property* – Phase I requirements only require review of standard historical sources at five year intervals. Therefore, past uses of property at less than five year intervals may not be discovered.

Users of this report may refer to ASTM Standard Practice E1527-13 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

ATC makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, ATC is not responsible for consequences or conditions arising from facts not fully disclosed to ATC during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search

distances and is assumed to be correct and complete unless obviously contradicted by ATC's observations or other credible referenced sources reviewed during the assessment. ATC shall not be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report.

ATC used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of ATC.

ATC is not a professional title insurance or land surveyor firm and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The statement is intended to document ATC's opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the *Environmental Professional* were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E1527-13 and the scope of work for this assessment.

Per ASTM Standard Practice E1527-13, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). ATC makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

In accordance with the ASTM Standard Practice E1527-13, this report is presumed to be valid for a six month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge and (5) environmental liens search. Reports older than one year may not meet the ASTM Standard PracticE1527-13 and therefore, the entire report must be updated to reflect current conditions and property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by, Stravinski Development Group, LLC, Peter T. Stravinski and any affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The property address has not been established at this time. However, the property is located on Commerce Boulevard, American Canyon, California 94503. The Site Vicinity Map is located in Appendix A. The Site Plan is located in Appendix B. Site Photographs are provided in Appendix C. According to information obtained from the Napa County Property Assessor's office, the property is identified as Assessor's Parcel Number (APN); 058-030-065-000.

3.2 Surrounding Area General Characteristics

The property is located within the northern section of the City of American Canyon in an area characterized by industrial uses and undeveloped land. Surface topography across the property and in the surrounding area is relatively flat with a slope towards the west. Specific adjacent and abutting properties are summarized in Section 3.5.

3.3 Current Use of the Property

The property consists of one parcel totaling approximately 35.85 acres of undeveloped land. The property is located to the north of Eucalyptus Drive and to the west of the city utility access road. At the time of the site visit, the property was undeveloped land.

A Site Plan is included in Appendix B.

3.4 Description of Property Improvements

The following table provides general descriptions of the property improvements.

PROPERTY IMPROVEMENTS	
Size of Property (approximate)	35.85 acres
General Topography of Property	Relatively flat with a slope towards the west.
Adjoining and/or Access/Egress Roads	A city utility access road to the east.
Paved or Concrete Areas (including parking)	None
Unimproved Areas	The property is unimproved.
Landscaped Areas	None
Surface Water	None
Potable Water Source	None
Sanitary Sewer Utility	None
Storm Sewer Utility	None
Electrical Utility	None
Natural Gas Utility	None
Current Occupancy Status	The property is unoccupied.
Unoccupied Buildings/Spaces/Structures	Not applicable (N/A)
Number of Occupied Buildings	N/A

Building Name or General Building Description	N/A
Number of Floors	N/A
Total Square Feet of Space (approximate)	N/A
Construction Completion Date (year)	N/A
Construction Type	N/A
Interior Finishes Description	N/A
Exterior Finishes Description	N/A
Cooling System Type	N/A
Heating System Type	N/A
Emergency Power	None

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

Direction from Property	Address	Occupant(s) Name	Current Use	Potential Environmental Conditions
North	1155 Commerce Boulevard	Western Carriers Inc	Industrial	None
South	N/A	Clark Ranch	City owned open space	None
East, beyond the city utility access road	2 Eucalyptus Drive	American Canyon Paintball	Commercial	Refer to Section 5.1
West	N/A	Undeveloped Land	Undeveloped	None

4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by Stravinski Development Group (User) with regard to the Phase I ESA. Documentation may be found in Appendix D or where referenced in this report.

4.1 Title Records

The User provided no title records information.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding property environmental liens or activity and use limitations (AULs). ATC contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut to perform an environmental lien search for the property. According to the environmental lien and AUL search report the property, APN 058-030-065-000 is vested in the American Canyon Flatland Co Inc and the Deed is dated December 12, 2016. The EDR environmental lien search did not identify any environmental liens or AULs associated with the property.

A copy of the report is included in Appendix L.

4.3 Specialized Knowledge or Experience of the User

The User provided no specialized knowledge regarding *recognized environmental conditions* associated with the property.

4.4 Significant Valuation Reduction for Environmental Issues

The User provided no information regarding a significant valuation reduction for environmental issues associated with the property.

4.5 Owner, Property Manager and Occupant Information

The User identified the property as one vacant parcel located on Commerce Boulevard, American Canyon, California. The owner was specified as SDG Commerce 330, LLC.

4.6 Reason for Performing Phase I ESA

According to information provided by the User, this Phase I ESA will be used in connection with a commercial real estate transaction to identify *recognized environmental conditions* associated with the property.

4.7 Other User Provided Documents

The User provided no other documents as described in the ASTM Standard Practice E1527-13. Copies of these documents are provided in Appendix H and are described in Section 5.3.9.

It should be noted that these documents relate to what is known as the “Couch Property” which is an approximately 106-acre property which includes the 35.85-acre property which is the subject of this report. Refer to the Site Plan which is located in Appendix B for the outline of both the Couch Property and the property which is the subject of this report.

OTHER USER PROVIDED DOCUMENTS		
Title	**Date (if known)**	**Author and/or Source (if known)**
Couch Property Phase I Environmental Site Assessment	October 14, 2004	Environmental Science Associates
Phase II Soil Investigation	July 25, 2005	Kleinfelder
Phase I Environmental Site Assessment	March 16, 2006	Innovative & Creative Environmental Solutions (ICES)
Phase I Environmental Site Assessment 2 Eucalyptus Drive American Canyon, California	December 22, 2009	Kleinfelder
Limited Site Investigation	April 19, 2010	ICES

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by EDR, was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient for *recognized environmental condition (REC)*, *controlled recognized environmental condition (CREC)*, *historical recognized environmental condition (HREC)* or *de minimis condition* determinations without conducting supplemental agency file reviews. ATC also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unmappable site that was identified by ATC as being within the approximate minimum search distance from the property, based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report may be found in Appendix E.

The following is a summary of the findings of the database review.

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	**Approx. Minimum Search Distance**	**Property Listed?**	**# Sites Listed**
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL	½ mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	½ mile	No	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP)	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (CORRACTS)	1 mile	No	0
Federal RCRIS non- CORRACTS Treatment, Storage, and Disposal Facilities (TSD)	½ mile	No	0
Federal RCRA Generators	Property & Adjoining	No	2
Federal Institutional Control/Engineering Control Registry	Property	No	0
Federal Emergency Response Notification System (ERNS) list	Property	No	0
National Pollutant Discharge Elimination System (NPDES)	Property	**Yes**	1
State and Tribal NPL (ENVIROSTOR)	1 mile	No	0
State and Tribal CERCLIS	½ mile	No	2
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	1
State and Tribal Leaking Underground Storage Tanks (LUST)	½ mile	Yes	2
State and Tribal Registered Underground Storage Tanks (UST)	Property & Adjoining	No	2
California Spills, Leaks, and Incident Clean-Up (CA SLIC)	½ mile	No	0
State and Tribal Institutional Control/Engineering Control Registry	Property	No	0
State and Tribal Voluntary Cleanup Site	½ mile	No	0
State and Tribal Brownfield Sites	½ mile	No	0
Hazardous Waste Manifests (HAZNET)	½ mile	No	0

5.1.1 Federal Agency Database Findings

The property was identified within the federal agency databases searched as part of the Couch Property. Listings for the Couch Property are discussed below. State database listings, corresponding to these federal database listings, are also discussed below.

Couch Property
2 Eucalyptus Drive
Databases: NPDES, Napa County LUST
Approximate Distance from the Property: Includes the property and east adjacent site, beyond Commerce Boulevard
Assumed Groundwater Gradient: Up-gradient
Regulatory Data Summary: The Couch Property is a 100+ acres site which includes the property. Listings for the Couch Property include a National Pollutant Discharge Elimination System (NPDES) permit issued in 2012. However, no other details are provided by EDR. Upon review of aerial photographs, the listing is in relation to the removal of the eucalyptus grove on the property.

The site is listed as a closed leaking underground storage tank (LUST) site. No details are provided by EDR. However, correspondence letters provided by the Napa County Planning Building and Environmental Services (NCPBES) indicated three USTs sitting on top of the ground and several 55-gallon drums. All but five drums were empty, two 10,000-gallon tanks were empty and one 3,000-gallon tank was partially full of an oily liquid. The tanks were noted to be in Area 5 of the Couch Property which is adjacent to the east of the property. Samples were collected from the five drums and the storage tank containing oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis (refer to Section 5.3.9 for further discussion).

In a 2009 Phase I Environmental Assessment, Kleinfelder mapped the areas in which contamination occurred (refer to the Appendix B Site Plan). According to the map, the tanks and dumping occurred east of the property beyond the government utility access road. No other leaks or violations were reported. Refer to Section 5.3.9 for additional information.
Discussion: Based on the offsite location (Area 5 beyond the government utility access road), the LUST listings are not considered to represent a *recognized environmental condition* to the property at this time

5.1.2 State and Tribal Database Findings

State and tribal database listings for the Couch Property, which includes the property, were previously discussed in Section 5.1.1.

Based on distance, topography, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the other sites listed in the federal agency databases searched are considered to represent a likely past, present or material threat of release in, on, or at the property.

5.1.3 Local Environmental Records Sources

Local Health Department

ATC contacted the NCPBES Department to review available information regarding the property. Mr. John Kara of the NCPBES responded via email on April 2, 2018 and stated a soil boring permit (Permit # E18-00161) was issued on March 2, 2018.

In addition, Mr. Brian Clerici of the NCPBES sent files to ATC via email on April 13, 2018 for the Couch Property (2 Eucalyptus Drive) as summarized below. The Couch Property is a 100+ acre site which includes the property. The NCPBES records summarized below were issued for the entire Couch Property site therefore it is unknown which records are specific to the property portion of the site.

On November 15, 1973, an application was submitted by Mr. Robert Couch to build a domestic well at the Couch Property. On July 18, 1979, a second application was submitted to add an additional domestic well to the Couch Property. According to the site maps, neither of the domestic wells are located on the property.

On November 16, 1990, Napa County issued an Inspection Warrant for the Couch Property in order to perform observations, take photographs, and sample materials. The exact locations of the violations were not specified in the document due to tremendous amounts of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps, concrete rubble, and three tanks and a railroad car.

In a correspondence from Napa County dated November 19, 1990, the results of the inspection of the Couch Property by Napa County indicated the following:

- The presence of people living on the Couch Property.
- A box containing six cardboard tubes labeled “GAMMA-FLAME” was found.
- Scattered throughout were used batteries and unmarked containers containing what appeared to be used oil and antifreeze.
- Many 55-gallon drums were found onsite and only five were full or partially-full.
- There were at least three tanks on the property; two are 10,000 gallons and empty. The third was a three-thousand gallon tank partially filled with an oily liquid.
- Compressed gas cylinders were found in a deteriorated condition with rust and corrosion forming on them
- In general, the hazardous wastes fell into four categories; oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners, and solvents, unknowns in small containers, and automobile batteries.

Also recorded on November 19, 1990, a hazmat team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District collected a total of six liquid samples. Five of the samples were taken from five 55-gallon drums and one sample from the three-thousand gallon tank. One sample was found on the south portion of the property which lies on the subject property and the other five were collect on the north portion of the east adjacent site. The gas cylinders in deteriorated condition and cylinders of hydrogen were noted to be the objects of most concern. One 55-drum showed leakage from the top rim and was heavily staining the wood pallet it was resting on.

The NCPBES concluded that the soil piles, asphalt piles, debris piles, hazardous materials, petroleum products, and abandoned automobiles indicated that the Couch Property owners allowed unpermitted dumping to take place on site. No records indicating soil or groundwater testing at the site were provided

On April 30, 2003, Napa County received a bid from Kroeker, Inc. of Fresno, California for the removal, cleaning, and grubbing for the Couch Property. The scope of work included demolishing all structures and animal pens, removal of all miscellaneous debris and garbage, removal of two 10,000-gallon fuel tanks presumed to be non-hazardous, and all trees and stumps within the site.

In a correspondence letter dated January 25, 2005, the Deputy County Counsel stated there were numerous tasks listed in a Stipulated Order that still needed to be completed. Some of the main unaddressed concerns included removal of the five trailers, removal of formerly excavated USTs, all scrap metal, motor vehicle tires and dismantled motor vehicles onsite. Itis unclear in the letter if the unaddressed tasks pertained to the property.

According to a site plan map in Kleinfelder's 2009 Phase I ESA, the illegal dumping occurred east of the property across the city utility access road (refer to Section 5.3.9 for additional details). During ATC's site reconnaissance on April 5, 2018, none of the materials noted above were observed. Based on the offsite location of the illegal dumping, the former use of the Couch Property as an unpermitted dumping site is not considered to represent an *recognized environmental concern* to the property.

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)

ATC contacted the DTSC and requested available files for the property. Ms. Ruth Saroian of the DTSC responded on April 2, 2018 and stated that no files exist for the property.

According to the DTSC EnviroStor website, http://www.envirostor.dtsc.ca.gov/public, the DTSC has no files for the property.

Regional Water Quality Control Board (RWQCB)

ATC contacted the RWQCB, San Francisco Regional Office and requested available files for the property. Ms. Margie Saldana of the RWQCB responded on March 29, 2018 and stated the department is no longer able to perform searches by APN. Since no physical address has been assigned to the property, the RWQCB could not perform a records search for the property.

According to the RWQCB GeoTracker website, http://geotracker.swrcb.ca.gov, no LUST sites or Spills, Leaks, Investigations and Clean-Up (SLIC) sites are located on the property.

Bay Area Air Quality Management District

ATC contacted the Bay Area Air Quality Management District (BAAQMD) to review available information regarding the property. The BAAQMD has not provided a response to ATC's request as of the date of this report. If information becomes available to ATC that alters the conclusions and/or recommendations presented herein, an addendum will be submitted.

Local Fire Department

ATC contacted then American Canyon Fire Department (ACFD) to review available information regarding the property. The ACFD has not provided a response to ATC's request as of the date of this report. If information becomes available to ATC that alters the conclusions and/or recommendations presented herein, an addendum will be submitted.

Department of Planning and Zoning

According to the City of American Canyon Planning Department (ACPD), the property is zoned *Recreation (REC).*

Building Department

ATC contacted the American Canyon Building Department (ACBD) to review available historical building department records for information regarding past uses of the property. Mr. William He of the ACBD responded on April 3, 2018 and stated that no building permits exist. However, Mr. He reported the department had communicated with the developer regarding a prospective warehouse, but no applications for the design permit have been submitted.

Electrical Utility Company

ATC confirmed the electrical utility for the surrounding area is provided by PG&E.

Water Utility

The City of American Canyon provides potable water utilities to the surrounding area.

Sewer Utility

The City of American Canyon provides municipal sewage utilities to the surrounding area.

Other Local Environmental Records Sources

No additional local environmental records sources were reviewed.

5.2 Physical Setting Sources

5.2.1 Topography

Based on the United States Geological Survey (USGS) 7.5-Minute Topographic Maps, *Cuttings Wharf, California, and Cordelia, California Quadrangles,* dated 2012, the property is located approximately 19 feet above mean sea level (MSL) and has a sloping topography towards the west.

A copy of the topographic map is included in Appendix A.

5.2.2 Geology

Based on the California Department of Conservation, *California Geological Survey, Preliminary geologic map of Solano County and Parts of Napa, Contra Costa, Marin, and Yolo Counties*, the property is primarily underlain by Older Alluvium, consisting of mainly flood-plain and alluvial-fan deposits adjacent to mountainous areas; sand, gravel, silt, and clay irregularly interstratified, commonly unconsolidated. This series is of the Quaternary era.

5.2.3 Soils

According to ATC's review of the United States Department of Agriculture Soil Conservation Service *Web-Based Soil Survey,* the property is underlain by Clear Lake Clay with zero to two percent slope (1%) and Haire Loam with two to nine percent slope (99%). Both Clear Lake Clay and Haire Loam consist of alluvium derived sedimentary rock.

A copy of the soil map is included in Appendix L.

5.2.4 Hydrology

Considering the surface topography for the property area, as interpreted from the *Cuttings Wharf, California, and Cordelia, California* topographic quadrangles, local groundwater would be expected to flow towards the west. Therefore, in assessing potential off-site environmental impacts, facilities located east of the property are of primary concern. However, actual groundwater flow direction is often locally influenced by factors such as underground structures, seasonal fluctuations, soil and bedrock geology, production wells, and other factors beyond the scope of this study. The actual groundwater flow direction under the property can be accurately determined only by installing groundwater-monitoring wells, which was beyond the scope of this project.

Depth to groundwater beneath the site has not been determined. Based on the soil investigation by Kleinfelder in 2005, groundwater was not encountered above 31 feet bgs.

5.2.5 Other Physical Setting Sources

Flood Plain Map

According to the Federal Emergency Management Agency (FEMA), the property is located in Flood Zone X, which is identified by FEMA as “areas determined to be outside [of the] 500-year floodplain” and Zone AE, which is identified by FEMA as “areas that have a 1% probability of flooding every year,” (Flood Insurance Rate Map [FIRM] Map Number 06055C0617F, dated August 3, 2016).

A copy of the FIRM is included in Appendix L.

Wetlands Map

Based on a review of the United States Department of the Interior, National Wetlands Inventory (NWI) Map (undated, online Wetlands Mapper at http://www.nwi.fws.gov/), there are no potential wetlands on the property.

A copy of the NWI map is included in Appendix L.

5.3 Historical Records Sources

The following table summarizes the findings of the research presented below pertaining to historical property and surrounding area uses.

HISTORICAL USE SUMMARY				
Period	**Identified Historical Uses**		**Source(s)**	**Intervals/Comments**
	Property	**Surrounding Area**		
Prior to 1940	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential	Topographic Maps	The earliest record for the property is a 1902 topographic map which depicts the property and surrounding area as undeveloped land.
1940 - 1960	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential	Aerial Photographs Topographic Maps	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
1961 - 1980	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential/ Industrial	Aerial Photographs Topographic Maps Tax Records	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
1981 - 2000	Undeveloped/ Agricultural/ Residential	Undeveloped/ Agricultural/ Residential/ Industrial	Aerial Photographs Topographic Map Tax Records	Interval data gaps exist. Land use does not change across the interval gaps and therefore, is not considered significant.
2001 - present	Agricultural/ Undeveloped	Undeveloped/ Agricultural/ Industrial	Aerial Photographs Tax Records Regulatory Listings City Directory Listings	No data gaps.

Interval gaps (greater than five years) were encountered during the research of historical use information for the property and surrounding area. However, based on the review of available historical sources, these data gaps did not have an impact on the REC determinations of this assessment and are not significant data gaps.

5.3.1 Aerial Photographs

ATC reviewed available aerial photographs of the property and surrounding area provided by EDR. Available aerial photographs ranged from 1947 to 2012. The following are descriptions and interpretations from the aerial photograph review. Copies of reproducible aerial photographs are included in Appendix F.

AERIAL PHOTOGRAPH SUMMARY		
Year	**Scale**	**Comments**
1947 1952 1958 1968 1974 1982	1 inch = 500 feet	**Property**: The majority of the property is depicted as undeveloped land; specifically eucalyptus groves. **Surrounding Area**: The surrounding area is depicted as open fields and eucalyptus groves. A residential home is depicted to the south.
1993	1 inch = 500 feet	**Property**: No notable changes since the 1982 aerial photograph. **Surrounding Area**: No notable changes to the surrounding areas since the 1982 aerial photograph. However, the residential home to the south is no longer depicted.
2006 2010	1 inch = 500 feet	**Property**: No notable changes since the 1993 aerial photograph. **Surrounding Area**: To the north appears multiple large industrial warehouses and to the east appears Commerce Boulevard and nondescript structures. No notable changes to the south and west since the 1993 aerial photograph.
2014	1 inch = 500 feet	**Property**: The eucalyptus grove is removed and an open field is depicted. **Surrounding Area**: No notable changes to the surrounding area since the 2010 aerial photograph.

The review of aerial photographs did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.2 Fire Insurance Maps

A search for fire insurance maps for the property and surrounding area was conducted by EDR. No such maps for the property were available.

5.3.3 Property Tax Files

ATC obtained reasonably ascertainable tax files from the Nationwide Environmental Title Research (NETR) online database for historical ownership information pertaining to the property. The table below presents the results of the historical ownership information.

TAX RECORDS OWNERSHIP SUMMARY	
Owner: Parcel Number 075-130-002	**Date**
American Canyon Flat Land Co I	December 2016 to current

The review of tax files did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not required by the scope of work for the Phase I ESA.

5.3.5 Historical USGS Topographic Maps

ATC reviewed available historical USGS Topographic Maps for information regarding past uses of the property provided by EDR. Available historical USGS Topographic Maps were dated 1902, 1914, 1916, 1947, 1949, 1951, 1968, 1973, 1980, 1981, and 2012. The property and surrounding area are depicted as vacant land on all available maps. Documentation is included in Appendix G.

The review of historic USGS Topographic Maps did not identify specific past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.6 City Directories

Research regarding the availability of historical city directories was conducted by EDR. The following are descriptions and interpretations from the historical city directory review. Documentation is included in Appendix G.

CITY DIRECTORY SUMMARY	
Year	**Comments**
1995	**Property**: No listings **Surrounding Area**: Good Health America (1245 Commerce Boulevard)
2000	**Property**: No listings **Surrounding Area**: Pokka USA Inc (1201 Commerce Boulevard) Santa Clara Warehouse Inc (1275 Commerce Boulevard)
2005	**Property**: No listings **Surrounding Area**: Hess Collection Winery (1166 Commerce Boulevard) Pro Mortgage Partners LLC (1175 Commerce Boulevard) PB Holdings Inc, Pokka USA Inc (1201 Commerce Boulevard) Santa Clara Warehouses Inc, Western Wine Service (1275 Commerce Boulevard)
2010	**Property**: No listings **Surrounding Area**: Grapevine Express, Hess Collection Winery, Tricana Inc, Zepexco Inc (1166 Commerce Boulevard) Amcan Beverages Inc, Coca Cola North America, Fluid Resource Management, Pacific Solutions Construction, Sun Pokka Citrus Inc (1201 Commerce Boulevard) Bacchus Distribution Co LLC (1245 Commerce Boulevard) Western Wine Services Inc (1275 Commerce Boulevard)

CITY DIRECTORY SUMMARY	
Year	**Comments**
2014	**Property**: No listings **Surrounding Area**: Hess Collection Winery, Zepexco Inc (1166 Commerce Boulevard) Amcan Beverages Inc, Coca Cola North America, (1201 Commerce Boulevard) Vin Go LLC (1245 Commerce Boulevard) Western Wine Services Inc (1275 Commerce Boulevard)

The review of city directories did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding area.

5.3.7 Building Department Records

ATC contacted the American Canyon Building Department to review available historical building department records for information regarding past uses of the property. Mr. William He of the ACBD responded on April 3, 2018 and stated that no building permits exist. However, the department spoke with the developer on a prospective warehouse, but no applications for the design permit have been submitted.

5.3.8 Zoning/Land Use Records

ATC attempted to review available historical zoning/land use records at the ACPD for information regarding past uses of the property and surrounding area. No historical use information was available for the property. According to the ACPD, the property is zoned as *Recreation (REC).*

5.3.9 Prior Reports

The following provides a summary of information from prior reports made available to ATC for review. Documentation is included in Appendix H. Proposals and field forms associated with the reports below are not summarized but are included in Appendix H.

It should be noted that these documents relate to what is known as the “Couch Property” which is an approximately 106-acre property which includes the 35.85-acre property which is the subject of this report. Refer to the Site Plan which is located in Appendix B for the outline of both the Couch Property and the property which is the subject of this report.

Phase I Environmental Site Assessment by Environmental Science Associates dated October 14, 2004

The Phase I ESA was conducted for the Couch Property and the report concluded the following:

- There is past and present undocumented and illegal storage of hazardous materials and wastes on the Couch Property. The Napa County Department of Environmental Management inspected the property in 1990 and determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

- The site reconnaissance of the Couch Property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000-gallon former USTs, and the other containers of hazardous

materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000-gallon tanks may have been removed by the property owners.

- It is possible that methamphetamine labs operated in the eucalyptus groves in the area of the Couch Property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride.

- A portion of the Couch Property was used to cut and store wood. A large amount of soil containing some type of oil was deposited on a portion of the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onsite. Chief Keith Caldwell of the American Canyon Fire District remembers that soil was brought onto the property in the 1970s for a motorcycle track.

- The County identified two unapproved water wells on the property in their 1990 investigation. However, Environmental Science Associates staff could only locate one of the water wells.

- There are outhouses (holes in the ground) on the property that have been used for sewage disposal.

The recommendations of the report included the following:

- Soil and groundwater sampling is to be completed in the areas of concern that were identified by the Phase I report. It may also be necessary to sample other areas of the property as dictated by field personnel that will perform the soil and groundwater sampling at the site, depending on what is encountered during sampling. At a minimum, the soil and groundwater samples should be analyzed for petroleum hydrocarbons, oil and grease, solvents, and priority pollutant metals. The Phase II report should provide recommendations based on the laboratory analytical results.

- Due to the history of the use of the Couch Property, it is difficult to determine what might be uncovered during earth moving activities if the land is developed. At the time of excavation of the site for development, soil and groundwater sampling should be completed in any areas of the property where buried hazardous materials, odors, or stained soil are found. The results of the laboratory analytical results would provide the information needed to determine whether excavation of the soil would be necessary and whether the soil would need to be removed and properly disposed offsite.

- The water wells should be abandoned in accordance with California water well standards and Napa County protocol.

- The sewage disposal areas should be closed in accordance with Napa County protocol.

It should be noted that although the areas which were a concern by Environmental Science Associates are located within the approximately 106-acre Couch Property, the areas of concern are actually located to the east of the 35.85-acre property which is the subject of this report.

Based on the fact that the locations of the former USTs noted above is unknown and the lack of sampling including groundwater sampling, ATC considers the potential impacts from the USTs to be a *recognized environmental condition*.

Phase II Soil Investigation by Kleinfelder dated July 25, 2005

The investigation was conducted in response to several recognized environmental conditions which were noted in the report by Environmental Science Associates. The investigation was conducted in March through May 2005 and consisted of nine Hollow-stem auger borings, four hand auger borings, and two test pits. A total of 34 soil samples were submitted for analysis. Groundwater was not sampled or analyzed during this investigation. Analytical tables were referenced in the report but no tables were included in the copy of the report obtained by ATC.

Although this investigation was conducted on the approximately 106-acre Couch Property, only borings B-4 through B-12 (Appendix B) were advanced on the 35.85-acre property which is the subject of this report. Results that relate to the 35.85-acre property which is the subject of this report are the following:

- The report notes the presence of gasoline and BTEX which were detected in boring B-12 at 15 feet bgs in "low concentrations" that were below the 2005 Environmental Screening Levels (ESL's) as defined by the San Francisco Bay Water Board for residential shallow soils.

- The concentration of Chromium in B-12 at 15 feet bgs was noted at 130 milligrams per kilogram (mg/kg) which was noted above the screening levels used. However, concentrations of chromium in two samples collected at shallower levels from the same boring were noted below this level and, therefore, Kleinfelder determined the elevated concentration of chromium at 15 feet bgs was not due to a significant release.

- Although groundwater was not sampled during the investigation, Kleinfelder stated that potential impacts to groundwater were low.

It should be noted that although the concentration of chromium noted above in boring B-12 at 130 mg/kg is above the 2005 ESLs, the concentration is below the current version of the February 2016 ESLs. As such the noted levels of chromium is considered an *historical recognized environmental concern*.

Phase I Environmental Site Assessment by Innovative and Creative Environmental Solutions (ICES) dated March 16, 2005

The report by ICES was conducted for the approximately 106-acre Couch Property and the report concluded the following.

- A eucalyptus grove occupied the site until the late 1950s. In the early 1980s, the northeastern portion was developed and used for residential activities and the southeastern portion was used as a race track. Currently, paint ball fields are located at the west and central portions of the site.

- It was discovered that there was past and present undocumented and illegal storage of hazardous materials and waste on the site. In addition, a large amount of soil containing oil was deposited at the southeastern portion of the site in the 1970s for a motorcycle track.

ICES recommended that a supplementary investigation be conducted within the site including the following:

- Collect soil samples from the surficial soil within the west portion of the site to assess the potential presence of organochlorine pesticides, arsenic, lead, and mercury associated with the eucalyptus grove.

- Collect soil samples from the surficial soil within the southeastern portion of the site for petroleum hydrocarbons, semi-volatile organic compounds, and lead associated with the former motorcycle track and existing wood cutting and storage operations.

- Collect soil samples from the surficial soil within the northeastern portion of the site to assess surficial sediments containing arsenic, chromium, and vanadium levels detected in a previous site investigation which exceeded residential ESLs.

Phase I Environmental Site Assessment by Kleinfelder dated December 22, 2009

Kleinfelder partitioned the Couch Property into seven areas of concern: the Hurst Firewood Area, the Paintball Jungle Area (East), the Animal Pens Area, the Couch Residential Area, the Concentrated Area, the Sherwood Forest Paintball and North Slough Creek Area, and the Paintball Jungle Area (West).

According to the site map, only the Paintball Area (West), the Concentrated Area, and the Sherwood Forest Paintball and North Slough Creek Area are within the 35.85-acre property which is the subject of this report.

The report concluded the following:

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

Recommendations related to the 35.85-acre property which is the subject of this report are the following:

- A soil and groundwater investigation should be conducted within each area of the site to assess the extent of chemical constituents of concern in the soil and groundwater including, but not limited to, petroleum hydrocarbons, metals, and volatile organic compounds.

The Concentrated Area was reportedly previously occupied by a trailer and a methamphetamine lab in 2000. EPA guidelines note that soil sampling in areas of methamphetamine labs may be warranted if the ground is visibly stained or otherwise affected (e.g., odors burn piles, dead vegetation, or remnants of reaction waste. ATC did not observe evidence of dead vegetation or discarded waste on the day of the site reconnaissance (refer to Section 6.0). Thus, ATC considers the previous methamphetamine lab site to be a *de minimus condition* to the property.

Limited Site Investigation by ICES dated April 19, 2010

The investigation was conducted in March 2010 and involved the collection of soil samples from approximately 6 to 9 inches bgs from eight sample locations. Of those eight locations, four were located on the 35.85-acre property which is the subject of this report (TP-1 through TP-4) (Appendix B).

The analysis of the samples from TP-1 through TP-4 indicated that concentrations of petroleum hydrocarbons as gasoline, diesel, and motor oil and volatile organic compounds were generally below the residential Environmental Screening Levels (ESLs) with the exception of the result of 160 mg/kg of total petroleum hydrocarbons as diesel (TPHd) in the sample from TP-2 which was above the residential ESL of 83 mg/kg. The laboratory noted that oil range compounds were significant in the sample from TP-2

and ICES suggested that the elevated TPHd in the sample from TP-2 may be the result of natural oil compounds from eucalyptus trees. Also, levels of arsenic and vanadium were noted in the samples above the ESLs but below background levels. ICES concluded that surficial soil within the site has generally not been impacted by previous activities.

Limitations

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report. Documentation is included in Appendix H.

5.3.10 Other Historical Sources

No other historical sources were reviewed.

6.0 SITE RECONNAISSANCE

The following is a summary of visual and/or physical observations of the property on the day of the site visit. Photographs can be found in Appendix C.

6.1 Methodology and Limiting Conditions

Mr. Gyan Rusconi-Rodrigues, Senior Scientist with ATC, conducted the site reconnaissance on April 5, 2018. Mr. Rusconi-Rodrigues was unescorted during the site reconnaissance. The site reconnaissance consisted of visual and/or physical observations of: the property; adjoining sites as viewed from the property; and, the surrounding area based on visual observations made during the trip to and from the property. Unimproved portions of the property were observed along the perimeter and in safely accessible areas. The weather at the time of the site reconnaissance was overcast. Due to vegetation overgrowth, ground visibility was limited.

6.2 Hazardous Substance Use, Storage, and Disposal

ATC did not observe the use, storage or disposal of hazardous substances, including hazardous wastes, on the property. However, visibility was limited due to overgrowth of vegetation.

6.3 Underground Storage Tanks (USTs)

ATC did not observe evidence of USTs on the property. However, visibility was limited due to overgrowth of vegetation.

6.4 Aboveground Storage Tanks (ASTs)

ATC did not observe evidence of ASTs on the property. However, visibility was limited due to overgrowth of vegetation.

6.5 Other Petroleum Products

ATC did not observe the use, storage or disposal of other petroleum products in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.6 Polychlorinated Biphenyls (PCBs)

ATC did not observe evidence of the use, storage or disposal of PCB-containing electrical or hydraulic equipment in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.7 Unidentified Substance Containers

ATC did not observe the presence of unidentified substance containers on the property. However, visibility was limited due to overgrowth of vegetation.

6.8 Nonhazardous Solid Waste

ATC did not observe evidence of the generation, storage or disposal of nonhazardous solid waste in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.9 Wastewater

ATC did not observe evidence of wastewater generated, treated or discharged in, on or at the property or to adjoining properties.

6.10 Waste Pits, Ponds and Lagoons

ATC did not observe evidence of waste pits, ponds or lagoons in, on or at the property.

6.11 Drains and Sumps

ATC did not observe evidence of drains or sumps in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.12 Septic Systems

ATC did not observe evidence of a septic system in, on or at the property. However, visibility was limited due to overgrowth of vegetation.

6.13 Stormwater Management System

Stormwater at the property is allowed to infiltrate the ground. The observed vegetation did not exhibit signs of biological stress. No strong odors were detected.

6.14 Wells

ATC did not observe evidence of wells in, on or at the property. However, there were visual limitations during site reconnaissance due to overgrowth of vegetation.

During ATC's review of documents submitted by the NCPBES, two domestic wells were noted on the Couch Property. It is estimated from the site maps that both wells are not located on the property. However, if during development of the property, a well is uncovered, it should be properly abandoned per applicable regulations.

7.0 SUBSURFACE VAPOR MIGRATION

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. According to EPA guidance, three conditions must exist for hazardous vapors to reach the interior of buildings from the subsurface environment underneath or near a building. First, a source of hazardous vapors must be present in the soil or in groundwater underneath or near a building. Second, vapors must form and have a pathway along which to migrate toward the building. Third, entry routes must exist for the vapors to enter the building, and driving forces must exist to draw the vapors into the building.

ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information that was summarized in Section 5.0. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a *recognized environmental condition* to the property.

8.0 INTERVIEWS

The following person(s) were interviewed to obtain information regarding *recognized environmental conditions* in connection with the property:

INTERVIEW SUMMARY				
Role	**Name**	**Title/Company**	**Years Assoc. With Property**	**Interview Type**
Authorized Property Representative	Brian Doswald	Stravinski Development Group	Unknown	Email

Not included in this listing are those governmental employees that were contacted solely for the purpose of retrieving public information pertaining to the property and who would not be expected to have first-hand knowledge of *recognized environmental conditions* at the property.

Pertinent information from the interviews is discussed in applicable sections of this report with details (including failed attempts to interview) documented on Record of Communication forms in Appendix J.

9.0 OTHER ENVIRONMENTAL CONDITIONS

9.1 Asbestos-Containing Materials (ACM)

Due to the undeveloped nature of the property, ACM was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.2 Radon

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. The EPA guidance action level for annual residential exposure to radon is 4.0 picoCuries per liter of air (pCi/L). The guidance action level is not a regulatory requirement for private owners of commercial real estate, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent.

ATC's review of published radon data indicates that the property is located in an area of low propensity with regard to the potential for elevated levels of radon gas. Napa County is listed as being within Zone 3, where average indoor levels are expected to be less than 2 pCi/L. Additional federal area radon statistics for zip code 94503, within Napa County, report results for 11 short-term tests as below 4.0 pCi/L. Given the available statistics, radon is not considered to represent a concern, and no additional investigations are recommended at this time.

9.3 Lead in Drinking Water

ATC confirmed with the City of American Canyon that the municipally supplied water meets all drinking water standards, including those for lead. Based on the fact that the water (once supplied to the property) is from the municipality, lead in drinking water would not be a concern to the property.

9.4 Lead-Based Paint (LBP)

Due to the undeveloped nature of the property, LBP was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.5 Mold Screening

Due to the undeveloped nature of the property, mold was not addressed for this Phase I ESA and no additional investigation is recommended at this time.

9.6 Additional User Requested Conditions

No additional User requested services were included in the scope of work for this ESA.

10.0 REFERENCES

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-13. November 2013.

ASTM International, *Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process*, ASTM Designation E 2418-06. March 2006.

ASTM International, *Standard Guide for Limited Asbestos Screens of Buildings*, ASTM Designation E 2308-05. August 2005.

California Department of Toxic Substance Control, emailed request for records, dated March 29, 2018.

California Regional Water Quality Control Board-San Francisco Region, faxed request for records, dated March 29, 2018.

Environmental Data Resources, Inc. (EDR), Aerial Photo Decade Package, Inquiry No. 5240904.5, dated March 30, 2018.

Environmental Science Associates. Couch Property Environmental Site Assessment, dated October 4, 2004.

EDR, City Directory Abstract, Inquiry No. 5240904.6, dated March 30, 2018.

EDR, Environmental Lien Search Report, Inquiry No. 5240904.7, dated March 30, 2018.

EDR, Historical Topographic Map Report, Inquiry No. 5240904.4, dated March 30, 2018.

EDR, Property Tax Map Report, Inquiry No. 5240904.8, dated March 30, 2018.

EDR, Radius Map with Geocheck, Inquiry No. 5240904.2s, dated March 30, 2018.

EDR, Sanborn Map Report, Inquiry No. 5240904.3, dated March 30, 2018.

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Map Number 06055C0617F, dated August 3, 2016.

ICES. *Limited Site Investigation*, April 19, 2010.

Kleinfelder. *Phase II Soil Investigation*, dated October 4, 2004.

Kleinfelder. *Phase I Environmental Site Assessment 2 Eucalyptus Drive American Canyon*, *California,* dated October 4, 2004.

Napa County Planning, Building and Environmental Services, faxed request for records, dated March 29, 2018.

Online Department of Toxic Substances Control EnviroStor website, http://www.envirostor.dtsc.ca.gov/public/.

Online Regional Water Quality Control Board GeoTracker website, http://www.geotracker.swrcb.ca.gov.

Online United States Fish and Wildlife Service Wetlands Mapper, http://www.nwi.fws.gov/.

United States Geological Survey (USGS) Topographic Quadrangle Maps, *38122-B2 Cuttings Wharf Quadrangle*, *California and Cordelia, California* 7.5-Minute Series Topographic map, dated 2012.

USDA National Resources Conservation Service Soil Survey website http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

11.0 TERMINOLOGY

The following provides definitions and descriptions of certain terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E1527-13. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

material threat - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional (EP), is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

de minimis condition – is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. An example might include a release of *hazardous substances* or *petroleum products* that could reasonably and foreseeably result in a concentration exceeding the applicable regulatory agency risk-based residential standards or substantial damage to natural resources. The risk of that exposure or damage would represent a threat to human health or the environment. If an enforcement action would be less likely than not, then the condition is considered to be generally not likely the subject of an enforcement action. A condition determined to be *de minimis* is not a *REC* or *controlled recognized environmental condition (CREC)*.

historical recognized environmental condition(s) (HREC) - a past release of any *hazardous substances* or *petroleum products* that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a *HREC*, the EP must determine whether the past release is a *REC* at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a *REC* at the time the Phase I ESA is conducted, the condition will be reported in Section 1.2 the Findings and Conclusions Summary table as a *REC*.

controlled recognized environmental condition (CREC) - a *recognized environmental condition* resulting from a past release of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitation, institutional controls, or engineering controls). Per E1527-13, a *CREC* will be reported in the Section 1.2 Findings and Conclusions Summary table as a *CREC* and a *REC*.

migrate/migration - refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

APPENDIX A

SITE VICINITY MAP



SOURCE: CUTTINGS WARF, 2012, 7.5-MINUTE QUADRANGLE, OBTAINED BY ENVIRONMENTAL DATA RESOURCES, INC. (EDR)

0 2,000
Scale (feet)

LEGEND

SUBJECT PROPERTY

N

2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118BM01173

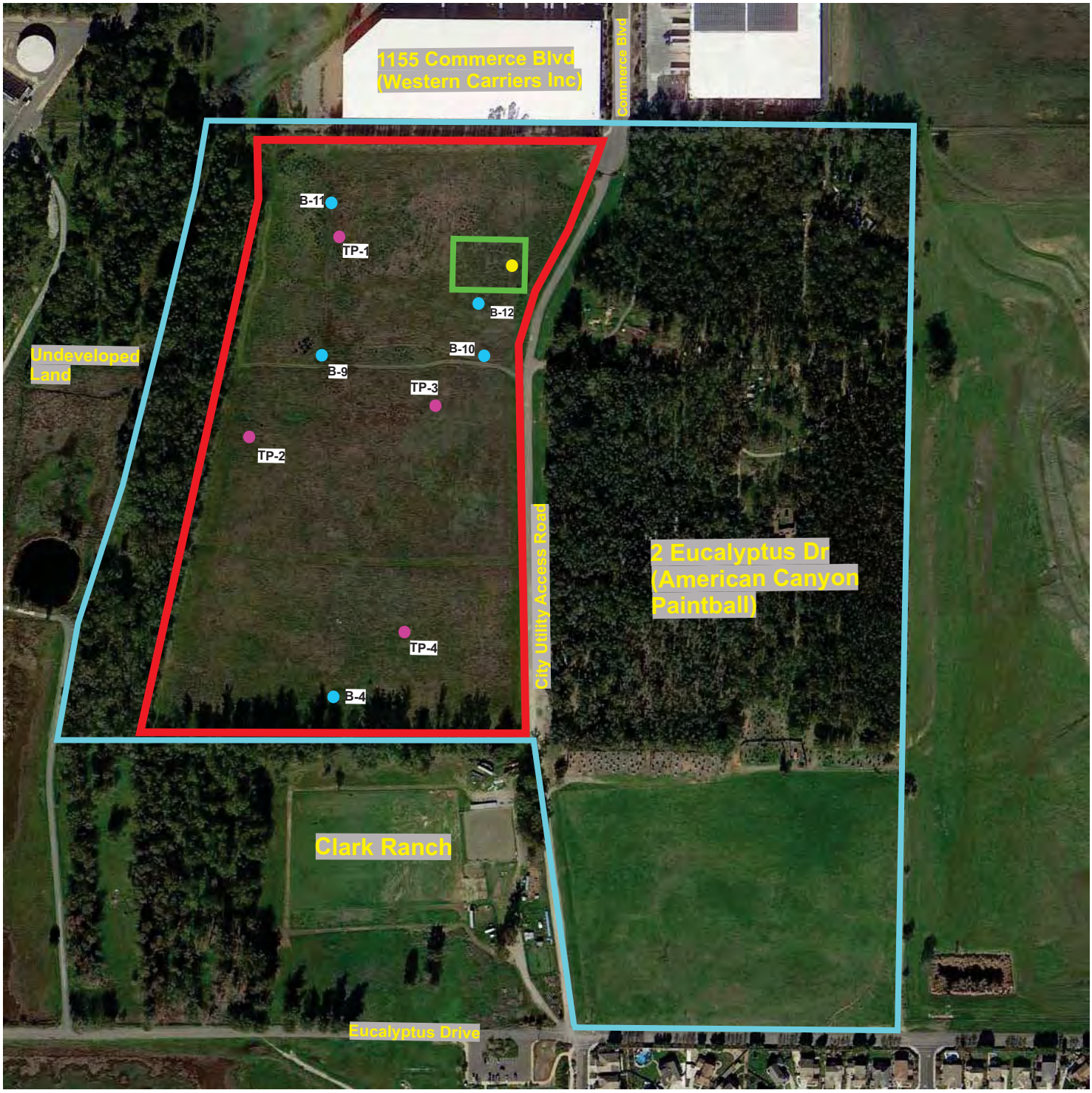
DESIGNED BY: GRR	SCALE: 1"=500'	REVIEWED BY: DSH
DRAWN BY: GRR	DATE: 4/12/18	FILE: SITE VISCINITY MAP

SITE VICINITY MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN CANYON, CALIFORNIA

APPENDIX B

SITE PLAN



Legend

- Subject Property
- Concentrated Area according to Kleinfelder, December 2009
- Couch Property
- Reported Methamphetamine Lab
- Boring by Kleinfelder, July 2005
- Test Pit by ICES, April 2010

N

2400 Camino Ramon, Suite 360
San Ramon, California 94583
(925) 460-5300

PROJECT NO. 118EM01173

DESIGNED BY: GRR	1"=100'	REVIEWED BY: BMC
DRAWN BY: GRR	DATE: 05/10/2018	FILE: SITE PLAN

SITE PLAN

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SDG COMMERCE 330 DISTRIBUTION CENTER
COMMERCE BOULEVARD
AMERICAN, CALIFORNIA

APPENDIX C

SITE PHOTOGRAPHS



Photo 1: The property as viewed from Commerce Boulevard, looking northwest.



Photo 2. The property as viewed from Commerce Boulevard, looking southwest



Photo 3: The property as viewed from the center of the property, looking south.



Photo 4: The property as viewed from the center of the property, looking north.



Photo 5: View of the north adjacent site, looking north.



Photo 6: View of the west undeveloped site, looking southeast.



Photo 7: View of the east adjacent site, looking northeast.



Photo 8: View of the south adjacent site, looking southwest.

APPENDIX D

USER PROVIDED DOCUMENTATION

THIS SECTION NOT USED

APPENDIX E

REGULATORY DATABASE REPORT

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.2s
March 30, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NOT REPORTED
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.1854430 - 38° 11' 7.59''
Longitude (West):	122.2736510 - 122° 16' 25.14''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	563612.6
UTM Y (Meters):	4226434.0
Elevation:	19 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NOT REPORTED
AMERICAN CANYON, CA 94503

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	COUCH PROPERTY	2 EUCALYPTUS DR	LUST, NPDES	Lower	807, 0.153, SSW
A2	AMERICAN CANYON SANI	WESTERN TERMINUS OF	SWF/LF, Financial Assurance	Higher	897, 0.170, SSE
A3	GAS RECOVERY SYSTEMS	725 EUCALYPTUS ROAD	RCRA-SQG	Higher	934, 0.177, SSE
4	AMCAM BEVERAGES INC	1201 COMMERCE BLVD	RCRA-SQG	Higher	1133, 0.215, North
5	MORROW EQUIPMENT CO	833 HANNA DR	LUST, CHMIRS, WDS	Higher	2161, 0.409, NNE
6	POLYVINYL CHEMICAL I	501 GREEN ISLAND ROA	ENVIROSTOR	Higher	3058, 0.579, NE
7	FORMER SUNSHINE AUTO	1578 GREEN ISLAND	ENVIROSTOR, SLIC, ENF, NPDES	Higher	4006, 0.759, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File

EXECUTIVE SUMMARY

ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
UXO - Unexploded Ordnance Sites
ECHO - Enforcement & Compliance History Information
DOCKET HWC - Hazardous Waste Compliance Docket Listing
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
Cortese - "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HIST CORTESE - Hazardous Waste & Substance Site List
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
UIC - UIC Listing
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historical Auto Stations
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GAS RECOVERY SYSTEMS	725 EUCALYPTUS ROAD	SSE 1/8 - 1/4 (0.177 mi.)	A3	11
AMCAM BEVERAGES INC	1201 COMMERCE BLVD	N 1/8 - 1/4 (0.215 mi.)	4	12

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/30/2018 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
POLYVINYL CHEMICAL I Facility Id: 28510002 Status: No Action Required	501 GREEN ISLAND ROA	NE 1/2 - 1 (0.579 mi.)	6	16
FORMER SUNSHINE AUTO Facility Id: 28500004 Status: Refer: RWQCB	***1578 GREEN ISLAND***	***NNW 1/2 - 1 (0.759 mi.)***	***7***	***18***

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within

approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANI	***WESTERN TERMINUS OF***	***SSE 1/8 - 1/4 (0.170 mi.)***	***A2***	***9***

Database: SWF/LF (SWIS), Date of Government Version: 11/13/2017
Facility ID: 28-AA-0001
Operational Status: Closed
Regulation Status: Permitted

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MORROW EQUIPMENT CO	***833 HANNA DR***	***NNE 1/4 - 1/2 (0.409 mi.)***	***5***	***14***

Database: NAPA CO. LUST, Date of Government Version: 01/09/2017
Status: Closed
Permit ID: 248449

Lower Elevation	Address	Direction / Distance	Map ID	Page
COUCH PROPERTY	***2 EUCALYPTUS DR***	***SSW 1/8 - 1/4 (0.153 mi.)***	***1***	***8***

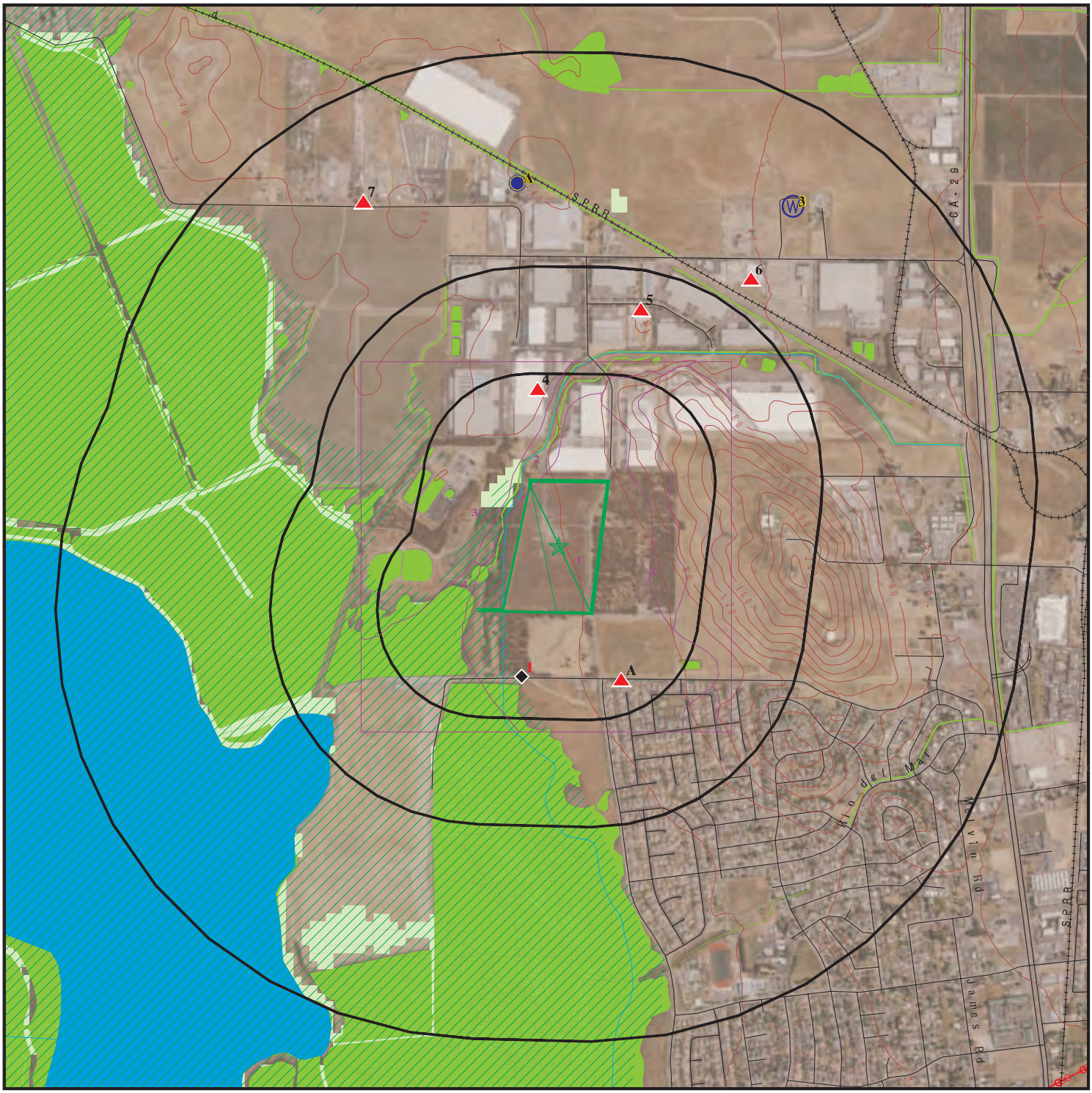
Database: NAPA CO. LUST, Date of Government Version: 01/09/2017
Status: Closed
Permit ID: 248266

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
AMERICAN CANYON POND SITE	LUST
CANYON CROSSINGS	ENVIROSTOR, VCP

OVERVIEW MAP - 5240904.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
LAT/LONG:	38.185443 / 122.273651	INQUIRY #:	5240904.2s
		DATE:	March 30, 2018 9:55 am

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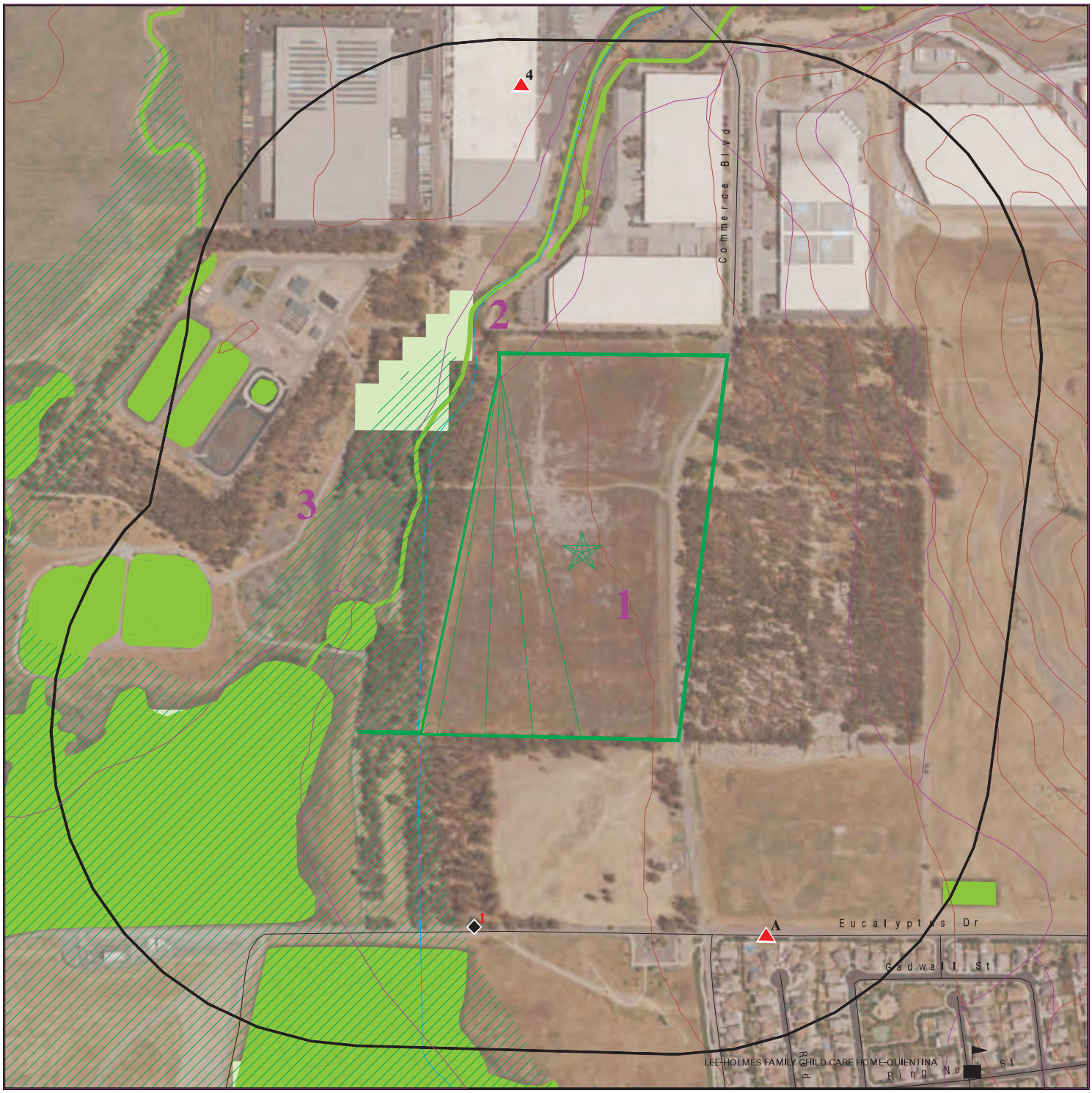
DETAIL MAP - 5240904.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
		INQUIRY #:	5240904.2s
LAT/LONG:	38.185443 / 122.273651	DATE:	March 30, 2018 9:57 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	2	NR	NR	NR	2
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	2	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	1	0	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		0	1	1	NR	NR	2

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	4	1	2	0	7

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SSW
1/8-1/4
0.153 mi.
807 ft.

COUCH PROPERTY — **LUST** **S111291382**
2 EUCALYPTUS DR — **NPDES** **N/A**
AMERICAN CANYON, CA 94589

Relative:
Lower

Actual:
9 ft.

NAPA CO. LUST:

Permit ID:	248266
Status:	Closed
Permit Type:	Non-LOP
District:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	2
Regulatory Measure Id:	420898
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	2 28C362311
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/28/2012
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	10/21/2011
PROCESSED DATE:	10/28/2011
STATUS CODE NAME:	Terminated
STATUS DATE:	11/29/2012
PLACE SIZE:	51
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Michael Johnson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	559-584-6656
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	johnson@griswoldlasalle.com
OPERATOR NAME:	AMERICAN CANYON FLAT LAND COMPANY INC
OPERATOR ADDRESS:	111 East Seventh Street
OPERATOR CITY:	Hanford
OPERATOR STATE:	California
OPERATOR ZIP:	93230
OPERATOR CONTACT NAME:	Michael Johnson
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	559-584-6656
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	johnson@griswoldlasalle.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	AMERICAN CANYON FLAT LAND COMPANY INC
DEVELOPER ADDRESS:	111 East Seventh Street
DEVELOPER CITY:	Hanford
DEVELOPER STATE:	California
DEVELOPER ZIP:	93230

COUCH PROPERTY (Continued) **S111291382**

DEVELOPER CONTACT NAME:	Michael Johnson
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Eucalyptus grove removal.
CONSTYPE OTHER IND:	Y
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	MICHAEL JOHNSON
CERTIFIER TITLE:	LRP
CERTIFICATION DATE:	21-OCT-11
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

A2 **AMERICAN CANYON SANITARY LANDFILL** **SWF/LF** **S102361374**
SSE **WESTERN TERMINUS OF EUCALYPTUS DRIVE** **Financial Assurance** **N/A**
1/8-1/4 **NAPA, CA**
0.170 mi.
897 ft. **Site 1 of 2 in cluster A**

Relative:
Higher

Actual:
26 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	28-AA-0001
Lat/Long:	38.18056 / -122.27556
Owner Name:	Napa-Vallejo Waste Management Authority
Owner Telephone:	7072534545
Owner Address:	Not reported
Owner Address2:	1195 Third Street, Room 101
Owner City,St,Zip:	Napa, CA 94559
Operational Status:	Closed
Operator:	Napa-Vallejo Waste Management Authority
Operator Phone:	7072534545
Operator Address:	Not reported
Operator Address2:	1195 Third Street, Room 101
Operator City,St,Zip:	Napa, CA 94559
Permit Date:	12/17/2013
Permit Status:	Permitted
Permitted Acreage:	$122.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Permitted
Landuse Name:	Agricultural
GIS Source:	Map

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Mixed municipal
Closure Date:	12/01/1995
Closure Type:	Actual
Disposal Acreage:	$97.00
SWIS Num:	28-AA-0001
Waste Discharge Requirement Num:	III
Program Type:	Financial Assurance Responsibilities
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	4900000
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Cubic Yards
Lat/Long:	38.18056 / -122.27556

CA Financial Assurance 2:

Region:	2
SWIS_NO:	28-AA-0001
Closure Approved:	Yes
Closure Inf Coverage Date:	Not reported
Closure Plan Coverage:	$3,301,570.00
Closure Plan Date:	04/15/2005
PostClose Approved:	Yes
PostClose Adequacy Date:	07/25/2005
PostClose Inf Coverage:	$11,868,209.00
PostClose Inf Coverage Date:	06/01/2016
CorActCoverage:	$939,393.00
CorActApproved:	Yes
CorAct Mec Adequacy Date:	Not reported
CorAct Inf Coverage:	$977,464.00
CorActPlanCoverage:	$767,000.00
CorAct Plan Date:	09/25/2003
Lia Coverage:	$0.00
Lia Approved:	No
Review:	07/20/2016
Closure Mechanism A:	Not reported
Closure Mechanism B:	Not reported
Closure Coverage:	$0.00
Closure Adequacy:	Not reported
Closure Inflation Estimate:	$0.00
Post Closure Mechanism A:	PLEDGE OF REVENUE
Post Closure Established A:	05/13/1994
Post Closure Mechanism B:	Not reported
Post Closure Coverate:	$17,108,935.00
Post Closure Adequacy:	Not reported
Corrective Action Extablished A:	Not reported
Corrective Actiont Coverage:	$939,393.00
Corrective Action Approved:	Yes
Corrective Action Inflation Estimate:	$977,464.00
Corrective Action Inflationdate:	06/01/2016
Corrective Action Plan Estimate:	$767,000.00
Liability Mechanism A:	Not reported
Liability Established A:	Not reported
Liability Mechanism B:	Not reported
CostAnniversary:	02/10/2008

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

ClosureEstablishedA:	Not reported
ClosureEstablishedB:	Not reported
ClosureDisbursement:	0
PostClosureEstablishedB:	Not reported
PostClosureDisbursement:	0
CorrectiveActionMechanismA:	PLEDGE OF REVENUE
CorrectiveActionMechanismB:	Not reported
CorrectiveActionExtablishedB:	Not reported
CorrectiveActiontDisbursement:	0
LiabilityEstabllishedB:	Not reported
LiabilityAdequacy:	Not reported
Contact:	Not reported

A3 **GAS RECOVERY SYSTEMS - AMERICAN CANYON** **RCRA-SQG** **1007199996**
SSE **725 EUCALYPTUS ROAD** **CAL000035673**
1/8-1/4 **AMERICAN CANYON, CA 94589**
0.177 mi.
934 ft. **Site 2 of 2 in cluster A**

Relative:
Higher

Actual:
26 ft.

RCRA-SQG:

Date form received by agency:	03/07/2002
Facility name:	GAS RECOVERY SYSTEMS - AMERICAN CANYON
Facility address:	725 EUCALYPTUS ROAD AMERICAN CANYON, CA 94589
EPA ID:	CAL000035673
Mailing address:	5717 BRISA STREET LIVERMORE, CA 94550
Contact:	MATTHEW L NOUROT
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	925-606-3700
Telephone ext.:	3721
Contact email:	NOUROT@GRSI.NET
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No

GAS RECOVERY SYSTEMS - AMERICAN CANYON (Continued) **1007199996**

Used oil transporter: No

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

4
North
1/8-1/4
0.215 mi.
1133 ft.

Relative:
Higher

Actual:
27 ft.

AMCAM BEVERAGES INC **RCRA-SQG** **1023675186**
1201 COMMERCE BLVD **CAR000271809**
AMERICAN CANYON, CA 94503

RCRA-SQG:
Date form received by agency: 04/03/2017
Facility name: AMCAM BEVERAGES INC
Facility address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94503
EPA ID: CAR000271809
Mailing address: COMMERCE BLVD
AMERICAN CANYON, CA 94503
Contact: JERROD CLARK
Contact address: COMMERCE BLVD
AMERICAN CANYON, CA 94503
Contact country: US
Contact telephone: 707-556-1230
Contact email: JERCLARK@COCA-COLA.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: THE COCA-COLA COMPANY
Owner/operator address: PO BOX 1734
ATLANTA, GA 30313
Owner/operator country: US
Owner/operator telephone: 404-676-2121
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Owner/operator name: THE COCA-COLA COMPANY
Owner/operator address: PO BOX 1734
ATLANTA, GA 30313
Owner/operator country: US
Owner/operator telephone: 404-676-2121
Owner/operator email: Not reported

AMCAM BEVERAGES INC (Continued) **1023675186**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

AMCAM BEVERAGES INC (Continued) **1023675186**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

Violation Status: No violations found

---

5 **MORROW EQUIPMENT CO** **LUST** **S103978447**
NNE **833 HANNA DR** **CHMIRS** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503** **WDS**
0.409 mi.
2161 ft.

Relative:
Higher

Actual:
37 ft.

NAPA CO. LUST:
Permit ID: 248449
Status: Closed
Permit Type: Non-LOP
District: 0

CHMIRS:

OES Incident Number:	9-2001
OES notification:	05/10/1999
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported

MORROW EQUIPMENT CO (Continued) **S103978447**

Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	San Francisco Bay
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	Morrow Equipment Co
Incident Date:	5/10/199912:00:00 AM
Admin Agency:	Napa County Dept. Environmental Mgmt
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	unk
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Discovered an oily substance on top of a drainage ditch that runs along side of the building. Company traced the spill back to the far drain on the back of the property. Company has called a contactor to come and contain the spill. Company does not bbeleive this is caused by them.

WDS:

Facility ID:	San Francisco Bay 28I017048
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	7076443731

MORROW EQUIPMENT CO (Continued) **S103978447**

Facility Contact:	BRYAN FRAZER
Agency Name:	MORROW EQUIPMENT CO
Agency Address:	833 Hanna Dr
Agency City,St,Zip:	American Canyon 945039606
Agency Contact:	BRYAN FRAZER
Agency Telephone:	7076443731
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

6
NE
1/2-1
0.579 mi.
3058 ft.

POLYVINYL CHEMICAL INDUSTRIES, INC **ENVIROSTOR** **S118756649**
501 GREEN ISLAND ROAD **N/A**
VALLEJO, CA 94589

Relative: Higher

Actual: 38 ft.

ENVIROSTOR:

Facility ID:	28510002
Status:	No Action Required
Status Date:	06/05/2008
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	04
Senate:	03
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Funding: EPA Grant
Latitude: 38.19456
Longitude: -122.2654
APN: 057160002000
Past Use: UNKNOWN
Potential COC: * HYDROCARBON SOLVENTS * UNSPECIFIED ALKALINE SOLUTIONS * LATEX WASTE
Not reported
Confirmed COC: NONE SPECIFIED
Potential Description: UE
Alias Name: CALIFORNIA RESINS (NAME CHANGE 11/17/82)
Alias Type: Alternate Name
Alias Name: PCI
Alias Type: Alternate Name
Alias Name: 057160002000
Alias Type: APN
Alias Name: CAD061163325
Alias Type: EPA Identification Number
Alias Name: SL0605547879
Alias Type: GeoTracker Global ID
Alias Name: 28510002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/29/1990
Comments: PRELIM ASSESS DONE ECOLOGY AND ENVIRONMENT PRELIMINARY ASSESSMENT 2/12/90. SITE POSES A HIGH POTENTIAL OF RELEASE TO SURFACE WATER. EPA RECOMMENDATION-MEDIUM PRIORITY SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/05/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/16/1987
Comments: SITE SCREENING DONE MANUFACTURER OF ACRYLIC EMULSIONS CHEMS. ORGANIC CHEMICALS FOUND IN SOIL AND GROUNDWATER AROUND PIT. PCI WAS PART OF BEATRICE CHEMICAL DIVISION OF BEATRICE FOODS. THE DIVISION WAS SOLD TO IMPERIAL CHEMICAL INDUSTRIES 03/01/85.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/28/2008
Comments: The Triage recommended No Further Action. A Sensitive Receptor Survey and Risk Based Corrective Action Assessment submitted to the SF Water Board indicate that the contaminant residuals present at the site do not pose a significant health risk to current or future occupants of the site. Based on this Report, a No Further Action Letter was issued by the SF Board dated November 20, 2000.

Completed Area Name: PROJECT WIDE

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 05/01/2014
Comments: DTSC conducted a reassessment of sites in EPA's CERCLIS database on EPA's behalf. The regional waterboard had reviewed past soil and groundwater investigations and determined that no further action was required. Based on this information and available sampling data, DTSC recommended no further federal assessment under CERCLA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/05/1988
Comments: FACILITY IDENTIFIED DHS DRIVE-BY. PHOTOS TAKEN SITE SCREENING DONE PAH REQ BASED ON NAPA CO ENVR HLTH FILE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/12/1988
Comments: FACILITY IDENTIFIED ENVR HLTH NAPA KNOWN CONTAMINATED SITE

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

7
NNW
1/2-1
0.759 mi.
4006 ft.

FORMER SUNSHINE AUTO SALVAGE
1578 GREEN ISLAND
AMERICAN CANYON, CA 94503

ENVIROSTOR **S106234974**
SLIC **N/A**
ENF
NPDES

Relative:
Higher

Actual:
31 ft.

ENVIROSTOR:
Facility ID: 28500004
Status: Refer: RWQCB
Status Date: 01/10/2001
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 5
NPL: NO
Regulatory Agencies: RWQCB 2 - San Francisco Bay
Lead Agency: RWQCB 2 - San Francisco Bay
Program Manager: Not reported
Supervisor: Karen Toth
Division Branch: Cleanup Berkeley
Assembly: 04
Senate: 03
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Latitude: 38.19873
Longitude: -122.2822
APN: 058070020000
Past Use: BATTERY RECLAMATION, RECYCLING - SCRAP METAL
Potential COC: Lead TPH-diesel 1,2,4-Trimethylbenzene
Confirmed COC: Lead 1,2,4-Trimethylbenzene 30024-NO
Potential Description: SOIL
Alias Name: CALIFORNIA AUTO DISMANTLING
Alias Type: Alternate Name
Alias Name: 058070020000
Alias Type: APN
Alias Name: 28500004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/11/2002
Comments: PA/SI completed. The site was recommended for no further CERCLA remedial site assessment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 01/10/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/22/1988
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/10/2001
Global Id: SLT2O01220
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 38.1979592581048
Longitude: -122.282120459358
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: 28S0043

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:
Region: 2
Facility ID: 28S0043
Facility Status: Case Closed
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

ENF:
Region: 2
Facility Id: 226276
Agency Name: California Auto Dismantling Inc
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: Privately-Owned Business
Of Agencies: 1
Place Latitude: 38.197004
Place Longitude: -122.283653
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Reg Meas
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	238135
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	10/22/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	No Further Action
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

Region: 2

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237984
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	09/07/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Conditional Approval
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

Region:	2
Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237983
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	04/19/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Approval of Time Extension
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Total $ Paid/Completed Amount:	$0.00
Region:	2
Facility Id:	226276
Agency Name:	California Auto Dismantling Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	38.197004
Place Longitude:	-122.283653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 28S0043
Reg Measure Id:	167693
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237833
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	03/29/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 28S0043
Description:	Approval of the Revised Workplan for Limited Soil and GW Investigation
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	2
Regulatory Measure Id:	276879
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	2 28I019282
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	07/01/2015
PROCESSED DATE:	01/19/2005
STATUS CODE NAME:	Active
STATUS DATE:	07/14/2015

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

PLACE SIZE:	5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Fahim Noorzay
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	707-557-4300
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	fahimnoorzay@gmail.com
OPERATOR NAME:	California Auto Dismantling Inc
OPERATOR ADDRESS:	1578 Green Island Rd
OPERATOR CITY:	American Canyon
OPERATOR STATE:	California
OPERATOR ZIP:	94503
OPERATOR CONTACT NAME:	Fahim Noorzay
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	707-557-4300
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	fahimnoorzay@gmail.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	707-557-4300
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	wetlands
CERTIFIER NAME:	Fahim Noorzay
CERTIFIER TITLE:	owner
CERTIFICATION DATE:	01-JUL-15
PRIMARY SIC:	5015-Motor Vehicle Parts, Used
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	2

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

Regulatory Measure Id:	276879
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	2 28I019282
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/19/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	California Auto Dismantling Inc
Discharge Address:	1578 Green Island Rd
Discharge City:	American Canyon
Discharge State:	California
Discharge Zip:	94503
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported

FORMER SUNSHINE AUTO SALVAGE (Continued) **S106234974**

CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	S119102654	AMERICAN CANYON POND SITE	EUCALYPTUS DR	94503	LUST
AMERICAN CANYON	S121475155	CANYON CROSSINGS	NAPA JUNCTION ROAD	94503	ENVIROSTOR, VCP

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 23

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 15

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/09/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 57

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 92

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 28

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 30
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 42
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 54

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/08/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/29/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 29
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 35
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 32
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 02/22/2018
Number of Days to Update: 42

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 63

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 10

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/25/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/26/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/26/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 14

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/29/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 51

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/05/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 40

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/06/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 21

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 54

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/16/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 29
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 01/17/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 28
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 10/26/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/06/2017
Number of Days to Update: 10

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 12

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/12/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 15

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 20

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 30

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/31/2018
Date Data Arrived at EDR: 02/01/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 41

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/09/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 50

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/15/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 50

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 64

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/05/2018
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 42

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 46

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 02/01/2018
Number of Days to Update: 42
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 28
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 29
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/04/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 42

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 28

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 16

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 37

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 12/04/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 15

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/26/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 50

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 48

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/27/2017
Date Data Arrived at EDR: 12/13/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 10
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/22/2018
Number of Days to Update: 36
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/09/2018
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COMMERCE 320 DISTRIBUTION CENTER
NOT REPORTED
AMERICAN CANYON, CA 94503

TARGET PROPERTY COORDINATES

Latitude (North):	38.185443 - 38° 11' 7.59''
Longitude (West):	122.273651 - 122° 16' 25.14''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	563612.6
UTM Y (Meters):	4226434.0
Elevation:	19 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

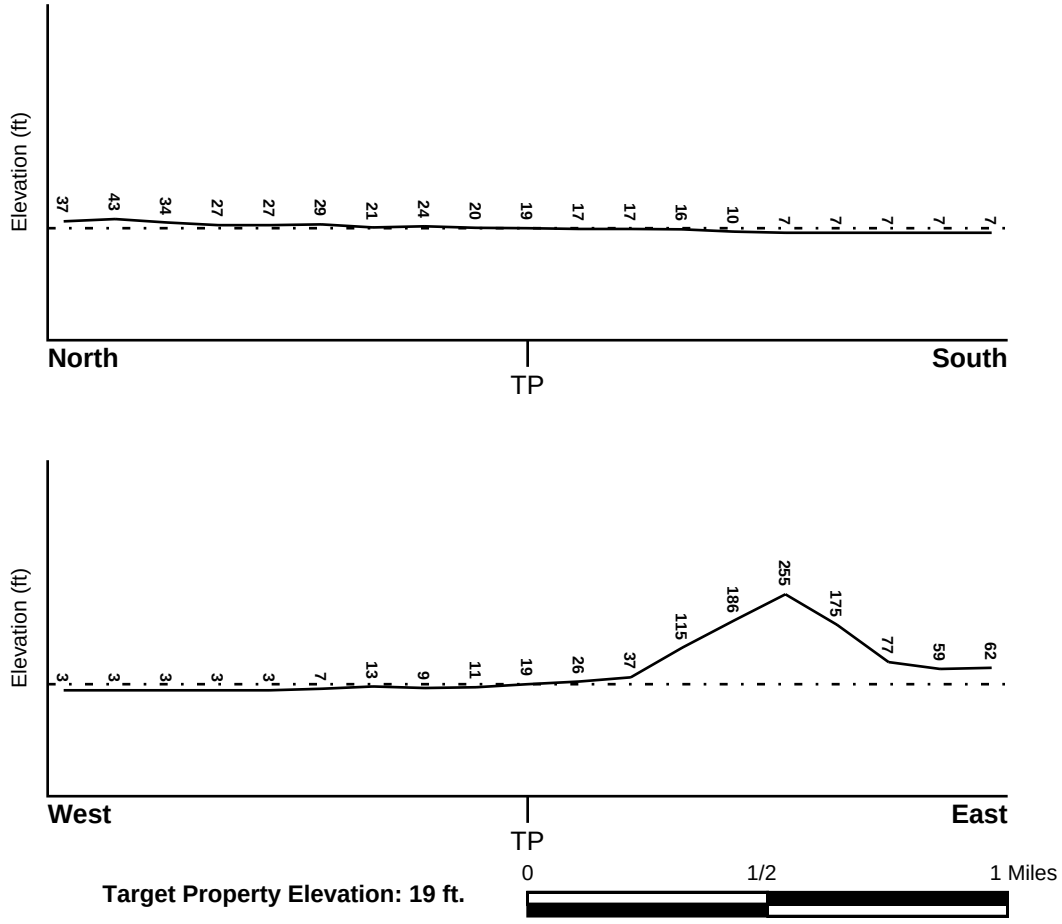
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06055C0625E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06055C0610E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CUTTINGS WHARF	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

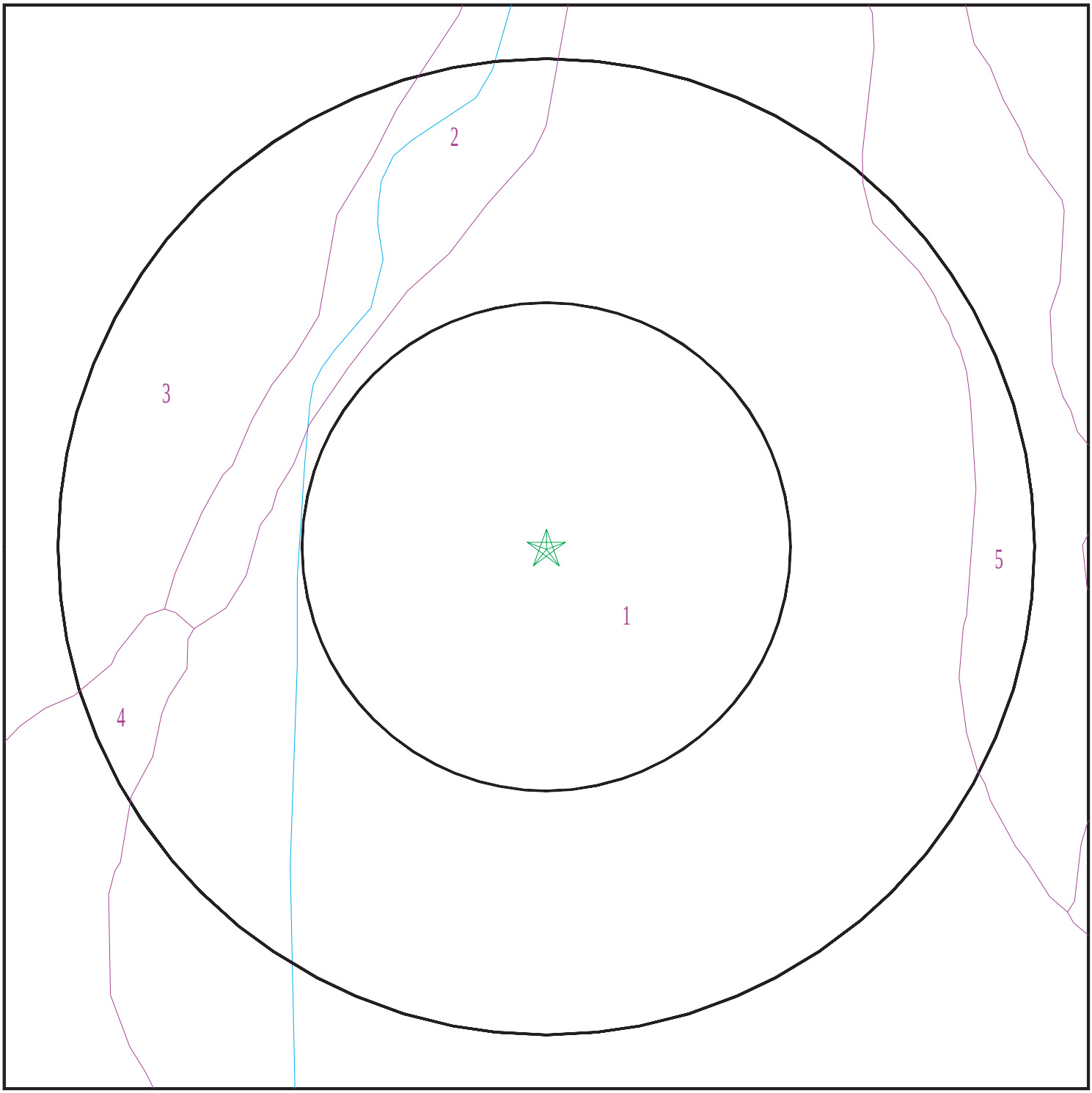
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5240904.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
LAT/LONG:	38.185443 / 122.273651	INQUIRY #:	5240904.2s
		DATE:	March 30, 2018 9:57 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: HAIRE

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 2

Soil Component Name: CLEAR LAKE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	31 inches	68 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: HAIRE

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6 Min: 5.1
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 6 Min: 5.1
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 4

Soil Component Name: REYES

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6
2	14 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5 Min: 3.6

Soil Map ID: 5

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6.5 Min: 5.6
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 5.6
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6.5 Min: 5.6
4	46 inches	50 inches	weathered bedrock	Not reported	Not reported	Max: 4 Min: 1.4	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000187284	1/2 - 1 Mile North

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADW60000011407	1/2 - 1 Mile North
3	CADW60000011406	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 5240904.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Commerce 320 Distribution Center	CLIENT:	ATC Group Services LLC
ADDRESS:	Not Reported American Canyon CA 94503	CONTACT:	Gyan Rusconi-Rodrigues
LAT/LONG:	38.185443 / 122.273651	INQUIRY #:	5240904.2s
		DATE:	March 30, 2018 9:57 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
North
1/2 - 1 Mile
Higher | **CA WELLS** | **CADW60000011407**

Objectid:	11407
Latitude:	38.1976
Longitude:	-122.2753
Site code:	381976N1222753W001
State well numbe:	04N04W14C002M
Local well name:	’’
Well use id:	4
Well use descrip:	Residential
County id:	28
County name:	Napa
Basin code:	’2-2.03’
Basin desc:	Napa-Sonoma Lowlands
Dwr region id:	80236
Dwr region:	North Central Region Office
Site id:	CADW60000011407

A2
North
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000187284**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-381153122162801		
Monloc name:	004N004W14C002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050002	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.1979728
Longitude:	-122.2755275	Sourcemap scale:	024000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	34
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 27

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1977-10-03	36.7		1977-06-20	33.7	
1977-04-18	36.2		1977-01-24	32.7	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1976-10-18	33.4	
1976-04-28	33.2	
1975-10-28	33	
1975-04-15	30.2	
1974-07-22	33.7	
1973-10-25	31.2	
1972-10-25	38.2	
1971-03-17	36.2	
1969-04-04	30.4	
1967-05-01	32.7	
1965-03-22	33.2	
1963-04-05	33.4	
1976-07-28	32.6	
1976-02-02	31.2	
1975-07-09	32.2	
1974-10-08	30.2	
1974-04-03	28.2	
1973-05-04	32.7	
1972-03-20	35.2	
1970-03-23	30.4	
1968-03-18	27.9	
1966-04-06	32.8	
1964-04-02	33.3	

3
NE
1/2 - 1 Mile
Higher

CA WELLS **CADW60000011406**

Objectid:	11406
Latitude:	38.197
Longitude:	-122.2636
Site code:	381970N1222636W001
State well numbe:	04N04W13E001M
Local well name:	''
Well use id:	5
Well use descrip:	Stockwatering
County id:	28
County name:	Napa
Basin code:	'2-2.03'
Basin desc:	Napa-Sonoma Lowlands
Dwr region id:	80236
Dwr region:	North Central Region Office
Site id:	CADW60000011406

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94503	11	0

Federal EPA Radon Zone for NAPA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NAPA COUNTY, CA

Number of sites tested: 27

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.937 pCi/L	93%	7%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.800 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F

AERIAL PHOTOGRAPHS

Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.12

March 30, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.12

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2014	1"=500'	Flight Year: 2014	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1993	1"=500'	Acquisition Date: July 06, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 08, 1982	USDA
1974	1"=500'	Flight Date: April 30, 1974	USGS
1968	1"=500'	Flight Date: April 20, 1968	USGS
1958	1"=500'	Flight Date: July 25, 1958	USGS
1952	1"=500'	Flight Date: August 03, 1952	USDA
1947	1"=500'	Flight Date: March 01, 1947	USGS

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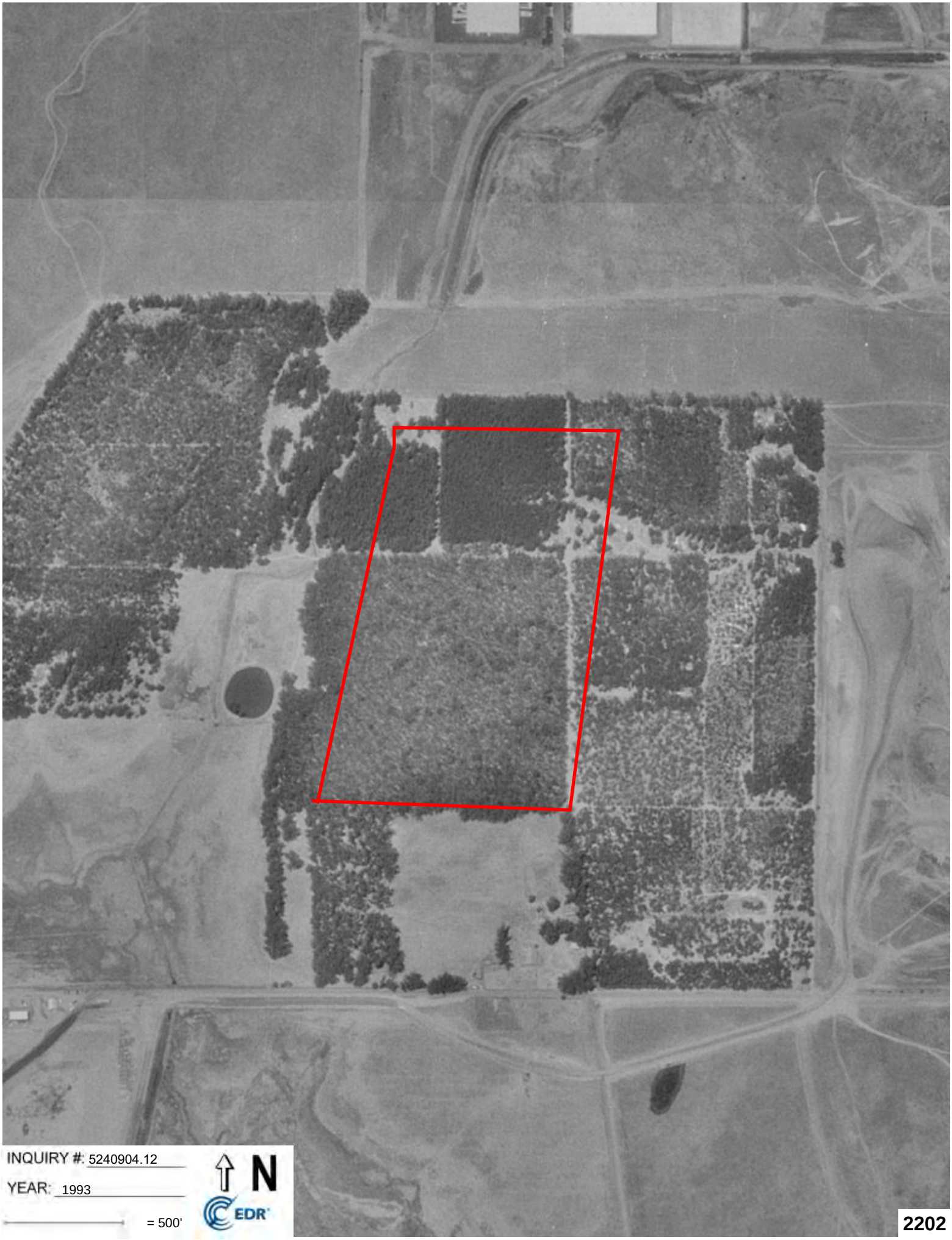
INQUIRY #: 5240904.12
YEAR: 2014
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 2010
= 500'
N
EDR
2200


INQUIRY #: 5240904.12
YEAR: 2006
= 500'
N
EDR
2201



INQUIRY #: 5240904.12

YEAR: 1993

= 500'

N

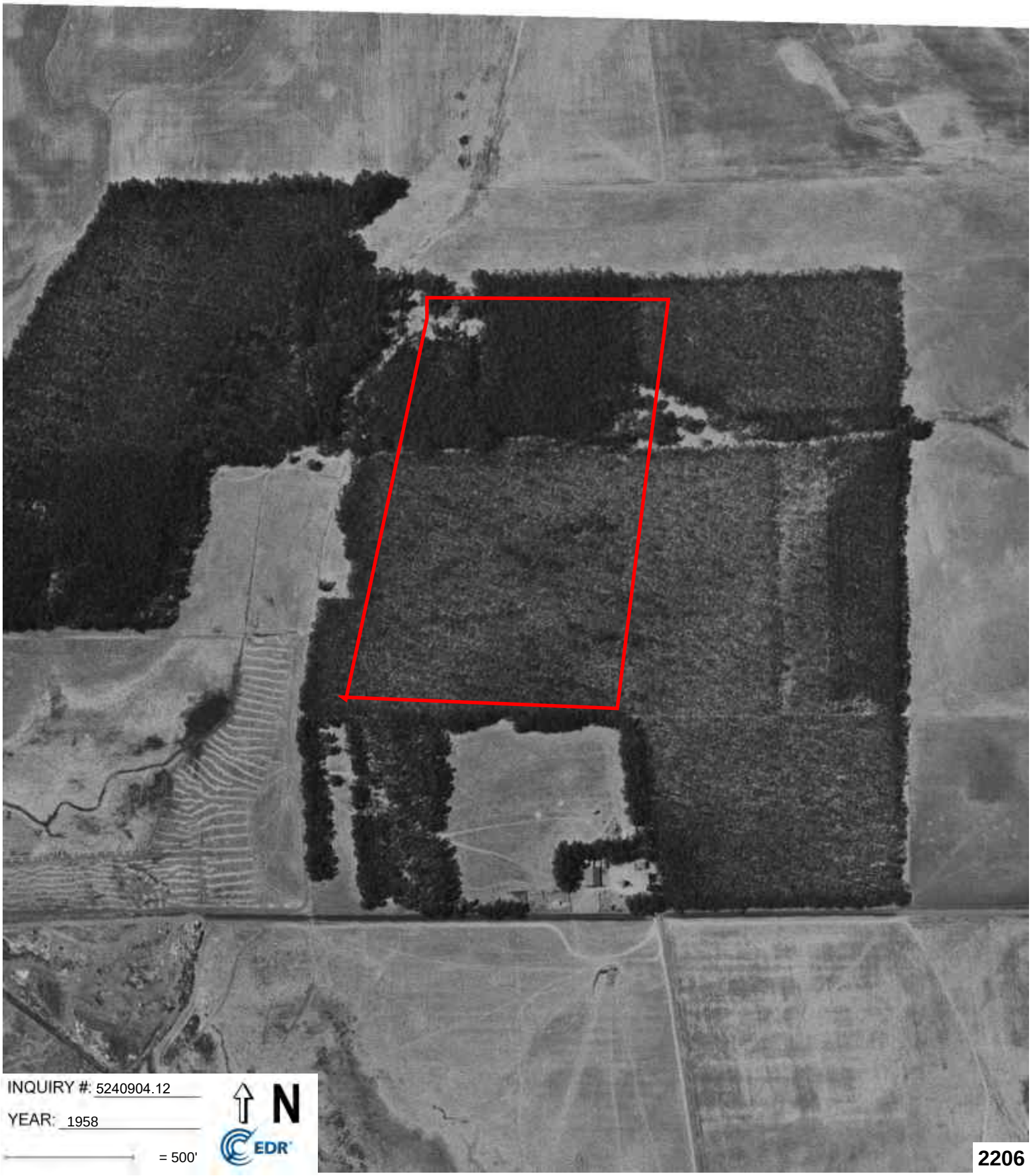
EDR

2202

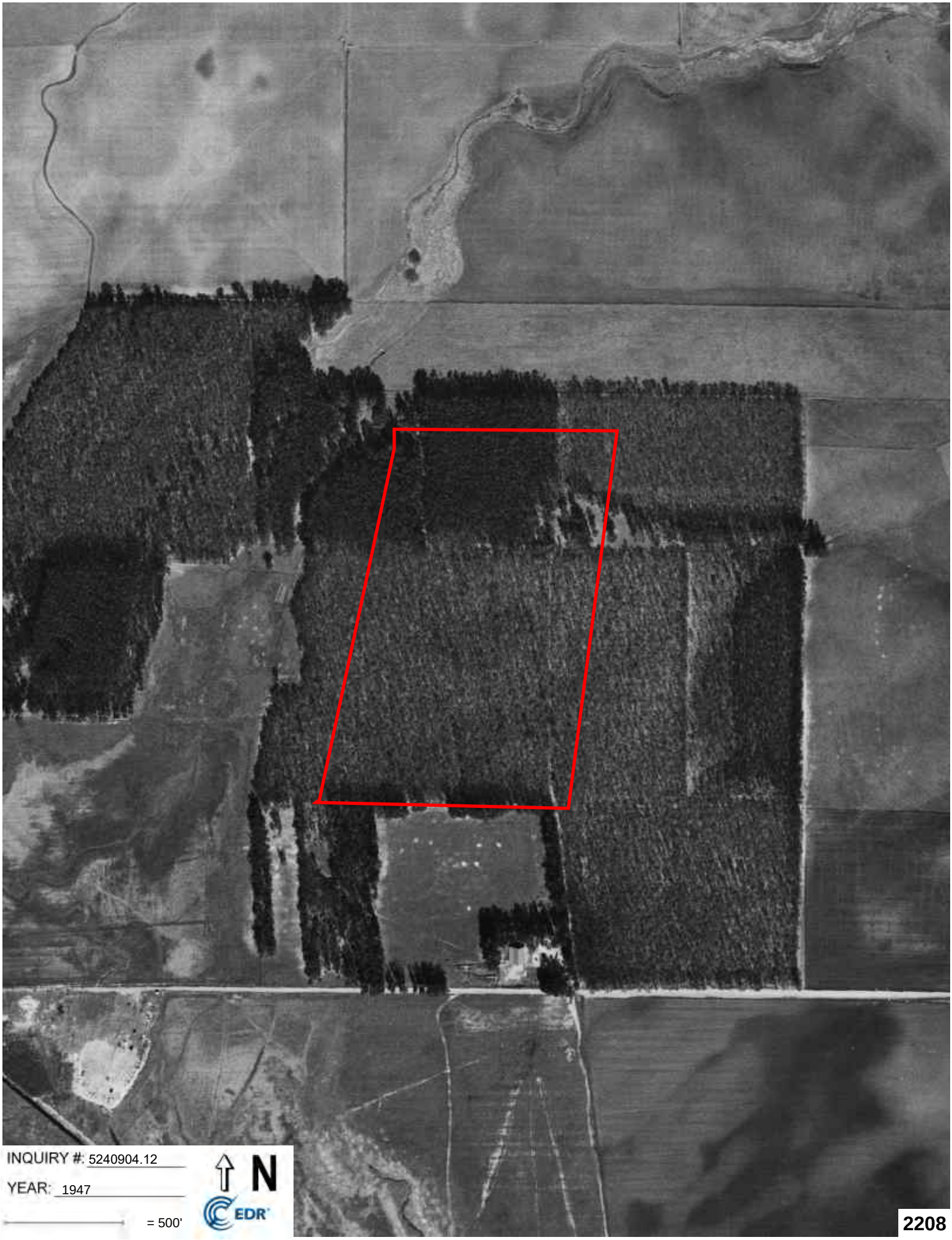

INQUIRY #: 5240904.12
YEAR: 1982
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1974
= 500'
N
EDR
2204


INQUIRY #: 5240904.12
YEAR: 1968
= 500'
N
EDR
2205


INQUIRY #: 5240904.12
YEAR: 1958
= 500'
N
EDR


INQUIRY #: 5240904.12
YEAR: 1952
= 500'
N
EDR
2207


INQUIRY #: 5240904.12
YEAR: 1947
= 500'
N
EDR
2208

APPENDIX G

HISTORICAL RESEARCH DOCUMENTATION

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.8
March 30, 2018

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Building Permit Report: Search Documentation

3/30/18

Site Name:
Commerce 320
Not Reported
American Canyon, CA

EDR Inquiry # 5240904.8

Client Name:
ATC Group Services LLC
2400 Camino Ramon, Suite
San Ramon, CA 94583

Contact: Gyan Rusconi-

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 3/30/18, EDR does not have access to building permits in the city where your target property is located (American Canyon, CA).

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.5
March 30, 2018

The EDR-City Directory Image Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

Data by
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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	Haines Criss-Cross Directory
1990	☐	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Not Reported
American Canyon, CA 94503

Year	*CD Image*	*Source*	

COMMERCE BLVD

2014	pg A1	EDR Digital Archive	
2010	pg A2	EDR Digital Archive	
2005	pg A3	EDR Digital Archive	
2000	pg A4	EDR Digital Archive	
1995	pg A5	Haines Criss-Cross Directory	
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2014

1166	HESS COLLECTION WINERY
	ZEPEXCO INC
1201	AMCAN BEVERAGES INC
	AMERICAN BEVERAGES
	COCA-COLA COMPANY AMERICAN CYN
1245	VIN GO LLC
1275	WESTERN WINE SERVICES INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2010

1166	GRAPEVINE EXPRESS
	HESS COLLECTION WINERY
	TRICANA INC
	ZEPEXCO INC
	ZEPHYR EXPRESS
1201	AMCAN BEVERAGES INC
	COCA COLA NORTH AMERICA
	FLUID RESOURCE MANAGEMENT
	PACIFIC SOLUTIONS CONSTRUCTION
	SUN POKKA CITRUS INC
1245	BACCHUS DISTRIBUTION CO LLC
1275	WESTERN WINE SERVICES INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2005

1166	HESS COLLECTION WINERY THE
1175	PRO MORTGAGE PARTNERS LLC
	SELECT WINE SERVICES
	WRAPIT TRANSIT
1201	PB HOLDINGS INC
	POKKA USA INC
	SUN POKKA CITRUS INC
1275	SANTA CLARA WAREHOUSES INC
	WESTERN WINE SERVICE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE BLVD 2000

1201 POKKA USA INC
SUN POKKA CITRUS INC
1275 SANTA CLARA WAREHOUSES INC

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

COMMERCE BLVD 1995



COMMERCE BLVD (93)
94589 VALLEJO

1245 ★GOOD HEALTH AMERICA 552-0122 +5
★PIONEER TIRE SUPPLY 552-6666 3
★ 2 BUS 0 RES 1 NEW

Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.7
April 02, 2018

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Not Reported
Commerce 320 Distribution Center
American Canyon, CA 94503

RESEARCH SOURCE

Source 1:

Napa Recorder
Napa, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	American Canyon Flatland Co Inc
Title received from:	Steven R Brock
Deed Dated	12/2/2016
Deed Recorded:	12/12/2016
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	American Canyon Flatland Co Inc
Parcel # / Property Identifier:	058030065000
Comments:	See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

RECORDING REQUESTED BY)
AND WHEN RECORDED)
RETURN TO:)
)
)
MICHAEL R. JOHNSON)
GRISWOLD, LaSALLE, COBB,)
DOWD & GIN, L.L.P.)
111 E. 7th St.)
Hanford, CA 93230)
)
Mail Tax Statements to:)
American Canyon Flat Land Co., Inc.)
17674 N. Woodson Avenue)
Fresno, CA 93711)

2016-0032608

Recorded Official Records County of Napa JOHN TUTEUR Assessor-Recorder-Cou	REC FEE	22.00
	PCOR FEE	20.00
	CC1 ONE CONFORM	1.00
	LS	
09:00AM 21-Dec-2016	Page 1 of 3	

ORNF

QUITCLAIM DEED

☑ Computed on full value of property conveyed, or
☐ Computed on full value less liens & encumbrances remaining thereon at time of sale.

Signature of declarant or agent determining tax, firm name

THE UNDERSIGNED GRANTOR DECLARES
DOCUMENTARY TRANSFER TAX IS $ 0.00
(No Consideration)

Parcel Nos. 058-030-065 and 058-030-067

X City of American Canyon

STEVEN R. BROCK,

DOES HEREBY REMISE, RELEASE AND FOREVER QUITCLAIM TO:

AMERICAN CANYON FLAT LAND CO., INC. any and all interest arising from Real Estate Purchase Agreement and Escrow Instructions dated May 9, 2002, as disclosed by Memorandum of Agreement recorded June 6, 2003, as Series Number 2003-0029743 of Official Records:

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED HEREIN BY THIS REFERENCE

DATED: December 2, 2016, 2016.

STEVEN R. BROCK

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss.
COUNTY OF Fresno)

On December 2, 2016, before me, Kim Ann Hindmarsh, a Notary Public, personally appeared STEVEN R. BROCK, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(SEAL)

KIM ANN HINDMARSH
NOTARY PUBLIC - CALIFORNIA
COMMISSION # 2091914
FRESNO COUNTY
My Comm. Exp. December 25, 2018

NOTARY PUBLIC

END OF DOCUMENT

EXHIBIT "A"

Parcels 2 and 3 as shown on that certain Map entitled "Lands of Couch Parcel Map" filed November 8, 2012 in Book 26 of Parcel Maps at pages 87-90, in the office of Napa County Recorder of Napa County.

Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.3

March 30, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.3

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 6C89-4301-88F9

PO # NA

Project NA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 6C89-4301-88F9

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

ATC Group Services LLC (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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Commerce 320 Distribution Center
Not Reported
American Canyon, CA 94503

Inquiry Number: 5240904.6
March 30, 2018

The EDR Property Tax Map Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

Thank you for your business.
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Commerce 320 Distribution Center

Not Reported

American Canyon, CA 94503

Inquiry Number: 5240904.4

March 30, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/30/18

Site Name:

Commerce 320 Distribution Ce
Not Reported
American Canyon, CA 94503
EDR Inquiry # 5240904.4

Client Name:

ATC Group Services LLC
2400 Camino Ramon, Suite 360
San Ramon, CA 94583
Contact: Gyan Rusconi-Rodrigues

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: NA

Coordinates:

Latitude:	38.185443 38° 11' 8" North
Longitude:	-122.273651 -122° 16' 25" West
UTM Zone:	Zone 10 North
UTM X Meters:	563610.99
UTM Y Meters:	4226639.90
Elevation:	19.00' above sea level

Maps Provided:

2012	1914
1980, 1981	1902
1973	
1968	
1951	
1949	
1947	
1916	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Cuttings Wharf
2012
7.5-minute, 24000



Cordelia
2012
7.5-minute, 24000

1980, 1981 Source Sheets



Cordelia
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Cuttings Wharf
1981
7.5-minute, 24000

1973 Source Sheets



Cuttings Wharf
1973
7.5-minute, 24000
Aerial Photo Revised 1968

1968 Source Sheets



Cuttings Wharf
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Cordelia
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1951 Source Sheets



Cordelia
1951
7.5-minute, 24000
Aerial Photo Revised 1948



Cuttings Wharf
1951
7.5-minute, 24000
Aerial Photo Revised 1948

1949 Source Sheets



Cuttings Wharf
1949
7.5-minute, 24000
Aerial Photo Revised 1948

1947 Source Sheets



PORT CHICAGO
1947
15-minute, 50000



MARE ISLAND
1947
15-minute, 50000

1916 Source Sheets



Mare Island
1916
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1914 Source Sheets



MARE ISLAND
1914
15-minute, 62500

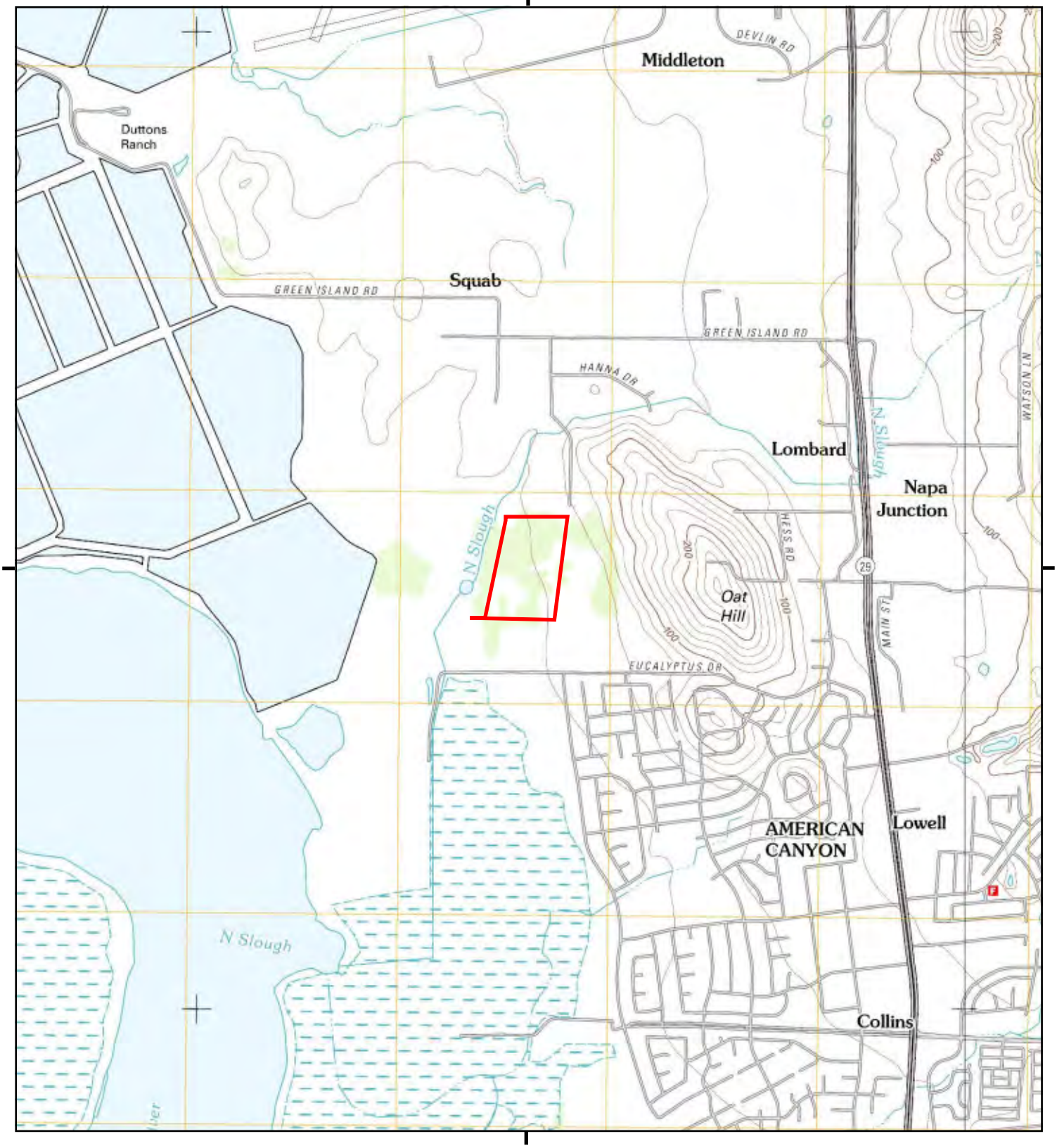
1902 Source Sheets



Napa
1902
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

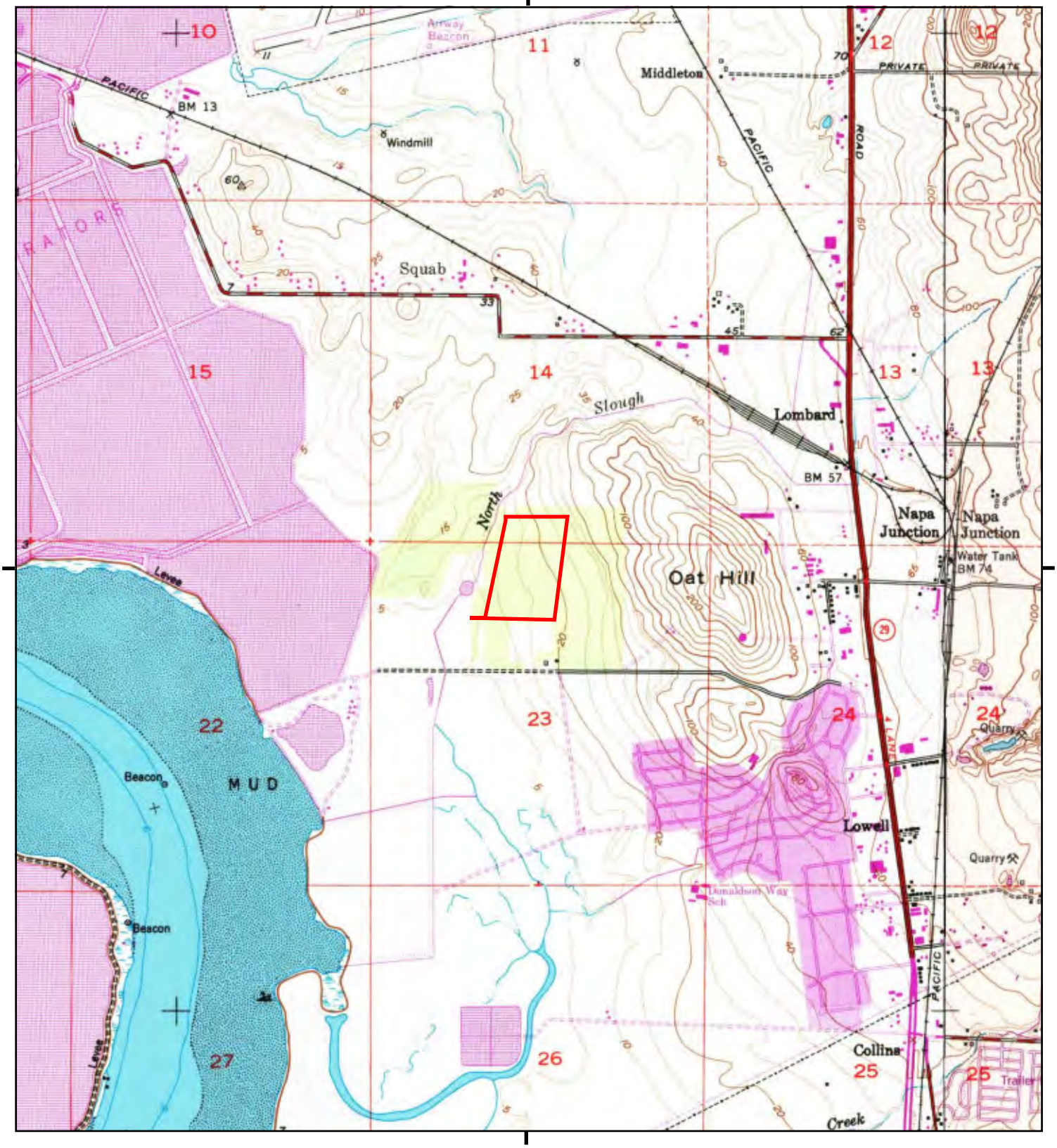
TP, Cuttings Wharf, 2012, 7.5-minute
E, Cordelia, 2012, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1980, 1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

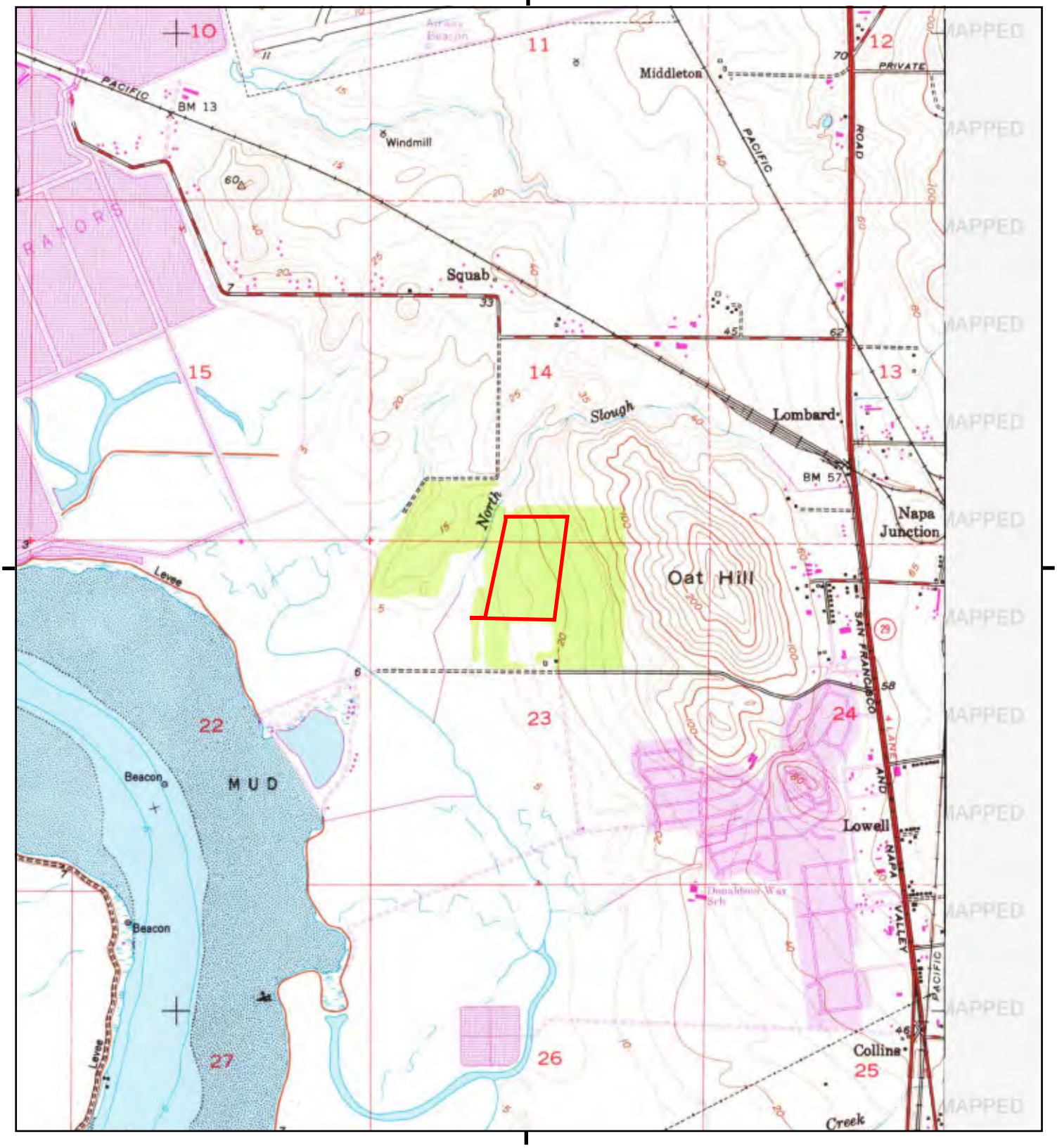
TP, Cuttings Wharf, 1981, 7.5-minute
E, Cordelia, 1980, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

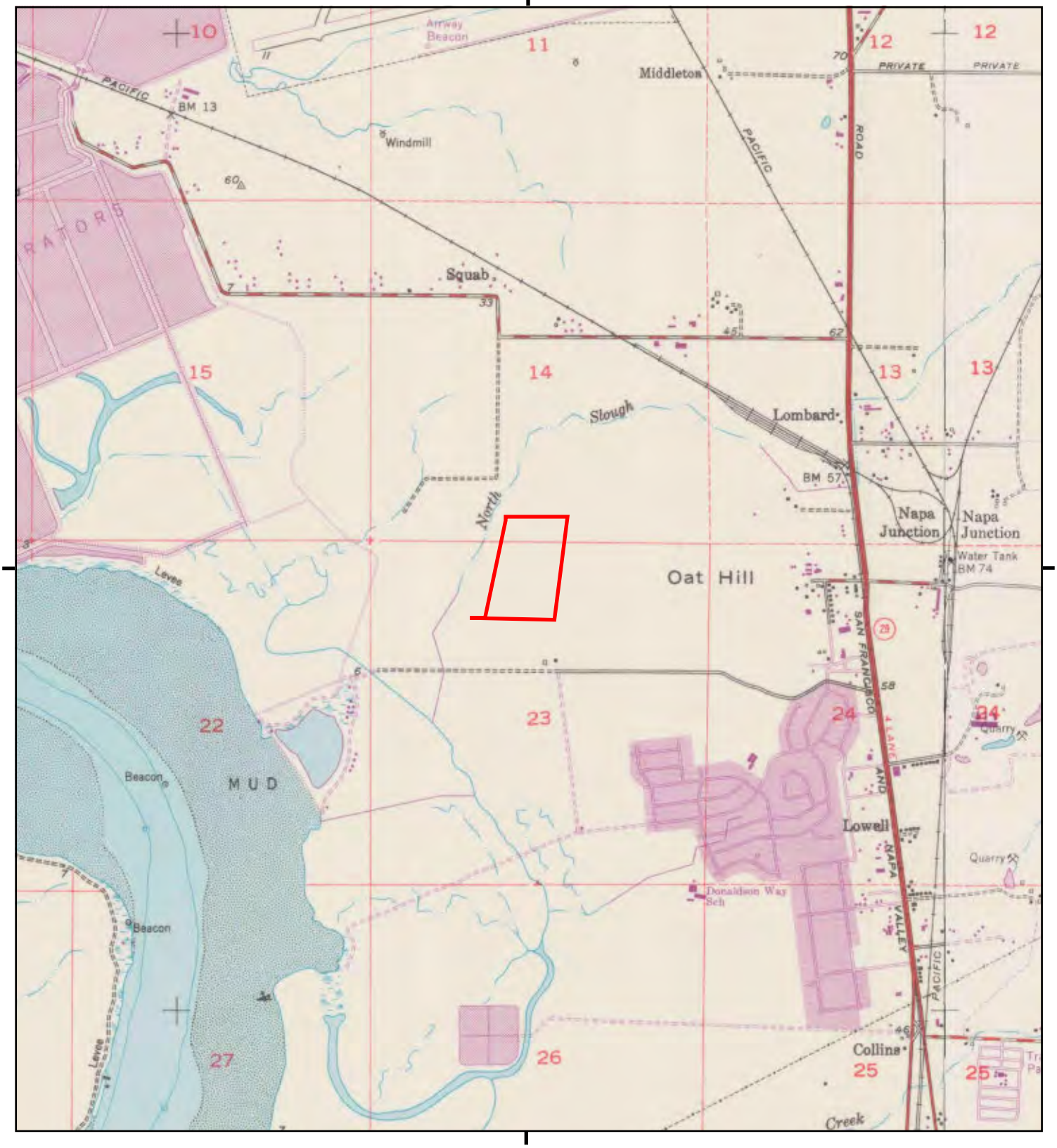
TP, Cuttings Wharf, 1973, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1968



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

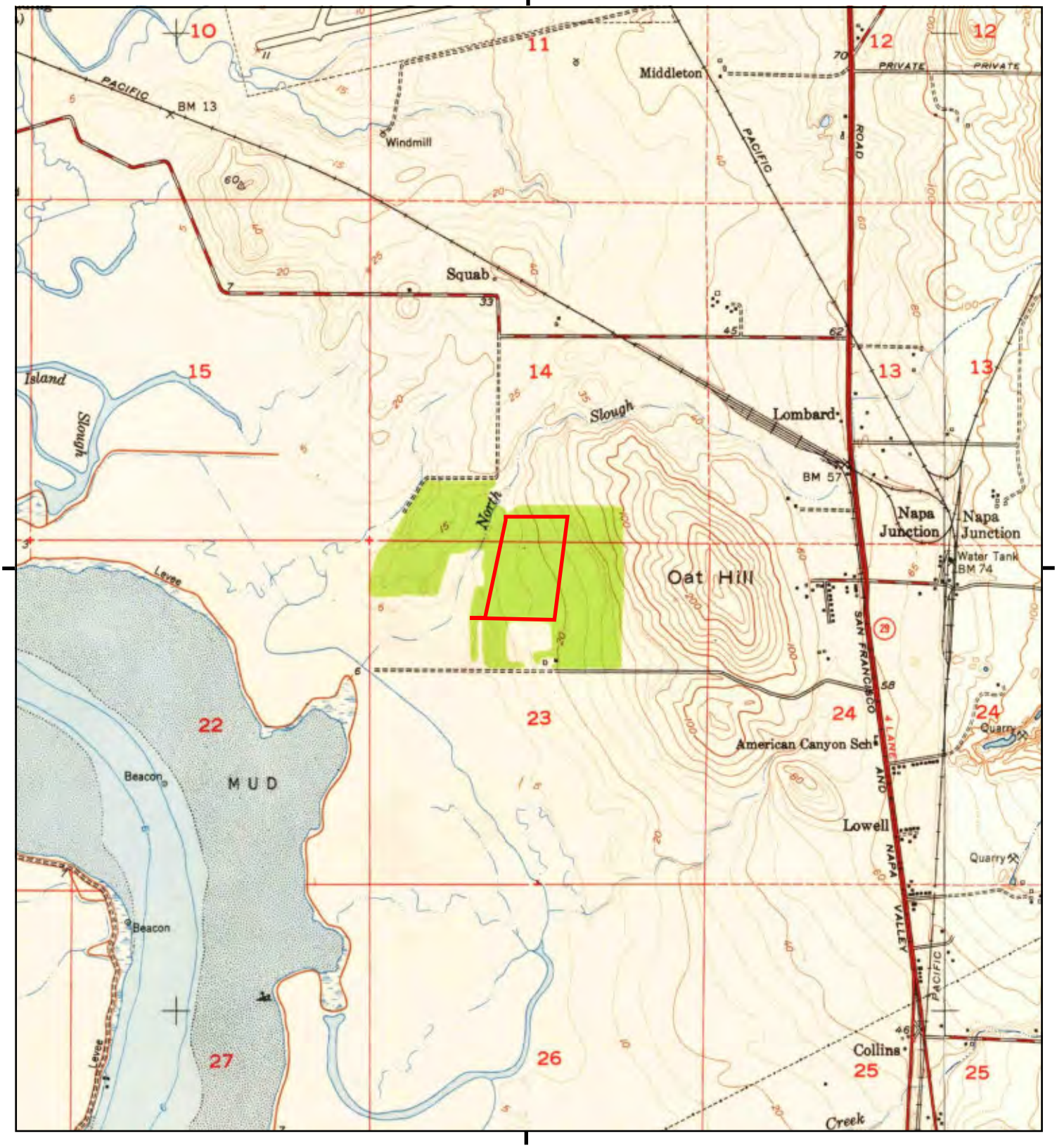
TP, Cuttings Wharf, 1968, 7.5-minute
E, Cordelia, 1968, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1951



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SW S SE

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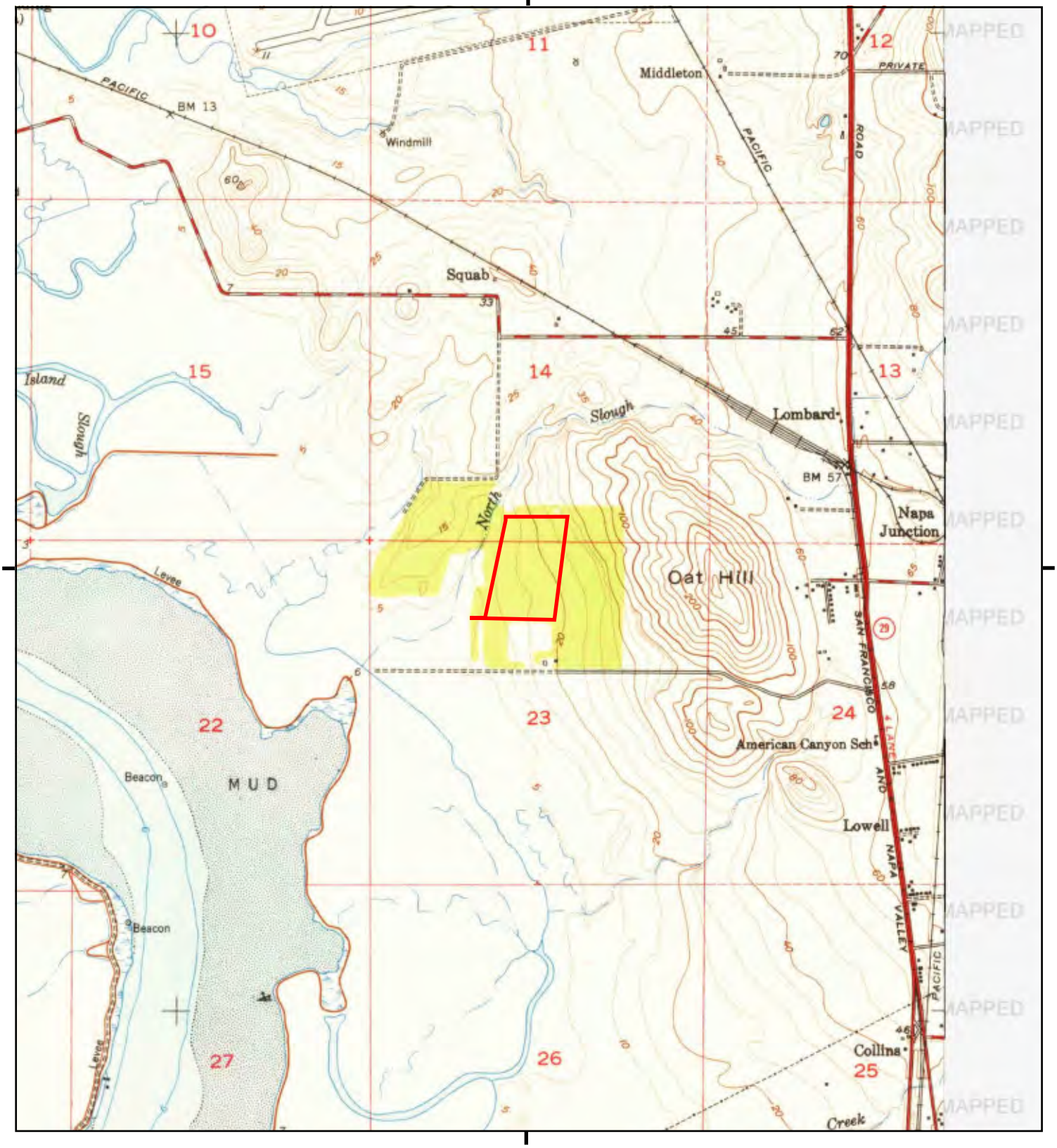
E, Cordelia, 1951, 7.5-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1949



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SW S SE

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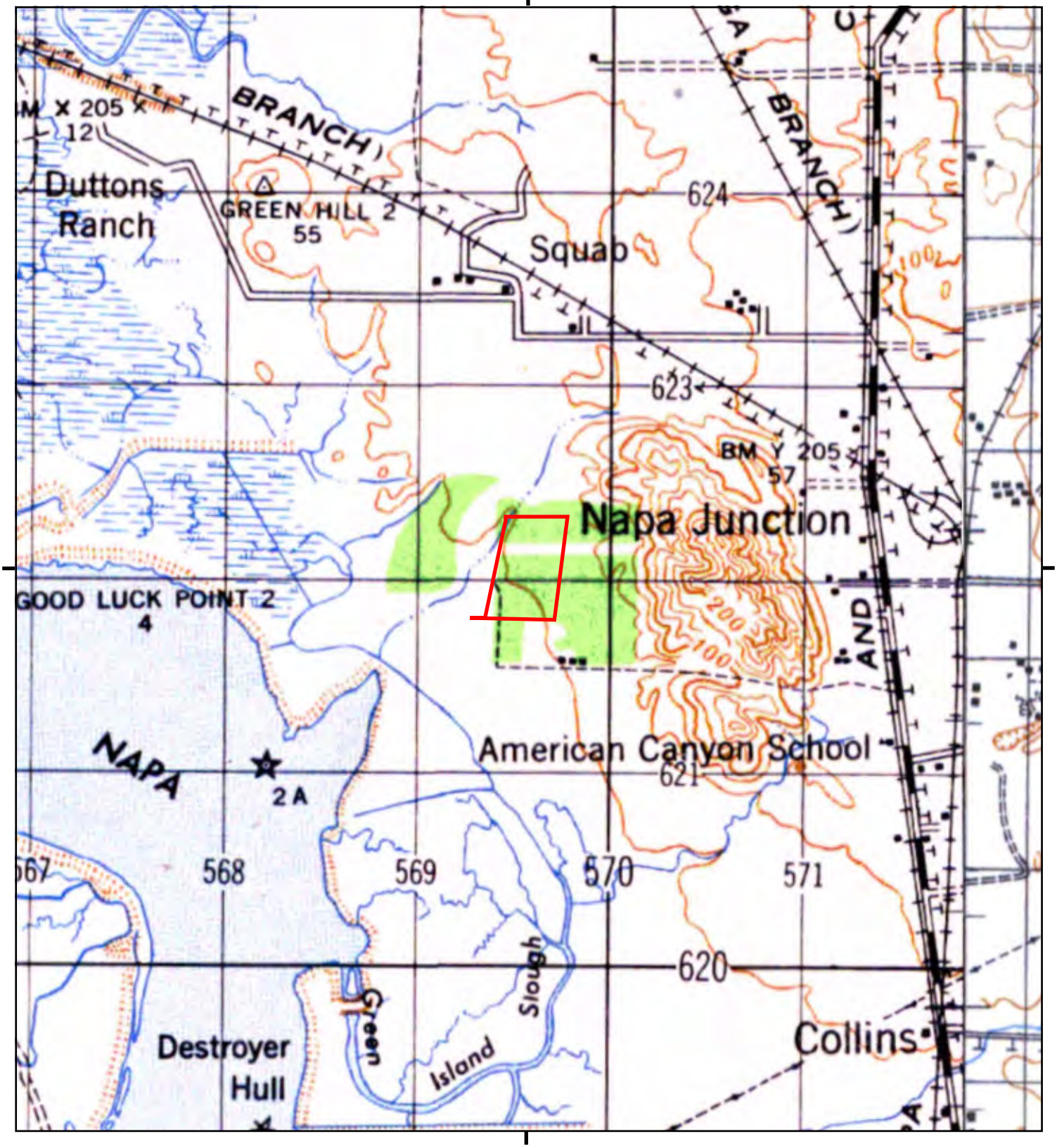
SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1947



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W E
SW S SE

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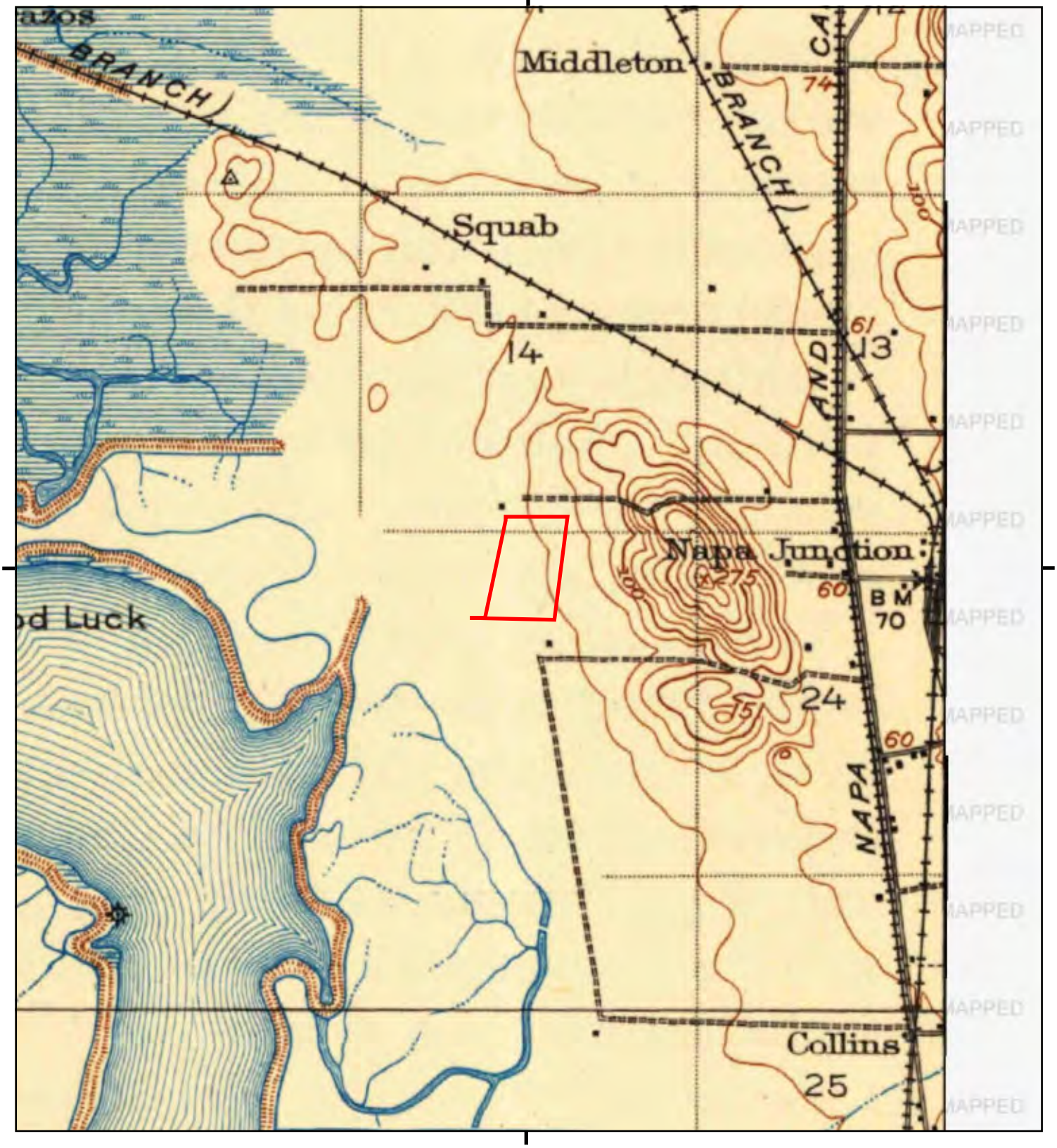
SE, PORT CHICAGO, 1947, 15-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1916



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SW S SE

TP, Mare Island, 1916, 15-minute

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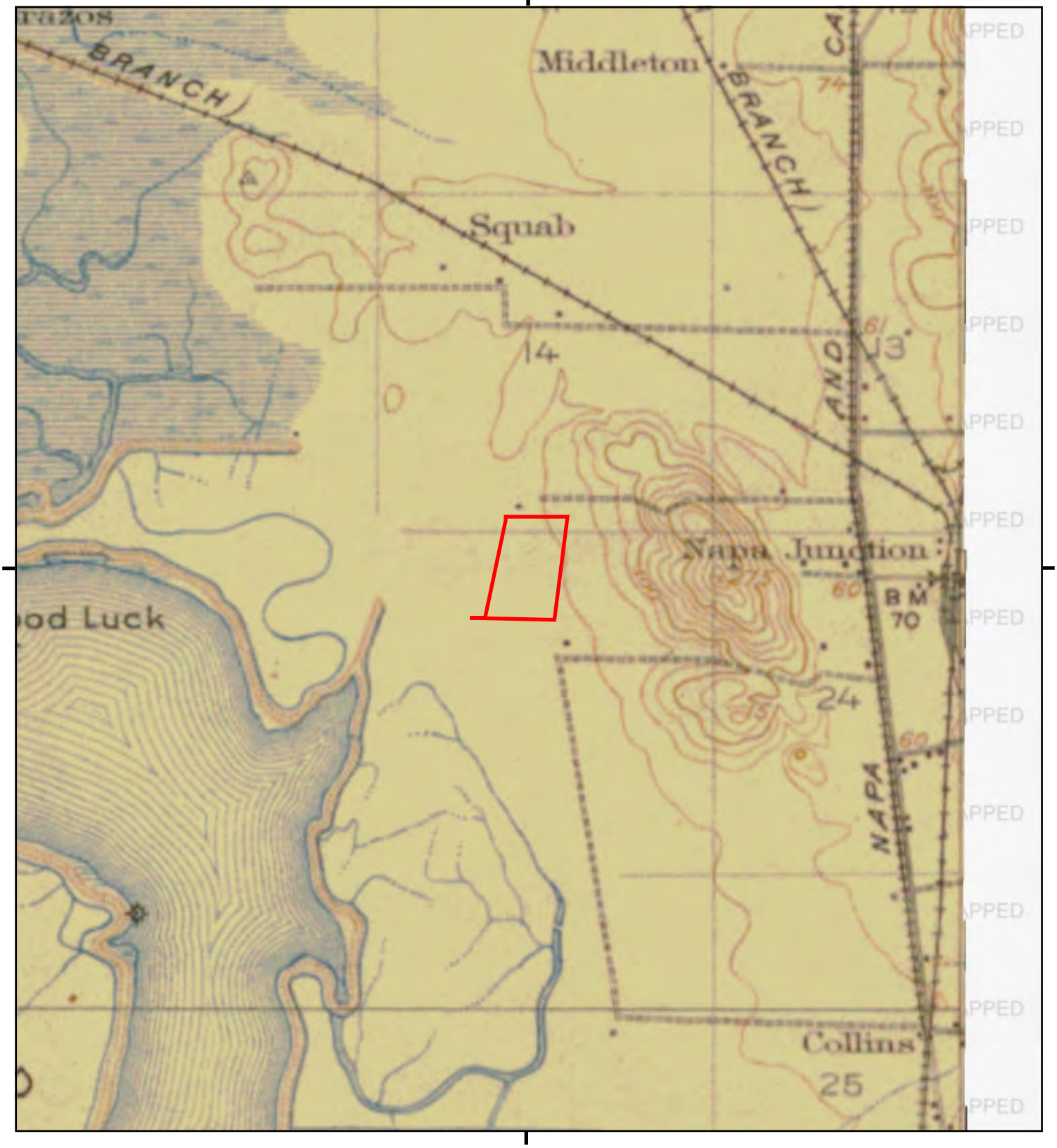
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1914



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SW S SE

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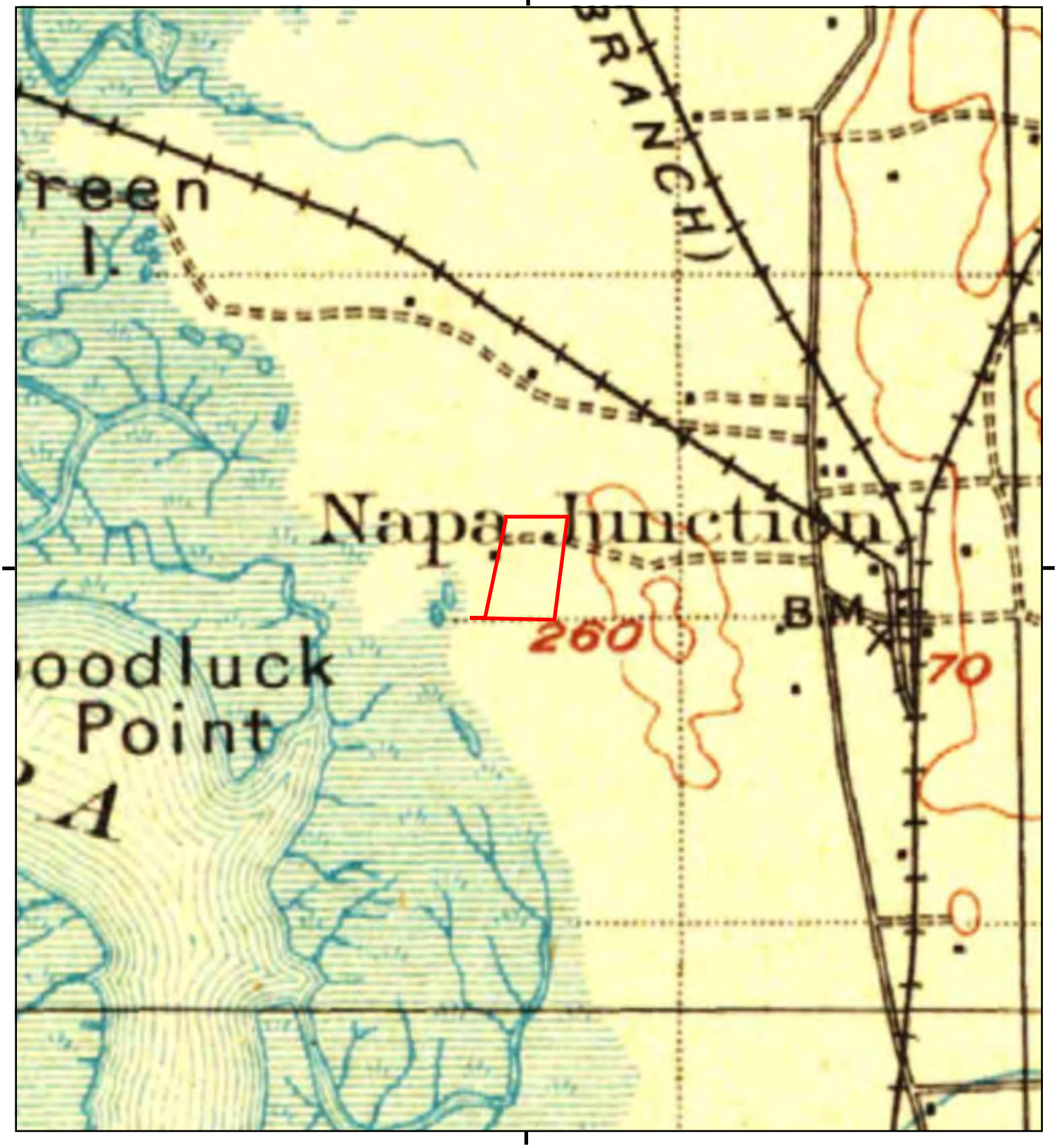
SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N



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W E
SW S SE

TP, Napa, 1902, 30-minute

SITE NAME: Commerce 320 Distribution Center
ADDRESS: Not Reported
American Canyon, CA 94503
CLIENT: ATC Group Services LLC

N

APPENDIX H

PRIOR REPORTS

COUCH PROPERTY

Phase I Environmental Site Assessment

October 2004

ESA Environmental Science Associates

COUCH PROPERTY

Phase I Environmental Site Assessment

October 2004

Prepared for:

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ESA Environmental Science Associates

204104

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SECTION 1.0

EXECUTIVE SUMMARY

SECTION 1.0
EXECUTIVE SUMMARY

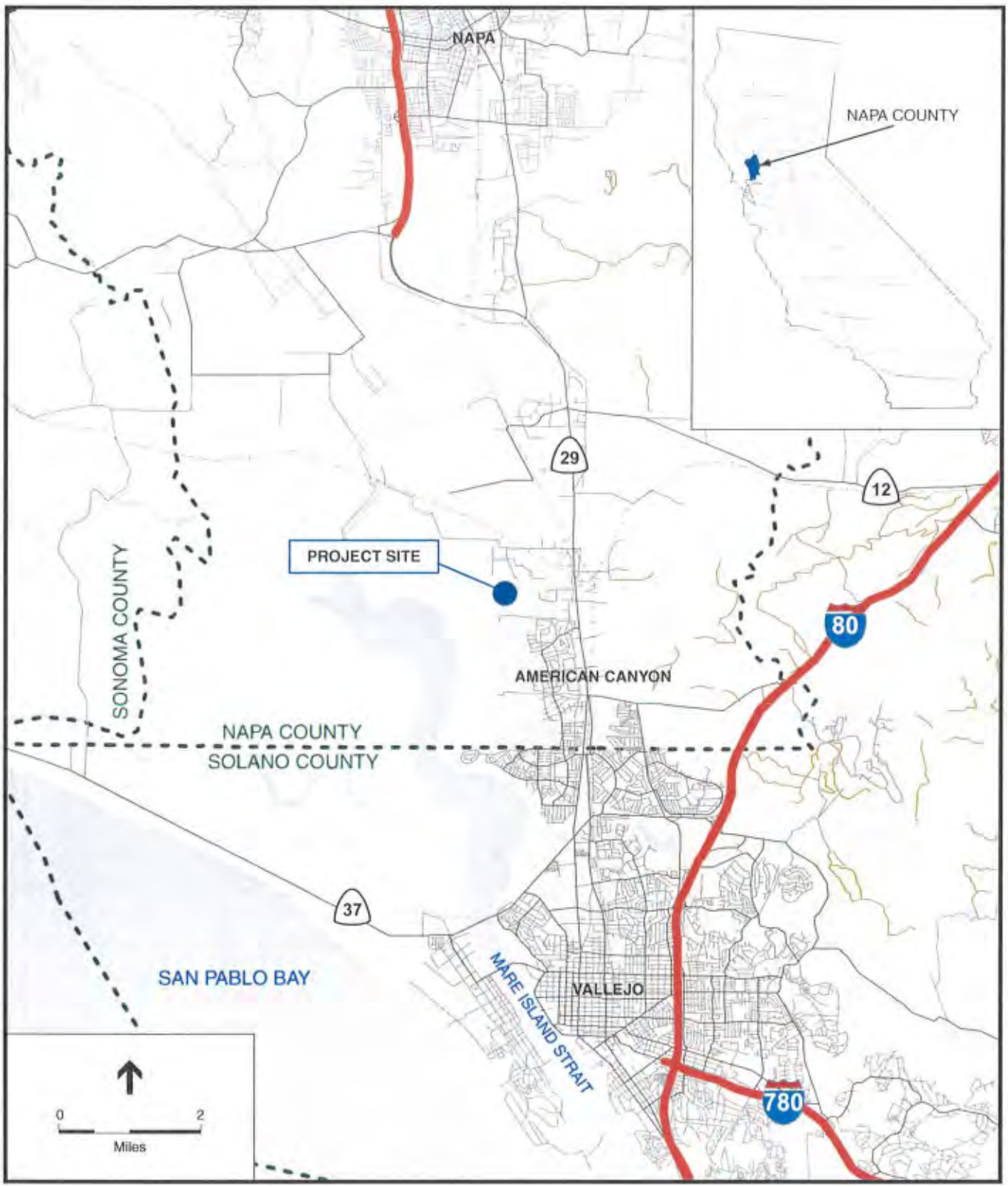
Environmental Science Associates (ESA) has been retained by Mr. Steve Brock, Fresno, California to prepare a Phase I Environmental Site Assessment of property located in American Canyon, Napa County, California (**Figure 1**). The property consists of approximately 106 acres of land located at 2 Eucalyptus Drive, American Canyon, California (**Figure 2**).

This Phase I Environmental Site Assessment was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E1527-00, Standard Practice for Environmental Site Assessments. ASTM E1527 specifies the *appropriate inquiry* to satisfy one of the requirements for the *innocent landowner defense* under the Comprehensive Environmental Response, Compensations, and Liability Act (CERCLA).

ESA's scope of work to complete the Phase I Assessment included several tasks to determine the past and present uses of the property, including:

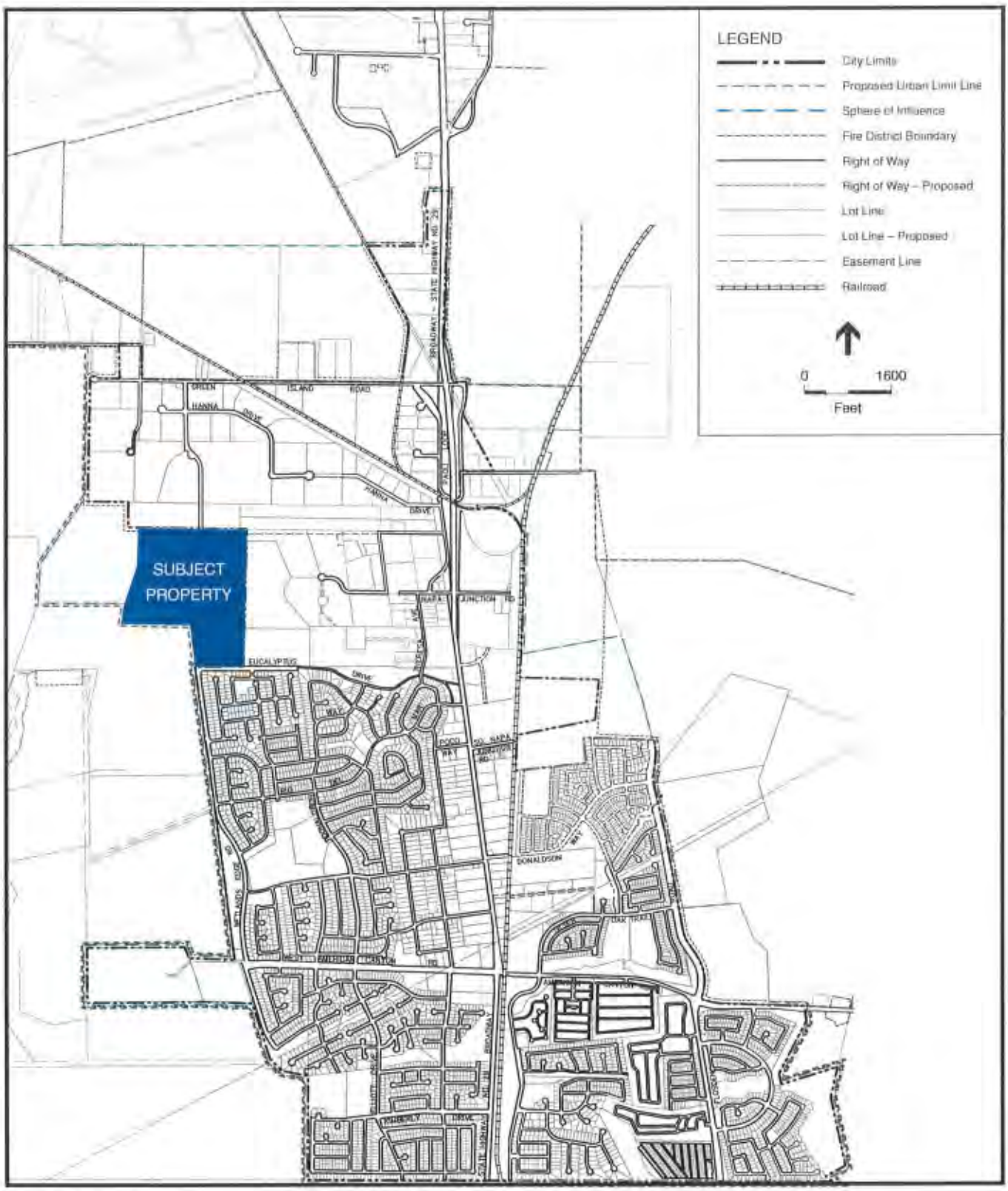
- Review of available historical aerial photographs and topographic maps.
- Review of governmental agency database listings for records of known storage tank sites, leaking underground storage tank sites, and known sites with hazardous materials use, generation, storage, or soil and groundwater contamination.
- Site reconnaissance to evaluate the potential for existing sources of contamination on or adjacent to the subject property.

Based on the information reviewed as a part of this Phase I assessment, ESA observed evidence of potential soil contamination on the property due to previous and current storage of hazardous materials and wastes and housekeeping practices on the subject property. Conclusions and recommendations are presented in Section 6.0 of this report.



SOURCE: Teale Data Center, 2000; and Environmental Science Associates, 2004

Figure 1
Regional Location



SOURCE: City of American Canyon and Environmental Science Associates, 2004

Figure 2
Site Vicinity

SECTION 2.0
INTRODUCTION

SECTION 2.0
INTRODUCTION

PURPOSE

ESA has performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of American Society of Testing and Materials (ASTM) Standard Practice E1527-00, which specifies the *appropriate inquiry* to satisfy one of the requirements for the *innocent landowner defense* under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The purpose of this Phase I Environmental Site Assessment is to identify *recognized environmental conditions* that may pose a risk to human health or to the environment, or in any way affect the proposed use of the subject property. As defined in ASTM E1527 the term *recognized environmental conditions* means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into any structures on the property or into the ground, groundwater, or surface water of the property.

The term *recognized environmental conditions* includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

This Phase I assessment provides historical information of the subject property and adjacent properties. As a part of this assessment, ESA performed a site reconnaissance of the subject property, contacted local agencies, and reviewed relevant database listings of hazardous material sites, waste generators, and underground storage tanks.

LIMITATIONS AND EXCEPTIONS

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Conformance of this assessment with the ASTM Standard Practice E1527-00 will reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the subject property.

While ESA has made every effort to discover and interpret available historical and current information on the property within the time available, the possibility for undiscovered contamination to be present remains. ESA's report is a best-effort collection and interpretation of available information consistent with industry standards for the completion of Phase I Environmental Site Assessments.

LIMITING CONDITIONS

This Phase I Environmental Site Assessment is based on a records review, a site reconnaissance, and interviews. Physical testing of soil or groundwater was not within the scope of this assessment. This Phase I Environmental Site Assessment did not include ASTM E1527 non-scope considerations for the subject property such as radon, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, and indoor air quality.

The subject property is a large dense eucalyptus grove, and while we attempted to walk the entire property, we were unable to view all areas due to dense vegetation and trees. The property has had numerous uses over the years, including reportedly illegal uses. It would be difficult to determine where the numerous shacks and temporary homes were located and where the methamphetamine labs operated throughout the property in the past.

This assessment is the result of appropriate inquiry, and is not an exhaustive assessment of the subject property. As described in the ASTM Standard Practice E1527-00, there is a point at which the cost of information obtained, or the time required to gather it, outweighs the usefulness of the information, and may, in fact, be a material detriment to the orderly completion of the investigation. Information was obtained for this Phase I investigation in compliance with ASTM E1527 guidelines.

METHODOLOGY

A variety of data sources and agencies were consulted in completing this Phase I Environmental Assessment. The following discussion describes the methods used and the data sources consulted to accomplish each task.

HISTORICAL REVIEW

Previous land uses and history of the subject property and adjacent properties were researched in an effort to identify potential sources of hazardous substances at or adjacent to the property. Aerial photographs and topographic maps were reviewed for the presence of industrial buildings, gas station canopies or pump islands, or other indications of bulk hazardous material storage and generation within the study area.

DATABASE SEARCH

Regulatory Agency database search requests were made for records of known storage tank sites and known sites of hazardous materials generation, storage or contamination. A database search report including a full listing of sites within the subject property vicinity is provided in **Appendix A**.

SITE RECONNAISSANCE

The purpose of the site reconnaissance is to observe potential locations of hazardous substances or petroleum products, to locate current aboveground storage tanks, to observe evidence of underground tanks, and to examine for obvious physical indications of improper hazardous substances or petroleum product disposal such as stained soil or asphalt, stressed vegetation, sumps, and partially buried drums.

SECTION 3.0
SITE DESCRIPTION

SECTION 3.0
SITE DESCRIPTION

LOCATION AND LEGAL DESCRIPTION

The subject property consists of approximately 106 acres of land located at 2 Eucalyptus Drive, American Canyon, Napa County, California. The Napa County Assessor's Parcel Number is 058-030-056.

SITE AND VICINITY CHARACTERISTICS

The property is located within the City of American Canyon boundary and is bound to the north warehouse buildings. To the east of the property is undeveloped grassland. The property is bound to the south by open space and a residential subdivision that is across Eucalyptus Drive. Properties to the west include a portion of the City Water Treatment Plant, a eucalyptus grove, and a wetland area. The now closed American Canyon Sanitary Landfill is located approximately 1/4 mile southwest of the subject property. Historically, the adjacent properties have been eucalyptus groves, undeveloped land, and rural residential.

The subject property is a eucalyptus grove, a portion of which is being used by the "Paint Ball Jungle" for paint ball games, and a portion is occupied by relatives of the property owners. Historically, the subject property has been a eucalyptus grove with developed portions of the property similar to what now exists.

There are paint balls throughout a portion of the property, and several forts and that have been built for use during the paint ball games. There are two unpermitted homes on the property. The area surrounding the homes has been used as an undocumented and illegal storage of hazardous materials and wastes. Utility pipelines were being installed along a dirt road that runs through the center of the property in a north/south direction.

On the southern portion of the property is an area that is being used to cut and store wood. Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property.

The owners of the property have been illegally accepting and disposing of hazardous materials and wastes on their property for several years. Old abandoned vehicles, machinery, equipment,

trash piles, batteries, compressed gas cylinders, small containers of unknown substances, and tanks are located throughout the property. The owners have allowed people to put up temporary shelters, live in abandoned vehicles and trailers on the property over the years.

In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management. The hazardous materials and wastes observed on the property at that time were oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners and solvents, unknown materials in small containers, and automobile batteries, 55-gallon drums, three underground storage tanks sitting on top of the ground, two 10,000 gallon tanks (empty) and one 3,000 gallon tank (partially full of an oily liquid). Samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel. The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

PHYSICAL SETTING

The subject property is located within the Coast Ranges, which are between the Pacific Ocean and the Great Valley of California and run almost parallel with the Sierra Nevada Mountains to the east. The Coast Ranges are comprised of a series of small ranges bisected by the San Francisco Bay. The central portion of the Coast Ranges within the vicinity of the property is characterized by gentle sloping foothills to the east of American Canyon, and alluvial plains leading to the Napa River on the western border of the City.

The major topographic features within the vicinity of the property are lowlands and marshes which border the lower reaches of the Napa River, and Oat Hill located adjacent to the east side of the property.

The U.S. Geologic Survey (USGS), 7.5 minute Cuttings Warf, California, topographic quadrangle map, 1981, depicts the subject property at an elevation approximately 20 feet above mean sea level.

Surface soil types on the subject property include Clear Lake clay, Haire loam, and Haire clay loam (USDA NRCS Soil Survey of Napa County, 1978).

Hydrology

A creek runs through the western portion of the subject property. The nearest major surface water drainage is the Napa River, located approximately one mile to the west. Regional

groundwater depth ranges from 12 to 21 feet below ground surface in the area of the subject property. Regional groundwater flow is in an easterly direction.

A biological evaluation study was completed for the proposed property on August 24, 2004. According to that study, wetlands that are likely to meet the requirements of the jurisdiction under the Clean Water Act were observed in two locations. The first and largest area is a drainage that enters the property from an underground pipe on the northwest boundary of the property. The location on the northern boundary of the property this drainage was flowing southwest with water approximately 3-4 inches deep. The drainage continues through the property southwest until it crosses the property (fence line) and drains into the adjacent wetlands. Along the northern 60-80 feet of the drainage there is sparse perennial and annual herbaceous vegetation composed of plants that are known to be indicators of wetlands. Also along the western property boundary is an area near the fence line where the brackish marsh west of the property impinges into the project area. A small area approximately 25 square feet in size at the maximum is dominated by wetland plants.

WATER SUPPLY AND SEWAGE DISPOSAL SYSTEM

The Napa County Department of Environmental Management indicated in their 1990 site investigation report (see Appendix D) that "There is no approved water supply and there are two unapproved water wells that have been dug on the property). However, ESA staff was only able to find one of the water wells on the property.

There is no approved sewage disposal or approved septic system on the property. The Napa County Department of Environmental Management has indicated in their 1990 site investigation report (see Appendix D) that "There is no approved sewage disposal or approved septic system present. Sewage disposal ranges from holes in the ground to allowing sewage, to merely allowing sewage to run on the ground to an outhouse type structure. A few portable toilets were also observed on the property.

New infrastructure for utilities is being installed along a dirt roadway that runs through the property in a north/south direction.

HISTORICAL USES OF SUBJECT PROPERTY

Historical sources were reviewed to develop a history of the previous uses of the subject property and adjacent lands, in order to help identify the likelihood of past uses that might lead to recognized environmental conditions in connection with the subject property.

As stated in ASTM standard practice E1527-00, Section 3.3.27, *practically reviewable* data is information that is "provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data." Furthermore, "records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable."

Historically, the subject property has been a eucalyptus grove with developed portions of the property similar to what now exists. The property has had numerous uses over the years, including reportedly illegal uses, such as methamphetamine labs and hazardous waste storage.

The owners of the property have been illegally accepting and disposing of hazardous materials and wastes on their property for several years. Old abandoned vehicles, machinery, equipment, trash piles, batteries, compressed gas cylinders, small containers of unknown substances, and tanks are located throughout the property. The owners have allowed people to put up temporary shelters, live in abandoned vehicles and trailers on the property over the years.

In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management. Hazardous materials and wastes were observed on the property and samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel. The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

AERIAL PHOTOGRAPHS

Historic aerial photographs were provided by GeoSearch for the subject property and surrounding area. Aerial photographs were available for the years 1937, 1957, 1965, 1982 and 1993. Refer to **Appendix B** for copies of the aerial photographs.

1937 AND 1957

The subject property is shown as a eucalyptus grove in the aerial photographs. There are dirt roads that are located along the perimeter of the property and through portions of the property, similar to what is there now. A cleared area is shown in the northeast portion of the property, where the homes, outbuildings and other items are now located. The scale and quality of the photograph is such that it is difficult to determine what is located on the developed portion of the property. Adjacent properties are shown as undeveloped land, eucalyptus groves, and a rural residence and pasture.

1965

This aerial photograph shows that a large portion of the eucalyptus grove in the southeast area of the property has been harvested, and a portion of the northwest area has been harvested. A cleared area is shown in the northeast portion of the property. The scale and quality of this photograph is such that it is difficult to determine what is located on the developed portion of the

property. Adjacent properties are shown as undeveloped land, eucalyptus groves, and a rural residence and pasture.

1982 AND 1993

The subject property is shown as a eucalyptus grove in the aerial photographs, the areas that had been cleared are now covered with trees. There are now three developed areas on the property, two in the northeast portion and one in the southeast portion of the property. Adjacent properties are shown as undeveloped land, a pond or wetland area is now located to the west, eucalyptus groves, and a rural residence and pasture. The now closed American Canyon Landfill is shown to the southwest of the property.

TOPOGRAPHIC MAPS

Historic topographic maps were provided by GeoSearch for the subject property and surrounding area. The USGS Mare Island, California, 15 minute quadrangle topographic maps were available for the years 1916 (reprinted 1947) and 1941. The USGS Cuttings Warf, California, 7.5 minute quadrangle topographic maps were available for the years 1949, 1968, and 1981. Refer to **Appendix C** for copies of the topographic maps.

1916 (REPRINTED 1947)

The subject property is shown as undeveloped land. Surrounding lands are also shown as undeveloped land or having structures typical of rural residential homes.

1941, 1949, 1968, AND 1981

The subject property is shown as a eucalyptus grove. No structures are depicted on the property. Surrounding lands are shown as eucalyptus groves, undeveloped land, or land having structures typical of rural residential homes.

RECORDED LAND TITLE RECORDS

A chain of title report was not provided to ESA for this assessment.

SANBORN INSURANCE COMPANY MAPS

EDR conducted a search for Sanborn Fire Insurance Maps. The Sanborn maps do not provide coverage of the area in which the subject property is located.

BUILDING DEPARTMENT RECORDS

The Napa County Building Department was contacted. According to staff on duty at the Napa County Building Department, they have no records for any of the structures located on the property.

SECTION 4.0

SITE RECONNAISSANCE AND INTERVIEWS

SECTION 4.0
SITE RECONNAISSANCE AND INTERVIEWS

The purpose of the site reconnaissance was to identify visible hazardous materials involvement with respect to the subject property. Hazardous materials involvement includes the presence or likely presence of any hazardous materials or petroleum products that indicate an existing release, past release, or a threat of release into any structure on the property, soil, or groundwater.

Interviews included contacting individuals familiar with the subject property and knowledgeable of the property's historic and existing conditions relative to hazardous materials.

SITE RECONNAISSANCE FINDINGS

ESA performed a site reconnaissance of the subject property on June 18, 2004 and again on July 29, 2004. Notable features and property conditions were photographed (**Figures 5-1 through 5-5**). A map of the property with the locations of the areas discussed below is provided as **Figure 3**. A map of the area with the potential for contamination is provided as **Figure 4**. In 1990, a 165-acre portion of the subject property was inspected by staff at the County Department of Environmental Management (refer to page 6-2 of this report for a discussion of the County's findings).

The subject property is mostly a eucalyptus grove, a large portion of which is being used by the "Paint Ball Jungle" for paint ball games (Areas 1 and 2 on **Figure 3**). There are paint balls throughout the property, and several forts and that have been built for use during the paint ball games (Photograph 1, **Figure 5-1**). Three forts were observed on the property that had been set up for use in the paintball games. Included in those forts are several 55-gallon plastic drums used for walls. The drums did not have lids and were empty, appeared to have never been used for storage of material, and there was no soil staining beneath or around the drums. Paint balls typically contain a non-toxic oil, egg, or gelatin based paint.

Near a corner of the property that is intersected by two dirt roads was observed a pile of household debris (Area 3 on **Figure 3**), including a mattress, rug, lamp, hose, and other household trash (Photograph 2, **Figure 5-1**). No stained soil or hazardous materials were observed within, beneath or around the debris. A 55-gallon sealed drum was observed near the creek on the west side of the property. The drum appeared to be empty and there was no soil staining beneath or around the drum.

A portion of the property appeared to be or have been recently occupied (Area 4 on **Figure 3**, and photographs 3, 4 and 5, **Figures 5-1 and 5-2**). There was a small trailer, a truck with a camper

bed on the back, a portable toilet, a locked shed, some household debris, several 5-gallon containers of unknown material, and a no trespassing sign that read "violators will be shot". No stained soil or stressed vegetation were noted in this area of the property.

A portion of the property is occupied by relatives of the owners who live in unpermitted homes on the property (Area 5 on **Figure 3** and photographs 6 through 19, **Figures 5-2 through 5-5**). The area surrounding the residences contains a large amount of household items, wood debris, soil piles, concrete rubble, abandoned vehicles, refrigerators, burn piles, tires, 55-gallon drums, machinery, equipment, automobile batteries, 5-gallon or smaller containers of unknown material, several water tanks, a grave stone, an underground storage tank that was sitting on top of the ground, a concrete block foundation for some type of structure, and a wooden garage filled with clothes, trash, equipment, etc. Areas that had recently been disturbed and areas with a lack of vegetation were noted in this area of the property.

A portion of the property is being used to cut and store wood (Area 6 on **Figure 3**). There is a trailer, several sheds, boats, truck trailers, tires, refrigerators, and equipment used for wood cutting on this portion of the property. Several 55-gallon oil drums that are empty were observed, and an old trichlorethane tank that is not being used was observed. There is a pole-top transformer that has a blue sticker indicating that it is PCB free. Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property. ESA field personnel attempted to talk to the person in charge of the wood cutting operation on the property on both dates they accessed the property. The person in charge was not on the property on those dates.

A portion of the property is used to house animals, such as horses, calves, goats, and chickens/roosters (located adjacent to the south of Area 5 on **Figure 3**). The animals were in pens and appeared to be well cared for, possibly this area is leased for the boarding of the animals. No hazardous materials or wastes were observed in this area of the property.

INTERVIEWS

The objective of the interview process is to obtain additional information regarding the history and current uses of the subject property. The occupants of the property are the sons of the owners. There are legal issues pending on this property; therefore, we could not interview the occupants of the subject property (relatives of the property owners) due to their adversarial position with our client and with ESA staff.

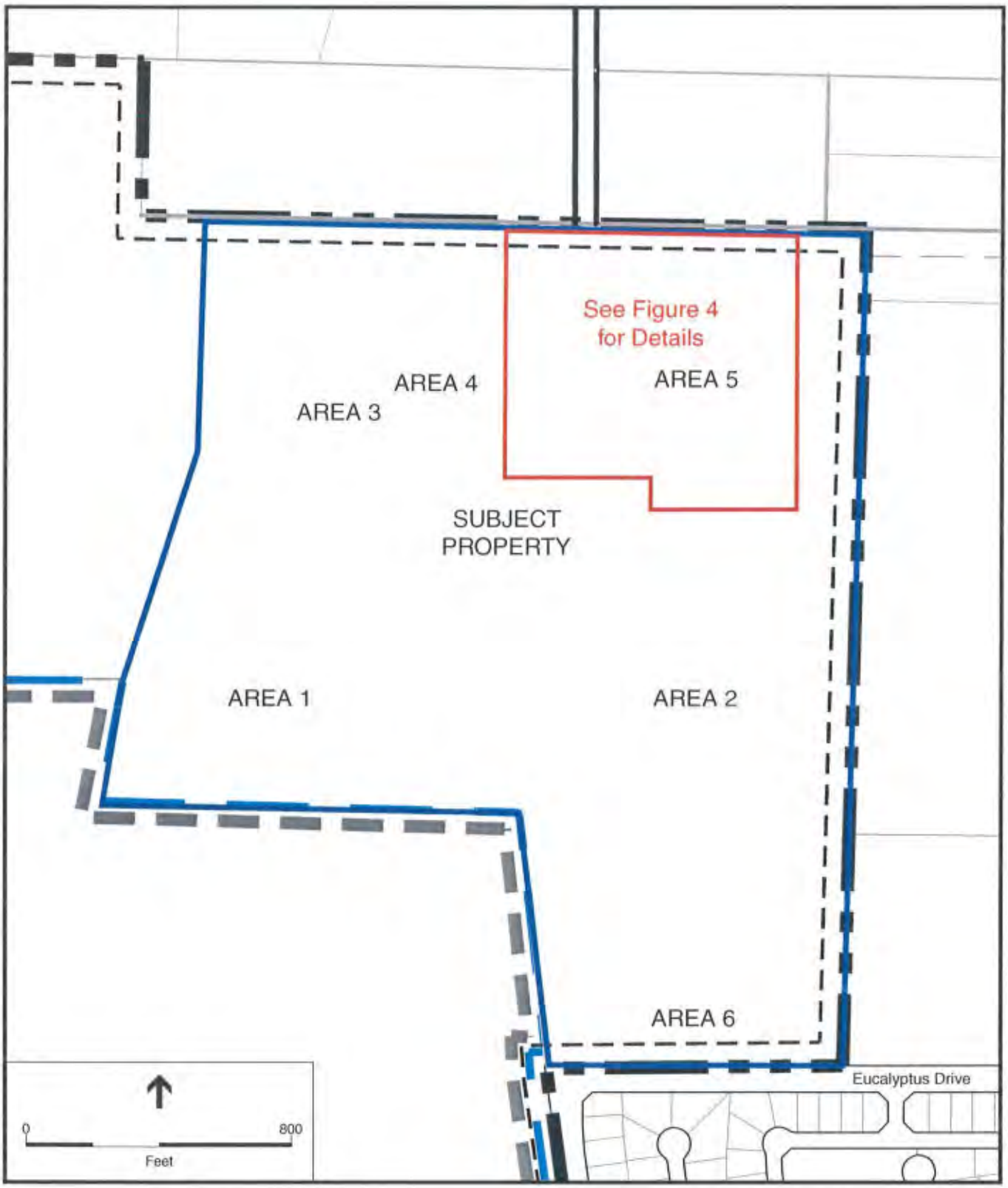
ESA staff contact Mr. Trent Cave at the Napa County Environmental Management Department to discuss the contents of their file for the subject property and to find out if they have done any additional investigations of the property. Mr. Cave indicated that he has no information regarding the property other than what is in the County files. Mr. Cave noted that he made and signed the

Declaration in Support of Motion to Modify Final Judgment and Permanent Injunction in order to give the court a estimate of what it would cost to clean up the property based on what was found during the Site Investigation in 1990. Mr. Cave then directed ESA staff to Doug Calhoun of the County Environmental Management Department. Mr. Calhoun indicated that they have not done any additional investigations of the property since the 1990 inspection. Mr. Calhoun indicated that in 1990 there were many people living on the property in vehicles, tents, shacks built out of garage doors, etc. Mr. Calhoun does not know the location of the water wells that were identified by the County during their inspection of the property. He has no additional information regarding the property and what has occurred on the property since the 1990 inspection. If cleanup has occurred on the property, no inventory or manifests of the cleanup have been provided to the Napa County Environmental Management Department.

ESA staff contacted Chief Keith Caldwell at the American Canyon Fire District. Chief Caldwell indicated that in the past there have been as many as 30 families living on the subject property in various types of living quarters. There are no septic systems on the property and he knows of no approved water wells on the property. According to Chief Caldwell, in the 1970s soil was brought onto the portion of the property where the wood cutting business is now located for a motorcycle track. He does no know whether that soil was contaminated. Chief Caldwell knows of no underground storage tanks on the property, but does not know if there are any hazardous materials or other wastes buried on the property. There has been drums and above-ground tanks of hazardous materials/wastes located on the property in the past. Some cleanup of the property has been done by the owners of the property. However, no inventory or manifests of the cleanup have been provided to the American Canyon Fire District.

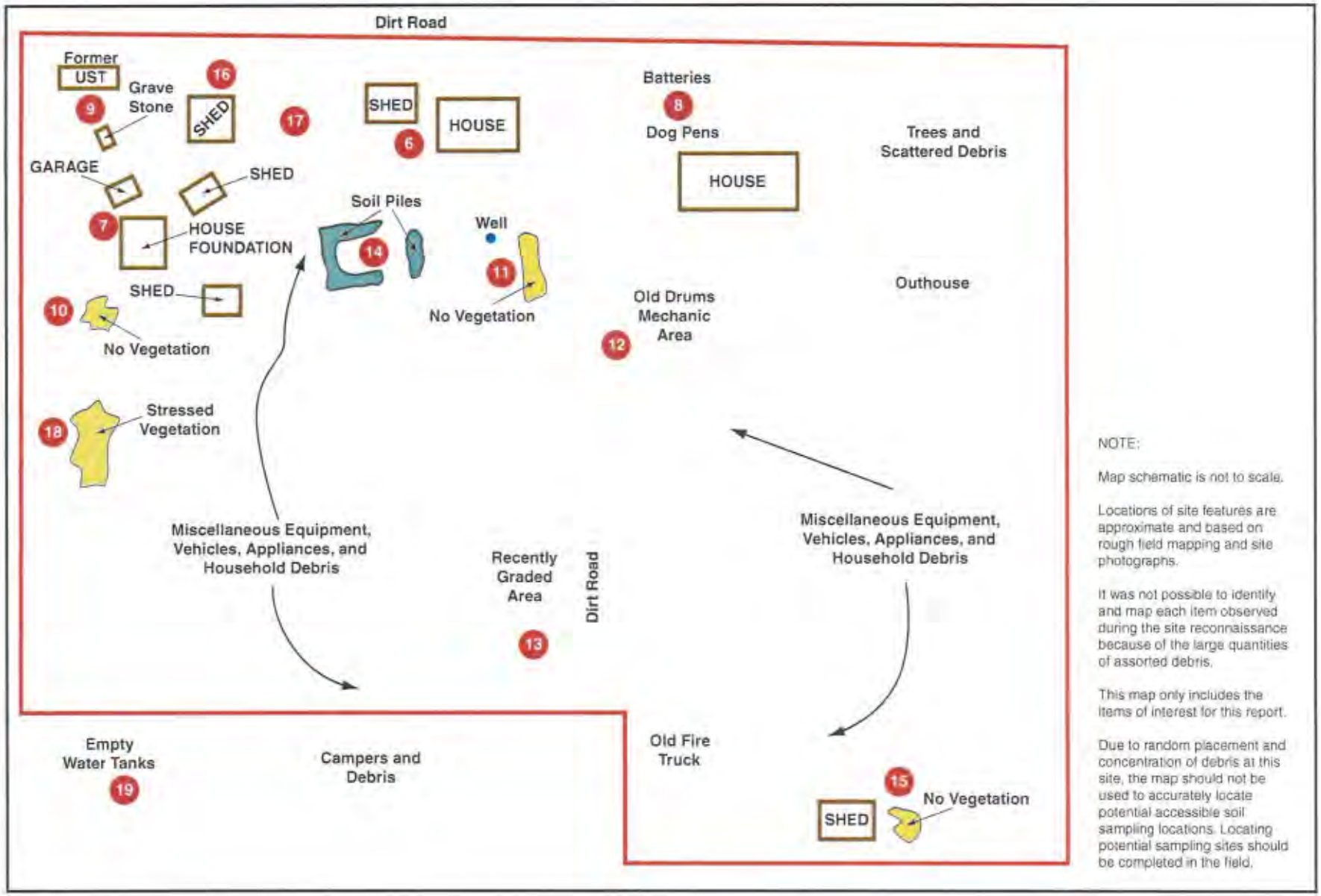
On September 27, 2004, ESA staff contacted Mr. Norbert Frost, the attorney for Patricia Couch who is one of the property owners. Mr. Frost indicated that he knows of no buried underground storage tanks on the property. He does not know the location of any water wells on the property. Mr. Frost is not aware of any contaminated soil brought onto the property prior to or by Mr. Hearst, who runs the woodcutting operation on the property. Over the years people have illegally dumped solid waste onto the property instead of taking it to the nearby landfill. However, the Couches have worked to clean up most of those areas over the last two years.

The Notice of Motion and Motion for Order Modifying Terms of Stipulation and Order dated August 26, 2003 has a Declaration signed by Edward S. Colby as Exhibit C. Mr. Colby indicated that he had inspected the Couch property in 1990 and in 2003. In the 2003 inspection the property contained scattered and accumulated piles of trash and debris, piles of vehicle tires, junked large appliances, used lumber, scrap metals, broken concrete, abandoned and inoperative heavy equipment, non-permitted wooden enclosures, buildings and fences, a wooden cabin and two mobile homes without appropriate permits, and an illegal tree-cutting business.



SOURCE: City of American Canyon and Environmental Science Associates, 2004

Figure 3
Site Map



SOURCE: Environmental Science Associates, 2004

Figure 4
Details of Area 5
(Approximate Locations)



PHOTOGRAPH 1.

Typical view of a fort used for paint ball games



PHOTOGRAPH 2.

View of household debris pile in Area 3



PHOTOGRAPH 3.

View of Area 4



PHOTOGRAPH 4.

View of Area 4

SOURCE: Environmental Science Associates, 2004

Figure 5-1
Site Photographs



PHOTOGRAPH 5.

View of Area 4



PHOTOGRAPH 6.

View of Area 5



PHOTOGRAPH 7.

View of Area 5



PHOTOGRAPH 8.

View of batteries in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-2
Site Photographs



PHOTOGRAPH 9.

View of former underground storage tanks in Area 5

PHOTOGRAPH 10.

View of area with no vegetation in Area 5





PHOTOGRAPH 11.

View of water well and tanks in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-3
Site Photographs



PHOTOGRAPH 12.

View of mechanic area in Area 5



PHOTOGRAPH 13.

View of recently graded area in Area 5



PHOTOGRAPH 14.

View of soil piles in Area 5



PHOTOGRAPH 15.

View of area with no vegetation near shed in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-4
Site Photographs



PHOTOGRAPH 16.

View of Area 5



PHOTOGRAPH 17.

View of Area 5



PHOTOGRAPH 18.

View of area with stressed vegetation in Area 5



PHOTOGRAPH 19.

View of water tank in Area 5

SOURCE: Environmental Science Associates, 2004

Figure 5-5
Site Photographs

SECTION 5.0

RECORDS REVIEW

SECTION 5.0
RECORDS REVIEW

As stated in ASTM standard practice E1527-00, *practically reviewable* data is information that is "provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data." Furthermore, "records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable."

DATABASE SEARCH

It should be noted that the database search is only as accurate as the data entered into the government agency maintained databases and the date on which those databases were last updated. Installation of underground storage tanks or hazardous material releases, if not reported to the appropriate agency, are not listed on any of the databases searched. The following section reviews the previously mentioned database search and all follow-up communications with local agencies and individuals.

REVIEW OF FEDERAL AND STATE REGULATORY AGENCY DATABASES

Federal and State Agency database searches were made for records of known storage tank sites and known sites of hazardous materials generation, storage or contamination. Databases were searched for sites and listings up to one mile from a point roughly equivalent to the center of the subject property. The database search report as provided to ESA by Environmental Data Resources (EDR) can be found in **Appendix A**. Included in the EDR database search report was a list of "unmapped sites". ESA reviewed the list of unmapped sites for properties that may be located within the search radius specified for each governmental database.

DATABASE SEARCH FINDINGS

The California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) map number W6-1, which includes the subject property and surrounding area does not show any oil or gas wells on the subject property or adjacent properties.

The subject property does not appear on any of the federal or state agency databases searched as of the date of this assessment. However, the Napa County Department of Environmental Management, Hazardous Material Section has a file for the subject property. The contents of that

file are attached as **Appendix D**, and a summary of the County findings for the property is presented below.

Couch Property (subject property)
2 Eucalyptus Road
American Canyon, California

On November 19, 1990 an inspection was made by Catherine Moody, Senior Hazardous Materials Specialist at the County Department of Environmental Management of a 165-acre portion of the subject property known to have hazardous materials and wastes. The hazardous materials and wastes observed on the property were oil or oily wastes, compressed gas cylinders, paints, lacquers, thinners and solvents, unknown materials in small containers, and automobile batteries. Some of the items noted on the property by Ms. Moody included several 55-gallon drums, all but five were empty. Three underground storage tanks sitting on top of the ground, two 10,000 gallon tanks (empty) and one 3,000 gallon tank (partially full of an oily liquid). Ms. Moody also observed several compressed gas cylinders scattered throughout the property.

Samples were collected from the five drums and the storage tank containing an oily liquid. The samples were collected by a Hazardous Materials Team composed of staff from the California Department of Forestry and the American Canyon Fire Protection District. A total of six liquid samples were collected and submitted to a laboratory for chemical analysis. The drums contained chloride, phenols, petroleum hydrocarbons as diesel, and polynuclear aromatics. The tank contained petroleum hydrocarbons as diesel.

The County determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes.

There is one listed on the database search that are located within 1/4 mile of the subject property, and is discussed below.

American Canyon Landfill
Western Terminus of Eucalyptus Drive

The American Canyon Sanitary Landfill is located approximately 1/4 mile southwest of the subject property. The American Canyon Landfill was in operation from 1942 to 1995, when the landfill stopped accepting waste on a regular basis. During closure activities a leachate treatment system and landfill gas collection plant were installed. Groundwater is being monitored at the landfill. Groundwater beneath the landfill has been impacted with volatile organic compounds. Groundwater depth ranges from 12 to 21 feet below ground surface and flow at the landfill is in an east/northeast direction. Contamination at the site is mainly in the western portion of the landfill. It is unlikely that this landfill would have impacted soil or groundwater beneath the subject property due to its distance from the property.

There are several additional sites listed on the federal and state databases that are located 1/2 to 1 mile from the subject property. These sites are listed as leaking underground storage tank locations, hazardous waste generators, facilities with emissions permits, landfill locations, and locations of releases of hazardous materials. Readily available information relative to the listed sites located 1/2 to 1 mile from the subject property was reviewed and it is ESA's opinion that these sites are not expected to pose a threat of adverse impact to the subject property due to their distances from the subject property.

SECTION 6.0

FINDINGS AND CONCLUSIONS

SECTION 6.0
FINDINGS AND CONCLUSIONS

ESA has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-00 of the subject property. Any exceptions to, or deletions from, this practice are described in the Limiting Conditions section of this report. Based only on the information reviewed and described in this report, a site reconnaissance of the property, and interview, this assessment has noted the following recognized environmental conditions in connection with the subject property:

- There is past and present undocumented and illegal storage of hazardous materials and wastes on the subject property. The Napa County Department of Environmental Management inspected the property in 1990 and determined that the property constitutes an illegal junk yard and refuse disposal area, which constitutes a public nuisance. The violations found by the County at the property range from storage of hazardous wastes over 90 days without a permit to failure of the generator to determine if his wastes are hazardous and to properly manage hazardous wastes. Refer to page 6-2 for a discussion of the inspection by the County and to **Appendix D** for a copy of the County's file on the subject property.

- The site reconnaissance of the subject property identified small quantities of hazardous wastes and some soil staining. It appeared that the hazardous materials noted by the County in 1990 had been removed by the property owners, except for the gas cylinders and 3,000 gallon former underground storage tank. It is unknown where the County had observed the drums containing hazardous materials, the 10,000 gallon former underground storage tanks, and the other containers of hazardous materials. However, areas that had recently been disturbed and areas with a lack of vegetation were noted during the site reconnaissance. It appears that some of the hazardous materials, drums and the 10,000 gallon tanks may have been removed by the property owners. Refer to **Figures 3 through 5.**

- It should be noted that it is common knowledge that methamphetamine labs operated in the eucalyptus groves in the area of the subject property, and possibly on the property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. No methamphetamine labs were observed during the field reconnaissance.

- A portion of the property is being used to cut and store wood (Area 5, **Figure 3**). Anecdotal information was received from Mr. Steve Brock, the person interested in purchasing the property, about this portion of the property. Mr. Brock indicated that a large amount of soil containing some type of oil was deposited on this portion of the property. It is unknown where this soil was placed on the property. There is an area of this portion of the property that appeared to have been leveled and graded where soil might have been brought onto the property. Chief Keith Caldwell of the American Canyon Fire District remembers that soil was brought onto the property in the 1970s for a motorcycle track.

ESA field personnel attempted to talk to the person in charge of the wood cutting operation on the property on both dates they accessed the property. The person in charge was not on the property on those dates.

- The County identified two unapproved water wells on the property in their 1990 investigation (Appendix D). However, ESA staff could only locate one of the water wells.

- There are outhouses (holes in the ground) on the property that have been used for sewage disposal.

RECOMMENDATIONS

- Soil and groundwater sampling be completed in the areas of concern that were identified by this Phase I report (those areas on **Figure 4** that show no vegetation or stressed vegetation, the area with the batteries, the mechanic area, and soil sampling only from the soil piles). It may also be necessary to sample other areas of the property as dictated by field personnel that perform the soil and groundwater sampling at the site, depending on what is encountered during sampling. At a minimum, the soil and groundwater samples should be analyzed for petroleum hydrocarbons, oil and grease, solvents, and priority pollutant metals. The Phase II report should provide recommendations based on the laboratory analytical results.

  Due to the history of the use of the property, it is difficult to determine what might be uncovered during earth moving activities if the property is developed. At the time of excavation of the site for development soil and groundwater sampling should be completed in any areas of the property where buried hazardous materials, odors, or stained soil are found. The results of the laboratory analytical results would provide the information needed to determine whether excavation of the soil would be necessary and whether the soil would need to be taken off the site for disposal.

- Further investigation into the existence and location of soil containing oil that might have been placed on the portion of the property that is used for a wood cutting operation (Area 5, **Figure 3**). Soil and groundwater sampling might be warranted in that area of the property.

- The water wells should be abandoned in accordance with California water well standards and Napa County protocol.

- The sewage disposal areas should be closed in accordance with Napa County protocol.

SECTION 7.0

REPORT AUTHOR/SIGNATURE

SECTION 7.0

REPORT AUTHOR/SIGNATURE

Environmental Science Associates
8950 Cal Center Drive, Bldg. 3, Suite 300
Sacramento, CA 95826

Prepared by:



Crystal Spurr, REA I-07363
Senior Associate

Reviewed by:

Peter B. Hudson, R.G.
Senior Geologist

SECTION 8.0

REFERENCES

SECTION 8.0
REFERENCES

Environmental Data Resources (EDR)Radius Map Report No. 01214114.1r dated June 17, 2004.

GeoSearch, aerial photographs dated 1937, 1957, 1965, 1982 and 1993.

Napa County Building Department, Napa, California.

Napa County Department of Environmental Management, Hazardous Material Section, Napa, California.

United States Geological Survey (USGS), Mare Island Quadrangle, California, (topographic) editions of 1916 (reprinted 1947) and 1941.

United States Geological Survey (USGS), Cuttings Warf Quadrangle, California, (topographic) editions of 1949, 1968, and 1981.

SECTION 9.0

QUALIFICATIONS OF
ENVIRONMENTAL PROFESSIONALS

SECTION 9.0
QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

CRYSTAL SPURR

Professional Experience:

Environmental Science Associates (2000–present)
NOA Environmental (1998–2000)
LRA Engineering (1994–1998)

Ms. Spurr has ten years of experience performing environmental site assessments for various types of commercial, industrial and residential projects throughout California. She has a Registered Environmental Assessor I designation issued by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

Education:

B.A., Environmental Studies, California State University, Sacramento

PETER HUDSON

Professional Experience:

Mr. Hudson is a senior geologist/hydrogeologist with over fourteen years of broad-based experience in engineering geology, hydrogeology, environmental and geotechnical studies. He is a registered geologist in the state of California (Registration No. 6730). His general responsibilities include providing geological, geotechnical, geophysical and hydrogeological technical support in water quality assessments, water resource and geological studies for planning, permit assistance, environmental impact assessments with a focus on hydrological and geologic issues, soils investigations and erosion/geomorphic investigations, planning/policy assessments, and mitigation planning and monitoring. Mr. Hudson provides technical input for completion of work products such as resource management plans, EIRs and EISs, reclamation/restoration plans, erosion control plans, draft permits, (e.g., NPDES), land development environmental feasibility analyses, and site selection studies.

Education: BA, Geology, San Francisco State University
Pre-Engineering Program, University of San Francisco

APPENDIX A

EDR DATABASE SEARCH REPORT

The EDR Radius Map™ Report

American Canyon Development
Eucalyptus Grove
American Canyon, CA 94503

Inquiry Number: 01214114.1r

June 17, 2004

EDR™ Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

EUCALYPTUS GROVE
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.182700 - 38° 10' 57.7"
Longitude (West):	122.280900 - 122° 16' 51.2"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	562980.1
UTM Y (Meters):	4226124.5
Elevation:	6 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	38122-B3 CUTTINGS WHARF, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS ..... Corrective Action Report
RCRIS-TSD ..... Resource Conservation and Recovery Information System
RCRIS-LQG ..... Resource Conservation and Recovery Information System

STATE ASTM STANDARD

AWP ..... Annual Workplan Sites

EXECUTIVE SUMMARY

Cal-Sites	Calsites Database
Notify 65	Proposition 65 Records
Toxic Pits	Toxic Pits Cleanup Act Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
VCP	Voluntary Cleanup Program Properties
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land
CA FID UST	Facility Inventory Database
HIST UST	Hazardous Substance Storage Container Database

FEDERAL ASTM SUPPLEMENTAL

CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
DOD	Department of Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
FUDS	Formerly Used Defense Sites
INDIAN RESERV	Indian Reservations
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST	Aboveground Petroleum Storage Tank Facilities
CLEANERS	Cleaner Facilities
DEED	List of Deed Restrictions
NFA	No Further Action Determination
SCH	School Property Evaluation Program
NFE	Properties Needing Further Evaluation

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas	Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS	A Listing of Brownfields Sites
VCP	Voluntary Cleanup Program Properties

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

CERCLIS-NFRAP: As of February 1995. CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/26/2004 has revealed that there is 1 CERC-NFRAP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SUNSHINE AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	F23	28

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 RCRIS-SQG site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MORROW CRANE COMPANY	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D14***	***20***

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2003 has revealed that there is 1 ERNS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
833 HANNA DRIVE	833 HANNA DRIVE	1/2 - 1 NE	D16	22

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 3 CHMIRS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	1201 COMMERCE BLVD.	1/2 - 1 NNE	B7	11
Not reported	1175 COMMERCE BLVD	1/2 - 1 NNE	9	15
Not reported	*833 HANNA DR*	*1/2 - 1 NE*	*D13*	*18*

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there is 1 Cortese site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANITARY LANDF	WESTERN TERMINUS OF EUC	1/4 - 1/2 ESE	1	6
SUNRISE TRADERS AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	F24	29

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, has revealed that there is 1 WMUDS/SWAT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANI LNDFL	*EUCALYPTUS DR AT NAPA J*	*1/2 - 1 ESE*	*3*	*7*

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 LUST site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 04/13/2004 has revealed that there is 1 UST site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JAEGER VINEYARDS	*658 NAPA JUNCTION ROAD*	*1/2 - 1 ENE*	*E18*	*23*

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/08/2004 has revealed that there are 3 FINDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
G L MEZZETTA INC	*105 MEZZETTA COURT*	*1/2 - 1 NNE*	*A6*	*11*
MORROW CRANE COMPANY	*833 HANNA DRIVE*	*1/2 - 1 NE*	*D14*	*20*
STEEL MILL SUPPLY OF NAPA	659 NAPA JUNCTION RD	1/2 - 1 ENE	E19	25

STATE OR LOCAL ASTM SUPPLEMENTAL

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 04/05/2004 has revealed that there are 4 CA WDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERICAN CANYON SANI LNDFL	***EUCALYPTUS DR AT NAPA J***	***1/2 - 1 ESE***	***3***	***7***
GL MEZZETTA INC	105 MEZZETTA CT	1/2 - 1 NNE	4	9
Not reported	***833 HANNA DR***	***1/2 - 1 NE***	***D13***	***18***
ENG BROS WOOD PROD	1660 GREEN ISLAND RD	1/2 - 1 N	25	30

Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2002 has revealed that there are 4 EMI sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CITY OF AMERICAN CANYON	151 MEZZETTA COURT	1/2 - 1 NNE	2	7
G L MEZZETTA INC	***105 MEZZETTA COURT***	***1/2 - 1 NNE***	***A6***	***11***
POKKA BEVERAGES	***1201 COMMERCE BLVD***	***1/2 - 1 NNE***	***B8***	***13***
MORROW EQUIPMENT CO LLC	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D15***	***21***

REF: This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another tate or local regulatory agency.

A review of the REF list, as provided by EDR, and dated 03/02/2004 has revealed that there is 1 REF site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SUNSHINE AUTO SALVAGE	1578 GREEN ISLAND ROAD	1/2 - 1 N	C20	25

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there are 2 CA SLIC sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GREEN ISLAND	1554 GREEN ISLAND RD	1/2 - 1 N	C12	17
CALIFORNIA AUTO DISMANTLERS	1578 GREEN ISLAND RD	1/2 - 1 N	C17	23

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets

are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

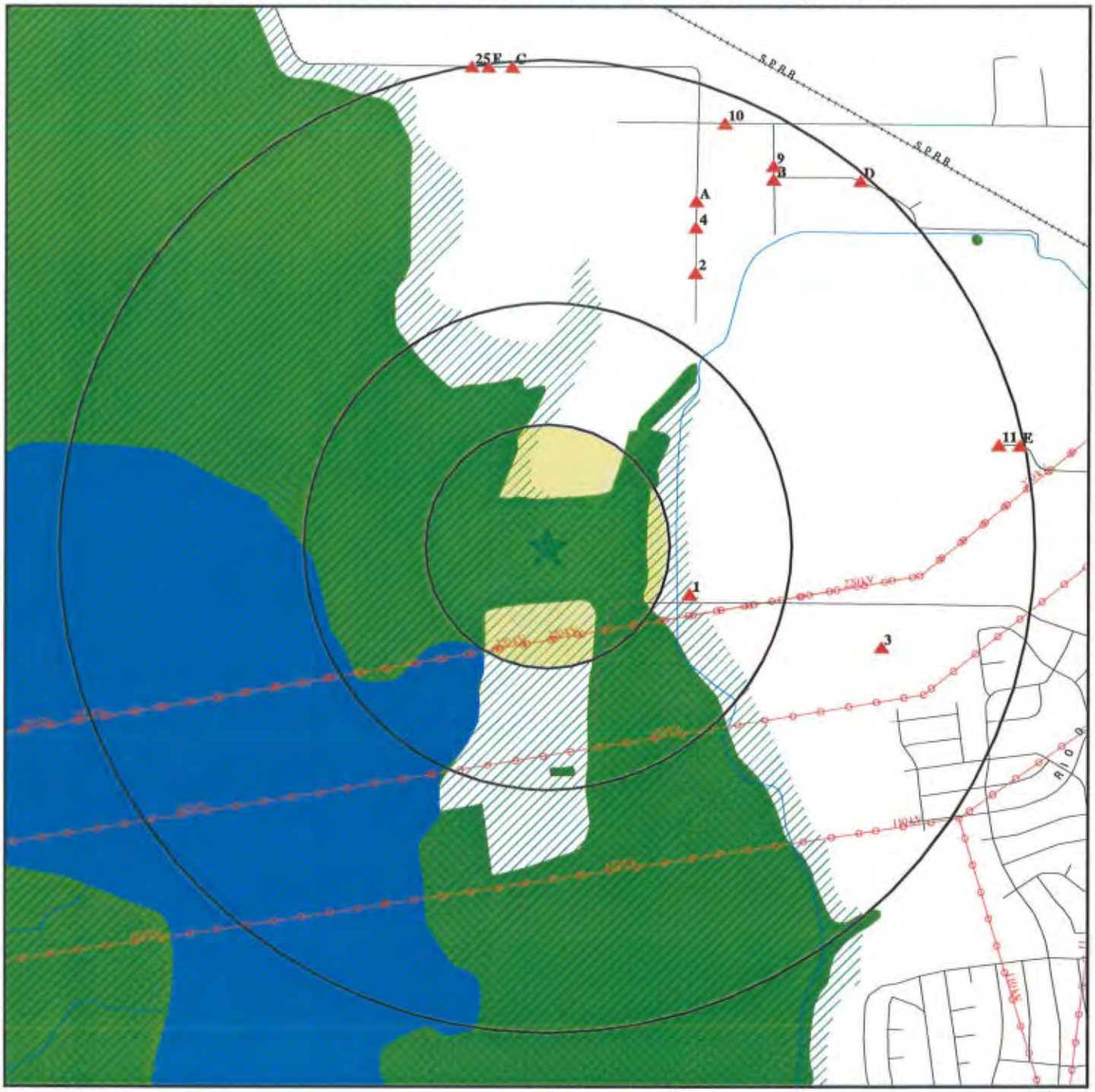
A review of the HAZNET list, as provided by EDR, and dated 12/31/2002 has revealed that there are 8 HAZNET sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GL MEZZETTA INC	105 MEZZETTA COURT	1/2 - 1 NNE	A5	10
POKKA BEVERAGES	***1201 COMMERCE BLVD***	***1/2 - 1 NNE***	***B8***	***13***
HATCH AND KIRK	1111 GREEN ISLAND RD	1/2 - 1 NNE	10	16
TRIBOTECH	100 NAPA JUNCTION RD	1/2 - 1 ENE	11	17
Not reported	***833 HANNA DR***	***1/2 - 1 NE***	***D13***	***18***
MORROW EQUIPMENT CO LLC	***833 HANNA DRIVE***	***1/2 - 1 NE***	***D15***	***21***
SUNRISE AUTO INC	1578 GREEN ISLAND RD	1/2 - 1 N	F21	27
ULTIMATE ADVENTURE INC DBA SUN	1578 GREEN ISLAND RD	1/2 - 1 N	F22	27

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PG&E GAS PLANT NAPA 104 3	CERC-NFRAP
STUCCO STONE PRODUCTS	LUST
STUCCO STONE	UST
CDM	HAZNET
CULTURED STONE	HAZNET
HUDSON VINEYARDS	HAZNET
CALTRANS DIST 4/CONSTRUCTION	HAZNET
PACIFIC GAS AND ELECTRIC COMPANY	HAZNET
CAPITOL REFRIDGERATION	HAZNET
ADOBE LUMBER	RCRIS-SQG
CITY OF AMERICAN CANYON	FINDS
GAS RECOVERY SYSTEMS - AMERICAN CANYON	FINDS
BENETO TANK LINES	CA SLIC
CALTRANS	CA SLIC
AMERICAN CANYON SANITARY LAND	CA WDS
NAPA VALLEY WASTE MGMT AUTHORI	CA WDS

OVERVIEW MAP - 01214114.1r - Environmental Science Assoc.



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/4 1/2 1 Miles

N

TARGET PROPERTY:	American Canyon Development	CUSTOMER:	Environmental Science Assoc.
ADDRESS:	Eucalyptus Grove	CONTACT:	Crystal Spurr
CITY/STATE/ZIP:	American Canyon CA 94503	INQUIRY #:	01214114.1r
LAT/LONG:	38.1827 / 122.2809	DATE:	June 17, 2004 8:48 am

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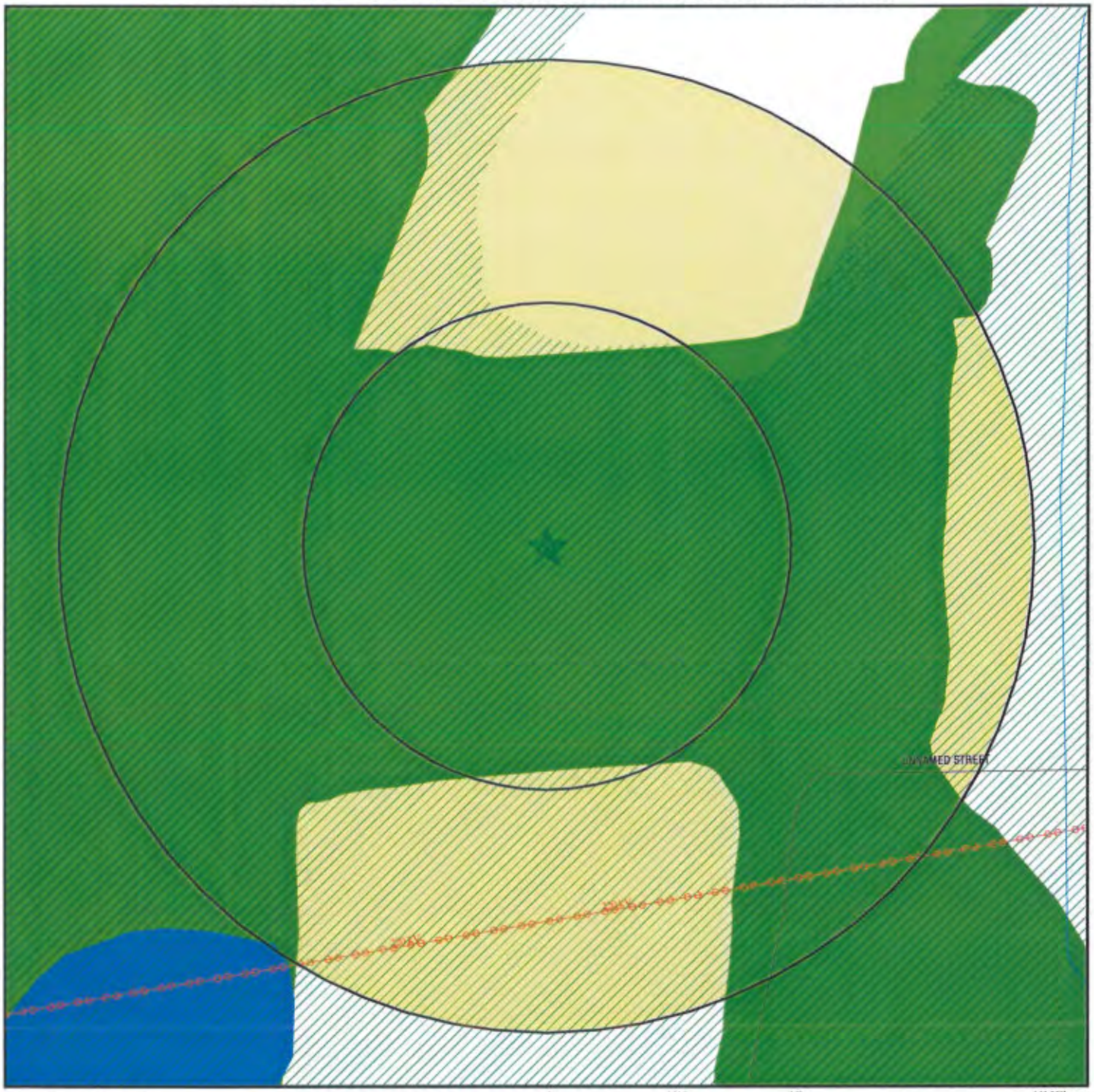
DETAIL MAP - 01214114.1r - Environmental Science Assoc.



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	American Canyon Development	CUSTOMER:	Environmental Science Assoc.
ADDRESS:	Eucalyptus Grove	CONTACT:	Crystal Spurr
CITY/STATE/ZIP:	American Canyon CA 94503	INQUIRY #:	01214114.1r
LAT/LONG:	38.1827 / 122.2809	DATE:	June 17, 2004 8:48 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		1.000	0	0	0	1	NR	1
CORRACTS		1.000	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		1.000	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		1.000	0	0	0	1	NR	1
ERNS		1.000	0	0	0	1	NR	1
STATE ASTM STANDARD								
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	0	0	0	NR	0
CHMIRS		1.000	0	0	0	3	NR	3
Cortese		1.000	0	0	0	1	NR	1
Notify 65		1.000	0	0	0	0	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill		1.000	0	0	1	1	NR	2
WMUDS/SWAT		1.000	0	0	0	1	NR	1
LUST		1.000	0	0	0	1	NR	1
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
UST		1.000	0	0	0	1	NR	1
VCP		1.000	0	0	0	0	NR	0
INDIAN LUST		1.000	0	0	0	0	NR	0
INDIAN UST		1.000	0	0	0	0	NR	0
CA FID UST		1.000	0	0	0	0	NR	0
HIST UST		1.000	0	0	0	0	NR	0
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		1.000	0	0	0	3	NR	3
HMIRS		1.000	0	0	0	0	NR	0
MLTS		1.000	0	0	0	0	NR	0
MINES		1.000	0	0	0	0	NR	0
NPL Liens		1.000	0	0	0	0	NR	0
PADS		1.000	0	0	0	0	NR	0
DOD		1.000	0	0	0	0	NR	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
RAATS		1.000	0	0	0	0	NR	0
TRIS		1.000	0	0	0	0	NR	0
TSCA		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SSTS		1.000	0	0	0	0	NR	0
FTTS		1.000	0	0	0	0	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		1.000	0	0	0	0	NR	0
CLEANERS		1.000	0	0	0	0	NR	0
CA WDS		1.000	0	0	0	4	NR	4
DEED		1.000	0	0	0	0	NR	0
NFA		1.000	0	0	0	0	NR	0
EMI		1.000	0	0	0	4	NR	4
REF		1.000	0	0	0	1	NR	1
SCH		1.000	0	0	0	0	NR	0
NFE		1.000	0	0	0	0	NR	0
CA SLIC		1.000	0	0	0	2	NR	2
HAZNET		1.000	0	0	0	8	NR	8
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.000	0	0	0	0	NR	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

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1 ESE 1/4-1/2 1624 ft. **AMERICAN CANYON SANITARY LANDFILL**
WESTERN TERMINUS OF EUCALYPTUS DRIVE
NAPA, CA

SWF/LF **S102361374**
N/A

Relative: Higher

Actual: 9 ft.

LF:

Facility ID:	28-AA-0001
Operator:	Napa-Vallejo Waste Management Authority
Operator Phone:	(707) 253-4545
Operator Addr:	1195 Third Street, Room 101 Napa, CA 94559
Owner:	Napa-Vallejo Waste Management Authority
Owner Address:	Not reported 1195 Third Street, Room 101 Napa, CA 94559
Owner Telephone:	(707) 253-4545
Activity:	Solid Waste Landfill
Operator's Status:	Not reported
Regulation Status:	Not reported
Region:	STATE
Lat/Long:	38 / -122
Permit Date:	Not reported
Accepted Waste:	Mixed municipal
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported
Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	1350
Permitted Throughput with Units:	1350
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Actual Capacity with Units:	4900000
Permitted Capacity with Units:	4900000
Remaining Capacity with Units:	Cubic Yards
Permitted Total Acreage:	122
Inspection Frequency:	Monthly
Landuse Name:	Agricultural

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

AMERICAN CANYON SANITARY LANDFILL (Continued) — S102361374

GIS Source:	Map
Permit Status:	Permitted
Category:	Disposal
Unit Number:	01
Last Waste Tire Inspection Count :	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported
Closure Date:	12/01/94
Closure Type:	Actual
Disposal Acreage:	97
Remaining Capacity:	207000
Year Opened:	Not reported
Year Closed:	Not reported
Fill Area:	Not reported
Type Of Refuse: Not reported	
Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Description:	Not Reported

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2 NNE 1/2-1 3368 ft. — **CITY OF AMERICAN CANYON**, **151 MEZZETTA COURT**, **AMERICAN CANYON, CA 94503** — EMI — S106248259, N/A

Relative: Higher / **Actual: 29 ft.**

EMISSIONS :

Facility ID :	12231
Air District Code :	BA
SIC Code :	4952
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

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3 ESE 1/2-1 3782 ft. — **AMERICAN CANYON SANI LNDFL**, **EUCALYPTUS DR AT NAPA JUNCTION**, **VALLEJO CA, CA** — WMUDS/SWAT, CA WDS — S100838778, N/A

Relative: Higher / **Actual: 36 ft.**

WMUDS:

Region:	2
Date of Last Facility Edit:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System ID:	2 283033001
Solid Waste Information ID:	28-AA-0001
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True
Facility Name:	AMERICAN CANYON LANDFILL
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False
Open to Public:	False

AMERICAN CANYON SANI LNDFL (Continued) **S100838778**

Number of WMUDS at Facility:	2
Facility Telephone:	Not reported
Primary Standard Industrial Classification:	4953
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	AMERICAN CANYON LANDFILL CO.
NPID:	Not reported
Tonnage:	660
Regional Board ID:	Not reported
Municipal Solid Waste:	True
Superorder:	True
Sub Chapter 15:	True
Reg. Board Project Officer:	DMA
Section Range:	04N04W22
RCRA Facility:	No
Waste Discharge Requirements:	A
Base Meridian:	MD
Waste List:	False
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Quarterly Submittal

Threat to Water Quality:
Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.

Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.

Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

Prime Waste: Solid Wastes - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

2nd Waste Type: Miscellaneous (Includes wastes from dewatering, recreational lake overflow, swimming pool wastes, water ride wastewater, ground water seepage and other wastes of this type) - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

Agency: SOUTH NAPA WASTE MGMT AUTHORIT
Address: 1195 THIRD ST, RM 101
NAPA CA 94559
Department: Not reported
Contact: TRENT CAVE
Telephone: (707) 253-4471
Type: Private
Landowner: AMERICAN CANYON LANDFILL CO
Address: 710 MARIN ST
VALLEJO, CA 94590
Telephone: (707) 552-3112
Contact: Not reported

AMERICAN CANYON SANI LNDFL (Continued) **S100838778**

WDS:

Facility ID:	San Francisco Bay 283033001		
Facility Contact	TRENT CAVE	Facility Telephone	0
SIC Code:	4953	SIC Code 2:	Not reported
Agency Name:	SOUTH NAPA WASTE MGMT AUTHORIT		
Agency Address:	1195 THIRD ST, RM 101 NAPA 94559		
Agency Contact:	TRENT CAVE	Agency Phone:	0
Design Flow:	0.0001 Million Gal/Day	Baseline Flow:	0.0001 Million Gal/Day
Facility Type:	Solid Waste Site-Class III - Landfills for non hazardous solid wastes.		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Private		
Waste Type:	Solid Wastes - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category. Miscellaneous (includes wastes from dewatering, recreational lake overflow, swimming pool wastes, water ride wastewater, ground water seepage and other wastes of this type) - Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.		
Threat to Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.		
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.		
Reclamation:	No reclamation requirements associated with this facility.		
POTW:	The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.		
NPDES Number:	Not reported		
Subregion:	2		

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4 **GL MEZZETTA INC** **CA WDS** **S106101849**
NNE **105 MEZZETTA CT** **N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
3808 ft.

Relative:
Higher

Actual:
27 ft.

WDS:

Facility ID:	San Francisco Bay 28I013731		
Facility Contact	Not reported	Facility Telephone	0
SIC Code:	Not reported	SIC Code 2:	Not reported
Agency Name:	GL MEZZETTA INC		
Agency Address:	0		
Agency Contact:	Not reported	Agency Phone:	0
Design Flow:	Not reported	Baseline Flow:	Not reported
Facility Type:	Not reported		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Not reported		
Waste Type:	Not reported		
Threat to Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent		

GL MEZZETTA INC (Continued) **S106101849**

no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Reclamation: Not reported
POTW: Not reported
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 2

A5 **GL MEZZETTA INC** **HAZNET** **S105086344**
NNE **105 MEZZETTA COURT** **N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
4071 ft.

Site 1 of 2 in cluster A

Relative: Higher

Actual: 25 ft.

HAZNET:
Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0125
Waste Category: Liquids with pH <UN-> 2
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0529
Waste Category: Laboratory waste chemicals
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Gepaid: CAC002277241
TSD EPA ID: CAT080022148
Gen County: Napa
Tsd County: San Bernardino
Tons: .0041
Waste Category: Unspecified alkaline solution
Disposal Method: Transfer Station
Contact: RON MEZZETTA
Telephone: (707) 648-1050
Mailing Address: 105 MEZZETTA COURT
AMERICAN CANYON, CA 94589
County Napa

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A6 NNE 1/2-1 4071 ft. Relative: Higher Actual: 25 ft.	G L MEZZETTA INC 105 MEZZETTA COURT AMERICAN CANYON, CA 94503 Site 2 of 2 in cluster A	FINDS EMI	1006824265 110013828527

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)

EMISSIONS :

Facility ID :	11102
Air District Code :	BA
SIC Code :	2033
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

B7 NNE 1/2-1 4664 ft. Relative: Higher Actual: 30 ft.	1201 COMMERCE BLVD. AMERICAN CANYON, CA 02896 Site 1 of 2 in cluster B	CHMIRS	S105670169 N/A

CHMIRS:

OES Control Number:	01-7055
Chemical Name:	Activated sludge
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-7055
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported

(Continued) S105670169

Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Storm drain
Spill Site :	Industrial Plant
Cleanup By :	Responsible Party
Containment :	No
What Happened :	Caller observed responsible party performing clean up of this release. The sludge flowed into a near by storm drain which feeds to a small unnamed creek on Mazetta St. Caller advises he does not believe this creek is a source for drinking water.
Type :	SEWAGE
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	12/5/01 730
Evacuations :	0
OES Control Number:	01-3815
Chemical Name:	Fruit Juice digested solids
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-3815
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported

(Continued) S105670169

Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Iragation Ditch
Spill Site :	Merchant/Business
Cleanup By :	Unknown
Containment :	Yes
What Happened :	Sledge digester foamed over.
Type :	UNSPECIFIED
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	7/1/01 800
Evacuations :	0

B8 **POKKA BEVERAGES** HAZNET S104580629
NNE **1201 COMMERCE BLVD** EMI N/A
1/2-1 **AMERICAN CANYON, CA 94589**
4664 ft.

Site 2 of 2 in cluster B

Relative: Higher

Actual: 30 ft.

HAZNET:

Gepaid:	CAL000173892
TSD EPA ID:	Not reported
Gen County:	Napa
Tsd County:	Sonoma
Tons:	0.28
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method:	Transfer Station
Contact:	ROBERT SEVEY
Telephone:	(707) 556-1250
Mailing Address:	1201 COMMERCE BLVD AMERICAN CANYON, CA 94503 - 9611
County	Not reported

Gepaid:	CAL000173892
TSD EPA ID:	CAD059494310
Gen County:	Napa
Tsd County:	Santa Clara
Tons:	0.25
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Contact:	POKKA INC(JAPAN)
Telephone:	(707) 556-9611
Mailing Address:	1201 COMMERCE BLVD AMERICAN CANYON, CA 94589 - 9611
County	Napa

POKKA BEVERAGES (Continued) **S104580629**

Gepaid: CAL000173892
TSD EPA ID: CAD059494310
Gen County: Napa
Tsd County: Santa Clara
Tons: 0.0166
Waste Category: Unspecified organic liquid mixture
Disposal Method: Disposal, Other
Contact: POKKA INC(JAPAN)
Telephone: (707) 556-9611
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94589 - 9611
County Napa

Gepaid: CAL000173892
TSD EPA ID: Not reported
Gen County: Napa
Tsd County: Sonoma
Tons: 0.43
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Contact: ROBERT SEVEY
Telephone: (707) 556-1250
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94503 - 9611
County Not reported

Gepaid: CAL000173892
TSD EPA ID: CAT000613943
Gen County: Napa
Tsd County: Sonoma
Tons: .0916
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Contact: POKKA INC(JAPAN)
Telephone: (707) 556-9611
Mailing Address: 1201 COMMERCE BLVD
AMERICAN CANYON, CA 94589 - 9611
County Napa

EMISSIONS :

Facility ID :	12557
Air District Code :	BA
SIC Code :	3565
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
9 NNE 1/2-1 4791 ft.	1175 COMMERCE BLVD AMERICAN CANYON, CA 02896	CHMIRS	S105669713 N/A

Relative: Higher

Actual: 31 ft.

CHMIRS:

OES Control Number:	01-7489
Chemical Name:	sewage
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	01-7489
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No
Waterway :	Not reported
Spill Site :	Road
Cleanup By :	Responsible Party
Containment :	Yes
What Happened :	Per caller, during an excavation project a sewer main was broken.
Type :	SEWAGE
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	12/27/01 1530
Evacuations :	0

10
NNE
1/2-1
4971 ft.

HATCH AND KIRK
1111 GREEN ISLAND RD
AMERICAN CANYON, CA 94589

HAZNET

S104574720
N/A

Relative:
Higher

Actual:
28 ft.

HAZNET:

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.0750
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.1584
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Not reported
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CA0000084517
Gen County:	Solano
Tsd County:	Sacramento
Tons:	.2875
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

Gepaid:	CAD982345233
TSD EPA ID:	CAT000613943
Gen County:	Solano
Tsd County:	Sonoma
Tons:	.1000
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Transfer Station
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Address:	1111 GREEN ISLAND RD AMERICAN CANYON, CA 94589 - 9639
County	Solano

HATCH AND KIRK (Continued) S104574720

Gepaid: CAL000191639
TSD EPA ID: Not reported
Gen County: Napa
Tsd County: Alameda
Tons: 5.64
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: TODD WALKER/VP,SEC,TREAS
Telephone: (800) 834-3457
Mailing Address: PO BOX 540
NAPA, CA 94559
County Not reported

Click this hyperlink while viewing on your computer to access
11 additional CA HAZNET record(s) in the EDR Site Report.

11
ENE
1/2-1
5011 ft.

Relative:
Higher

Actual:
247 ft.

TRIBOTECH HAZNET S104575655
100 NAPA JUNCTION RD N/A
NAPA, CA 94581

HAZNET:
Gepaid: CAL000019946
TSD EPA ID: CAT080033681
Gen County: Napa
Tsd County: Los Angeles
Tons: 0.9174
Waste Category: Unspecified oil-containing waste
Disposal Method: Disposal, Land Fill
Contact: TRIBUTECH CORP SUP SE
Telephone: (707) 643-2148
Mailing Address: PO BOX 5030
NAPA, CA 94581
County Napa

C12
North
1/2-1
5208 ft.

Relative:
Higher

Actual:
32 ft.

GREEN ISLAND CA SLIC S106234975
1554 GREEN ISLAND RD N/A
AMERICAN CANYON, CA

Site 1 of 2 in cluster C

SLIC Region 2:
Facility ID: 28S0045
Region: 2
Facility Status: 9
Date Closed: Not reported
Local Case #: Not reported
How Discovered : Not reported
Leak Cause : Not reported
Leak Source : Not reported
Date Confirmed : Not reported
Date Prelim Site Assmnt Workplan Submitted : Not reported
Date Preliminary Site Assessment Began : Not reported
Date Pollution Characterization Began : Not reported
Date Remediation Plan Submitted : Not reported
Date Remedial Action Underway : Not reported
Date Post Remedial Action Monitoring Began : Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
D13 NE 1/2-1 5208 ft. Relative: Higher Actual: 29 ft.	833 HANNA DR AMERICAN CANYON, CA 29053 Site 1 of 4 in cluster D	HAZNET CHMIRS CA WDS	S103978447 N/A

HAZNET:

Gepaid:	CA0000001149
TSD EPA ID:	CAT000613950
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1080
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1080
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1260
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

Gepaid:	CA0000001149
TSD EPA ID:	CA0000084517
Gen County:	Napa
Tsd County:	Sacramento
Tons:	.1260
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Contact:	JOHN A & RICHARD E MORROW DBA
Telephone:	(503) 585-5721
Mailing Address:	PO BOX 3306 3218 PRINGLE RD SALEM, OR 97302 - 9606
County	Napa

(Continued) S103978447

Gepaid: CA0000001149
TSD EPA ID: CA0000084517
Gen County: Napa
Tsd County: Sacramento
Tons: .1260
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: JOHN A & RICHARD E MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306 3218 PRINGLE RD
SALEM, OR 97302 - 9606
County Napa

Click this hyperlink while viewing on your computer to access
4 additional CA HAZNET record(s) in the EDR Site Report.

CHMIRS:

OES Control Number:	99-2001
Chemical Name:	unk
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	99-2001
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	San Francisco Bay
Spill Site :	Merchant/Business

(Continued) S103978447

Cleanup By :	Contractor
Containment :	Yes
What Happened :	Discovered an oily substance on top of a drainage ditch that runs along side of the building. Company traced the spill back to the far drain on the back of the property. Company has called a contactor to come and contain the spill. Company does not belei
Type :	PETROLEUM
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	5/10/99 1000
Evacuations :	0

WDS:

Facility ID:	San Francisco Bay 28I017048		
Facility Contact	BRYAN FRAZER	Facility Telephone	(707) 644-3731
SIC Code:	Not reported	SIC Code 2:	Not reported
Agency Name:	MORROW EQUIPMENT CO		
Agency Address:	833 Hanna Dr American Canyon 94503 - 9606		
Agency Contact:	BRYAN FRAZER	Agency Phone:	(707) 644-3731
Design Flow:	Not reported	Baseline Flow:	Not reported
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Private		
Waste Type:	Not reported		
Threat to Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.		
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.		
Reclamation:	Not reported		
POTW:	Not reported		
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board		
Subregion:	2		

D14
NE
1/2-1
5208 ft.

Relative:
Higher

Actual:
29 ft.

MORROW CRANE COMPANY
833 HANNA DRIVE
AMERICAN CANYON, CA 94589

Site 2 of 4 in cluster D

RCRIS-SQG 1000856915
FINDS CA0000001149

MORROW CRANE COMPANY (Continued) **1000856915**

RCRIS:
Owner: MORROW CRANE INC
(707) 644-3731
EPA ID: CA0000001149
Contact: BRIAN FRASIER
(707) 644-3731
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)
National Emissions Trends (NET)
National Toxics Inventory (NTI)
Resource Conservation and Recovery Act Information system (RCRAINFO)

D15 **MORROW EQUIPMENT CO LLC** **HAZNET S102816984**
NE **833 HANNA DRIVE** **EMI N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
5208 ft.

Site 3 of 4 in cluster D

Relative: Higher

Actual: 29 ft.

HAZNET:
Gepaid: CAL000092017
TSD EPA ID: CAD028409019
Gen County: Napa
Tsd County: Los Angeles
Tons: 1.1259
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: 2.0641
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

MORROW EQUIPMENT CO LLC (Continued) **S102816984**

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: .4587
Waste Category:
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

Gepaid: CAL000092017
TSD EPA ID: CAD009452657
Gen County: Napa
Tsd County: San Mateo
Tons: .2293
Waste Category: Unspecified sludge waste
Disposal Method: Recycler
Contact: RICHARD & JOHN MORROW DBA
Telephone: (503) 585-5721
Mailing Address: PO BOX 3306
SALEM, OR 97302
County Napa

EMISSIONS :

Facility ID :	9128
Air District Code :	BA
SIC Code :	5082
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SF
Air District Name :	BAY AREA AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
County Code :	28
County ID :	28

D16 **833 HANNA DRIVE** **ERNS 99621239**
NE **833 HANNA DRIVE** **N/A**
1/2-1 **AMERICAN CANYON, CA 94589**
5215 ft.

Site 4 of 4 in cluster D

Relative:
Higher

Actual:
28 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
C17 North 1/2-1 5218 ft. Relative: Higher Actual: 29 ft.	CALIFORNIA AUTO DISMANTLERS 1578 GREEN ISLAND RD AMERICAN CANYON, CA 94503 Site 2 of 2 in cluster C SLIC Region 2: Facility ID: 28S0043 Region: 2 Facility Status: 9 Date Closed: Not reported Local Case #: Not reported How Discovered : Not reported Leak Cause : Not reported Leak Source : Not reported Date Confirmed : Not reported Date Prelim Site Assmnt Workplan Submitted : Not reported Date Preliminary Site Assessment Began : Not reported Date Pollution Characterization Began : Not reported Date Remediation Plan Submitted : Not reported Date Remedial Action Underway : Not reported Date Post Remedial Action Monitoring Began : Not reported	CA SLIC	S106234974 N/A
E18 ENE 1/2-1 5232 ft. Relative: Higher Actual: 231 ft.	JAEGER VINEYARDS 658 NAPA JUNCTION ROAD AMERICAN CANYON, CA 94589 Site 1 of 2 in cluster E State LUST: Cross Street: Not reported Qty Leaked: 0 Case Number 28-0229 Reg Board: 2 Chemical: Heater Fuel Lead Agency: Local Agency Local Agency : 28000L Case Type: Soil only Status: Case Closed Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site Review Date: Not reported Workplan: Not reported Pollution Char: Not reported Remed Action: 10/24/96 0:00 Monitoring: Not reported Close Date: 11/23/98 0:00 Release Date: 05/11/1992 Cleanup Fund Id : Not reported Discover Date : 05/26/1992 Enforcement Dt : Not reported Enf Type: Not reported Enter Date : 5/24/93 0:00 Funding: Federal Funds Staff Initials: ZZZ How Discovered: Tank Closure How Stopped: Not reported Interim : Yes Leak Cause: UNK Leak Source: Tank MTBE Date : Not reported Confirm Leak: Not reported Prelim Assess: Not reported Remed Plan: Not reported	LUST Cortese UST	U003659768 N/A

JAEGER VINEYARDS (Continued) **U003659768**

Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 83
Beneficial: Not reported
Staff : MRC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Napa-Sonoma Valley (
Operator : Not reported
Oversight Prgm: LUST
Review Date : 1/11/00 0:00
Stop Date : 05/26/1992
Work Suspended :No
Responsible PartyBLANK RP
RP Address: Not reported
Global Id: T0605500203
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: Not reported
Mtbe Fuel: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 2:
Region: 2
Case Number: 0083
Facility Id: 28-0229
Facility Status: Case Closed
How Discovered: TC
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: Not reported
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 10/24/1996
Date Remediation Action Underway: Not reported

LUST NAPA County:
Facility ID: NAPA0083
Region: NAPA
Date Closed: 12/23/1998

CORTESE:
Region: CORTESE
Fac Address 2: 658 NAPA JUNCTION RD

UST Napa County:
Facility ID: NAPA0083 Num of Tanks: 0
Region: NAPA

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
E19 ENE 1/2-1 5232 ft. Relative: Higher Actual: 231 ft.	STEEL MILL SUPPLY OF NAPA 659 NAPA JUNCTION RD NAPA, CA 94559 Site 2 of 2 in cluster E FINDS: Other Pertinent Environmental Activity Identified at Site: AIRS/AIRS Facility Subystem (AIRS/AFS)	FINDS	1004441402 110001188606
F20 North 1/2-1 5247 ft. Relative: Higher Actual: 28 ft.	SUNSHINE AUTO SALVAGE 1578 GREEN ISLAND ROAD AMERICAN CANYON, CA 94589 Site 1 of 5 in cluster F REF:	REF	S102860920 N/A

Facility ID	28500004
Dtsc Region Code :	2
Region Code Definition :	BERKELEY
County Code :	28
Site Name Under :	Not reported
Current Status Date :	01102001
Current Status Code :	REFRW
Current Status :	PROPERTY/SITE REFERRED TO RWQCB
Lead Agency Code :	RWQCB
Lead Agency :	REGIONAL WATER QUALITY CONTROL BOARD
Site Type Code :	Not reported
Site Type :	N/A
National Priorities List :	N
Tier :	Not reported
Source Of Funding Code :	Not reported
Staff Member :	VLASKY
Supervisor :	Not reported
Sic Code :	50
Sic Code Definition :	WHOLESALE TRADE - DURABLE GOODS
Site Mitigatn & Bnflds Reuse Prog (SMBR) Code :	NC
SMBR Branch :	NORTH COAST
Regional Water Quality Control Board :	SF
RWQCB Definition :	SAN FRANCISCO BAY
Site Access Controlled :	Not reported
Listed In Haz Wst & Substncs Sites List (CORTESE):	Not reported
Date Hazard Ranked :	Not reported
GW Contamination Suspected :	Not reported
# Of Sources Contributing To Contamination :	0.00000
Lat/Long :	0.00000° 0.00000' 0.00000" / 0.00000° 0.00000' 0.00000"
Direction Lat :	Not reported
Direction Long :	Not reported
Lat/long Method :	Not reported
Entity Lat/long Coordinates Refer To :	Not reported
State Assembly Distt Code :	07
State Senate Distt Code :	02
Identifying Code:	Not reported
ID Value:	Not reported
Other ID Desc:	Not reported
Alternate Name(s):	SUNSHINE AUTO SALVAGE CALIFORNIA AUTO DISMANTLING
Address(es) :	1578 GREEN ISLAND ROAD AMERICAN CANYON, CA 94589
Background Info :	The property has been used as an auto salvage yard since about

SUNSHINE AUTO SALVAGE (Continued) **S102860920**

Background Info :	1985. Due to mishandling of hazardous substances by the previous
Background Info :	owner, soil and groundwater investigations were required by the
Background Info :	SF Regional Water Quality Control Board. Results indicated that
Background Info :	on soil samples had lead above untrestricted residential
Background Info :	standards. Contaminants related to petroleum were also found
Background Info :	in the soil. Groundwater samples did not detect any contaminants
Background Info :	above the drinking water standards. A No Further Action
Background Info :	determination was made by the Water Board.
Facility Id :	28500004
AWP Activities Code :	1.00000
DTSC Site Activity Code :	DISC
Activity Code Def:	DISCOVERY
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	01221988
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	28500004
AWP Activities Code :	2.00000
DTSC Site Activity Code :	SS
Activity Code Def:	Not reported
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03151988
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	28500004
AWP Activities Code :	3.00000
DTSC Site Activity Code :	PEA
Activity Code Def:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Activity Id :	PA/SI
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	04112002
Est # Of Person-years To Complete :	0.00000
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	REFRW
Status Code Definition :	PROPERTY/SITE REFERRED TO RWQCB
Cubic Yards Of Solids Removed At Completion :	0.00000
Gallons Of Liquid Removed Upon Completion :	0.00000
Cubic Yards Of Solids Treated Upon Completion :	0.00000
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported

SUNSHINE AUTO SALVAGE (Continued) S102860920

Special Program Code: RCSP
Special Program : RURAL COUNTY SURVEY PROGRAM
Comments Date : Not reported
Comments : Not reported

F21
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

SUNRISE AUTO INC HAZNET S105084761
1578 GREEN ISLAND RD N/A
AMERICAN CANYON, CA 94589

Site 2 of 5 in cluster F

HAZNET:
Gepaid: CAC002209009
TSD EPA ID: CAD099452708
Gen County: Napa
Tsd County: Los Angeles
Tons: 1.0425
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: SUNRISE AUTO INC
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589
County Napa

F22
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

ULTIMATE ADVENTURE INC DBA SUNRISE TRADI HAZNET S103993056
1578 GREEN ISLAND RD N/A
VALLEJO, CA 94589

Site 3 of 5 in cluster F

HAZNET:
Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 8.3482
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 1.5012
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

ULTIMATE ADVENTURE INC DBA SUNRISE TRADI (Continued) **S103993056**

Gepaid: CAL000031929
TSD EPA ID: CAD043260702
Gen County: Solano
Tsd County: San Mateo
Tons: 4.1700
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAD009452657
Gen County: Solano
Tsd County: San Mateo
Tons: 2.7105
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Gepaid: CAL000031929
TSD EPA ID: CAT000646117
Gen County: Solano
Tsd County: Kings
Tons: .6000
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Treatment, Tank
Contact: WINDERS PAUL
Telephone: (000) 000-0000
Mailing Address: 1578 GREEN ISLAND RD
AMERICAN CANYON, CA 94589 - 9660
County Solano

Click this hyperlink while viewing on your computer to access
2 additional CA HAZNET record(s) in the EDR Site Report.

F23
North
1/2-1
5247 ft.

Relative:
Higher

Actual:
28 ft.

SUNSHINE AUTO SALVAGE **CERC-NFRAP** **1003109132**
1578 GREEN ISLAND ROAD **CAD091840710**
VALLEJO, CA 94503

Site 4 of 5 in cluster F

CERCLIS-NFRAP Classification Data:
Site Incident Category: Not reported
Non NPL Code: NFRAP
Ownership Status: Not reported
Site Description: Per BC 6/12/03

Federal Facility: Not a Federal Facility

NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History:
Assessment: DISCOVERY Completed: 01/10/2001
Assessment: PRELIMINARY ASSESSMENT Completed: 12/10/2002
Assessment: ARCHIVE SITE Completed: 06/12/2003

CERCLIS-NFRAP Alias Name(s):
CALIFORNIA AUTO DISMANTLING

SUNSHINE AUTO SALVAGE (Continued) 1003109132

ULTIMATE ADVENTURE INC. DBA

F24 **SUNRISE TRADERS AUTO SALVAGE** SWF/LF 1001134452
North **1578 GREEN ISLAND ROAD** N/A
1/2-1 **VALLEJO, CA**
5247 ft.

Site 5 of 5 in cluster F

Relative:
Higher

Actual:
28 ft.

LF:

Facility ID:	28-TI-0002
Operator:	Sunshine Auto Dismantling
Operator Phone:	(707) 643-3111
Operator Addr:	Vallejo, CA 94589
Owner:	Sunshine Auto Dismantling
Owner Address:	Not reported
	Not reported
	Vallejo, CA 94589
Owner Telephone:	(707) 643-3111
Activity:	Auto Dismantler
Operator's Status:	Not reported
Regulation Status:	Not reported
Region:	STATE
Lat/Long:	38 / -122
Permit Date:	Not reported
Accepted Waste:	Tires
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported
Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	Not reported
Permitted Throughput with Units:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Tires
Actual Capacity with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity with Units:	Tires
Permitted Total Acreage:	0
Inspection Frequency:	None
Landuse Name:	Rural,Industrial
GIS Source:	Map
Permit Status:	Not reported

SUNRISE TRADERS AUTO SALVAGE (Continued) **1001134452**

Category:	Waste Tire Site
Unit Number:	01
Last Waste Tire Inspection Count :	1
Last Waste Tire Inspection Date:	3/15/02
Original Waste Tire Count:	8000
Original Waste Tire Count Date:	11/2/95
Closure Date:	/ /
Closure Type:	Not reported
Disposal Acreage:	Not reported
Remaining Capacity:	Not reported
Year Opened:	Not reported
Year Closed:	Not reported
Fill Area:	Not reported
Type Of Refuse: Not reported	
Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Description:	Not Reported

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25 **ENG BROS WOOD PROD** **CA WDS** **S106101847**
North **1660 GREEN ISLAND RD** **N/A**
1/2-1 **AMERICAN CANYON, CA 94503**
5274 ft.

Relative:
Higher

Actual:
32 ft.

WDS:

Facility ID:	San Francisco Bay 2I011669		
Facility Contact	GLENN NG	Facility Telephone	(707) 647-7559
SIC Code:	Not reported	SIC Code 2:	Not reported
Agency Name:	ENG BROS WOOD PROD		
Agency Address:	1660 Green Island Rd American Canyon 94503 - 9661		
Agency Contact:	GLENN NG	Agency Phone:	(707) 647-7559
Design Flow:	Not reported	Baseline Flow:	Not reported
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.		
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.		
Agency Type:	Private		
Waste Type:	Not reported		
Threat to Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.		
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.		
Reclamation:	Not reported		
POTW:	Not reported		
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board		
Subregion:	2		

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	1006826004	CITY OF AMERICAN CANYON	WEST AMERICAN CANYON ROAD FOOT OF	94503	FINDS
AMERICAN CANYON	S106101845	AMERICAN CANYON SANITARY LAND	END OF EUCALPYTUS DR	94559	CA WDS
AMERICAN CANYON	S106101896	NAPA VALLEY WASTE MGMT AUTHORI	WEST END OF EUCALYPTUS RD	94503	CA WDS
AMERICAN CANYON	1007249212	GAS RECOVERY SYSTEMS - AMERICAN CANYON	725 EUCALYPTUS ROAD	94503	FINDS
AMERICAN CANYON	S106088947	CDM	151 MEZZETTA	94503	HAZNET
AMERICAN CANYON	1007200685	ADOBE LUMBER	150 S NAPA JCT RD	94503	RCRIS-SQG
NAPA	S104574822	CULTURED STONE	HIGHWAY 29 / TOWER RD	94559	HAZNET
NAPA	U003114756	STUCCO STONE	0 HWY 29 AT TOWER RD	94559	UST
NAPA	S103664127	HUDSON VINEYARDS	5398 CARNEROS HWY	94559	HAZNET
NAPA	1003878934	PG&E GAS PLANT NAPA 104 3	NW COR CROSS & ELM	94559	CERC-NFRAP
NAPA	S105088158	CALTRANS DIST 4/CONSTRUCTION	NAPA 121 P.M. 0.3-4.5	94559	HAZNET
NAPA	S102792370	PACIFIC GAS AND ELECTRIC COMPANY	1/2 MI SOUTH OF HIGHWAY 12	94559	HAZNET
NAPA	S106162543	STUCCO STONE PRODUCTS	UNKNOWN HWY 29 / TOWER RD	94559	LUST
NAPA	S106234964	BENETO TANK LINES	UNKNOWN HWY 29	94559	CA SLIC
NAPA	S106234966	CALTRANS	UNKNOWN HWY 12 / KELLY RD	94559	CA SLIC
SONOMA	S103661425	CAPITOL REFRIDGERATION	4777 W NAPA ST(SAFEWAY)	94559	HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 6
Telephone: 214-655-6659

EPA Region 8
Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/04
Date Made Active at EDR: 04/15/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 03/25/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/08/04

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 04/13/04
Date Made Active at EDR: 05/13/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 04/20/04
Elapsed ASTM days: 23
Date of Last EDR Contact: 04/20/04

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03
Date Made Active at EDR: 03/12/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04
Elapsed ASTM days: 46
Date of Last EDR Contact: 04/26/04

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/08/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/04
Date of Next Scheduled EDR Contact: 08/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/19/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 03/05/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/04
Date of Next Scheduled EDR Contact: 06/28/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/12/04
Date of Next Scheduled EDR Contact: 05/24/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/04
Database Release Frequency: Annually

Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-692-8801
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

INDIAN RESERV: Indian Reservations
Source: USGS
Telephone: 202-208-3710
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A
Database Release Frequency: N/A

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

FUDS: Formerly Used Defense Sites
Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/03
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/05/04

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 03/23/04
Date of Next Scheduled EDR Contact: 06/21/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 03/05/04
Date of Next Scheduled EDR Contact: 06/07/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Annually
Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies
Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 02/23/04

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 04/28/04

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 04/19/04

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 05/03/04

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/15/04
Date Made Active at EDR: 04/14/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/17/04
Elapsed ASTM days: 28
Date of Last EDR Contact: 03/16/04

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 03/11/04

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/13/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/13/04
Elapsed ASTM days: 16
Date of Last EDR Contact: 04/13/04

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/13/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/13/04
Elapsed ASTM days: 16
Date of Last EDR Contact: 04/13/04

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 03/02/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/03/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/03/04

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
Source: Environmental Protection Agency
Telephone: 415-972-3372
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/09/04
Date Made Active at EDR: 03/01/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 02/10/04
Elapsed ASTM days: 20
Date of Last EDR Contact: 01/27/04

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
Source: EPA Region 10
Telephone: 206-553-2857
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/11/04
Date Made Active at EDR: 03/31/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/12/04
Elapsed ASTM days: 19
Date of Last EDR Contact: 01/27/04

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 02/25/04
Date Made Active at EDR: 03/24/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/01/04
Elapsed ASTM days: 23
Date of Last EDR Contact: 02/23/04

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/03/04
Date of Next Scheduled EDR Contact: 08/02/04

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/21/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-341-5227
Sites which have been issued waste discharge requirements.

Date of Government Version: 04/05/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 04/06/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/06/04
Date of Next Scheduled EDR Contact: 07/05/04

NFA: No Further Action Determination
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/02
Database Release Frequency: Varies

Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

REF: Unconfirmed Properties Referred to Another Agency
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

NFE: Properties Needing Further Evaluation
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA in Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

HAZNET: Facility and Manifest Data
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/02
Database Release Frequency: Annually
Date of Last EDR Contact: 05/10/04
Date of Next Scheduled EDR Contact: 08/09/04

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 03/05/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/01/04
Date of Next Scheduled EDR Contact: 05/31/04

FRESNO COUNTY:

CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/04
Date of Next Scheduled EDR Contact: 08/09/04

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 01/27/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/03/03
Database Release Frequency: Varies

Date of Last EDR Contact: 02/20/04
Date of Next Scheduled EDR Contact: 05/17/04

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-524-2236

Date of Government Version: 03/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 03/28/03
Database Release Frequency: Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 02/17/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/04
Database Release Frequency: Varies

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 05/17/04

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/26/04
Database Release Frequency: Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 02/10/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/03/04
Date of Next Scheduled EDR Contact: 08/02/04

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 03/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/04
Date of Next Scheduled EDR Contact: 06/28/04

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 03/29/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/29/04
Date of Next Scheduled EDR Contact: 06/28/04

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 03/01/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/17/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/17/04
Date of Next Scheduled EDR Contact: 06/21/04

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/23/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 04/16/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/07/04
Date of Next Scheduled EDR Contact: 08/02/04

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/03/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/07/04
Date of Next Scheduled EDR Contact: 08/02/04

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 04/15/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00
Database Release Frequency: Varies

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/31/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

SAN FRANCISCO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 03/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 03/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 01/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/07/04
Database Release Frequency: Annually

Date of Last EDR Contact: 03/02/04
Date of Next Scheduled EDR Contact: 07/12/04

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 12/31/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/04
Date of Next Scheduled EDR Contact: 06/28/04

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 10/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 03/18/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 03/18/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 04/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 01/29/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 02/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/15/04
Date of Next Scheduled EDR Contact: 07/12/04

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 02/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 01/27/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 03/31/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/19/03
Database Release Frequency: Varies

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/10/04
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291

Date of Government Version: 04/01/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/03
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 01/21/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 02/26/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/26/04
Date of Next Scheduled EDR Contact: 06/28/04

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 01/12/04
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 04/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 03/31/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/12/04

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/16/04
Date of Next Scheduled EDR Contact: 05/17/04

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 01/28/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 04/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 6L: SLIC Sites
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 03/09/04
Database Release Frequency: Varies

Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 04/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 7: SLIC List
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491

Date of Government Version: 02/27/04
Database Release Frequency: Varies

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/08/04
Date of Next Scheduled EDR Contact: 07/05/04

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 04/29/04
Database Release Frequency: Annually

Date of Last EDR Contact: 04/29/04
Date of Next Scheduled EDR Contact: 05/31/04

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 03/02/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/03/04
Date of Next Scheduled EDR Contact: 05/31/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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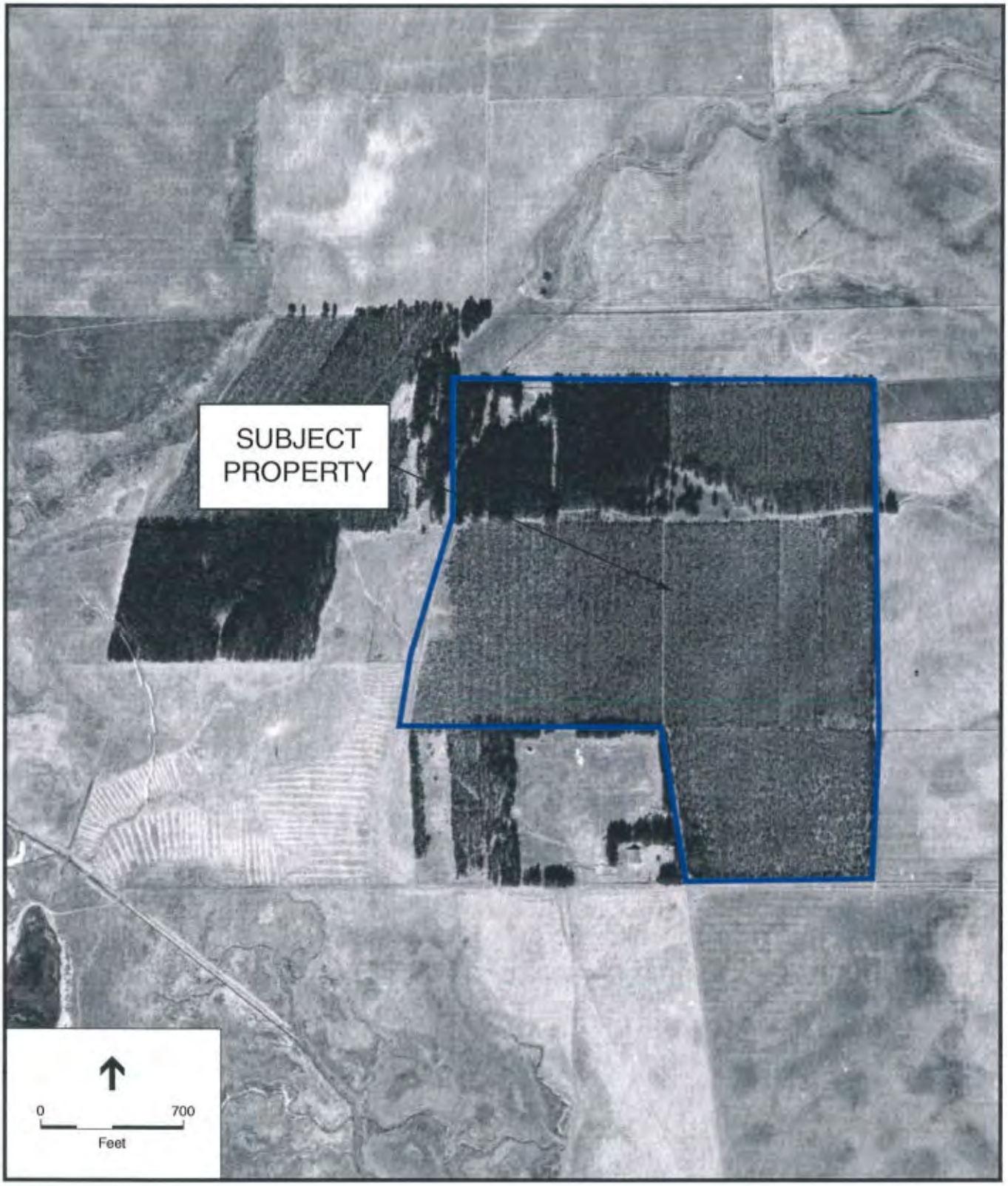
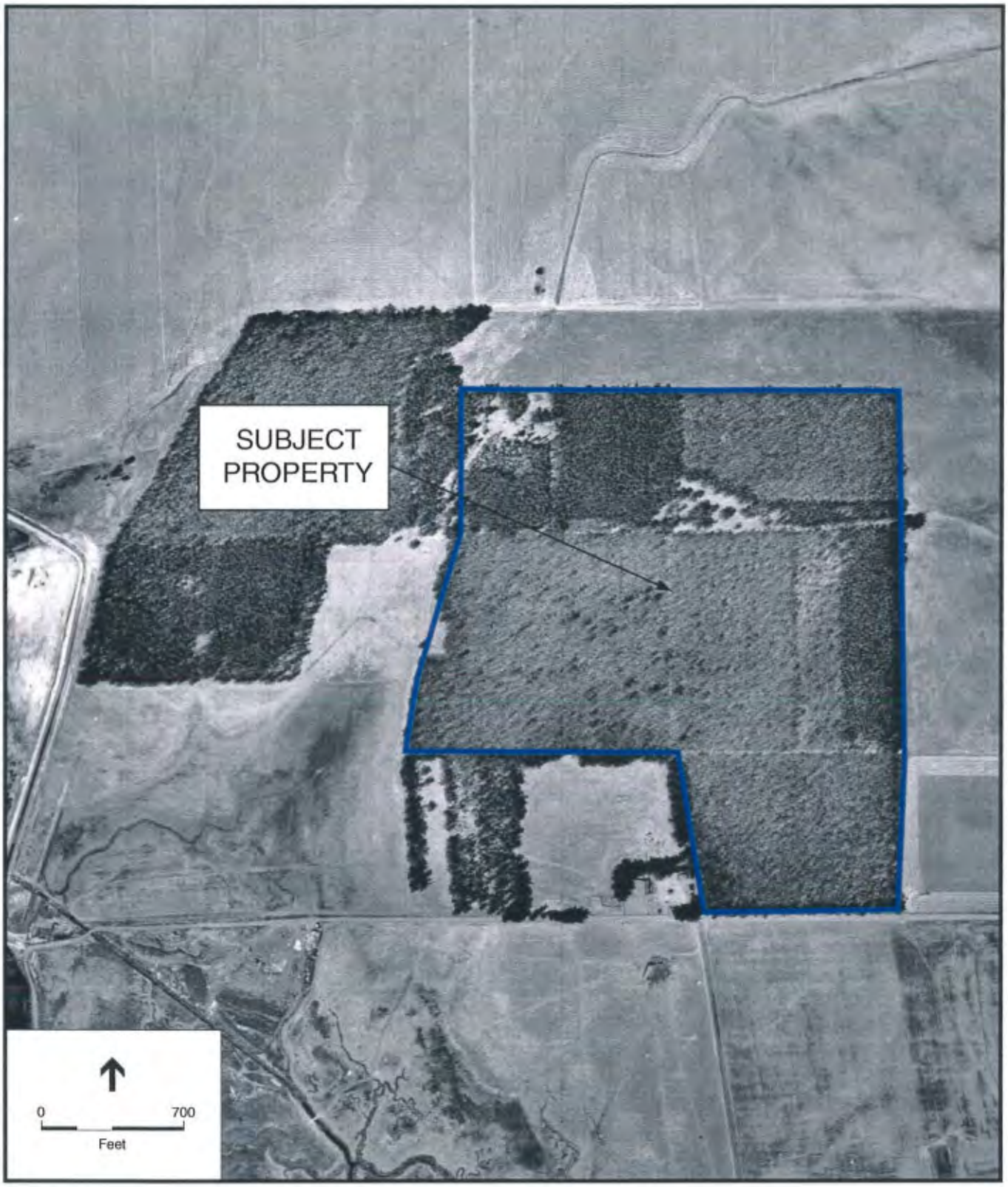
APPENDIX B

AERIAL PHOTOGRAPHS



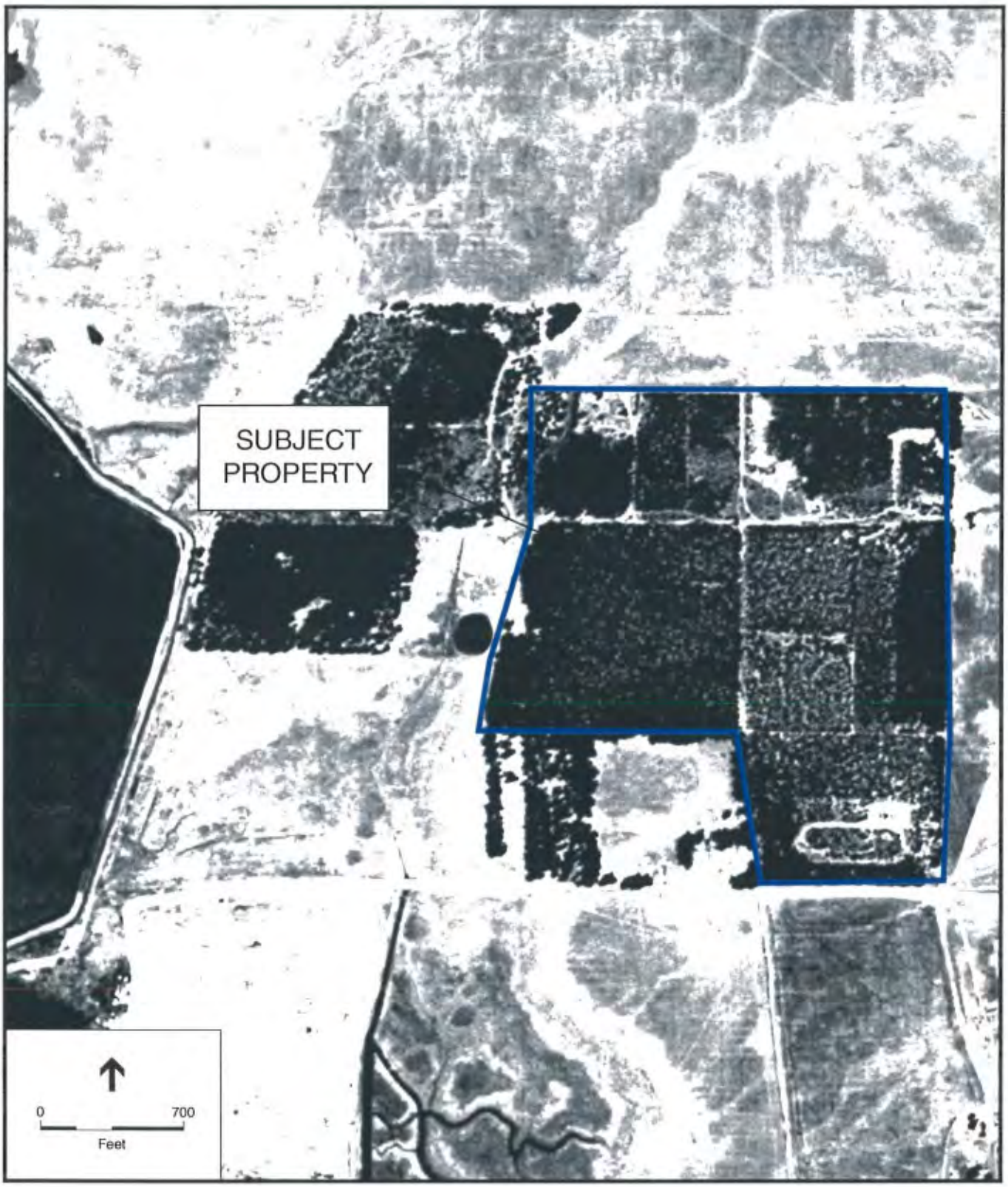
SOURCE: U.S. Department of Agriculture ASCS, 1937; and
Environmental Science Associates, 2004



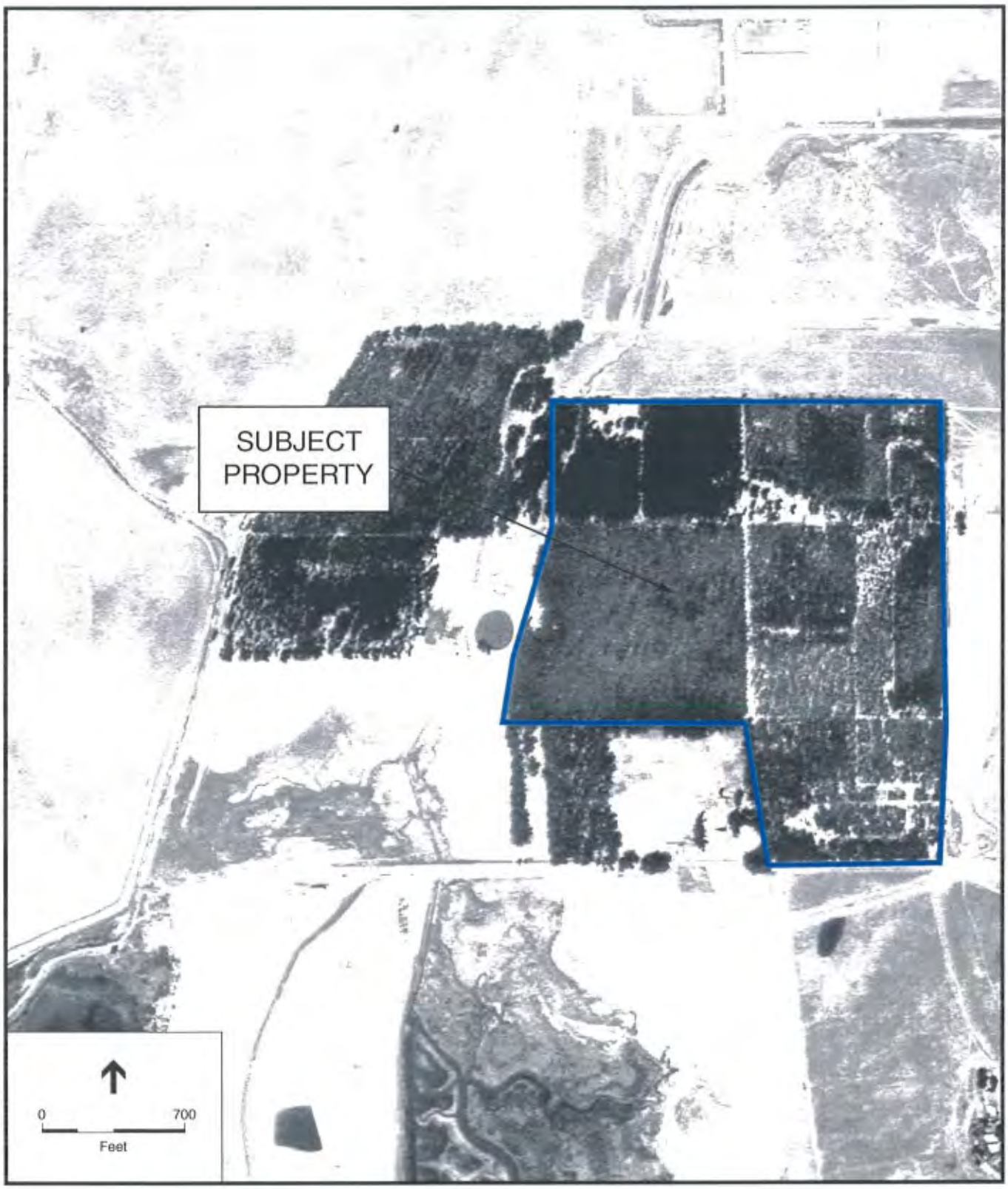
SOURCE: U.S. Department of Agriculture ASCS, 1957; and
Environmental Science Associates, 2004



SOURCE: Cartwright Aerial Surveys, 1965; and
Environmental Science Associates, 2004



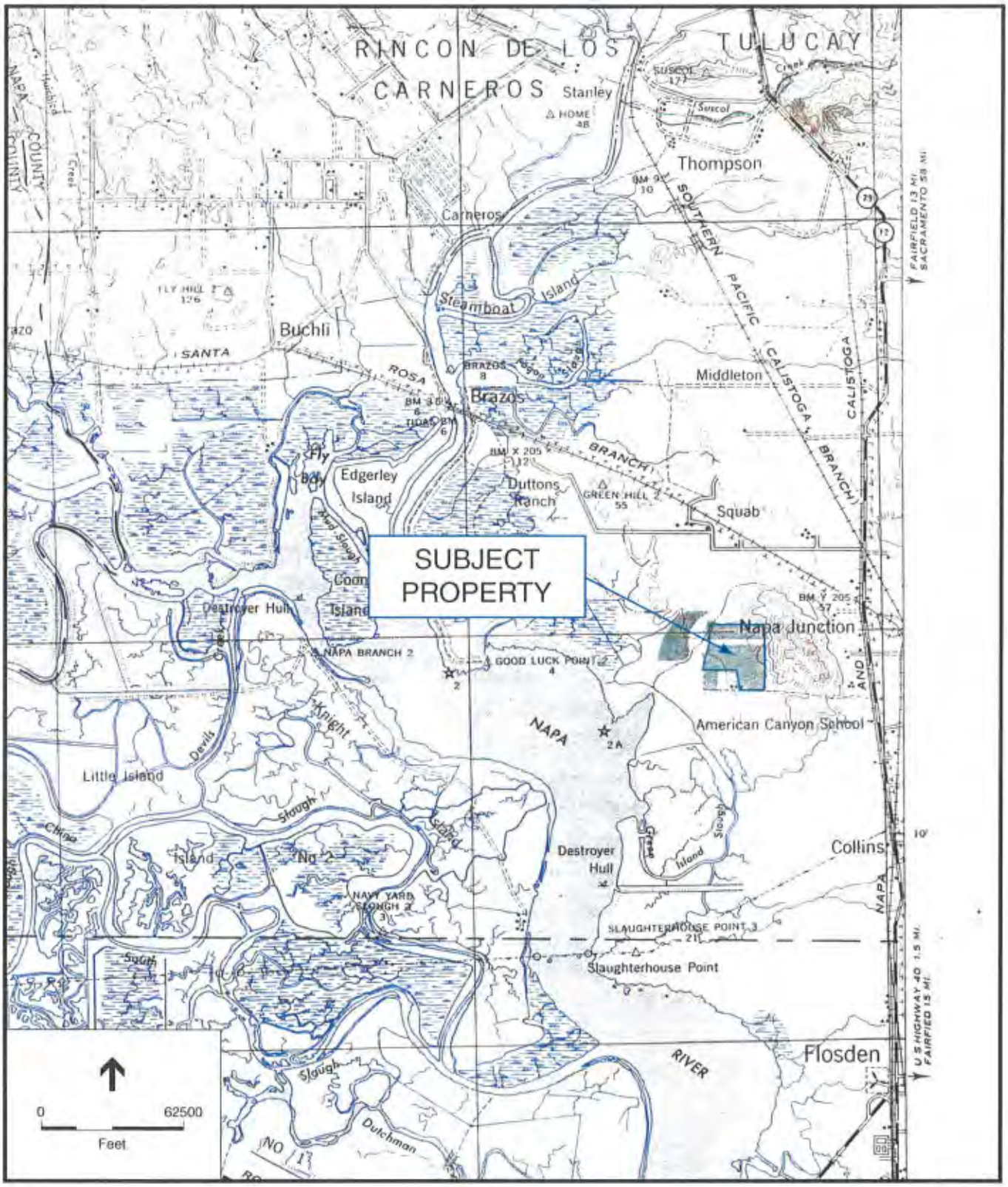
SOURCE: U.S. Geological Survey, 1982; and Environmental Science Associates, 2004



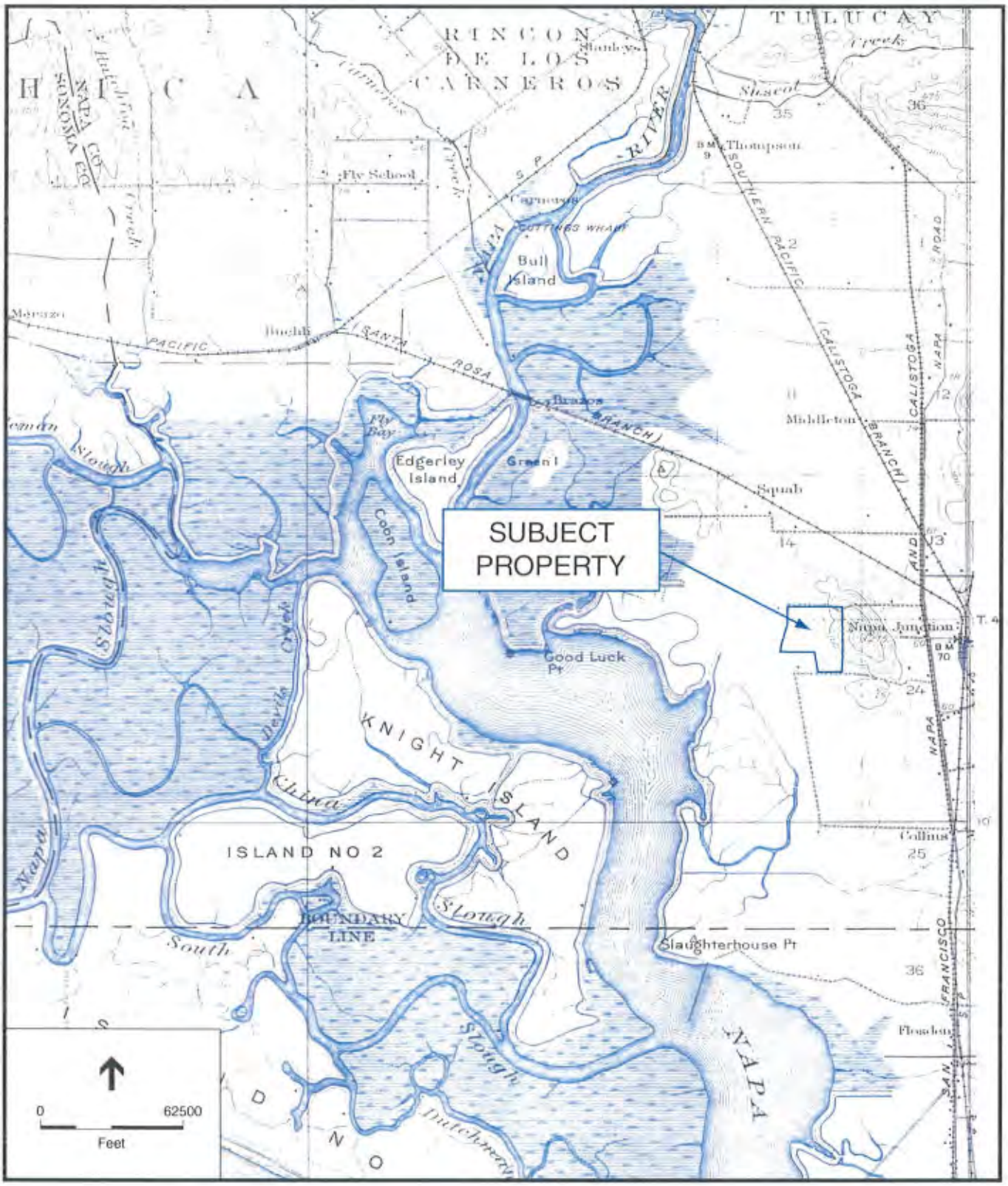
SOURCE: U.S. Geological Survey, 1993; and Environmental Science Associates, 2004

APPENDIX C

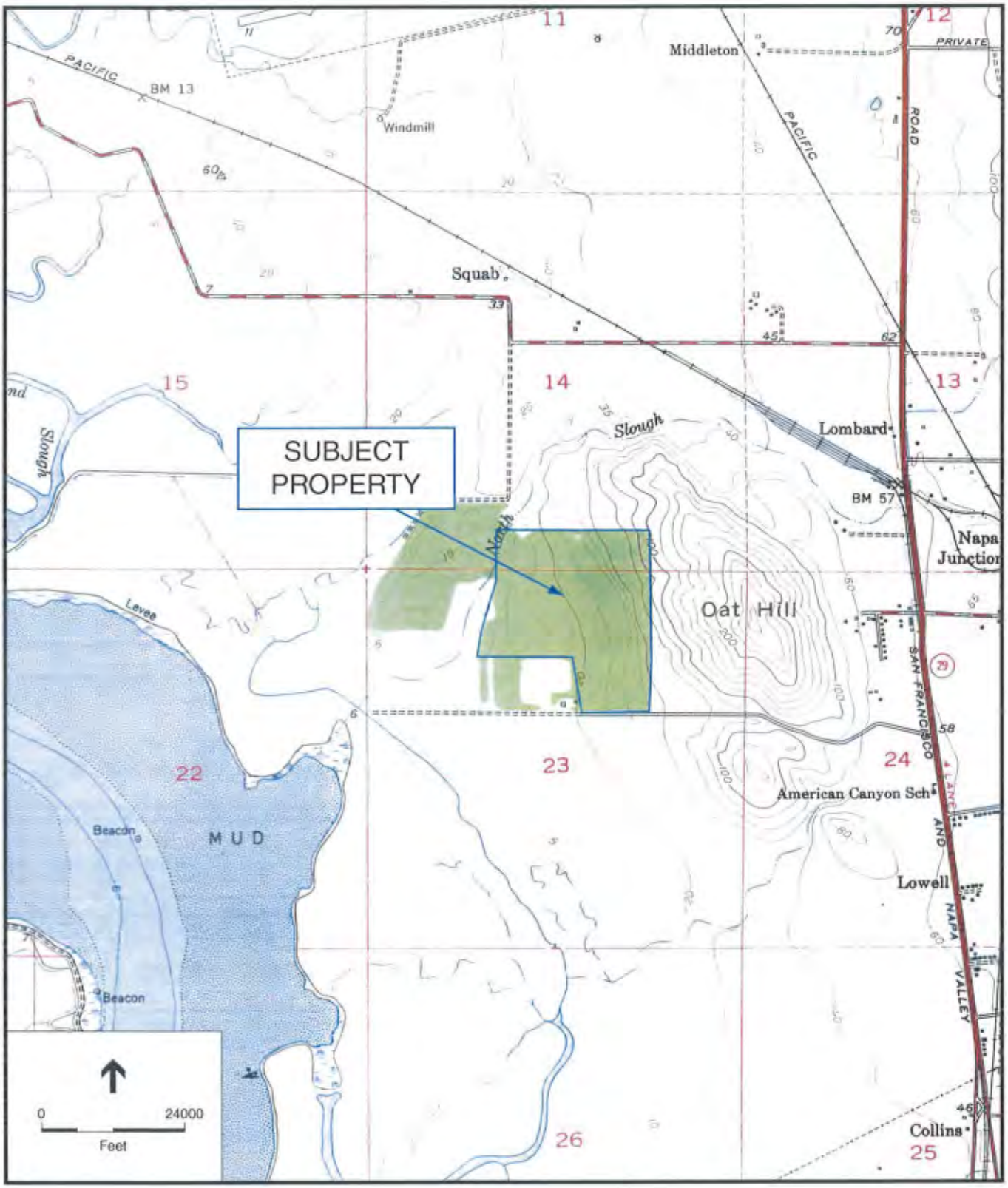
TOPOGRAPHIC MAPS



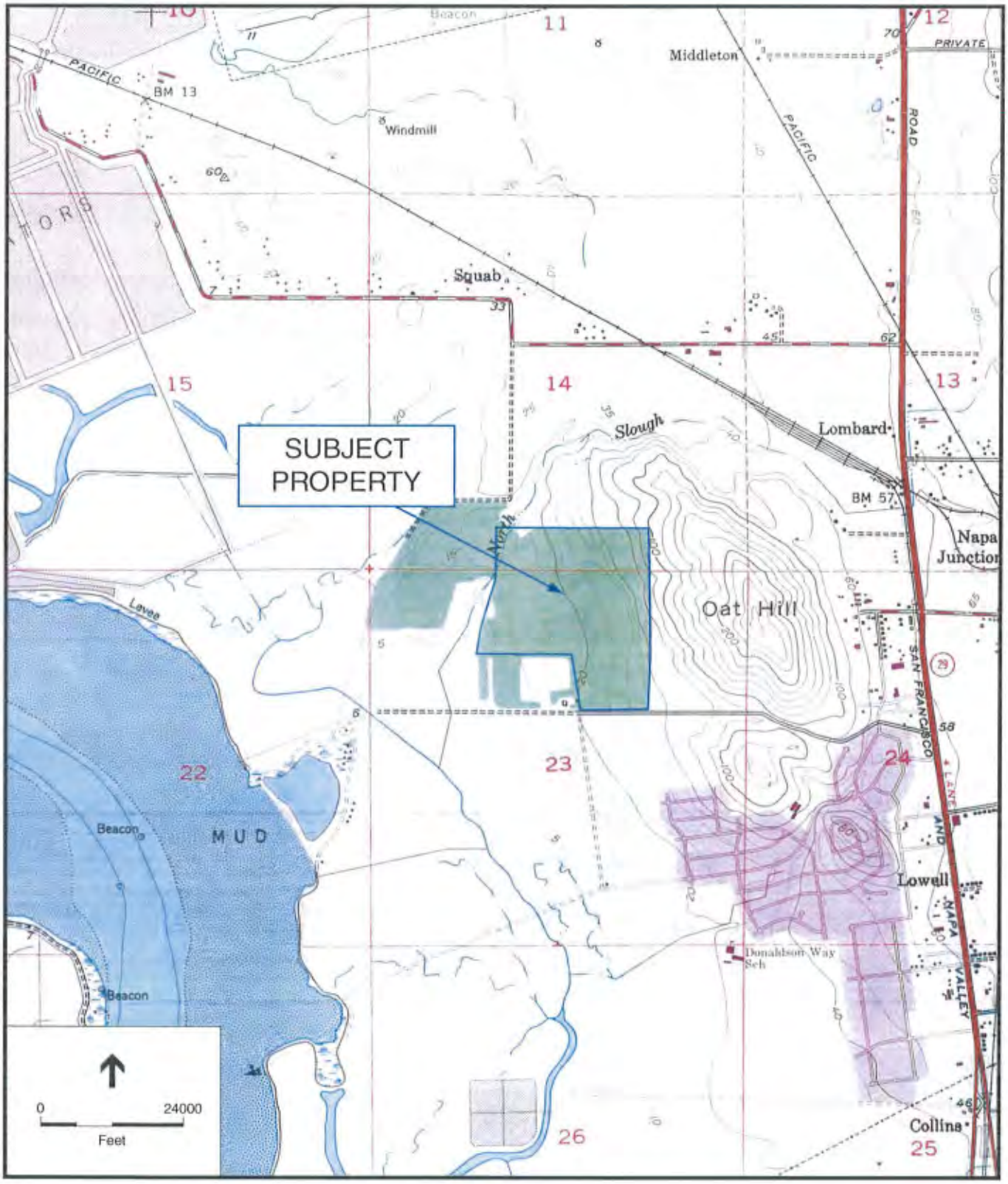
SOURCE: U.S. Geological Survey Quadrangle (Mare Island, 1941); and Environmental Science Associates, 2004



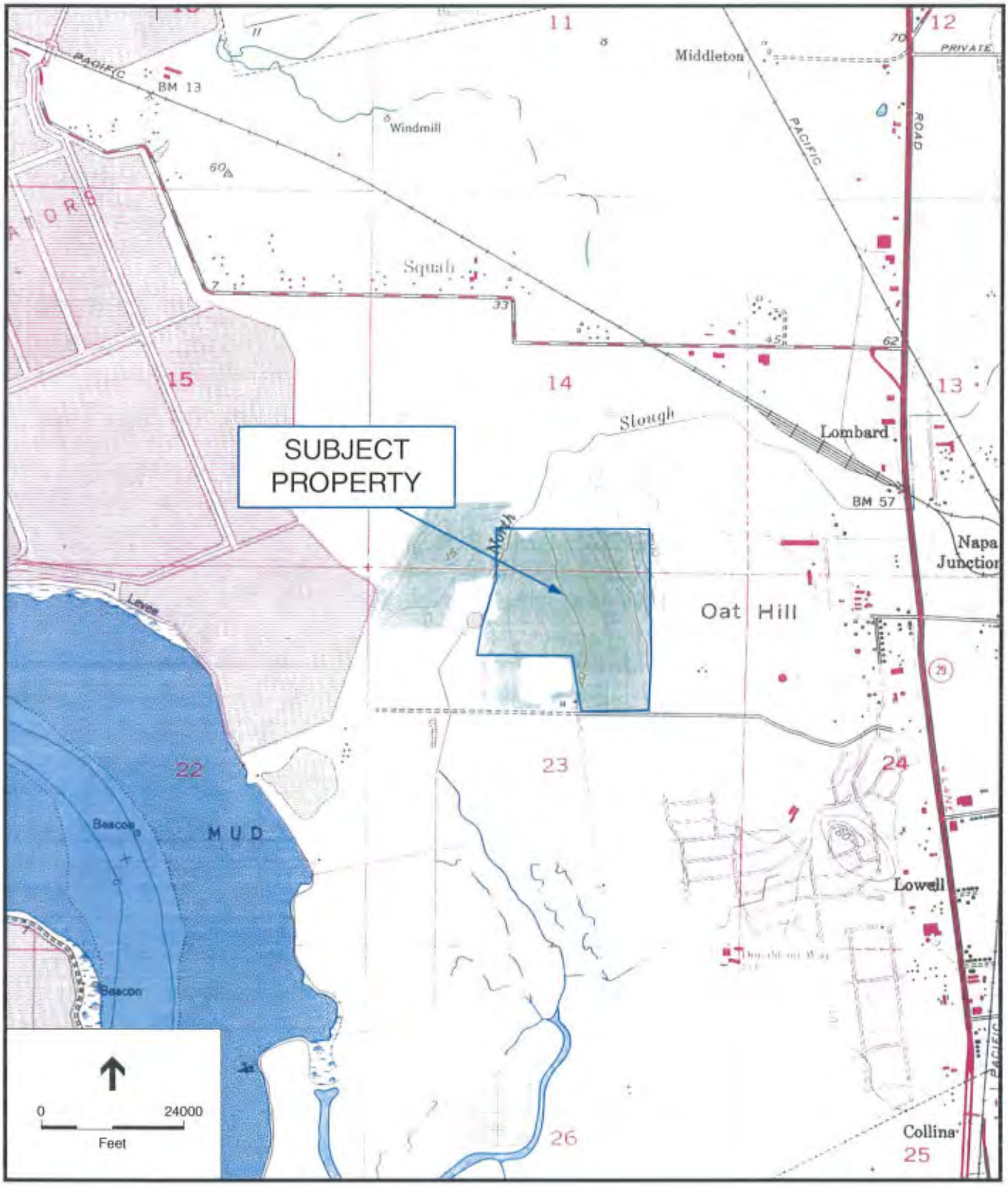
SOURCE: U.S. Geological Survey Quadrangle (Mare Island, 1916 [reprinted 1947]); and Environmental Science Associates, 2004



SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949); and Environmental Science Associates, 2004



SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949 [photorevised, 1968]); and Environmental Science Associates, 2004



Couch Property Phase I Environmental Site Assessment / 204104 ■

SOURCE: U.S. Geological Survey Quadrangle (Cuttings Warf, 1949 [photorevised, 1981]); and Environmental Science Associates, 2004

APPENDIX D

COPY OF NAPA COUNTY FILE FOR
THE SUBJECT PROPERTY

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
HAZARDOUS MATERIAL SECTION

625 IMPERIAL WAY, SUITE 9 • NAPA, CA 94559-1329
AREA CODE 707/253-4269 ATSS #528-4269
FAX 707/253-4545

Subject: Couch Property, #2 Eucalyptus Road, Am. Cyn.
APN #58-030-17 - Our File #HF 219

Date of
Inspection: November 19, 1990

Purpose: Site Investigation Under Inspection Warrant

Report
Prepared by: Catherine Moody, Senior Hazardous Materials Specialist, Department of Environmental Management, Hazardous Materials Section

On November 19, 1990, I accompanied members of the California Department of Forestry to inspect the property and to collect samples, take photographs and make notes regarding hazardous wastes and solid waste at the Couch Property in American Canyon.

The property is a one hundred sixty five acre parcel, heavily forested with eucalyptus trees. There are small dirt roads throughout much of the property. Pinpointing on specific locations on a map is difficult as there is a tremendous amount of all manner of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps and concrete rubble,as well as 3 tanks and a railroad car. Trails and paths wind throughout the property.

Interspersed throughout the property are shelters where people are living, or were recently living. Some of these shelters used the debris piles as walls for their living quarters.

In addition, we found a box containing six cylindrical cardboard tubes, sealed on each end with wax and stenciled with the words "GAMMA-FLAME". The each tube is approximately ten inches in length, four inches in diameter. The cardboard tubing is approximately one-quarter inch in thickness. Inserted in this box was a piece of mail (unsealed) addressed to "Hollis Newman".

Scattered throughout the property are used automobile batteries and small containers of what is probably used oil and used antifreeze. There are also many small unlabeled containers, probably containing paint or automobile related wastes.

We observed many 55-gallon drums on the property however, most were empty, as determined either by observation (many lacked lids) or by tapping on the sides. Five drums were full or partially full. A sample was collected from each.

There are at least three tanks on the property. Two are of approximately ten-thousand gallon capacity and seemed empty. Apparently, these two tanks used to be underground storage tanks. One is of three-thousand capacity and was partially full of an oily liquid. A sample was collected from this tank.

There are many compressed gas cylinders scattered throughout the property; particularly propane cylinders. The propane cylinders was usually found in the garbage and debris piles.

Other compressed gas cylinders were grouped together in two areas: one group of five cylinders is in a wooden garage that presumably belongs to the Couch family. This garage is filled with all manner of clothes, trash, machinery, equipment, boxes and so forth and as well as five cylinders. (See photo #4).

Near the mobile home where the Couch family lives, adjacent to the road, are twenty-one compressed gas cylinders laying on the ground. Several of them were in a deteriorated condition with rust and corrosion forming on them. All of the cylinders looked like they have been outside for a long time; the paint was faded, the cylinders were scarred and rusty, and leaves and dirt had built up on them, partially burying them. We counted six acetylene cylinders, ten hydrogen cylinders, and five freon cylinders in this area.

Mr. Couch told me that he had tried to get the acetylene cylinders refilled but was refused due to the poor condition of the cylinder valves. He told me that he used the hydrogen cylinders to fill balloons. This concerned me since he seemed to me to be confusing hydrogen, a highly explosive and flammable gas, with helium, an inert gas commonly used to fill children's balloons.

In general, the hazardous wastes we observed fell into four categories;

1) oil or oily wastes
2) compressed gas cylinders
3) paints, lacquers, thinners and solvents
4) unknowns in small containers
5) automobile batteries

Sampling Summary:

All samples were collected by the Haz Mat Team composed of staff from of the California Department of Forestry and the American Canyon Fire Protection District. The Haz Mat Team also tested the two empty ten-thousand gallon tanks for the presence of volatile or toxic gases with hand-held meter device. The meter is a direct reading instrument that does not record findings. Neither tanks registered as having volatile or toxic gases.

A total of six liquid samples were collected. Five of the samples were taken from 55-gallon drums. One sample was taken from the three-thousand gallon tank. One of the cardboard cylinders stenciled "GAMMA-FLAME" was taken from the box if six.

One of the samples came from a drum located in area identified as Zone One; which was the southerly portion of the property that is either leased, rented or otherwise occupied by persons other than the Couch family. The drum was labeled Z-1-1. The sample was identified on the sample jar and on our Chain of Custody document as Sample Number One.

The other five liquid samples came from the drums and the tank located in Zone 3 and were identified on the sample jars and on our Chain of Custody document as Sample Numbers Two through Six.

Sample Z-1-2 consisted of one of the cardboard cylinders stenciled "GAMMA-FLAME". It was NOT included on the Chain of Custody document since we could not send it to a laboratory for analysis as there was concern that it might be explosive or incendiary device of some type, or possibly might contain a highly reactive metal. The device was subsequently x-rayed and opened by Sergeant Johnson of the Presidio Bomb Squad. It was found to be empty except for sawdust packing. Sergeant Johnson said he would list it on his report as a hoax device. He did say that the other cylinders were probably empty too.

Sample ID Number	Sample Type	Sample Jar #
Z-1-1	Liquid from drum	One
Z-1-2	Cardboard cylinder (Gamma-Flame)	N/A
Z-3-3	Liquid from drum	Two
Z-3-4	Liquid from ~~tank~~ drum	Three
Z-3-5	Liquid from ~~drum~~ tank	Four
Z-3-6	Liquid from drum	Five
Z-3-7	Liquid from drum	Six

Areas of Concern:

In terms of hazard potential, the cylinders of hydrogen would represent the most immediate concern. Also, the cylinders in deteriorated condition or of unknown contents have hazard potential. Neither this Department nor the Department of Forestry have the sampling equipment necessary for obtaining gas samples.

The unlabeled drums and tank represent a hazard in that they are unidentified as to contents. Drum Z-3-1 (lying on its side); showed leakage from the top rim. (See photo #17). Drums Z-3-4- and Z-3-5 were resting on a wooden pallet that is heavily stained, and therefore are believed to be leaking. (See photo #21).
The tank Z-3-3 is resting on the ground, without a cap on the fill hole, instead it had a chunk of wood stuck in it. In addition, the tank is not braced in anyway to prevent overturning and it rests on bare earth. (See photo #20).

There are at least two areas on Zone One where twenty or more small containers (one gallon or less) of what look to be various paints, sealers, epoxies, lacquers, engine treatments, wood stains and so forth area stored. Many are rusty or stained and therefore their contents are uncertain but they are mostly like paint and related materials. One group is stored in a fairly neat fashion on a wooden pallet, another group is stored haphazardly in wooden boxes and on the ground. (see Photo #6 and #7)

I observed a large pile of granular asphalt material and asphalt chunks, which would not usually represent an environment hazard unless placed in or along a waterway. (See photo #13).

Judging by the soil piles, asphalt piles, debris piles and abandoned automobiles on the property it appears that the property owners are allowing dumping to take place on their property, perhaps for revenue. Receiving off-site wastes constitutes operating a Solid Waste facility without a Permit or variance.

In addition, Napa County Ordinance #213 makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit to do so.

An Order of Quarantine that forbids the removal of any hazardous wastes on the property for 30 days unless approval is received from this Department was present to Mr. Robert Couch by a representative of the Sheriff Department. Mr. Couch signed the Order verifying receipt. A copy appears as an attachment to this report.

Violative conditions:

Violative conditions are based wholly or partly on the following:

Section 25117(a), Chapter 6.5, Division 20, Health & Safety Code includes in the definition of a hazardous waste as any wastes or combination of wastes that pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Section 25124(e), Chapter 6.5, Division 20, California Health & Safety Code includes in the definition of waste a material that poses a threat to public health or the environment and is either or both mislabeled or not adequately labeled or is packaged in deteriorated or damaged containers.

Based on those definitions, I have determined the following violations.

1. Section 66471, Title 22, California Code of Regulations. The generator (property owner) failed to determine if the wastes are hazardous wastes pursuant to this section in that five (5) drumsand one tank on the property were found (by laboratory analysis) to be hazardous. These containers were unlabeled and at least one container (drum #Z-3-7) did not contain the type of material Mr. Couch stated it to be. Both Robert Couch and David Couch believed all the containers held "cresote".

2. Section 66508, Title 22, California Code of Regulations. The generator (property owner) failed to satisfy the storage requirements for hazardous and the ninety (90) day accumulation time limit for hazardous wastes in that all five of the drums and the tank that were found to contain hazardous wastes were unlabeled and, according to my conversations with Robert Couch and with David Couch, and by my observations on the condition of the containers, these five drums, the tank and the cylinders have been stored on the property for years.

3. Section 67241, Title 22, California Administrative Code. The generator (property owner) failed to manage hazardous waste properly in that the cylinders were lying on their sides, on the ground, adjacent to a road. Several were severely rusted and all of which appeared to be in a deteriorated condition. At least three of drums were severely rusted, one was definitely leaking (Z-3-1) and two were suspected of leaking (Z-3-3 and Z-3-4).

4. Napa County Ordinance 213, Article VI, Section I makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit from the Health Department to do so. Based on my observations and my discussion with David Couch the property owners have allowed dumping to take place on this property and have allowed refuse to accumulate on this property. (See all photos).

Attachments: (1) Order of Quarantine
(2) Chain of Custody
(3) Photographs (twenty-five)
(4) Laboratory Results

Couch Property
Report of 11-19-90
HF 219

Photo #	Description
1	Entrance to Couch Property. Note tractor-trailer exiting property.
2	Inside Couch property, west of entrance road. Note compressed gas cylinders lying on the ground.
3	Area near Couch residence. Note the drum, tank abandoned automobiles and debris.
4	Storage building. Note Compressed gas cylinders, paint & oil containers, debris.
5	Cardboard cylinders labeled "Gamma Flame". Either a "paint" game device or other hoax device.
6	Numerous containers of paint and related products.
7	Numerous containers of paint, epoxies, cleaners antifreeze, engine additives, etc.
8	Huge piles of debris.
9	Box of Gamma Flame cylinders.
10	Drums and debris pile. CDF staff labeling drum.
11	Debris & drums.
12	Abandoned autos, debris & living quarters for persons unknown.
13	Asphalt pile in foreground. Bus in the background is living quarters for a family, including small children and an infant. Poly drum on the top of pickup truck has plastic tubing that delivers water to the bus.
14	Apparently a former underground storage tank. CDF staff person is commencing to test it for explosive vapors.

Couch Property
Report 11-19-92
HF 219

Photo #	Description
15	Another view of the storage tank and debris pile
16	Eucalyptus tree grove. "Paint" games held here.
17	Toppled, leaking drum.
18	Another drum, full.
19	Another former underground storage tank. This tank contained an oily material. A sample was collected here.
20	Another view of the tank being sampled.
21	Two drums. Both appear to be leaking. One is toppled.
22	Compressed gas cylinders. Ten were labled as containing hydrogen. All of the 21 cylinders observed in this area were in a deteriorated condition.
23	Vehicle on property. Dog's skull nailed to vehicle. Trash in truck bed.
24	A living area for persons unknown.
25	Two horses tethered by chains. No water. Various vehicles in the background, used as living quarters.

NAPA COUNTY DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT
1195 THIRD ST., ROOM 205
NAPA, CA. (707) 253-4471

FACILITY: Couch Property Fac # HF219 Date: 11-19-90

ADDRESS: Eucalyptus Rd., American Canyon, APN 58-030-17

TO: Robert Couch

FROM: Napa County - Env. Mgmt. Dept.
Sheriff's Dept.

_____ Telephone Conversation
_____ Meeting/Conference
_____ Site Visit
_X_ Other Inspection Warrant

COMMENTS:

ORDER OF QUARANTINE

You are hereby notified that an Order of Quarantine is issued on the hazardous wastes on this property; pursuant to the State of California Health & Safety Code, Division 20, Section 25187.6(a).

Pursuant to Section 25187.6(a)(2) No person shall remove, transfer, or dispose of the hazardous waste until permission for the removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department.

Pursuant to Section 25187.6(a)(c), Chapter 6.5, Division 20, State of California Health & Safety Code this Order of Quarantine shall take effect upon issuance and shall remain effective for thirty (30) days or until an authorized agent as identified in this document shall remove this Order of Quarantine .

Robert T. Couch Jr.
11-19-1990

FOR:
____ Action
____ Review
____ Information

cc: _____

:2-8/22/88

CHAIN OF-CUSTODY R ORD

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

Note: Level One QC gross work only

Date of Sample Collection: NOV 19, 1990 | APN 58-030-17 | Turnaround Time: Standard

Responsible Party: Robert Couch and Occupants | Site Name: Robert Couch Property

Site Address: #2 Eucalyptus Drive | City: American Canyon | Zip Code:

Signature of Sample Collector: Steven Wallis | Name of Collector (print): STEVEN WALLIS | Company/Agency: CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT (approx)	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
drum one	liquid	glass jar one pint	1:00 pm	pH, chlorides	suspect pH ≃ 1, HCL
drum two			2:00 pm	tph, heavy	dark red-brown, viscous
drum three			2:30 pm	tph, heavy	dark red-brown, viscous
tank four			3:00 pm	tph, heavy	dark red-brown viscous
drum five			3:45 pm	tph, heavy	dark red-brown viscous
drum six	liquid	glass jar one pint	4:00 pm	tph, light, phenol	brown-green, non-viscous

Samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

	Relinquished by (Sign & Print)	Company/Agency	Time and Date
1	[signature]	County Haz Mat	1625
	Received by (Sign & Print)	Company/Agency	Time and Date
2	Catherine S. Moody	Napa County Dept of Env. Mgmt.	1625
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
3	Catherine S. Moody	Napa County Dept. of Env. Mgmt	1125 11-21-90
	Received by (Sign & Print)	Company/Agency	Time and Date
4	Peter W. Hafsin	Caltest Laboratory	1125 11-21-90
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
5			
	Received by (Sign & Print)	Company/Agency	Time and Date
6			

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks:

White-Remains with Samples Returned from Lab with Results Yellow-Courier Pink-Sampler

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-1

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM ONE	Aqueous	STEVEN WALLIS	19 NOV 90/13:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Chloride	15.	1.0	mg/L	(325.3)	12-11-90	FH	
pH	<0.5		Units	(150.1)	12-11-90	FH	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit
** Qualitative analysis indicated a high level of sulfate.

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

CALTEST ANALYTICAL LABORATORY

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-6

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM SIX	Aqueous	STEVEN WALLIS	19 NOV 90/16:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Phenol	65.5	0.02	mg/L	9065	12-12-90	MT	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number 90-11288-1 & 6

PROJECT: ROBERT COUCH PROPERTY

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

The quality control data pertinent to the above samples submitted on November 21, 1990 is as follows:

CONSTITUENT	DUPLICATION (mg/L)	SPIKE RECOVERY (%)	EXT.STD.RECOVERY (%)
Chloride	120 / 120	105	96
Phenol	0.114 / 0.113	114	88

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Lab Director

MA:ct
1/22/91

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacterio. & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSDS/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSDS/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : C-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes

Donald R. Cortes, Group Leader

Mary Havlicek

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: NB-1449
Collected: 11/19/90
Received: 11/21/90
Tested: 11/30/90
Collected by: S. Wallis

FUEL FINGERPRINT ANALYSIS
CAL DHS (TPH Draft) Method & EPA Method 8240/8260-(GC/MS)
Extracted by EPA Method 5030 (purge-and-trap)**

Napa County Department of
Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

SAMPLE DESCRIPTION:
Proj #APN 58-030-17, Robert Couch Property
C#9011-288-6
Drum #6, Liquid

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Total Purgeable Petroleum Hydrocarbons		
(Diesel #2)	100.	4400.
(Gasoline, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits.....	100.	not found
Percent Surrogate Recoveries		93/97/87

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

NOTE: High concentration of some analytes caused the sample to be run diluted, resulting in raised Practical Quantitation Limits for all analytes. Refer to instrument Blank for undiluted Practical Quantitation Limits.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/04
NB1449F2.wr1/FFP57
MH/hc/gb/gb/hc

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: B113Ø0
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:

Fuel Fingerprint Analysis - CAL DHS TPH Method & EPA Method 824Ø/826Ø-(GC/MS)
Extracted by EPA Method 5Ø3Ø (purge-and-trap)**

CCAS-NAPA

SAMPLE DESCRIPTION:
Instrument Blank for 11/3Ø/9Ø MSD#1

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Benzene	Ø.1	not found
Toluene	Ø.5	not found
Ethylbenzene	Ø.5	not found
Xylenes	Ø.5	not found
1,2-Dichloroethane (EDC)	Ø.1	not found
Ethylene Dibromide (EDB)	Ø.1	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	5Ø.	not found
(Diesel #2, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits) ...	5Ø.	not found
BTX as a Percent of Total Fuel		n/a
Percent Surrogate Recoveries		73/83/1Ø4

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek

Mary Havlicek, Ph.D.
President

MSD #1-12/Ø4
B113ØØFW.wr1/FFP57
MH/hc/gb/hc

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
POLYNUCLEAR AROMATICS				
Acenaphthylene	(208968)	50.	ND	
Acenaphthene	(83329)	50.	150.	
Anthracene	(120127)	50.	60.	
Benzo(a)anthracene	(56553)	50.	ND	
Benzo(b)fluoranthene	(205992)	50.	ND	
Benzo(k)fluoranthene	(207089)	50.	ND	
Benzo(a)pyrene	(50328)	50.	ND	
Benzo(ghi)perylene	(191242)	50.	ND	
Chrysene	(218019)	50.	ND	
Dibenzo(a,h)anthracene	(53703)	50.	ND	
Fluoranthene	(206440)	10.	20.	
Fluorene	(86737)	50.	440.	
Indeno(1,2,3-cd)pyrene	(193395)	50.	ND	
Naphthalene	(91203)	50.	850.	
Phenanthrene	(85018)	50.	910.	
Pyrene	(129000)	10.	50.	
Methylnaphthalenes		50.	9400.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/11/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
SPECIFIC PHENOLS-ACID FRACTION				
4-Chloro-3-methylphenol	(59507)	50.	ND	
2-Chlorophenol	(95578)	50.	ND	
2,4-Dichlorophenol	(120832)	50.	ND	
2,4-Dimethylphenol	(105679)	50.	1400.	
2-Methylphenol	(95487)	50.	130.	
4-Methylphenol	(106445)	50.	1300.	
Pentachlorophenol	(87865)	50.	ND	
Phenol	(108952)	50.	ND	
2,3,4,6-Tetrachlorophenol	(95487)	50.	ND	
2,4,5-Trichlorophenol	(95954)	50.	ND	
2,4,6-Trichlorophenol	(88062)	50.	ND	
Total Listed Chlorophenols		50.	ND	
Total Listed Phenols		50.	2800.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/09/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road • San Luis Obispo, CA 93401 • (805) 543-2553 • Fax (805) 543-2685
751 S. Kellogg, Suite A • Goleta, CA 93117 • (805) 964-7838 • Fax (805) 967-4386
1885 North Kelly Road • Napa, CA 94558 • (707) 257-7211 • Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800 • Sacramento, CA 95826 • (916) 368-1333 • Fax (916) 362-2484
2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road • San Luis Obispo, CA 93401 • (805) 543-2553 • Fax (805) 543-2685
751 S. Kellogg, Suite A • Goleta, CA 93117 • (805) 964-7838 • Fax (805) 967-4386
1885 North Kelly Road • Napa, CA 94558 • (707) 257-7211 • Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800 • Sacramento, CA 95826 • (916) 368-1333 • Fax (916) 362-2484
2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes

Donald R. Cortes, Group Leader

Mary Havlicek

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: QS-1120-1
Collected:
Received:
Tested: 11/30/90
Collected by:
Extracted on: 11/20/90

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/8270 (GC/MS)

CCAS

SAMPLE DESCRIPTION:
ANALYTE-FREE WATER SPIKE, Spiked to 16000 ug/L with Diesel #2

Component Determined	Detection Limit in ug/L (PQL)*	Concentration w/spike in ug/L	Percent Recovery
Total Petroleum Hydrocarbons (Diesel #2)	200.	8000.	50.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 3510.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/07/90
QS1120t1.wr1/71
MH/dp/lp/co

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: QL-1120
Collected:
Received:
Tested: 11/30/90
Collected by:
Extracted on: 11/20/90

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/8270 (GC/MS)

CCAS

SAMPLE DESCRIPTION:
EPA METHOD 3510 METHOD BLANK

Component Determined	Detection Limit in ug/L (PQL)*	Concentration in ug/L
Total Petroleum Hydrocarbons	200.	<200.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 3510.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/07/90
QL1120t.wr1/71
MH/dp/dp/co

CALTEST ANALYTICAL LABORATORY
Certified Environmental Services

1885 North Kelly Rd. • Napa, California 94558
(707) 258-4000 • FAX: 707-226-1001

INVOICE NO. 5698

]
Napa County Department of
/Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

INVOICE DATE	LAB NUMBER	
January 29, 1991	9011-288-1 to 6	
PROJECT NUMBER	**PURCHASE ORDER NUMBER**	**TERMS**
#2 Eucalyptus Drive - Robert Couch Property	Sampled 11/19/90	Net 30 Days

QTY.	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
	Professional Services		
4	EPA 8270 Semivolatile Petroleum Hydrocarbons	160.	$ 640.
	EPA 8015 Total Purgeable Petroleum Hydrocar	80.	80.
	EPA 8270 Acid Fraction + PNA	140.	140.
	pH	10.	10.
	Chloride	20.	20.
	Phenols	40.	40.
			$ 930.

Our File HF219
See Catherine
if any questions

Accounts past due will atuomatically receive a FINANCE CHARGE of 1.5% per month on the upaid balance.

REMITTANCE

HF219

CHAIN-OF-CUSTODY RECORD

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

G 4888-1

Note: Level One QC gross work only

Date of Sample Collection: Nov 19, 1990 | APN 58-030-17 | Turnaround Time: standard

Responsible Party: Robert Couch and Occupants | Site Name: Robert Couch Property

Site Address: 7- Eucalyptus Drive | City: American Canyon | Zip Code:

Signature of Sample Collector: Steven Wallis | Name of Collector (print): STEVEN WALLIS. | Company/Agency: CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT approx	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
one	liquid	glass jar one pint	1:00 pm	pH, chlorides	suspect pH ≈ 1, HCL
two G 4888-1		-1	2:00 pm	tph, heavy	dark red-brown, viscous
three		2	2:30 pm	tph, heavy	dark red-brown, viscous
four		3	3:00 pm	tph, heavy	dark red-brown viscous
five		4	3:45 pm	tph, heavy	dark red-brown viscous
six	liquid	glass jar one pint	4:00 pm	tph, light, phenol	brown-green, non-viscous

samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

	Relinquished by (Sign & Print)	Company/Agency	Time and Date
1	S. Wallis	County Haz Mat	1625
	Received by (Sign & Print)	Company/Agency	Time and Date
2	Catherine S. Moody	Napa County Dept of Env Mgmt	1625
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
3	Catherine S. Moody	Napa County Dept of Env Mgmt	1125 11-21-90
	Received by (Sign & Print)	Company/Agency	Time and Date
4	Peter W. Hagen	Calscience Laboratory	1125 11-21-90
	Relinquished by (Sign & Print)	Company/Agency	Time and Date
5	Peter W Hagen		
	Received by (Sign & Print)	Company/Agency	Time and Date
6	Shellie Hoyt	CCAS-SLO	11-23-90 1030

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks: rec'd CCAS-SLO sealed intact & cold via greyhound

White-Remains with Samples Returned from Lab with Results | Yellow-Courier | Pink-Sampler

HF219

RECEIVED

NOV 26 1991

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH PROPERTY VIOLATIONS

I. Zoning and Building Violations

1. The property is only zoned for one single-family dwelling and for agricultural uses. Despite this, there are twenty other structures (ten of which are inhabited, and ten of which are built for storage or for housing chickens). Also inhabited are ten trailers, two buses, and a camper shell. None of these inhabited structures are permitted uses (NCC 12231, 12107)

2. The twenty stuctures all exceed 120 square feet of roof area and require building permits, which were not obtained (UBC 301(a)).

3. The one permitted dwelling is still under construction and has never been completed. An unapproved, unpermitted underground utility trench has been dug.

4. The owners are living in a mobile home which is to be in dead storage, but is being used as a residence by the owners (NCC 11010).

5. There is no approved water supply and there are two unapproved water wells that have been dug on the property (NCC 5505, 5230).

6. The entire parcel constitutes an illegal junk yard (NCC 6051).

7. Evidence exists regarding the occurrance of paint-ball games which have occurred and been advertised. There is no approved use permit for this activity.

8. All of the residents in the unpermitted structures are renting from the owners, a use not permitted in this zoning. (NCC 12231, 12107).

10. The property is being used to store heavy construction equipment (such as dump trucks, skip loaders, backhoes, and semitrailers), a use not contemplated by the zoning.

11. The entire parcel constitutes a public nuisance (NCC 12903, 11021).

II. Environmental Management-Health and Safety Problems

1. There is no approved sewage disposal or approved septic system present in the park. Sewage disposal ranges from holes in the ground, to merely allowing sewage to run on the ground to an outhouse type structure (NCC 5621, 5622, H&S 5411).

2. There is the illegal accumulation of refuse, debris, trash, and garbage in places located throughout the property. Owners are operating a refuse disposal area without a permit, in violation of Napa County Ordinance No. 213.

3. The property contains unlocked abandoned refrigerators, in violation of Penal Code Section 402(b).

III. Environmental Management-Toxics Problems

1. Small amounts of toxic wastes have been discovered on the property, including oil, compressed gas cylinders, paints, lacquers, thinners, solvents, used auto batteries, containers with antifreeze.

2. In addition, three large old abandoned underground storage tanks are present on the property, one of which is partially full of liquid that tested as hazardous waste.

3. The violations here range from storage of hazardous wastes over 90 days without a permit (22 CCR 66508, and H & S 25189.2) to failure of the generator to determine if his wastes are hazardous (22 CCR 66471) to failure to properly manage hazardous wastes (22 CCR 67243).

IV. Fire and Forestry Violations

1. There is not adequate clearance between combustable debris and material and the various residential structures (NCC 8871, Public Resources Code Section 4291).

2. Residents have been found to be burning their household trash and garbage in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301).

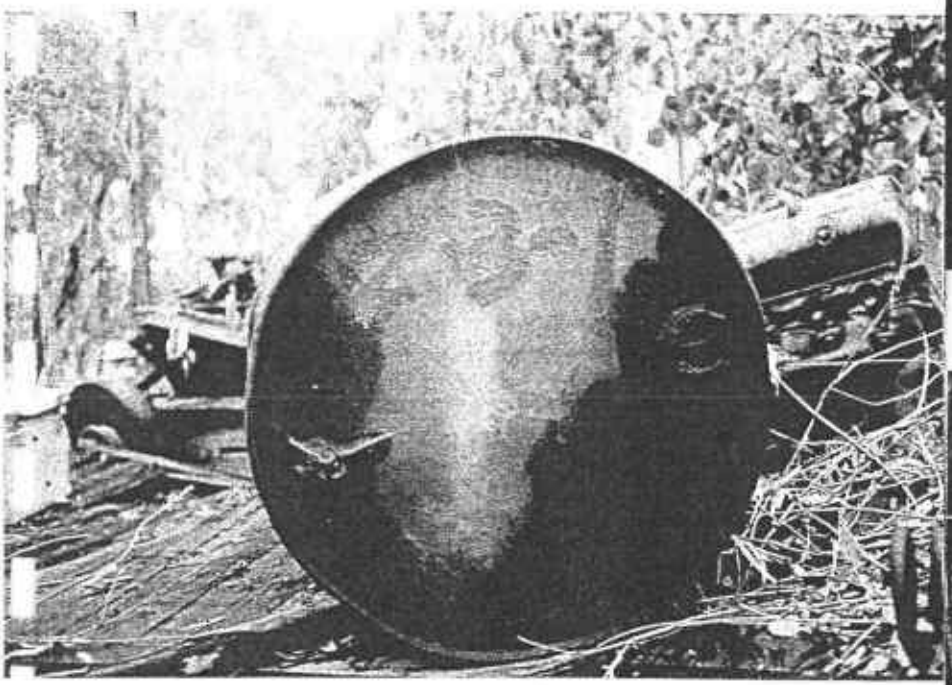
V. CHP/Public Works Violations

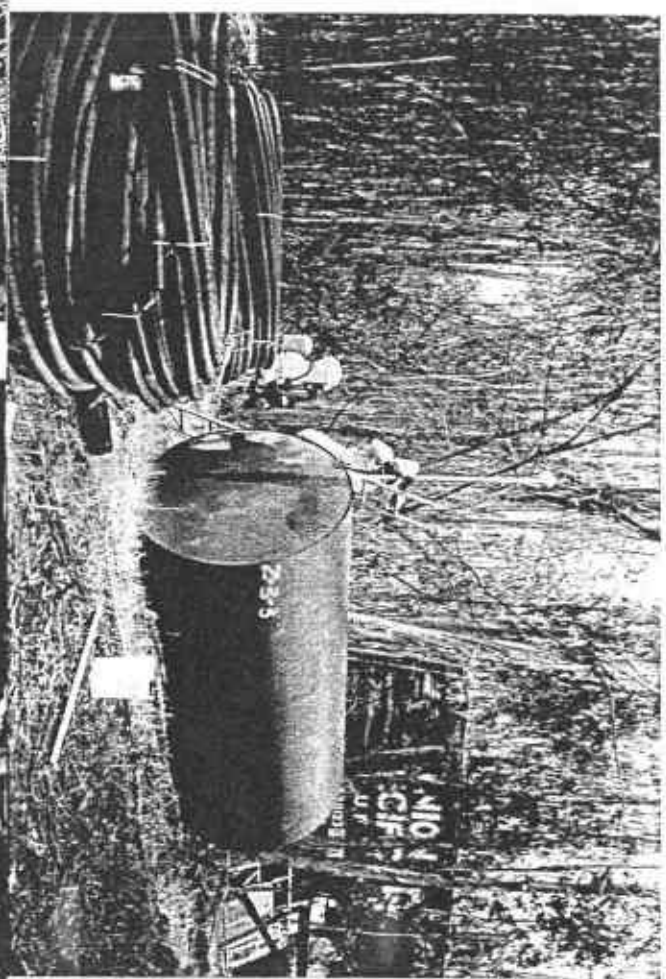
1. The property contains over 230 abandoned vechicles (NCC 4700)

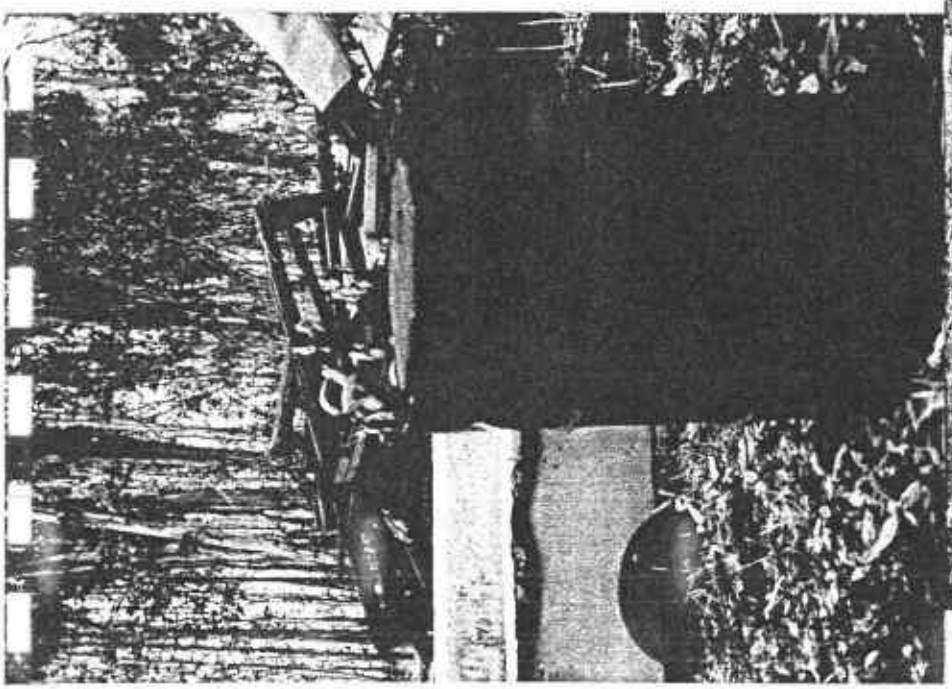
2. The proeprty contains numerous dismantled vehicles, for which the certificate of ownership, the registration card, and the license plates were not delivered to DMV before dismantling began (Vehicle Code Section 5500).







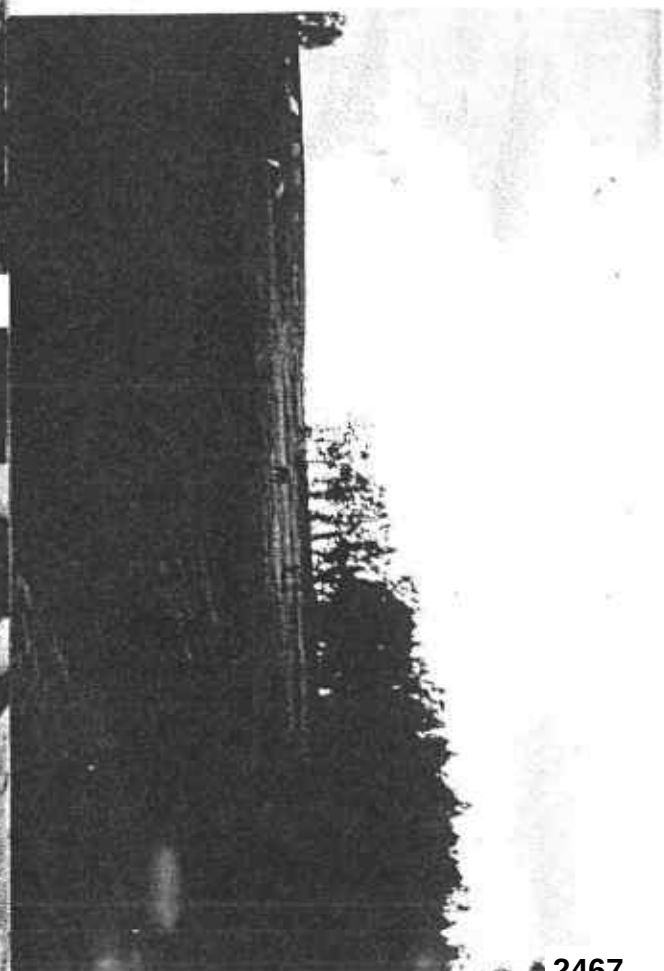


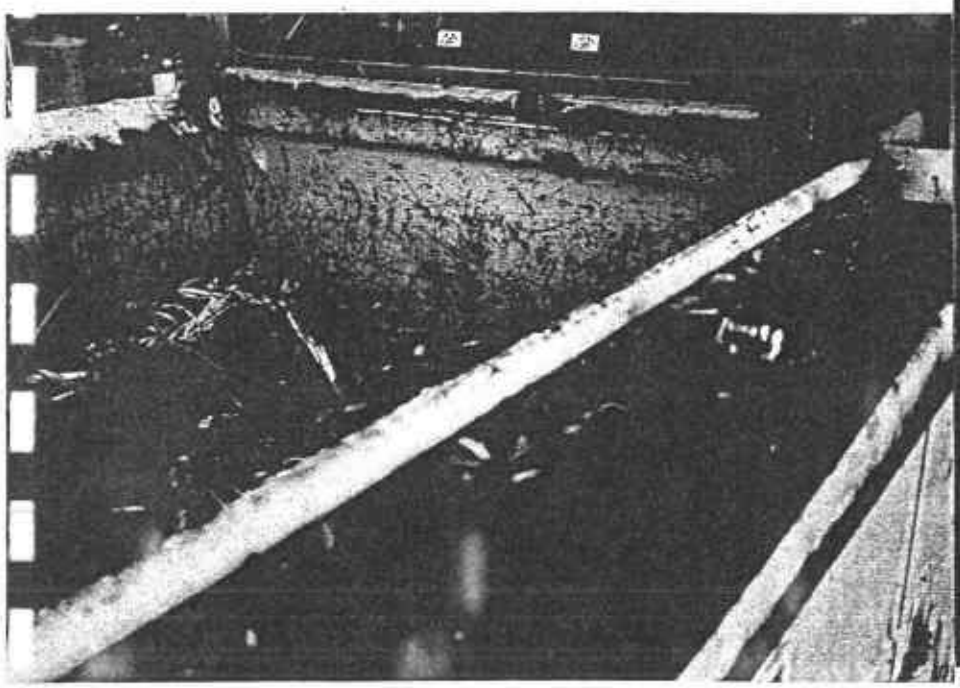


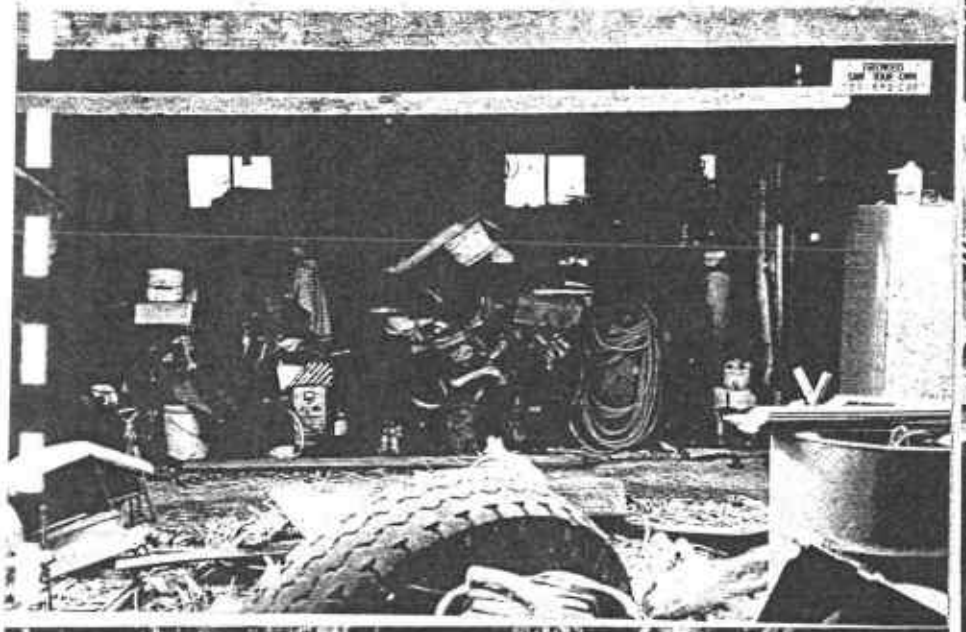

2-36







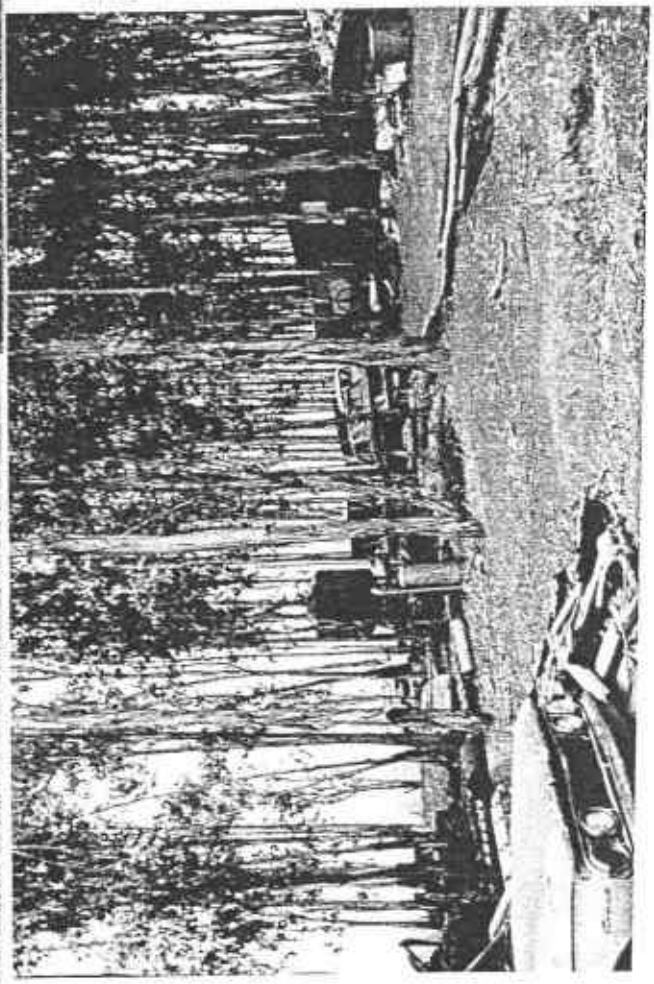


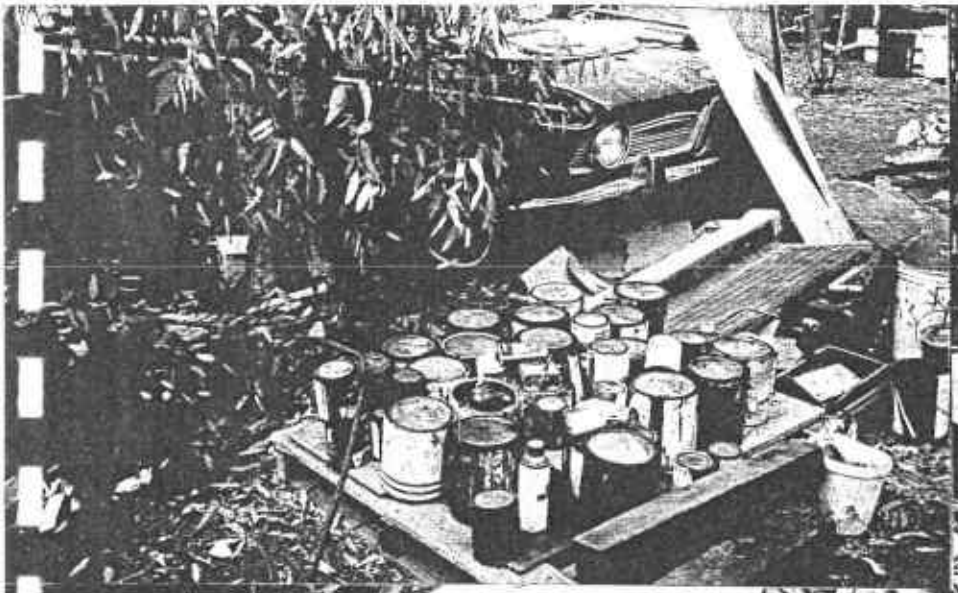












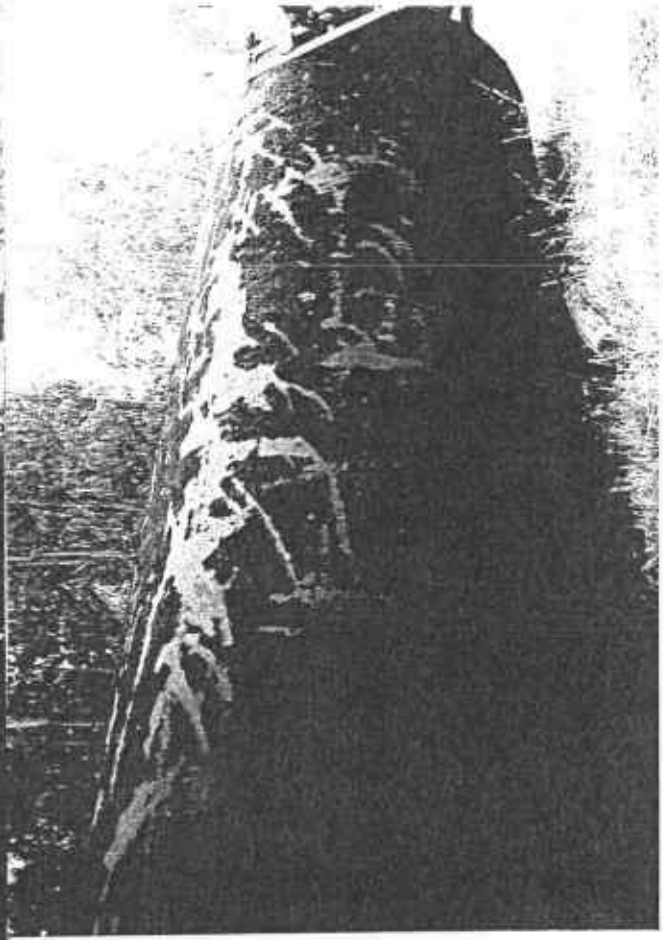




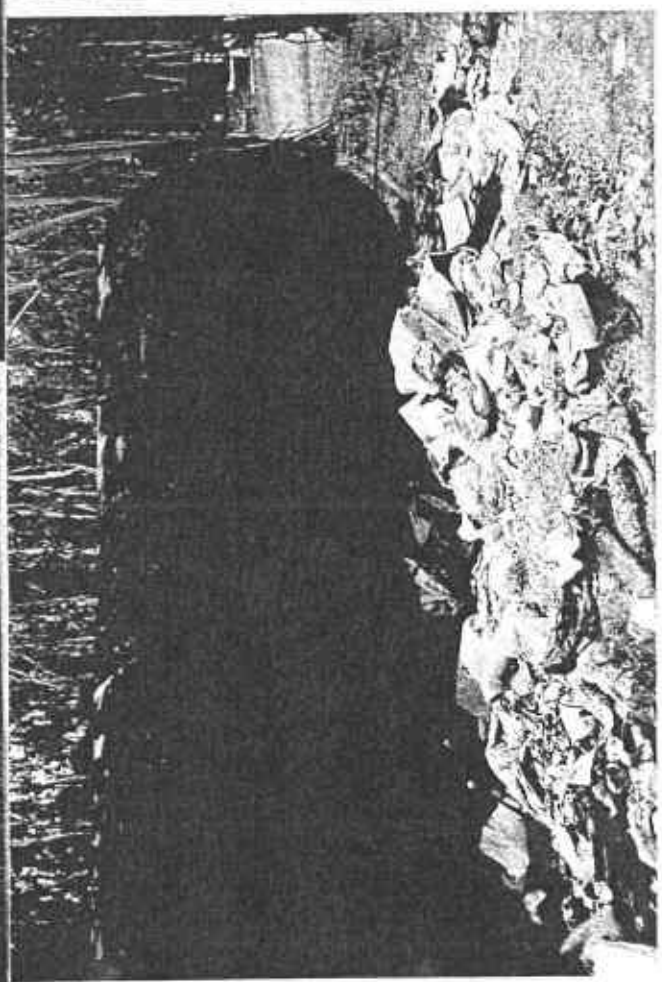

Z1
1




GAMMA-F









KROEKER, Inc.

Demolition and Environmental Contractors

CA License #621866 A C12 C21 C57 C61/D06 HAZ ASB HIC & AZ License #131453 A

www.KROEKERINC.com

April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

4627 S. Chestnut Ave. ▪ Fresno, CA 93725-9370
Tel (559) 237-3764 (FROG) ▪ Fax (559) 268-3366 (DEMO)
Toll Free (800) J KROEKER (557-6353)

NAPA COUNTY HAZMAT

REQUEST FOR EXAMINATION AND/OR COPYING OF RECORDS

FILE NUMBER: HAZFAC 219 UST _____ BP _____

OTHER _____

FACILITY NAME: Couche Property

FACILITY ADDRESS: 2 Eucalyptus Dr., Amer. Canyon

REASON FOR REVIEW: Conducting a site assessment for a nearby property

REQUESTED BY: Todd Murray (name) Environmental Scientist (title)

REPRESENTING: Wahler Associates (firm name)

MAILING ADDRESS: 100 Pringle Ave., Ste. 580 CITY: Walnut Creek

PHONE/FAX: 510-746-8290 / FAX 510-746-3838 ZIP: 94596

To your knowledge, is there legal action pending on this facility?

✓ Yes _____ No

Todd B Murray 4-13-93

(signature of requesting party) (date)

FAX/MAIL TO: NAPA COUNTY DEPT. OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, Ca. 94559-1329
PHONE: 707/253/4269 FAX: 707/253-4545

FOR OFFICE USE:

Request approved by: ml

Staff person assigned: _____ Date assigned: _____

Date/time of review appointment: 4.13.93

file complete: _____ chron order: _____

pages attached: _____ rmvd intrefemper*: _____

rmvd confidential notes*: _____ rmvd BP site maps*: _____

rmvd water well logs*: _____

* inserted green indexing sheets

COPY CHARGES

Staff person copying: _____ Date: _____

Number of pages _____ x $0.50 for first 5 pages _____

copies _____ x $0.10 thereafter = _____

Receipt Number: _____ Collected by: _____

Date copying sent to requesting party: _____ Sent by: _____

HF219

JEROME J. MAUTNER
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
County of Napa
931 Park Way Mall
Napa, California 94559

Attorneys for Plaintiff

MUNICIPAL COURT FOR THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

IN THE MATTER OF THE APPLICATION FOR AN INSPECTION REGARDING: ROBERT COUCH PROPERTY APN 058-030-017	NO. INSPECTION WARRANT

THE PEOPLE OF THE STATE OF CALIFORNIA TO:

Any authorized personnel of the Napa County Department of Environmental Management, and to any peace officer,

Proof, by affidavit, having been made before me by Michael Collins,

THERE IS REASON TO BELIEVE that there exists at the

ROBERT COUCH PROPERTY
#2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA
APN 058-030-017

conditions of nonconformity with the Napa County Code set forth in sections 5500, 5630, with the Health & Safety Code, set forth in sections 5411, 25189 and 25189.2, and with Napa Ordinance No. 213, as required by California Code of Civil Procedure, section 1822.50, et seq., for the issuance of an

JEROME J. MAUTNER
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
THIRD STREET
CALIFORNIA 94559
707-253-4211

inspection warrant:

YOU ARE THEREFORE COMMANDED TO INSPECT, INVESTIGATE AND SEARCH, accompanied by authorized representatives of the establishment operator if present,

THE PROPERTY located at #2 Eucalyptus Dr., American Canyon, California, owned by Robert and Patricia Couch, Assesor's Parcel No. 058-030-017, a 165.05 acre parcel of densely wooded land, bordered on the South by Eucalyptus Dr., on the West by the American Canyon landfill and the Napa River, and on the North and East by a 4-strand barbed-wire fence, including but not limited to all structures of whatever type, nature or design used for habitation or ancillary to habitation uses,

WHICH INSPECTION SHALL INCLUDE the observation of physical conditions or processes, the taking of photographs, the taking of samples of materials, the conducting of any tests, the inspection and copying of documents and papers, and the questioning or conferring with the occupants of the property to obtain information bearing on whether the violations of the regulations and laws set forth above exist.

THIS WARRANT SHALL EXPIRE ON November 30, 1990, and the return must be executed by November 30, 1990.

Dated: 11/16/90

Judge of the Municipal Court

ROME J. MAUTNER
DISTRICT ATTORNEY
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HALL OF JUSTICE
1125 THIRD STREET
NAPA, CALIFORNIA 94559
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HF219

ENDORSED

FILED MAR 17 1993

JANICE F. NORTON
COURT EXECUTIVE OFFICER
J. MILES

ANTHONY PEREZ
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
COUNTY OF NAPA
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RECEIVED
MAR 19 1993
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

THE PEOPLE OF THE STATE OF CALIFORNIA, PLAINTIFF, VS. ROBERT L. COUCH, et. al., DEFENDANTS.	NSC: 64010 FINAL JUDGMENT AND PERMANENT INJUNCTION

This matter came on regularly before the Court for trial on the 17th, 23rd, 24th of February, and the 1st of March, 1993. Appearance on behalf of plaintiff was made by Deputy District Attorney Daryl A. Roberts, appearance on behalf of Defendant Patricia K. Couch was made by Norbert U. Frost of Frost & Healy, and Defendant Robert L. Couch appeared on behalf of himself. Evidence having been presented and accepted by the Court, arguments having been made, the Court having considered the evidence and the pleadings in this matter, good cause appearing, and in the furtherance of justice,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
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NAPA, CALIFORNIA 94559

I

FINDINGS OF FACT

The Court finds that Robert L. Couch and Patricia K. Couch, defendants herein, are co-owners of the property located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017.

The Court further finds that the evidence produced by plaintiff in this matter establishes the following with regard to defendants' property, located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017:

1. At least 100 and possibly as many as 286 abandoned motor vehicles are on the property, in violation of Napa County Code §4700;

2. Defendants' property contains an unknown but large number of accumulations or piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items, in violation of the Napa County Garbage Ordinance No. 213;

3. Probably less than 10 abandoned refrigerators are located on the property in violation of Penal Code §402(b);

4. There are numerous illegal sewage disposal systems ranging from holes in the ground and outhouses to septic systems installed, in violation of Napa County Code §§5621, 5622 and Health & Safety Code §5411;

5. For property zoned Agricultural-Watershed, of which the

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only permitted use is one single family dwelling, a second dwelling unit and a guest cottage, a number of other inhabited structures existed on the property ranging from lean-tos to trailers and buses, which structures were on plots of land being rented by the defendants to various tenants and none of these structures had legal water supplies or permitted sewage disposal systems, all in violation of Napa County Code §§12231,12107;

6. All of these the inhabited structures, as well as approximately 10 chicken coops with roof areas exceeding 120 square feet, were constructed without benefit of building permits, in violation of the Uniform Building Code §301;

7. One water well had been installed or constructed on the property without benefit of permits, in violation of the Napa County Code §§5505 and 5230;

8. In a number of areas on the property, the storage of heavy construction equipment occurred, a use not allowed by the zoning, in violation of Napa County Code §§12231 and 12107;

9. Small amounts of hazardous waste have been illegally stored or disposed of on the property, in violation of Health & Safety Code §25189.2;

10. Defendants are living in a mobile home for which the use permit has expired, and the one dwelling for which a building permit was issued is still under construction, and contains an unapproved, unpermitted underground utility trench, in violation of Napa County Code §11010;

11. Tenants have burned their household trash or

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agricultural debris, in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301) and the Napa County Garbage Ordinance;

12. Adequate clearance does not exist between combustible debris and material and the residences of defendants in violation of Napa County Code §8871 and Public Resources Code §4291;

In addition to the above specific findings, the Court finds that Patricia K. Couch has cooperated with Plaintiff in its efforts to remedy the above-described conditions of defendants' property, including but not limited to, serving tenants with notices terminating tenancies and notices of building code violations, and cleaning and removing certain debris, garbage, refuse, trash and other similar items.

The Court finds that Robert L. Couch has accepted rent from at least one tenant in violation of the preliminary injunction issued by this Court.

II
CONCLUSIONS OF LAW

The Court finds that, based upon the evidence produced by plaintiff during trial, the defendants have been and are presently maintaining upon their property a public nuisance. Specifically, the Court bases this conclusion on both a public nuisance per se theory, as numerous conditions of defendants' property violate specific Napa County Code Sections relating to nuisances, as well as a common law nuisance theory, as the condition of the property meets the criteria as set forth in California case law regarding the existence of public nuisances.

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In addition, based upon the evidence produced at trial, the Court finds that the defendants, by renting or leasing of portions of their property to tenants either for living on the property or for storage of belongings, engaged in unfair competition, as defined by Business & Professions Code §17200, as such activity was a business activity which violated the zoning laws of the County of Napa, and provisions of the Uniform Housing Code.

III
JURSIDICTION AND APPLICABILITY

The Court has jurisdiction of the subject matter hereof and the parties hereto.

The provisions of this final judgment are applicable to defendants Robert L. Couch and Patricia K. Couch, and to their agents, servants, employees, representatives, heirs, successors in interest, and any and all other persons acting in concert with or participating with defendants who have actual or constructive notice of this judgment.

IV
PROHIBITORY INJUNCTION

Defendants are permanently enjoined and restrained, pursuant to Civil Code §3494 and Business & Professions Code §17203, from doing, directly or indirectly, any of the following:

1. From leasing or renting any portion of the property unless any such lease or rental is in conformance with the zoning of the property and the terms of this judgment.

2. From bringing onto their property or causing to be

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brought onto their property any of the following items:

a. Any junk, scrap, or dismantled or abandoned motor vehicles of any kind, including but not limited to automobiles, trucks, vans, buses, or motorcycles;

b. Any debris of any kind including but not limited to scrap lumber, scrap metal, broken concrete, other types of spoils, dirt, rubble, rock, or gravel unless the presence of such debris is consistent with the zoning of the property or not violative of any applicable law or ordinance;

c. Any junk of any kind, including but not limited to abandoned vehicle parts or components, junked appliances, junked appliance parts or components, tanks, machines, machinery parts or components;

d. Any garbage, rubbish, refuse, trash, or other similar type material;

e. Any hazardous wastes, including but not limited to waste oil, spent gasoline, gasoline products, gas cylinders, paints, lacquers, thinners, solvents, batteries, anti-freeze, or other similar material.

3. From constructing or maintaining any sewage disposal system unless defendants procure a valid and current permit to do so, and follow all conditions and requirements of said permit.

4. From erecting, constructing, enlarging, altering, repairing, moving, improving, or demolishing any structure or building on defendants property unless defendants comply with the provisions of Uniform Building Code §301, and follow all

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conditions and requirements of any building permit required pursuant to the provisions of this section.

5. From installing or maintaining any water well on the property unless defendants procure a valid permit to do so, and follow all conditions and requirements of said permit.

6. From storing heavy construction equipment on the property unless the presence of such equipment would be consistent with the zoning of the property, or the equipment is being used to fulfill defendants' obligations under this judgment, or any construction or development performed is pursuant to a valid permit.

7. From storing or disposing of hazardous waste unless defendants do so in compliance with the provisions of the Hazardous Waste Control Act.

8. From allowing inadequate clearance between combustible debris material and any inhabited structure as required by Public Resources Code §4291.

9. From dismantling any motor vehicle unless done in compliance with the zoning laws of the parcel, and in compliance with Vehicle Code §5500.

10. From burning trash or other similar type debris, including agricultural debris, except as allowed by regulations promulgated by the Bay Area Air Quality Management District.

V
MANDATORY INJUNCTION

Defendants, are hereby ordered and mandated as follows:

1. Within 30 days from the filing of this judgment, Robert

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L. Couch or Patricia K. Couch shall do the following:

a. Personally serve a written notice upon each person (other than defendants or members of their immediate family) residing on defendants' property, #2 Eucalyptus Drive, American Canyon, Napa County, California, which provides that each resident has 30 days from the receipt of the notice to remove themselves and all their personal belongings from defendants' property, and that their failure to move their belongings off the property within the time indicated in the notice will constitute an abandonment of those belongings and may be disposed of pursuant to Civil Code §1980 et. seq.

b. Personally serve each and every person who has left personal belongings on defendants' property but does not reside there with a notice requiring them, within 30 days of receipt of the notice, to remove those personal belongings from defendants' property, and that any property left on the premises after the 30 day period will be deemed abandoned and may be disposed of pursuant to Civil Code §1980 et. seq.

c. In the event defendants are unable to personally serve any person, defendants shall cause such notice to be posted in a conspicuous area where the belongings are situated and a copy of the notice mailed to such persons at their last known address. If defendants are unable to locate tenants or their last known address,

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they may apply to this Court for an order permitting publication of any notices required herein in the Napa Register, a newspaper of general circulation, to give tenants notice.

2. Within 45 days from the filing of this judgment, defendants shall cause to be filed unlawful detainer complaints against any and all tenants who remain on the property after the 30 day notice period has expired (as referred to above in paragraph 1), and shall properly serve each tenant with summons and complaint as required by law. In addition, defendants are hereby ordered to diligently pursue these unlawful detainer actions until all tenants have been removed from the property, and their property has been removed or been deemed abandoned. It is further ordered that to the extent the service of any tenants with required process and/or pursuit of these unlawful detainer actions prohibits defendants from meeting any time deadline, as set forth in this mandatory injunction, defendants shall be given an extension of time for meeting that deadline equivilant to the amount of time spent by defendant in pursuing these unlawful detainer actions.

3. Within 30 days of the filing of this judgment, each party to this action shall provide to the District Attorney's Office the name, address, and phone number of a scrap or junk dealer. The District Attorney's Office shall prepare a list of the scrap or junk dealers designated by each party and serve the list on defendants. Further, Defendants shall allow any scrap or

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junk dealer so named to enter the property during reasonable times (8:00 a.m. to 6:00 p.m. Monday through Friday) for the purpose of assessing the status of the property and coming up with a bid for how much money that scrap or junk dealer would pay to remove all valuable items of scrap and abandoned motor vehicles (but excluding those items set aside by defendants pursuant to the provisions of paragraph 4, below) on the property. Only bids obtained within 90 days of the filing of this judgment shall be considered. The dealer offering the highest bid shall be chosen.

4. Defendants shall, within 105 days of the filing of this judgment, collect in one place on their property, unless physically impossible to do so, all operable motor vehicles, operable pieces of construction equipment or vehicle whose purpose is consistent with the agricultural zoning of the property, and any and all other valuable items that defendants contend are not scrap or junk, or an abandoned motor vehicle, and whose storage on the property is consistent with the zoning of the property. Once this has occurred, defendants shall then allow county officials to enter the property to inspect this collection of items to determine if their storage on the property would be consistent with the zoning of the property. If so, none of these items of property would be subject to any of the provisions set forth in paragraphs 5 and 15, below. In the event there is a dispute between defendants and county officials regarding any or all of these items of property, such dispute

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shall be brought to hearing before this court upon 15 days written notice by either party. Opposition papers shall be filed at least 5 days before the hearing and reply papers shall be filed at least 3 days before the hearing. Defendants will be deemed to have abandoned all other items of scrap, junk, debris and abandoned motor vehicles on the property if not collected and set aside by the deadline set forth in this paragraph, or if ordered by court after hearing.

5. Robert L. Couch and/or Patricia K. Couch shall, within 105 days of the filing of this judgment, enter into a contract with the scrap or junk dealer chosen pursuant to paragraph 3, above, which contract will provide for the following:

a. It will set forth the price to be paid by the dealer for the abandoned motor vehicles and scrap to be removed from the property and it will require the dealer to remove all abandoned motor vehicles and not merely select and remove the motor vehicles and scrap bringing the dealer the highest and/or best price.

b. It will set forth a time period within which the scrap dealer is to remove all abandoned motor vehicles and valuable scrap from the property, with the period not to exceed 150 days, and the period to commence no later than 120 days from the filing of this judgment.

c. It will require the scrap dealer to keep legible records regarding the numbers of abandoned motor vehicles removed, and the weight of scrap removed, as well as legible records regarding

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the payment of moneys on either a price per vehicle or price per weight basis. Further, it will require the scrap dealer to, on weekly basis, provide these records both to defendants and to the District Attorney's Office.

d. The bid will require the dealer to handle and dispose of, in a lawful manner, all hazardous waste that may be generated by the removal of motor vehicles, including motor oil, gasoline, diesel fuel, brake fluid, transmission fluid, batteries, and catalytic converters, and any other similar hazardous materials that are commonly found in motor vehicles.

e. The bid will require the dealer to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of abandoned motor vehicles and valuable scrap items to a trust fund, to be maintained by the District Attorney's Office, as more fully described in paragraph 13, below.

6. Defendants shall allow the chosen scrap or junk dealer to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the dealer's efforts to remove from the property all abandoned motor vehicles and valuable scrap items.

7. Defendants shall not in any manner interfere with or obstruct any and all County officials who may enter the property during reasonable hours to do the following: appraise any or all abandoned motor vehicles on the property for the purpose of issuing salvage certificates; monitor efforts to remove and properly dispose of hazardous wastes; monitor efforts to properly

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remove abandoned motor vehicles and scrap from the property; monitor efforts to remove or destroy all illegal sewage disposal systems on the property; monitor efforts to raze all structures which are abandoned or condemned; monitor all efforts to remove from the property all garbage, rubbish, trash, spoils, and other similar unpermitted materials.

8. Within 105 days of the date of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall commence to remove or have others undertake the removal of trees, bushes, and shrubs required to create an approximate 30 foot firebreak around the mobile home in which defendants are residing, and any other structure inhabited by any other member of defendants' immediate family. Such removal shall be completed within 165 days of the filing of this judgment.

9. In the event the District Attorneys Office determines, at any time, that income generated from the removal of abandoned motor vehicles and other valuable scrap is insufficient to pay for the removal of hazardous waste, debris, garbage, rubbish, trash (and all other items referred to in paragraph 13), the razing of structures on the property and subsequent removal of razed debris, and the removal or destruction of the illegal sewage disposal systems, then the District Attorney's Office may notify the defendants in writing of such situation.

10. Within 30 days of receipt of the notice from the District Attorney's Office referred to in paragraph 9, above, each party shall provide to the District Attorney's Office the

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name, address, and phone number of a commercial harvester wood pulp processor or other wood products dealer for the purpose of obtaining a bid to remove or thin out the eucalyptus trees present on defendants property, and to sell the trees for firewood or other income generating purposes. Either defendant may designate the areas where the trees may be removed or thinned out. Further, Defendants shall allow any commercial harvester or processor so named to enter the property during reasonable times for the purpose of assessing the status of the property and arriving at a bid for how much money that harvester or processor would pay to remove or thin out trees for the purpose of resale as firewood or other purpose. Only bids obtained within 60 days of defendants receipt of the notice referred to in paragraph 10 shall be considered. The harvester or processor offering the highest bid shall be chosen.

11. Robert L. Couch and/or Patricia K. Couch shall, within 75 days of receipt of the notice referred to in paragraph 9, enter into a contract with the chosen harvester, which contract will provide for the following:

a. It will set forth the price to be paid by the harvester or processor for the removal of trees from the property, and the approximate number of trees, or cords of firewood or weight of wood pulp, to be removed from the property.

b. It will set forth a time period within which the harvester is to remove trees from the property, with the period not to exceed 120 days, and the period to commence no later than

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120 days from the date of defendants' receipt of the notice referred to in paragraph 9.

c. It will require the harvester or processor to apply for a timber harvest plan with the California Department of Forestry, and will require the harvester or processor to follow all conditions and requirements of any such plan as approved by said Department of Forestry.

d. It will require the harvester or processor to keep legible records regarding the numbers of trees removed or the cords of firewood removed or weight of wood pulp removed, as well as legible records regarding the payment of moneys on either a price per tree or price per cord basis. Further, it will require the harvester to, on a weekly basis, provide these records both to defendants and to the District Attorney's Office.

e. The contract will require the harvester or processor to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of trees to the trust fund to be maintained by the District Attorney's Office, as described in paragraph 13, below.

12. Defendants shall to allow the chosen harvester or processor to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the harvester's or processor's efforts to remove designated trees from the property.

13. The District Attorney's office shall maintain a trust fund whose primary purpose shall be to pay for removing from

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defendants' property hazardous waste, the various piles and accumulations of debris, garbage, rubbish, trash, metals, scrap lumber, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, junked furniture and appliances, and oth similar items from the property, removing and destroying all illegal sewage disposal systems, and razing all structures whi are abandoned or condemned and removing the debris produced from such razing. Defendants may be reimbursed from this trust fund for costs they have incurred themselves in cleaning up the property, upon presenting bills, receipts or invoices, but only after the primary purpose of the fund, as set forth above, has been met, and there is money remaining in the trust fund for such reimbursement. Any funds remaining in the trust fund after completion of all clean up activities required under this injunction shall be paid to defendants.

14. Within 150 days of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall enter into a contract to retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present. The contract shall contain the following provisions:

a. It shall set forth a time period within which the consultant, hauler or dealer shall produce a plan to identify and remove all hazardous waste on defendants' property, with the plan to be produced by a date no later than 30 days from the date the

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contract is entered into.

b. It shall provide a time period for which all hazardous wastes shall to be removed, with the period not to exceed 120 days, and to commence no later than 60 days from the date the contract is entered into;

c. It will set forth the price to be paid by the consultant, hauler or dealer for any hazardous waste removed from the property which has some value and will set forth the cost for properly disposing of all other hazardous wastes which are present on the property.

d. It would provide for the maintenance of hazardous waste manifests for the tracking of the hazardous waste removed and properly disposed of, with the requirement that the consultant, hauler or dealer shall provide forthwith copies of these manifests both to the defendants and to the District Attorneys Office.

15. Once all valuable scrap, abandoned motor vehicles, and designated trees for firebreak purposes have been removed from the property, defendants shall either obtain bids from solid waste haulers for the cost to clean up, raze structures and remove from the property all remaining items of waste or garbage (including all piles of debris, garbage, rubbish, trash, and similar materials on the property, all debris created from the razing of structures on the property, along with any items of scrap, and motor vehicles that were left on the property because they were not valuable or income generating and were not picked

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up by any scrap dealer) or defendants or their designees may clean up and remove from the property all of these remaining items of waste or garbage.

a. If defendants act upon their own, they shall remove all remaining items of waste or garbage and any necessary clean up shall be completed within 60 days of the date that all valuable scrap, motor vehicles, and trees for firebreak purposes have been removed.

b. In the event defendants or their designees fail to meet the 60 day requirement as set forth in subparagraph a, above, then defendants shall within 30 days after the 60 day period has expired, obtain bids from solid waste haulers for the cost to clean up the property, as set forth above.

c. Within 45 days after the end of the 60 day period, Robert L. Couch and/or Patricia K. Couch shall enter into a contract with the solid waste hauler giving the lowest bid, which contract shall provide for the following:

(1) It shall provide a time period for which all structures shall be razed and all remaining wastes on the property shall be removed, with the period not to exceed 150 days, and to commence no later than 60 days after the expiration of the 60 day period noted above;

(2) It will set forth the price to be charged by the solid waste hauler for the removal of the remaining waste on the property, including the cost of properly disposing of all of these wastes at a State licensed solid waste landfill. It will

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require the solid waste hauler to maintain legible records regarding the removal of the waste from the property and the costs incurred.

VI
RESERVATION OF JURISDICTION

The Court hereby reserves jurisdiction with regard to the following issues:

1. Issues pertaining to the need for defendants to obtain use permits or building permits for the structures on their property that they or their immediate family members reside in or otherwise intend to occupy;

2. Issues regarding the destruction of any unpermitted water wells that exist on the property;

3. Issues regarding the burning of household trash, garbage, or agricultural debris on the property;

4. Issues regarding the destruction or removal of any illegal sewage disposal systems on the property.

5. Issues regarding the razing of agricultural structures constructed on the property without benefit of building permits.

6. Issues regarding authorizing the County of Napa to enter defendants' property and conduct all clean-up and removal activities, including the removal of income generating items as have been addressed by this judgment, in the event defendants or either defendant fail to comply with the provisions of the mandatory injunction.

6. Issues regarding the issuance of civil penalties pursuant to Business & Professions Code §17206.

ANTHONY PEREZ
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VII
MODIFICATION AND ENFORCEMENT

Any party to this judgment may seek leave of the court upon 15 days notice to the parties hereto and upon a showing of good cause, to modify, amend, or add to any of the provisions of this judgment.

The Court retains jurisdiction, in the event either Robert L. Couch or Patricia K. Couch individually, or both, interfere with, impede, refuse or fail to comply with any provision of this judgment, to make such orders as will prevent further contempt, prevent waste, and protect the property or title to the property, including but not limited to, appointing the defendant who is not in contempt, or a non-party, as a receiver for the purpose of ensuring compliance with this judgment, managing the subject property, and executing any agreements required to comply with this judgment. Further, jurisdiction is retained for the purpose of enabling any party to apply to the Court for such further orders and direction as may be necessary and appropriate for the construction or carrying out of this judgment, for the enforcement of compliance herewith, or for the punishment of violations thereof.

VIII
EFFECT AND ENTRY

This final judgment shall take effect immediately upon entry.

The Clerk is ordered to enter this final judgment forthwith.

Date: March 17, 1993

PHILIP A. CHAMPLIN
JUDGE OF THE SUPERIOR COURT

ANTHONY PEREZ
ISTRICT ATTORNEY
BLIC ADMINISTRATOR
UBLIC GUARDIAN
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RECEIVED
MAR 19 1993
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH TIME LINE

DATE	PROJECT TO BE ACCOMPLISH	PARAGRAPH REF'D
4-16-93	Deadline for defendants to serve tenants with notices.	Paragraph 1
	Deadline to provide D.A. with names of scrap dealers.	Paragraph 3
5-1-93	Deadline to file unlawful detainer actions and serve tenants with Summons and Complaint.	Paragraph 2
6-15-93	Deadline to receive bids from scrap dealers; highest bid to be accepted.	Paragraph 3
6-30-93	Deadline for defendants to collect in one place all items of property they wish to keep (County should inspect this property).	Paragraph 4
	Deadline for defendants to enter into contract with scrap dealer, requiring dealer to commence work by 7-15-93 and to complete work in 150 days.	Paragraph 5
	Deadline for defendants to commence removal of trees to create fire breaks around their places of residence, work to be completed by 8-29-93.	Paragraph 8
7-15-93	Deadline for scrap dealer to commence removal work.	Paragraph 5
8-14-93	Deadline for defendants to enter into contract with a hazardous waste consultant.	Paragraph 14
8-29-93	Deadline for defendants to complete creation of fire breaks.	Paragraph 8
9-13-93	Deadline for hazardous waste consultant to submit plan.	Paragraph 14
10-13-93	Deadline for hazardous waste consultant to commence removal operations, and to complete all removal within 120 days.	Paragraph 14

12-12-93	Deadline for all scrap to be removed from the property; removal triggers the provisions of paragraph 15. and May trigger paragraph 9.	Paragraph 5 Paragraph 9
2-10-94	Deadline for defendants to remove all garbage if acting on their own.	Paragraph 15
	Deadline for hazardous waste consultant to remove all hazardous waste.	Paragraph 14
3-12-94	Deadline for defendants to obtain bids from a solid waste hauler.	Paragraph 15
3-27-94	Deadline for defendants to enter contract with solid waste hauler.	Paragraph 15
4-11-94	Deadline for solid waste hauler to commence removal operations, with 150 days to complete all removal.	Paragraph 15
9-8-94	Deadline for solid waste hauler to have removed all garbage debris, etc.	Paragraph 15

KLEINFELDER
An employee owned company

July 25, 2005
File: 54912/2

Mr. Steven Brock
2555 West Bluff Avenue
Fresno, CA 93711

SUBJECT: Phase II Soil Investigation
Couch Property
2 Eucalyptus Drive
American Canyon, California

Dear Mr. Brock:

This report present the results of a soil investigation conducted at the Couch Property located at 2 Eucalyptus Drive in American Canyon, California (Plate 1). The objective of the investigation was to collect and assess the potential impact of chemical constituents associated with Recognized Environmental Conditions (REC's) as described in a Phase I Environmental Site Assessment and other areas as observed during a pre-field visit in April, 2005. To meet this objective, Kleinfelder placed borings and analyzed samples on the basis of: 1) the recommendations of the Phase I ESA, and 2) information acquired during a site inspection and conversations with Mr. Couch. Kleinfelder performed this investigation based on our proposal dated September 14, 2004; and approved with edits by email on February 15, 2005. In summary, this investigation did not reveal evidence for a significant contaminant release at the site.

BACKGROUND

Environmental Science Associates (ESA) identified several REC's in a Phase I Environmental Site Assessment conducted at the Couch Property (*Couch Property Phase I Environmental Site Assessment*, August 25, 2004). The REC's included past and present storage of hazardous materials and wastes on the property, soil staining, reported methamphetamine lab on the property, a wood-cutting area possibly contaminated with diesel fuel or fill dirt, unpermitted outhouses, and two water well locations.

ESA recommended that soil and groundwater be assessed for potential contamination at the site in areas that show stressed or no vegetation in areas used for battery storage and in a mechanic area. ESA also recommended that, "further investigation be conducted to determine the existence and location of soil containing oil that may have

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been placed on the portion of the property that is used for a wood cutting operation" (within the southeast portion of the property).

ESA stated that water wells should be abandoned in accordance with California water well standards and Napa County protocol and the sewage disposal areas should be closed.

PRE-FIELD ACTIVITIES

Based on our review of ESA's Phase I Investigation, reports by Napa County Department of Environmental Management (NCDEM) (*Couch Property Violations*, 1991, and a letter *Clearing and Grubbing of the Couch Property, American Canyon, California*, 2003), conversations with the client, and field judgments, Kleinfelder designed a soil and groundwater investigation consisting of nine Hollow-stem auger borings, two test pits, four hand auger borings, and one four-point composite sample of a soil stockpile in areas of concern. Constituents of concern including petroleum hydrocarbons, pesticides, polynuclear aromatic hydrocarbons, volatile organic compounds, coliform, E. Coli, and metals, were identified based on observed and reported uses of areas of the property.

Kleinfelder placed borings and sample locations in areas designated as REC's in the Phase I report, as well as in areas near former above-ground storage tanks, possible underground storage tank locations, areas of oily soil, areas where site activities determined a need for sampling including woodcutting, landscaping materials storage areas, and areas adjacent to former outhouses and reported sewage disposal areas.

Kleinfelder was unable to locate the areas of stressed vegetation, as described in the Phase I report. In addition, the two water wells were non-operational. The current resident, George Couch, stated that the wells are no longer in use, and no potable water for human and domesticated animal consumption is derived from the property.

Kleinfelder obtained a boring permit from NCDEM prior to commencement of work (Appendix A).

Soil boring locations were marked in white paint. Kleinfelder notified USA who cleared the public areas of the site for underground utilities at boring locations.

FIELD ACTIVITIES

The investigation was conducted on March 31, April 1, April 4, April 13, April 20, and May 24, 2005 by Jeff Gilbert, Staff Engineer, under the direction of Jennifer Gomez, Senior Geologist and Environmental Department Manager. This investigation was conducted in conjunction with a Geotechnical report, under the direction of Tom Ries, P.E., Senior Engineer, which will be sent under separate cover. The environmental investigation consisted of nine Hollow-stem auger borings (7, 12, 13, 14, 15, 16, 17, 18,

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19) four hand auger borings (2, 3, 4, 5), and two test pits (TP-1, TP-2) at the locations shown on Plate 2.

Hollow-stem auger borings were advanced by Woodward Drilling of Rio Vista, California, a C-57 licensed driller. A Kleinfelder engineer logged and classified the soil, and collected soil samples for laboratory analysis (Boring Logs, Appendix B). Hollow stem auger soil samples were collected at approximately every five feet to twenty feet, or until refusal. Hollow stem auger soil samples were obtained from the nine borings by advancing a Hollow stem auger core sampler, consisting of a 2-inch diameter hollow rod with new stainless steel tubing inside. The probe was driven over a 1.5-foot interval, and soil was contained inside the stainless steel tubing. Once the sampler was brought to the surface, the stainless steel tube was capped with Teflon sheets and plastic caps and put into an iced cooler, and the soil interval was logged and classified.

Kleinfelder collected five soil samples from four hand auger borings by advancing a hand auger to depths ranging from 0 to 1 foot. Each soil sample was collected by immediately filling a stainless steel tube with soil from the auger and capping each end with Teflon sheets and plastic caps.

One four-point composite soil sample (1 A-D) was collected from a soil stockpile. Four stainless steel tubes are filled with soil from the stockpile, then combined by the laboratory to create one composite representative sample that is analyzed.

Three soil samples were collected from two test pits. Each soil sample was collected by immediately filling a stainless steel tube with soil from the bottom of the pit as soon as overlying soil was removed by the backhoe bucket. Each end of the stainless steel tube was secured with Teflon sheets and plastic caps.

Groundwater was not encountered in any of the environmental borings. One boring, B-7, was left open overnight to determine if groundwater would collect in the boring. Groundwater was not present in this borehole. Groundwater was encountered in Geotechnical Boring B-4 at 31 feet below ground surface (bgs). Groundwater stabilized at 23 feet bgs within twenty minutes, however, this borehole was drilled using mud-rotary and drilling fluid, the use of which prevents the collection of an undisturbed and uncontaminated groundwater sample. This boring was left open for a short time to allow formation water to collect, however, upon return, the hole had caved, preventing groundwater sampling.

To prevent cross-contamination Hollow stem auger and hand auger sampling equipment was cleaned between borings with non-phosphate soap and rinsed with distilled water. The borings were backfilled at completion.

LABORATORY ANALYSIS

A total of 34 soil samples were submitted for analysis. Groundwater was not encountered during this investigation and therefore, not sampled. The soil samples

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were submitted to Campbell Analytical in Pacheco, California who is accredited by the State of California for the analyses performed. The samples were transported under chain-of-custody documentation and were analyzed as follows:

Samples were collected at a variety of locations on the property, mostly near occupied areas. Borings 12, 13, 15, 16, 17, 18, and 19 were placed near the residences, sheds, equipment storage areas, possible areas where stressed vegetation may have been located, and mechanic storage areas. Borings 7 and 14 were placed down gradient from these activities in anticipation of a groundwater sample; however, groundwater was not encountered in any of these borings.

Soil samples from Borings 7, 12, 13, 14, 15, 16, 17, 18, and 19 were analyzed for:

- Total Petroleum Hydrocarbons-Extractable (TPH-d, TPH-mo);
- Total Petroleum Hydrocarbons-Purgeable (TPH-g);
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX);
- Methyl tertiary butyl Ether (MTBE);
- Polynuclear Aromatic Hydrocarbons (PAH);
- Total Coliform; and
- Cam 17 Metals.

The soil pile (1A-D) was located within the occupied area of the property, north of the dog pen, near some sheds and a possible former outhouse.

A four-point composite soil sample (1A-D) was taken from this stockpile and analyzed for:

- TPH-d, TPH-mo;
- TPH-g ;
- BTEX;
- MTBE;
- PAH; and
- Cam 17 Metals.

Hand Auger samples were located on an upslope area of the northeast corner of the property. Hand samples were required due to the limited access of this area to a drill rig. This area of the property was reportedly the location of two above ground storage tanks (removed by Napa County), possible underground storage tanks, possible stressed vegetation, and mechanic storage areas.

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The Hand Auger sample 2, located adjacent to a possible former sewage dump or outhouse area, was analyzed for:

- PAH;
- Total Coliform;
- Cam 17 Metals; and
- E. Coli.

The Hand Auger samples 3, 4, and 5, all located in various areas of possible stressed vegetation and mechanic storage area were analyzed for:

- PAH; and
- Pesticides.

The Test Pit soil samples TP-1, TP-4 were located in the woodcutting area, reportedly the location of some dumped oily soil. Kleinfelder observed trash in the soil of these test pits at the depths sampled (TP1 at 2 feet and 3 feet bgs, TP4 at 2 feet bgs). These test pit samples were analyzed for:

- TPH-d, TPH-mo;
- TPH-g;
- MTBE; and
- BTEX.

All soil samples were analyzed on a standard five-day turnaround schedule.

ANALYTICAL RESULTS

Analytical results for the March 31, April 1, April 4, April 13, April 20, and May 24, 2005 sampling events are presented in Tables 1 and 2. Copies of analytical laboratory reports and chain-of-custody form are included in Appendix C.

None of the samples analyzed had detected levels of the following constituents above the Environmental Screening Levels (ESL's) as defined by the San Francisco Bay Water Board for residential shallow soils (<3m) where groundwater is currently or potentially a source of drinking water (February, 2005).

- TPH-d, TPH-mo;
- TPH-g;
- BTEX;
- MTBE;

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- PAH;
- Pesticides; or
- E. Coli.

The two samples collected at Hand Auger boring 2 both had detected levels of Total Coliform at depths of 0 and 1 foot bgs, 2-0-I (960 MPN/ml) and 2-1-I (430 MPN/ml). Hand Auger boring 2 was located near a variety of wooden structures, adjacent to a structure that appeared to be a former outhouse (Plate 2).

Metals were detected above ESL's level in the following samples:

- 14-5-I: Vanadium
- 19-5-I: Chromium, Nickel, Vanadium
- 12-15-I: Chromium
- 18-5-II: Cobalt, Vanadium

DISCUSSION

The purpose of this investigation was to screen for potential contamination by sampling soil and groundwater at locations where contamination, if present, would be most likely. The locations and constituents of concern were selected on the basis of information provided by the Phase I ESA, Mr. Couch, and a site walk.

Petroleum hydrocarbons, gasoline additives, and polynuclear aromatic compounds were not detected in any of the samples collected from the borings, with the exception of sample 12-15-1 where gasoline and BTEX were detected in low concentrations. In addition, gasoline and diesel-range hydrocarbons were detected in very low concentrations within the soil stockpile. Therefore, no evidence for a significant release of petroleum hydrocarbons was found at the site.

Review of the metals data indicate, with the possible exception of four samples discussed below, that the concentration of metals in soil represent background conditions. Elevated concentrations of some metals from four samples, however, warrant discussion:

- The concentration of Chromium (130 mg/kg) in sample 12-15-I collected at 15 feet bgs is elevated relative to the majority of samples. However, chromium concentrations in two samples collected at shallower levels from the same boring are low. In addition, elevated levels of other contaminants that often coexist with chromium at sites with a similar history were not detected. Therefore, the data does not indicate that the elevated chromium concentration is due to a significant release.
- The concentrations of vanadium in samples 14-15-I (110 mg/kg) and 18-5-II (120 mg/kg) appear to be elevated as compared to the majority of samples. However,

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because other metals and petroleum hydrocarbons are not elevated in these samples, and vanadium is an unusual contaminant, the levels of vanadium do not likely represent a significant release at this location.

- Concentrations of chromium (230 mg/kg), nickel (150 mg/kg) and vanadium (160 mg/kg) are elevated relative to the other samples in sample 19-5-I. However, these constituents do not appear to be significantly elevated in samples collected above and below this sample. The boring was located near the former battery storage location, but elevated levels of lead (as would be expected from a release from lead-acid batteries) was not detected. Therefore, the data does not appear to reflect a significant release at this location.

Total coliform as high as 960 MPN/ml was detected at Hand Auger location 2, adjacent to a possible former outhouse structure. These levels are probably related to the former use of a nearby outhouse and reported sewage disposal at this location. E Coli was not detected in these samples. Therefore, the total coliform does not appear to represent a health risk at the site.

Groundwater was not sampled during this investigation, so direct data regarding potential contaminant impacts are not available. However, because no evidence of a significant release that may act as a source of groundwater contamination was found, it may be inferred that the potential of impacts to groundwater from the site is low.

Two water well spigots were located, as described in the Phase I report. According to Mr. Couch, the wells are not operational. Kleinfelder recommends decommissioning these wells and abandoning them in accordance with Napa County Department of Environmental Management procedures.

LIMITATIONS

This report was prepared in general accordance with the standard of care that exists in Northern California at the time the investigation was performed. It should be recognized that definition and evaluation of subsurface conditions are difficult. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. The conclusions of this assessment are based on field observations obtained during the time of drilling and laboratory analytical results. More extensive studies may further reduce the uncertainties associated with this assessment. Kleinfelder should be notified for additional consultation if the Client wishes to reduce the uncertainties beyond the level associated with this report. No warranty, express or implied, is made.

This report may be used only by the client and only for the purposes stated within a reasonable time from its issuance, but in no event later than three years from the date of the report. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability

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resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help understand and manage the level of risk. Since detailed investigation and analysis involves greater expense, our clients participate in determining levels of service, which provide adequate information for their purposes at acceptable levels of risk.

If you have any questions or need additional information, please contact us at 707-429-4070.

Sincerely,

KLEINFELDER, INC.

Sarah Callahan
Staff Geologist

Bradley Erskine, Ph. D., P.G.
Area Manager

SEC/mlc

Plates
- Plate 1 – Site Location Map
- Plate 2 – Sample Location Map

Tables
- Table 1 – Soil Analytical Results: Cam 17 Metals
- Table 2 – Soil Analytical Results: Other Constituents

Appendices
- A Napa County Boring Permit
- B Kleinfelder Boring Logs
- C Chain-of-Custody Form and Laboratory Analytical Reports

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March 16, 2006 ICES 6203

Mr. Aaron Ross-Swain
Standard Pacific Homes
3825 Hopyard Road #195
Pleasanton, California 94588

Subject: Phase I Environmental Site Assessment
2 Eucalyptus Drive
American Canyon, California

Dear Aaron:

Enclosed is the Phase I Environmental Site Assessment Report for 2 Eucalyptus Drive located in American Canyon, California.

Please do not hesitate to contact Derek Wong or me if you have any questions.

Sincerely,

Peng Leong
Principal Engineer

Enclosure

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

MARCH 16, 2006

ICES 6203

Prepared for:

Mr. Aaron Ross-Swain
Standard Pacific Homes
3825 Hopyard Road #195
Pleasanton, California 94588

ICES
Innovative & Creative Environmental Solutions
P. O. Box 99288 Emeryville CA 94662-9288
... (510) 652-3222 ...

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APPENDIX A : EDR RADIUS MAP REPORT

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Number	Title
1	Site Location
2	Schematic Site Plan

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March 16, 2006

ICES 6203

PHASE I ENVIRONMENTAL SITE ASSESSMENT
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

1.0 INTRODUCTION

At the request of Mr. Aaron Ross-Swain of Standard Pacific Homes, Innovative and Creative Environmental Solutions (ICES) performed a Phase I Environmental Site Assessment (ESA) for 2 Eucalyptus Drive located in American Canyon, California ("the Site"; Figure 1). The accessors's parcel number (APN) for the Site is 058-030-056. This report presents:

1. A summary of relevant information obtained;

2. A description of the methods and sources used to obtain information concerning the Site;

3. Our interpretation of the information, with respect to potential environmental concerns; and

4. Our professional opinion concerning the likelihood of potential soil, groundwater, or surface-water degradation caused by the presence of hazardous substances, and the need, if any, for sampling and analysis to document site conditions.

The objectives of this ESA are to:

1. Assess the potential sources of hazardous substances at the Site as a result of on-site or off-site activities that may have affected site soil or groundwater quality; and

2. Evaluate the presence of chemically-affected soil on the Site to the extent indicated by visual observations, personal interviews, and regulatory records.

The ESA investigated past and present site uses, focusing on the use, handling, storage, release, or on-site disposal of hazardous substances, and examined the potential for migration of hazardous substances onto the Site from reported chemical releases, if any,

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in the site vicinity. The assessment was based solely on a review of available records, visual observations, and personal interviews. Field sampling was not performed as part of this ESA.

2.0 BACKGROUND

A eucalyptus grove has occupied the Site since the late 1950s. In the early 1980s, the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. Currently, the southeastern portion of the Site is used to cut and store wood. Paint ball fields are located at the western and central portions of the Site. A farm-like environment which is used to house animals is located directly south of the residential developed area at the northeastern portion of the Site.

A Phase I ESA was conducted by Environmental Science Associates of Sacramento, California in October 2004. Environmental Science Associates' assessment revealed that there was past and present undocumented and illegal storage of hazardous materials and waste on the Site. Additionally, Environmental Science Associates reported that a large amount of soil containing some type of oil was deposited at the southeastern portion of the Site in the 1970s for a motorcycle track. A site investigation was recommended based on their findings.

Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum constituents, polynuclear aromatic hydrocarbons (PAHs), total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the California Regional Water Quality Control Board's Environmental Screening Levels (ESLs) for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the northeastern portion of the Site.

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3.0 SCOPE OF WORK

This Phase I ESA included the following tasks:

- Review of background information on site setting and history of site usage
- Field inspection of the Site and neighboring properties
- Review of regulatory records concerning the Site and surrounding area
- Data evaluation and report preparation

The findings associated with the above tasks are presented below.

4.0 SITE RECONNAISSANCE

ICES personnel conducted a walk-through site inspection, and performed a drive-by reconnaissance of the adjacent properties and the surrounding area on March 10 and 13, 2006.

4.1 Site Visit

The Site is located on the north side of Eucalyptus Drive and is within the legal jurisdiction of the City of American Canyon, in conjunction with Napa County and the State of California. The Site consists of one parcel (APN 058-030-056) covering an area of approximately 106 acres. The parcel falls distinctly from the northeast corner of the Site towards the central portion of the Site. The remaining areas of the Site are relatively flat.

A eucalyptus grove occupies the Site - a major portion is used by the Paint Ball Jungle (primarily during the weekends), and the remaining acreage is occupied by Mr. George Couch (the property owner) and a wood cutting and storage operation. The Paint Ball Jungle uses the western and central portions of the Site. Mr. Couch occupies the northeastern portion of the Site. A farm-like environment which is used to house animals is located directly south of Mr. Couch's residence. A cleared area used to cut and store wood is located at the southeastern portion of the Site. At the time of the site visit, several piles of wood chips, truck trailers, and equipment used for wood cutting were observed within the area.

A visual inspection of the paintball fields indicated that paint balls are scattered throughout the property and several forts have been built for the paint ball games. The forts house

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several empty 55-gallon plastic drums. An inspection of the northeastern portion of the Site indicated two residential structures, a concrete block structural foundation, an outhouse, several sheds, and a well. The areas surrounding the residential structures contained a lot of household items, wood debris, abandoned vehicles, machinery, equipment, small containers of unknown material, several water tanks, an underground storage tank that was sitting on the ground, tires, and refuse.

4.2 Drive-by Reconnaissance

A drive-by reconnaissance of the neighboring properties indicated that landuse in the vicinity of the Site is a mixture of residential and commercial.

The Site is bounded to the north by warehouse buildings and to the east by open pastures. The area south of the Site is occupied by open space and a residential subdivision. The American Canyon Sanitary Landfill, a eucalyptus grove, and wetlands are located west of the Site.

5.0 HISTORY OF THE SITE AND VICINITY

Historical records reviewed as part of this ESA included aerial photographs and Sanborn Fire Insurance maps.

5.1 Aerial Photographs Review

Historical aerial photographs of the Site and vicinity from 1959 through 1998 were provided by Environmental Data Resources, Inc. ("EDR") of Southport, Connecticut. A historical account of the landuse of the Site between 1959 and 1998 based on a review of available aerial photographs is presented below.

The Site

The 1959 aerial photograph showed that the Site was occupied by a eucalyptus grove. In 1965, a large section of the eucalyptus grove at the eastern portion of the Site had been harvested. Replanted eucalyptus trees were observed at the eastern portion of the Site by 1970. The 1982 aerial photograph showed that the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. There were no noticeable changes in the 1993 and 1998 aerial photographs relative to the 1982 aerial

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photograph.

Neighboring Area

The 1957 aerial photograph showed that the neighboring area surrounding the Site was generally undeveloped land. Eucalyptus groves were present northwest of the Site. Two structures were located adjacent to the southwestern portion of the Site. A residential development was observed on the south side of Eucalyptus Drive, southeast of the Site.

There were no appreciable changes to the neighboring area in the 1965 and 1970 aerial photographs relative to the 1957 aerial photograph.

The 1982 aerial photograph showed that the American Canyon Sanitary Landfill was located west of the Site. There were no noticeable changes to the neighboring area in the 1993 and 1998 aerial photographs relative to the 1982 aerial photograph.

5.2 Sanborn Maps Review

A Sanborn Map site search conducted by EDR indicated that there were no Sanborn Maps available for the Site and the immediate surroundings.

5.3 Personnel Interviews

ICES attempted to interview Mr. Couth on March 10 and 13, 2006 to obtain additional information regarding the historical and current uses of the Site. Mr. Couch declined to be interviewed.

6.0 REGIONAL PHYSIOGRAPHY

The U.S. Geological Survey Cuttings Wharf Quadrangle indicated that the elevation at the Site is approximately 12 feet above mean sea level and that the topography at the Site slopes in a southwesterly direction. The nearest major body of water is the Napa River, which lies approximately 1.0 mile west of the Site.

7.0 RADON POTENTIAL

The radon data presented in this section is based on the California Statewide Radon Survey Interim Results (CSRSIR) for the County of

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Napa. Radon is a known human carcinogen and is the second leading cause of lung cancer in the United States. The United States Environmental Protection Agency (EPA) recommends that action be taken to reduce radon levels when indoor radon levels exceed 4 pico curies per liter of air (pCi/l).

The CSRSIR predicts that 4.7 percent of homes in the Napa County would exceed 4 pCi/l. Additionally, of the 34 states participating in the radon survey, California ranks as the third lowest state for percentage of homes exceeding 4 pCi/l. The survey results are not intended to predict the radon exposure level measurement in an individual structure since other factors such as climatic conditions, soil permeability, house structure, and soil/house pressures besides geographic location can affect indoor radon levels. Indoor radon levels at the Site can only be obtained by sampling and testing existing or future structures. Radon levels were not measured at the Site.

The potential for radon concentrations to exceed 4 pCi/l at the Site is relatively low based on the small percentage of homes in the County of Napa predicted to exceed EPA's recommended exposure limit.

8.0 REVIEW OF REGULATORY RECORDS

A governmental records report for the Site and the surrounding areas was prepared by EDR dated February 27, 2006. The geographic database search was conducted following the American Society for Testing Materials standards for a government records review. A copy of the EDR report is included in Appendix A. The record search included sites on governmental environmental lists within a one-eight to one mile radius of the Site to determine if the Site or nearby properties have been identified by Federal or State regulatory agencies and to identify hazardous material handling, storage or storage disposal operations. Within the EDR report, a complete listing of agency records is provided.

A total of two cases with possible releases of chemicals of concern to the environment were identified within the area of the search. EDR's radius map list review identified:

<> one State Landfill;

within a one eighth-mile radius from the Site;

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<> no cases;

within a one quarter-mile radius from the Site;

<> one WMDUS/SWAT case;

within a one half-mile radius from the Site;

<> no cases;

within a one mile radius from the Site.

Of the two cases, all two cases are not considered to have impacted the Site because of one of the following criteria:

1. No further action (NFA) status;
2. A De-listed status;
3. No violations; and
4. Their distance (approximately one-eight mile or greater) from the Site, and/or their relative location cross gradient from the Site.

A NFA status or a de-listed status for a site/case indicates that chemical releases to the environment had not occurred or had been successfully remediated. In addition, sites/cases with a "No Violations" notation have not had known releases of chemicals into the environment.

The local topography suggests that the local groundwater gradient flows in a southwesterly direction. It is, therefore, unlikely that properties situated in the down-gradient locations of the Site could have impacted the Site through groundwater flow.

9.0 SUMMARY AND CONCLUSIONS

A eucalyptus grove has occupied the Site since the late 1950s. In the early 1980s, the northeastern portion of the Site was developed and used for residential applications. The southeastern portion of the Site appeared to have been used as a race track. Currently, the southeastern portion of the Site is used to cut and store wood. Paint ball fields are located at the western and central portions of the Site. A farm-like environment which is used to house animals is located directly south of the residential developed area at the northeastern portion of the Site.

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A Phase I ESA was conducted by Environmental Science Associates of Sacramento, California in October 2004. Environmental Science Associates' assessment revealed that there was past and present undocumented and illegal storage of hazardous materials and waste on the Site. Additionally, Environmental Science Associates reported that a large amount of soil containing some type of oil was deposited at the southeastern portion of the Site in the 1970s for a motorcycle track. A site investigation was recommended based on their findings.

Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum constituents, PAHs, total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the California Regional Water Quality Control Board's ESLs for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the northeastern portion of the Site.

Based on the findings of this ESA, ICES recommends that a supplementary investigation be conducted within the Site. Specifically, ICES recommends that the following task be performed to obtain additional information to adequately characterize the underlying sediments:

1. Collect soil samples from the surficial soil within the western portion of the Site to assess the potential presence of organochlorine pesticides, arsenic, lead, and mercury associated with the eucalyptus grove;

2. Collect soil samples from the surficial soil within the southeastern portion of the Site to assess the potential presence of petroleum hydrocarbons, semi-volatile organic compounds, and lead associated with the former motorcycle track and existing wood cutting and storage operations; and

3. Collect soil samples from the surficial soil within the northeastern portion of the Site to assess surficial sediments containing arsenic, chromium, and vanadium levels detected in a previous site investigation which exceeded residential ESLs.

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The evaluation is site specific, based on the information available at this time and could be revised if new information necessitating further review of the Site and adjacent facilities becomes available.

10.0 LIMITATIONS

The Scope of Work for this Phase I ESA did not include collection or analysis of soil and/or groundwater samples; assessment of the potential presence of asbestos in building materials; testing of electrical equipment for the potential presence of polychlorinated biphenyls; assessment of natural hazards such as naturally occurring asbestos, radon gas, or methane gas; assessment of the potential presence of radionuclides; or assessment of nonchemical hazards, such as the potential for damage from earthquakes or floods or the presence of endangered species or wildlife habitats. Therefore, a full and complete determination of environmental risks was not made. This Phase I ESA also did not include an assessment of the compliance status of the Site.

The observations and conclusions presented in this report are professional opinions based on the scope of activities and information obtained through the Phase I ESA described above. Opinions presented herein apply to site conditions at the time of our study, and cannot apply to site conditions or changes of which we are not aware, or which we have not had the opportunity to evaluate. It must be recognized that any conclusions drawn from these data rely on the integrity of the information available to ICES at the time of the investigation. Soil and/or groundwater sampling and analysis would provide additional level of confidence with respect to potential environmental risks at the Site.

This report is exclusively for the use of Mr. Aaron Ross-Swain of Standard Pacific Homes. Any reliance on this report by a third party shall be at such party's sole risk.

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PHASE I ENVIRONMENTAL SITE ASSESSMENT 2 EUCALYPTUS DRIVE AMERICAN CANYON, CALIFORNIA

File No. 107515
December 22, 2009

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PHASE I ENVIRONMENTAL SITE ASSESSMENT 2 EUCALYPTUS DRIVE AMERICAN CANYON, CALIFORNIA

Kleinfelder Job No: 107515
December 22, 2009

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1. SUMMARY

A Phase I Environmental Site Assessment (ESA) was performed for American Canyon Flat Land Inc., for the property at 2 Eucalyptus Drive in American Canyon, California (Plate 1). This report was prepared in general accordance with the scope and limitations in the American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* E1527-05 and the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law). The property is hereafter referred to as the "subject site."

The subject site consists of 106.57 acres of land in American Canyon, California, occupied by a residence, outbuildings, and a recreational paintball operation, (Plate 1). Much of the site is used for agricultural purposes, occupied by eucalyptus trees that were harvested for firewood. The parcel number, as identified by the Napa County Assessor's office, is 058-030-056.

For ease of description, the site is divided into several areas and described counterclockwise from Eucalyptus Drive (Plate 2):

- Hurst Firewood Area: located adjacent to the north of Eucalyptus Drive, south of an east/west unpaved road, and east of the unpaved section of Commerce Blvd. that runs north/south through the site;
- Paintball Jungle Area (East): located north of the east/west unpaved road and Hurst Firewood, south of the animal pens and Couch Residential Area, and on both sides of Commerce Blvd;
- Animal Pens Area: located north of Paintball Jungle and south of the Couch Residential Area;
- Couch Residential Area: located north of the animal pens, south of the property boundary, east of Commerce Blvd;

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- "Concentrated Area" (named in accordance with County investigation and legal document maps): located west of Commerce Blvd across from the Couch Residential Area; and

- Sherwood Forest Paintball & North Slough Creek Area: located at the northwest corner of the property, west of the Concentrated Area.

- Paintball Jungle Area (West): located on the western side of Commerce Boulevard, south of Sherwood Forest Paintball, north of the property line, east of the property line.

The site has been developed as a eucalyptus tree farm since at least 1937. A Phase I ESA was performed in 2004 by Environmental Science Associates (ESA) that covered the entire parcel, but findings and recommendations were restricted to the 2004 observations of conditions at the Couch Residence and Hurst Firewood Areas. A Phase II soil and groundwater investigation performed by Kleinfelder in 2005 was based on the recommendations from ESA's Phase I report and maps, and therefore addressed only a portion of the areas where previous dumping, spills, and leaks may have occurred. During the Phase II investigation, Kleinfelder collected soil samples but did not encounter groundwater for sampling.

This Phase I ESA represents a re-evaluation of the site based on new information provided to Kleinfelder since the original investigations.

The following is a summary of Kleinfelder's findings in each area.

Hurst Firewood Area:

This area is currently occupied by Hurst Firewood, a business owned by Mr. Hurst, used for cutting eucalyptus trees into firewood for sale. Previously, as few as 19 to as many as 30 people reportedly may have resided in this area, mainly north of area cleared of trees. These renters set up residences on small plots of land that were not connected to water, sewer, or electricity. According to Keith Caldwell, former American Canyon Fire Chief, many of these renters conducted short-scale engine and auto repairs and one methamphetamine lab was discovered and removed. In addition, Mr. Hurst previously stored approximately 50 vehicles and pieces of equipment at the site and

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performed small-scale engine repairs on these vehicles. Kleinfelder observed several stockpiles of wood chips and soil and concrete debris during the site visit.

Paintball Jungle Area (East):
This area is currently occupied by paintball games operated under the name Paintball Jungle. According to permitting records, paintball operations have occurred at the site since at least 1990. Prior to paintball operations, the majority of this area was occupied by junked cars, vehicles, drums, containers, trash, and other debris.

Animal Pens Area:
This area is currently occupied by animals including horses, roosters, and hens. The Couch family reportedly rents stalls and pens for horse boarding. Several vehicles were observed in this area as well as various storage containers. Kleinfelder did not have interior access to this portion of the site so observations were made from the perimeter fence. This area was reported to be occupied by various animals and was the site of illegal animal fighting activities.

Couch Residential Area:
This area is currently occupied by one member of the Couch family who lives on the property in a reportedly unpermitted dwelling. Kleinfelder observed at least 10 vehicles and hundreds of other pieces of equipment, various containers of paints, transmission oil, motor oils, areas of dumped garbage, three unpermitted wells, several large containers including tanks, tanks on wheels, structures, locked storage containers or structures that Kleinfelder could not access, and various debris. Previously, this area reportedly contained over 150 vehicles, hundreds of tires, additional structures occupied by other members of the Couch Family and possibly additional renters, and many widespread areas of debris.

Kleinfelder reviewed various documentation related to the 1993 court-ordered cleanup. This area of the site contained drums that were sampled by Catherine Moody of NCDEM and found to be either diesel or phenols which Robert Couch and David Couch reportedly described as “cresol.” Various subsequent court documents describe cleanup activities at the site and provide copies of household waste disposal at Devlin Road landfill in American Canyon (a Class III municipal landfill), tire disposal at a recycler, scrap metal at a recycler, and junked car removal and disposal. The

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documents do not include manifests for the hazardous materials found to be within drums, fluids from vehicles, and contents of small containers. These materials, if disposed of properly, would have been disposed of at the fire department or a Class II landfill by a certified waste hauler. However, Kleinfelder searched the DTSC and Cal-EPA database to obtain records of a possible RCRA generator ID number (required on the waste manifest for hazardous materials) and no RCRA ID number was found for the Couch Family. A RCRA ID was found for paintball operations only.

Concentrated Area:

This area was identified and labeled by Napa County investigators during previous investigations and information gathering. This area is currently occupied by a chain-link fence, wooden garage door barrier, outhouse, boat, boat trailer, and camper trailer. This area previously was occupied by various renters and reportedly was the site of an additional illegal methamphetamine lab, which was reportedly removed by the Napa County Sheriff's Department in approximately 2000.

Sherwood Forest Paintball Area:

This area, located on the northwest corner of the property, appears to be currently occupied by paintball operations, formerly operated under the name "Sherwood Forest" paintball. Kleinfelder is not sure whether this company still operates this portion of the site, or whether this area is used by Paintball Jungle. Kleinfelder observed several small structures in this area including an enclosure for CO_2 compressed gas containers, a pickup truck, and a wood chipping machine. This area previously was reported to be the "cleared area" and possible location of an outdoor fireplace. According to Keith Caldwell, this area reportedly was a location where drums may have been buried.

North Slough Creek (within Sherwood Forest Paintball Area):

A creek, which appears to drain southwest to the Napa River, is located on the northwest corner of the property near the site boundary. A rock and soil pile was observed along the eastern bank of the creek. It was reported to Kleinfelder by Mr. Michael Johnson that a concern exists regarding the runoff within the creek, which was based on a reported surface water quality violation that was issued to the adjacent American Canyon Wastewater treatment plant. According to Mr. Johnson, the wastewater treatment plant was concerned that the source for pollutants in the creek

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was the Couch Property. Kleinfelder has not seen a copy of the complaint or the results of any sampling or analysis that may have been performed.

Paintball Jungle Area (West):
This area, which comprises the majority of the area west of unpaved Commerce Blvd, was previously and now is currently used for paintball games. Several structures constructed of wood and 55-gallon drums were observed as well as two outhouses. Minor dumping was reported along the roadside but no residences or tenants occupied this area.

Kleinfelder's Phase I ESA of the subject site revealed the following current and historic RECs associated with the site.

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

In addition, while not considered to be RECs by definition, the following other environmental conditions were revealed that could affect the subject site:

- A septic system exists at the subject site. The purpose of the septic system is to receive domestic sewage. If future construction activities encounter the septic system or the system is no longer in use, the system must be abandoned in accordance with applicable local permitting requirements and regulations.

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- Although asbestos and lead is specifically excluded from the Phase I standards, Kleinfelder recommends that all structures be surveyed prior to demolition in compliance with EPA, Bay Area Air Quality Control Management District, and Napa County Building Department rules and regulations.

- Three wells were observed at the site. If these wells are no longer in use, they must be abandoned in accordance with applicable federal, state, and local regulations.

- A complaint and possible violation reportedly occurred related to waters of the creek, located on the property in the northwest corner. The City of American Canyon Water Treatment Facility was reportedly concerned by the possibility of source material leaching into the creek from materials on the Couch property.

Any deviations, historical environmental conditions, and de minimis findings are discussed in Section 8 of this report. This report is subject to the limitations in Section 2.5.

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2. INTRODUCTION

Kleinfelder conducted a Phase I ESA of the subject site. The following report is a summary of work performed in general accordance with the scope and limitations in the ASTM Standard E-1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard), the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law), and our Master Services Agreement with American Canyon Flat Land Inc, dated November 7, 2009. This report also generally conforms to the ASTM Standard's suggested table of contents.

2.1 PURPOSE

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the scope of work defined in our work order, and the limitations discussed in this report, RECs and other environmental issues related to the subject site. As defined in the ASTM Standard, a REC is:

> *The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.*

This report describes Kleinfelder's assessment methodology and documents our assessment findings, subject to the limitations presented in Section 2.5 of this report.

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2.2 DETAILED SCOPE OF SERVICES

The following sections describe Kleinfelder's work scope:

- Section 2, **Introduction**, includes a discussion of the purpose/reason for performing the Phase I ESA, additional services requested by the Client (i.e. an evaluation of business environmental risk factors associated with the subject site), significant assumptions (i.e. property boundaries if not marked in the field), limitations, exceptions, and special terms and conditions (i.e. contractual), and user reliance parameters.

- Section 3, **Site Description**, is a compilation of information concerning the site location, legal description (if provided), current and proposed use of the subject site, physical setting, and geologic and hydrogeologic conditions.

- Section 4, **History of the Site**, summarizes the history of land use at the site and on adjoining properties. The history was developed by conducting interviews, reviewing information provided to Kleinfelder by the client and by consulting various resources such as aerial photographs, agency files, and historic maps.

- Section 5, **Records Review**, is a compilation of Kleinfelder's review of several databases available from the Federal, State, and local regulatory agencies regarding hazardous substance use, storage, or disposal at the subject site; and for off-site facilities up to a one-mile radius around the site. This chapter includes interviews with the owner.

- Section 6, **Site Reconnaissance**, describes Kleinfelder's site observations during the site reconnaissance and observations of adjacent parcels.

- Section 7, **Interviews**, is a summary of telephone and personal interviews conducted with "Key Site Managers" that may include the owner/manager of the facility, occupants/tenants, local government officials, and the Client. Additional interview sources may be contacted if "Key Site Managers" are not available prior to production of this report, and may include adjoining landowners and people with historical knowledge of the area.

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- Section 8, **Evaluation**, is a presentation of our findings and conclusions regarding the information in Chapters 3 through 6; and presents our opinion regarding the presence of Recognized Environmental Conditions of concern at the site.

- Section 9, **References**, is a summary of some of the resources used to compile this report.

The appendices contain certain pertinent documentation regarding the subject site. Appendix A presents site photographs. Appendix B contains the qualifications of the environmental professionals responsible for the preparation of this report. Appendices C, D, E, F, and G contain historical records review and database review records, user provided aerial photographs and documents, regulatory agency documentation, supporting documentation for interviews, and Kleinfelder's previous investigations, respectively.

2.3 SIGNIFICANT ASSUMPTIONS

The subject site is hereafter referred to as the "site" or "subject site". Kleinfelder does not guarantee the accuracy of information supplied by its sources, but reserves the right to rely on this information in forming a professional opinion regarding the potential for contamination at the site.

2.4 LIMITATIONS AND EXCEPTIONS

Phase I ESAs are non-comprehensive by nature and are unlikely to identify all environmental problems or eliminate all risk. The attached report is a qualitative assessment. Kleinfelder offers a range of investigative and engineering services to suit the needs of our clients, including more quantitative investigations.

The scope of this ESA does not incorporate ASTM Standard non-scope considerations, such as asbestos/lead-based paint, radon, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, high voltage power lines, indoor air quality, and therefore vapor intrusion as a contributing indoor air quality issues.

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Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help you understand and better manage your risks. Since such detailed services involve greater expense, we ask our clients to participate in identifying the level of service that will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

Kleinfelder performed this environmental site assessment in general accordance with the guidelines set forth in the ASTM and AAI Standards, and the proposed scope subsequently approved by our Client. No warranty, either expressed or implied, is made. Environmental issues not specifically addressed in this report were beyond the scope of our services and not included in our evaluation.

This report may be used only by the Client and only for the purposes stated within a reasonable time from its issuance, but in no event later than one year from the date of the report. Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the site visit. This report should not be relied upon after 180 days from the date of its issuance (ASTM Standard, Section 4.6). Any party other than the Client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party, and Client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

2.5 SPECIAL TERMS AND CONDITIONS

No special terms and conditions in addition to those discussed previously were agreed to either by the Client and Kleinfelder in our work order for this project.

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3. SITE DESCRIPTION

This section describes the condition of the site at the time the Phase I ESA was conducted and provides information about the site description and local geologic and hydrogeologic conditions.

3.1 SITE DESCRIPTION

The site is identified as a 106.57 acre site, located north of Eucalyptus Drive and west of Oat Hill. The site is occupied by a eucalyptus grove and for the purposes of clarity for this assessment; the site is divided into several sections defined by their use:

- **Hurst Firewood Area**
  Hurst Firewood was formerly operated by Mr. Hurst for cutting of eucalyptus trees into firewood, storage of vehicles & equipment, reported periodic engine repair. In addition, north of the firewood cutting operation, the Couch family rented the area within the trees to at least 19 residents. The residences were constructed without permits and consisted of tarps, garage doors, scrap wood, trailers, and vehicles. In addition, a methamphetamine lab was reportedly removed from one of the residences.

- **Paintball Jungle Area (East)**
  Paintball Jungle area has been commercially operated by an outside company for recreational paintball games since at least the early 1990's. Areas currently operated as paintball were previously occupied by over 150 vehicles, various debris including tarps, equipment, 55-gallon drums of known and unknown contents.

- **Animal Pens Area**
  The Animal Pens area has been used to board horses, chickens, roosters, and possibly other animals. The Couch family reportedly rents stalls and pens for animal owners to board and take care of their animals. This location was formerly used for illegal chicken fighting activities and reportedly raided several times by law enforcement.

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- **Couch Residential Area**
  The Couch Family occupied this area from at least the early 1970's. Several building permits were issued for the construction of a home that was not completed. At least one mobile home was occupied by Robert and Patricia Couch, which burned to the ground in 1994. A garage was occupied by several people and is now used to store tools. A small dwelling, constructed of wood, is currently occupied by one of the Couch's sons. Various areas of the property were occupied by the Couch's other two sons. In addition to residences, most of this area previously contained equipment, vehicles, metal debris, petroleum products, tanks, repair equipment, tools, drums and other containers, and debris including garbage. Three water wells were observed within this area.

- **Concentrated Area**
  The "Concentrated Area" was named by Napa County investigators during previous investigations and information gathering site visits. This area was previously occupied by a trailer and a methamphetamine lab, removed in 2000 or 2001. This reported methamphetamine lab was located within a chain-link fenced area. A portion of this fence still exists. This area is currently occupied by a boat, boat trailer, and camper.

- **Sherwood Forest Paintball Area and North Slough Creek**
  This area is located along the northwest corner of the property and is currently occupied by paintball operations, several wooden structures, wood chipping equipment, a truck, and CO2 compressed air containers. The creek is located along the western border of the property in this location. This area was reportedly used for drum burial and used to contain a brick fireplace. The creek flows southwest to the Napa River.

- **Paintball Jungle Area (West)**
  This area is composed of the western side of the property, west of the unpaved Commerce Blvd. This area appears to have been used for recreational paintball operations since the early 1990's, possibly earlier. Several wooden walls and paintball related structures are currently present in this area.

Roads at the site consist of an unpaved section of Commerce Boulevard, which is situated in the center of the property. Several other unpaved roads exist at the site

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including a road leading to the residence and various unpaved paths through the trees. An unpaved parking lot associated with the paintball operation exists along the southern portion of the Paintball Jungle Area (East). Each area of the site is described in further detail in Section 6.2.

Surrounding properties consist of American Canyon Wastewater Treatment Plant and undeveloped land to the northwest and west, former municipal landfill to the west and southwest, undeveloped property to the east, commercial warehouses to the north, and single-family residential property to the south. In addition, a 4-H garden area is located adjacent to the southwest across the unpaved Commerce Blvd segment from Hurst Firewood.

The information presented in Table 3.1 describes the physical location of the subject site. This information was obtained from maps, public records, and interviews.

TABLE 3.1: SITE SETTING

DESIGNATION	DESCRIPTION
Address	2 Eucalyptus Drive
Location	North of Eucalyptus Drive, west of Oat Hill, American Canyon, California
Township & Range	Township 4 North, Range 4 West, Sections 14 & 23
Assessor's Parcel Number	058-030-056
Acreage	106.57 acres
Current Use	Rural residential, recreational paintball, storage areas
Potable Water Supply	Current: City water connection; Past: imported by truck, and possible wells
Waste Water System	Septic System, surface dumping
USGS TOPOGRAPHIC QUADRANGLE Cuttings Wharf, California 7.5 Minute Series. 1949, photorevised 1981	The subject site is approximately 15 to 30 feet above mean sea level. The site topography slopes toward the west.
MUNGER MAP (ftp://ftp.consrv.ca.gov/pub/oil/maps/Dist6/W6-1/MapW6-1.pdf)	There are no mapped oil wells or dry holes located on the subject site.

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3.2 SITE SOILS

According to the Soil Survey of Napa County soils at the site are mapped as Haire clay loam, and Fagan clay loam.

The Haire series consists of moderately well drained soils located on old terraces and alluvial fans. The Haire series has slow to medium runoff, depending on slope and the hazard of erosion is slight to moderate, depending on slope.

The Fagan series consists of well drained soils on uplands. The Fagan series has medium to rapid runoff, depending on slope and the hazard of erosion is moderate to high, depending on slope.

3.3 REGIONAL AND LOCAL GEOLOGY

3.3.1 Regional Geology

The site lies within the Coast Range Geologic Province of California. This province is characterized by northwest trending mountain ranges and intervening valleys, which are a reflection of the dominant northwest structural trend in bedrock of the region. The basement rock in the northwest portion of this province is dominantly highly deformed sedimentary, metamorphic and volcanic rock of the Franciscan Complex of Upper Jurassic to Cretaceous Age.

3.3.2 Local Geology

The site is underlain by a portion of Oat Hill, which is composed of Quaternary Holocene sandstone, siltstone, and shale. The higher elevation portion of the property is composed of Late Pleistocene alluvial fan deposits which grade to the southwest. The low-lying area of the site, mainly on the western side of Commerce Blvd, is composed of Quaternary Holocene Bay Mud.

3.4 GROUNDWATER

Depth to groundwater beneath the site has not been determined. Based on a limited Phase I ESA by ESA in 2004 and a subsequent soil investigation by Kleinfelder in 2005, groundwater was not encountered above 31 feet bgs. Kleinfelder assumes, based on

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this limited data and site topography, that groundwater depth should be deeper on the northeastern portion of the site (in areas of higher topography) and become progressively shallower toward the west and southwest where the site elevation approaches the level of the slough south of Eucalyptus Drive and to the west where the site meets the surface creek that drains to the Napa River. General groundwater depth and direction may be influenced by local pumping, rainfall, and irrigation patterns. Evaluation of such factors is beyond the scope of this assessment.

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4. HISTORY OF THE SITE

The history of the site was researched to identify obvious uses of the site from the present to first developed use or back to 1940, whichever is earlier. The objective was to evaluate the likelihood that past uses resulted in RECs. Table 4.1 summarizes the information reviewed during this assessment. Kleinfelder used this information to establish the site history.

TABLE 4.1: HISTORICAL INFORMATION REVIEWED

HISTORICAL SOURCE	YEARS REVIEWED	AVAILABILITY
Aerial Photographs	1937, 1948, 1957, 1965, 1970, 1982, 1993, 1998, 2005	EDR
Topographic Maps	1902, 1914, 1947, 1951, 1968, 1981	EDR
Sanborn Fire Insurance Maps	None Available	EDR
Building Department Records	1966 to 2001	Napa County
Previous Assessments	Phase I ESA, 2004	ESA
	Phase II Investigation, 2005	Kleinfelder
	Preliminary Geotechnical Investigation, 2005	Kleinfelder
	Client-Provided Info	County, Fire Dept, Court documents
City Directories	1972, 1977, 1983, 1989, 1995, 2000, 2007	EDR
EDR Environmental Liens	2009	EDR

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4.1 AERIAL PHOTOGRAPHS

A review of historical aerial photography may indicate past activities at a site that may not be documented by other means, or observed during a site visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerial photographs were obtained from several historical photograph collections through EDR. Copes of the aerial photographs obtained by Kleinfelder are included in Appendix D.

1937

The site is occupied by a planted crop of trees, likely similar trees to the Eucalyptus trees planted at the site today. A creek is shown along the western boundary. Surrounding properties consist of residential southwest of the site boundaries, similar tree grove to the west and undeveloped land to the north, east, and south. In addition, several unpaved roads are observed in the site vicinity.

1948

The site and surrounding properties appear essentially unchanged from the 1937 photograph.

1957

The site and surrounding properties appear essentially unchanged from the 1948 photograph.

1965

The site is shown essentially unchanged from the 1957 photograph with the exception that a white structure is shown along the northern boundary of the site.

1970

A cleared area exists on the northwest corner of the site, in addition, a smaller cleared area and unpaved road with possible vehicles or trailers are shown in the northeast corner of the site. The surrounding properties appear to be essentially unchanged from the 1965 photo.

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1982

Additional unpaved roads are observed in the northwest portion of the site, along with several vehicles, possible trailer or structures, and larger cleared areas. An unpaved oval-shaped area is shown in the southern portion of the site. A round pond is shown along the western boundary of the site in the vicinity of the creek. Surrounding properties appear essentially unchanged from the 1970 photo. The overall photo quality is poor.

1993

Additional unpaved roads, vehicles, small structures are visible in the northwestern portion of the site, and many vehicles are visible within the trees in the west-central portion of the site. Additional unpaved roads are visible in the southern portion of the site, possible debris or vehicles are visible along the unpaved roads. The surrounding properties consist of undeveloped land and a tree grove immediately surrounding the site, commercial warehouses to the north, a structure on the top of Oat Hill to the east, and residential housing to the south. The rural residence previously located adjacent to the southwest is no longer present.

1998

The subject site and surrounding properties are essentially unchanged from the 1993 photograph, except the surrounding properties are slightly more densely developed and several structures are shown in the vicinity of the rural residential property adjacent to the southwest of the site.

2005

The southern portion of the site is cleared and approximately 20 vehicles and semi-truck trailers are visible. In addition, several areas of fill material piles are visible. The north-south road is wider and appears to have gravel on it. The central portion of the road is used for vehicle parking. In addition, an area on the eastern side of the property has a small paved area that appears to be used for vehicle parking. The northeastern corner of the property appears to have several trailers, vehicles and small structures. An area on the northwest corner of the site appears to be paved. Surrounding properties consist of commercial warehouses adjacent to the north, a water treatment plant to the west, residential houses to the south, and undeveloped land to the east.

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4.2 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance Maps provide historical land use information for some metropolitan areas and small, established towns. Sanborn maps were not available for this site.

4.3 HISTORICAL TOPOGRAPHIC MAPS

Kleinfelder obtained information regarding historical topographic map of the site vicinity from EDR. The topographic maps reviewed for this assessment are summarized below. Copies of the maps are included in Appendix C.

NAPA, 30 Minute Series, 1902, 1 inch = 10,416 feet

The subject site is shown as undeveloped, located west of a prominent hill with an elevation marker of 260 feet, and east of a wetlands area that drains to the Napa River.

MARE ISLAND, 15 Minute Series, 1914, 1 inch = 5,208 feet

The subject site is shown as undeveloped. The present day Eucalyptus Drive is represented as an unpaved road. A structure is depicted adjacent to the north of Eucalyptus Drive. Surrounding properties are undeveloped, with a structure depicted to the north at the end of another unpaved road.

MARE ISLAND, 15 Minute Series, 1947, 1 inch = 4,166 feet

The subject site is depicted as a vegetated area. Surrounding properties consist of three structures adjacent to the southwest, a creek along the northeast corner, and undeveloped property to the north, south, east, and west. Oat Hill is depicted as a prominent feature to the east and the Napa River is shown to the west.

CUTTINGS WHARF, 7.5 Minute Series, 1951, 1 inch = 2,000 feet

The subject site is represented as undeveloped. North slough creek is mapped along the northwest side of the property. Two structures are mapped adjacent to the southwest at the end of a paved road that continues west as an unpaved road. Oat Hill is depicted adjacent to the east and a levee and the Napa River are depicted to the west.

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CUTTINGS WHARF, 7.5 Minute Series, 1949 photorevised 1968, 1 inch = 2,000 feet
The subject site is represented as undeveloped, but within a vegetated area. Surrounding properties are shown essentially unchanged from the 1951 map.

CUTTINGS WHARF, 7.5 Minute Series, 1949 photorevised 1981, 1 inch = 2,000 feet
The subject site and surrounding properties are essentially unchanged from the 1968 map, with the exception of additional development to the southeast and southwest, with additional paved and unpaved roads.

4.4 PREVIOUS INVESTIGATIONS

Kleinfelder was provided several previous investigations for review.

Environmental Science Associates, Phase I ESA, 2004
A Phase I ESA was prepared for the site by Environmental Science Associates (ESA) in 2004. This Phase I ESA recommended a Phase II investigation focused on several areas of the Hurst Firewood operation and near the dwelling currently occupied by a member of the Couch Family that were identified as RECs. It is Kleinfelder's opinion that the Phase I ESA was limited in scope and area, and did not include important information in site records available at NCDEM, and Napa County Building and Planning. It also did not include a complete review of historic aerial photographs. In addition, the Phase I ESA was prepared well prior to the current ASTM standard and is considered to be out of date.

Kleinfelder, Phase II Soil Investigation, 2005
In 2005, Kleinfelder was tasked to rely entirely on the findings and recommendations of ESA's Phase I report, and based on the findings in the report, perform a Phase II investigation. Kleinfelder conducted Phase II soil sampling and attempted to collect groundwater. Kleinfelder collected 34 soil samples, 30 samples were from the Couch Residential portion of the site in various locations including near the reported site of former "USTs" now present aboveground, near the dwelling, near a dog pen, near structures, storage areas, and locations that appeared to be presently occupied. Soil samples were analyzed for the presence of petroleum hydrocarbons as gasoline, diesel, motor oil, methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and total xylenes (BTEX), polyaromatic hydrocarbons (PAHs), total coliform, and CAM 17 metals.

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In addition, a composite sample was taken from a soil stockpile reportedly located north of the dog pen near a shed.

Soil samples results were reported by the laboratory to not contain petroleum hydrocarbons, MTBE, BTEX, or PAHs above the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level established at that time for shallow soils where groundwater is a source for drinking water. Since this investigation was conducted, the ESL has been revised and many ESL thresholds were lowered. Soil samples analyzed for metals were reported by the laboratory to contain several metals above the ESL, however, at that time, Kleinfelder believed many of the metals concentrations (Chromium, Nickel, Vanadium, Cobalt) may be naturally-occurring. In addition, total coliform was reported within one of the samples, collected from a location near a reported outhouse. Coliform levels are expected to be elevated near outhouses.

Based on new data presented in this ESA, it is Kleinfelder's opinion that additional investigation is required to assess the potential for impacts on the site. In addition, the ESL screening levels have also been revised in May of 2008; therefore, the current screening levels may not be the same as screening levels in 2005.

Kleinfelder, Preliminary Geotechnical Investigation, 2005

Concurrent with the Phase II ESA, Kleinfelder performed a Preliminary Geotechnical investigation at the subject site in 2005. Although site geology and soils data may remain similar to conditions encountered in 2005, the reliance limitations to this report have been exceeded. It is Kleinfelder's opinion that the geotechnical report be reviewed, and if indicted, additional geotechnical investigations be conducted to augment the data and confirm the previous results.

A copy of both the Kleinfelder Phase II report and Geotechnical Report are included in Appendix G.

4.5 USER-PROVIDED INFORMATION

Kleinfelder was provided an assembly of information gathered by a third party, on behalf of our client for this investigation. This information included public records available from Napa County Environmental Management, Napa County Building and Planning

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Department, and Napa County Court records. Kleinfelder has summarized the information below. A copy of this information is included in Appendix E.

Napa County GIS Information

Kleinfelder was provided a printout of available information on the parcel, obtained from the Napa County GIS website. In addition, aerial photographs of the site from 2002 and 2007, obtained from the GIS site were included. The 2002 aerial photograph records many areas of the eastern side of the property to have vehicles, blue-tarped areas, trailers, debris, unpaved roads. The southern third of the site has been mostly cleared of trees and has many stockpiles of soil or wood chips and at least 75 truck trailers, vehicles, pieces of equipment, and small structures. The 2007 aerial photograph records fewer debris areas and vehicles, however, many vehicles, trailers, and areas of debris still exist.

User Provided Aerial Photos

Kleinfelder was provided a set of aerial photos by R.H. Hess Development Company (representative of the client), who had this area photographed in 2004. The aerial photos provided from 2004 document various areas of debris, vehicles, and structures. These photos are included in Appendix D.

Napa County Department of Environmental Management

1973 - Map, dated 1973 that records the subject site and the footprint of a proposed residence, garage, house trailer, well, and septic tank attached to a leach field. These plans are marked as "approved" by the Department of Public Health on October 17, 1973.

1990 – Order of Quarantine copy, issued on November 19, 1990 for the hazardous wastes observed on the property. The order states that "pursuant to Section 25187.6 (a)(2) no person shall remove, transfer, or dispose of the hazardous waste until permission for removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department." This order is addressed to Robert Couch and signed by Mr. Couch with a date of November 19, 1990.

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1993 – Copy of Superior Court Final Judgment and Permanent Injunction for the People of the State of California vs. Robert L. Couch, et al. The judgment describes the following findings at the property (summarized):

- At least 100 and possibly as many as 286 abandoned motor vehicles on the property;
- An unknown but significant number of piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items;
- Probably less than 10 abandoned refrigerators;
- Numerous illegal sewage disposal systems ranging from holes in the ground to outhouses and septic systems;
- Only one residence is permitted, however, a second dwelling, guest cottage, and other inhabited structures existed on the property including lean-tos, trailers, buses, structures on plots of land being rented to various tenants;
- Approximately 10 chicken coops constructed without permits;
- One water well installed without a permit;
- Storage of heavy construction equipment;
- Small amounts of hazardous waste illegally stored or disposed of at the property;
- Unpermitted mobile home, unpermitted underground utility trench;
- Burned trash areas near tenant spaces; and
- Inadequate clearance between residences and combustible material.

The judgment also states that this property is a public nuisance and orders a cleanup of the property, in addition to prohibiting future renting of property, dumping, burning, etc.

The property owners (defendants in this case) were ordered specifically to:

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- Enter a contract with a junk dealer/ hauler to haul away scrap and vehicles;
- Obtain a commercial harvester to thin out trees;
- Retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present;
- Provide hazardous waste manifests for hazardous wastes removed and disposed of; and
- Obtain bids from solid waste haulers to raze structures and clean up debris that is not income-generating or valuable.

A timeline was submitted for the tasks outlined in the judgment and each activity was scheduled to be completed by the end of 1994.

Napa County Superior Court Records

Kleinfelder was provided a copy of the available court record, filed for this case in Napa County Superior Court. In addition to the 1993 judgment summarized above, copies of written declarations by various witnesses in this case were provided from the court case files. Witnesses included Ruben Oropeza, Environmental Health Specialist for Napa County Department of Environmental Management; John Morrow, Building Inspector for Napa County Department of Conservation Development and Planning; Michael Collins, Detective for Napa County Sheriff's Office; Catherine Moody, Senior Hazardous Materials Specialist for Napa County Department of Environmental Management. In addition to their statements, various information is attached including a site map of the property's tenants and approximate areas where they resided, testing information for the liquids sampled during the inspection, and copies of photographs. Copies of these materials are in Appendix D.

In summary, this information was used during the court proceedings to provide support for the court-ordered cleanup action.

Records dated 2003 describe the schedule and approximate cost for removal and disposal of items at the site identified within the 1993 judgment. Within this document, dated September 15, 2003, Mr. Norbert Frost, attorney for Patricia Couch, states that

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"there are no known hazardous materials or substances at the property" and "the Couches would hire an environmental consultant to evaluate the property to make sure that there are no hazardous materials stored there."

Additional records dated 2003 describe the cleanup that has already been performed at the site and includes copies of disposal documents. Disposal of materials was conducted between 2001 and 2003 and generally disposed of at Devlin Road Transfer Station, various scrap tire facilities, and various metal recyclers.

Records dated by the judge on November 3, 2009, state that the following steps will be taken within 90 days following the release of funds and approval of this initial plan by the County. The plan includes the following items:

- Hurst Firewood lessee shall remove all vehicles and equipment unrelated to on-site production of firewood within 30 days;
- Accessory storage structures greater than 120 square feet that the defendants do not intend to seek a building permit for will be demolished an debris removed promptly. Permits for demolition shall be obtained from the County and Bay Area Air Quality Management District.
- Multiple debris boxes shall be rented and placed on site, all general debris, construction debris, and non-hazardous materials shall be dumped prior to the end of the 90 day initial cleanup period; and
- The approved September 5, 2009 fire mitigation plan shall be completed and maintained as specified in that plan.

In addition, this order grants $30,000 to be released from a court account to hire consultants to assist with plan and application preparations, on-site monitoring, and liaison with county staff, as well as, rent the necessary equipment to accomplish the initial clean up objectives.

Additional court records were provided to Kleinfelder which include information regarding eminent domain acquisition of a former part of the property, currently occupied by the City of American Canyon wastewater treatment plant.

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American Canyon Fire Protection District
Kleinfelder was provided a copy of two letters from Keith Caldwell, Fire Chief.

The first letter is dated September 27, 1990. Mr. Caldwell describes his attempt, along with members of building department, environmental health, and zoning enforcement on September 26, 1990 to inspect the commercial uses of the property. During this inspection, George Couch asked them to leave. This letter is a request for an inspection warrant.

The second letter is dated October 18, 1990. Mr. Caldwell describes his observations at the site which include the following:

- North corner of the property - three- 10,000 underground gasoline tanks;
- South portion of the property fronting Eucalyptus Drive- approximately 30- 55 gallon drums, undetermined amount of smaller containers, some appearing to be military with undetermined contents, some equipment that appears to be from a chemical lab or industrial lab work;
- Middle property - northeast side- large flatbed trailer with approximately 30 to 40 drums;
- Middle property - two 40-foot trailers, pad locked; and
- Throughout the entire parcel – approximately 150 abandoned vehicles in various states of dismantle and 15 to 20 residences made up of RV's or tents with no sanitary facilities.

4.6 CITY DIRECTORIES

City directories provide information regarding property occupants by address. Kleinfelder reviewed available historic city directory listings for the subject site and nearby addresses, as provided by EDR. Directories from the following years were reviewed: 1972, 1977, 1983, 1989, 1995, 2000, and 2007.

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The subject site was listed as residential in 1977, 1983, and 1989. Sherwood Forest Paintball was listed at the site address in 2007.

Nearby addresses on Eucalyptus Drive were reviewed. Listed addresses were reported as residential. In addition, Williams Construction was listed in 1983 and 1989 at 97 Eucalyptus Drive. It is Kleinfelder's opinion that Williams Construction is located too far from the site to pose an environmental concern to the subject site.

4.7 PRELIMINARY TITLE REPORT

A preliminary title report was not provided to Kleinfelder for review.

4.8 ENVIRONMENTAL LIENS

EDR researchers located available environmental lien information for the parcel associated with the property. Environmental liens were not reported by EDR for the subject site, however a quitclaim deed was found, dated July 7, 2008. A copy of the EDR environmental lien search is included in Appendix C.

4.9 VALUE REDUCTION

As part of the ASTM E 1527-05 process, information must be gathered regarding the prospective purchase price of the property relative to the fair market value of the subject site. If there appears to be a value reduction, that reduction must be identified with respect to whether the difference could be attributed to environmental degradation of the property. Kleinfelder requested that our client provide this information by filling out the "user questionnaire" form. According to Mr. Chris Koenig, on behalf of American Canyon Flat Land Inc., the purchase price is currently being litigated and it is likely that the purchase price will be greater than the fair market value of the property. In addition, Mr. Koenig reports that he believes there is potential for contamination on the site based on the court documents and report discovered as part of the due diligence he has conducted and provided to Kleinfelder.

A copy of the User Questionnaire form is included in Appendix F.

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5. RECORDS REVIEW

5.1 REGULATORY AGENCY DATABASE REVIEW

The purpose of the records review is to obtain and review records that would help to reveal Recognized Environmental Conditions in connection with the subject site and bordering properties.

Federal, State and local regulatory agencies publish databases or “lists” of businesses and properties that handle hazardous materials or waste, or are known locations of a release of hazardous substances. These databases are available for review or purchase at the regulatory agencies, or they can be obtained through a commercial database service. Kleinfelder contracted with a commercial database service, Environmental Data Resources, Inc., to review the agency lists for references to the site and any listings within the appropriate ASTM minimum search distance from the site. The executive summary and maps from the database search report are included in Appendix A of the EDR report, Regulatory Agency Database Summary. The federal and state databases reviewed are summarized on Table 5.1.

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TABLE 5.1: RECORDS REVIEWED/SEARCH DISTANCES

FEDERAL	DISTANCE
EPA National Priority List (NPL)	1-mile
Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)	½-mile
CERCLIS-NFRAP (No Further Remedial Action Planned)	Site & adjoining
Resource Conservation Recovery Act (RCRA)-CORRACTS TSDF	1-mile
RCRA-non CORRACTS TSD	½-mile
RCRA-GEN/FINDS	Site & adjoining
ERNS	Site
US Engineering Controls, US Institutional Controls	Site
STATE/LOCAL	**DISTANCE**
CLEANERS	¼-mile
CORTESE (formerly Hazardous Waste Substances)	½-mile
Landfills (SWAT/SWF/LF)	½-mile
Leaking Underground Storage Tank (LUST)	½-mile
Site Mitigation and Brownfields Reuse Program Database	½-mile
SLIC (Spills, Leaks, Investigations, & Clean-up)	½-mile
Toxic Chemical Release Inventory System (TRIS)	½-mile
Waste Discharge System (CA WDS)	½-mile
Cal-Sites, Bond Expenditure Plan (BEP), Annual Work Plan (AWP)	1-mile
Solid Waste Information System (SWIS)	1-mile
DEED	Site
Environmental Liens	Site
Above Ground Storage Tank	Site & adjoining
California Hazardous Materials Information System (CHMIRS)	Site & adjoining
FINDS	Site & adjoining
HAZNET	Site & adjoining
UST, CaFID, HistUST	Site & adjoining

A summary of facilities listed in the databases is presented in the executive summary of the EDR report, and each facility is cross-referenced with a radius map showing the location of the listed facility with respect to the subject property (Appendix A of the EDR

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document). Kleinfelder conducted a review of the EDR report to assess which listings have a significant potential to impact the subject property. Factors used to screen the listed properties include distance to the site, geology, presumed or known direction of groundwater flow, type and magnitude of hazardous material release, and nature of sensitive receptors. Those considered to have a significant potential to impact the site were then subjected to a file review at appropriate regulatory agencies. A copy of the EDR report is included in Appendix C of this report.

5.2 RESULTS OF DATABASE SEARCH

The database report shows that:

- The site was not listed on the databases searched by EDR.

The two other cases, located within the search radius, are summarized below:

- **Envirostor:** One case was listed and is summarized below:
    1. **Sunshine Auto Salvage** (1578 Green Island Road), located approximately 4110 feet north-northwest of the subject site, is listed on the Envirostor database with leaks of metals and petroleum hydrocarbons to soil. Based on distance and direction from the subject site, it is Kleinfelder's opinion that this property is unlikely to pose an environmental concern to the subject site.

- **Solid Waste Facility / Land Fill (SWF/LF):** One site was listed and is summarized below:
    1. **American Canyon Sanitary Landfill** (Western Terminus of Eucalyptus Drive), located adjacent to the western edge of the property. This landfill was closed in 1994 and was previously operated by Napa-Vallejo Waste Management Authority as a municipal landfill.

Sites not plotted by EDR due to poor or inadequate address information are referred to as orphan sites. There is one unmapped site in the EDR Report, located in Sonoma County, which is too far from the subject site to pose an environmental concern. The orphan summary/unmapped sites report was reviewed to assess the potential for off-

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site properties to be listed on databases that fall within the ASTM search distances. Based on our review this orphan site appears to be outside of the ASTM search distances.

5.3 REGULATORY AGENCY CONTACTS

The following additional sources of environmental records were reviewed during this Phase I ESA for the purposes of meeting the ASTM Standard. Local regulatory agencies were contacted for reasonably ascertainable and practically reviewable documentation regarding RECs present at the subject site and adjoining facilities (copies of file review information is included in Appendix E). Interviews with local regulatory agency representatives are included in Section 7 of this report. The following agencies were contacted for documentation:

TABLE 5.2: AGENCY CONTACTS SUMMARY

AGENCY	TYPE OF INFORMATION AND RESULTS
Napa County Department of Environmental Management (NCDEM)	Kleinfelder reviewed available files for the subject site; a summary of information gathered at NCDEM is located in Section 4.5 and in Section 5.3.1.
San Francisco Bay Regional Water Quality Control Board (SFRWQCB)	No files were available for the subject site address.
Napa County Building and Planning Department	Kleinfelder reviewed building permits at Napa County Building and Planning Department. Permits for the site dated back to 1966; a summary of information reviewed is located in Section 5.3.2.
State of California Fire Marshal Office of Pipeline Safety	No pipelines, jurisdictional to the State Fire Marshal's office, are located at the site.
State of California, Department of Conservation, Division of Oil and Gas	No oil or gas wells are depicted on or adjacent to the subject site.

5.3.1 NCDEM Records Review

Kleinfelder representative Sarah Kalika reviewed available site records at NCDEM on November 10, 2009. Available files were similar to information provided by the client and included two soil boring application permits dated March 2005 and March 2006,

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records from the court judgment dated 1993, copies of correspondence from the hazardous materials testing performed in 1991 and inspections in 1990 and 1991, and additional correspondence dated 2003 and 2005. A more detailed description of the contents of this correspondence is included in Section 4.5, and copies of the information gathered are included in Appendix E.

5.3.2 Napa County Building and Planning Department

Kleinfelder representative Sarah Kalika reviewed one available file assigned to the parcel number at Napa County Building and Planning Department on November 10, 2009. The file contained records dating back to March 1966 and consist of the following:

- 1966: Planning department approval of a proposed dwelling
- 1967: Application for building permit and certificate of occupancy for a garage, tool sheds with foundations
- 1968: Electrical permit application
- 1973: Temporary use permit to Robert Couch, Jr. to utilize a construction trailer while completing a residence on a 170-acre parcel, limited to one year on until dwelling is constructed, whichever occurs first; dwelling permit application for 3,484 square foot house
- 1973: Sewage disposal system installed (septic tank and leach field)
- 1974: Use permit application to develop a recreation area to be utilized by American Canyon residents
- 1974: Temporary use permit renewal for construction trailer
- 1977: Correspondence regarding temporary use permit for trailer to Robert Couch, Jr., notice that temp use permit will expire on 3/9/77
- 1983: Correspondence that no work had been performed at proposed dwelling since 1976, permit cancelled, Board of Supervisors requires new permits for future work

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- 1984: Request for inspection to see what progress has been made on construction. Inspection conducted 5/7/84, building has not been built.
- 1987: Permit application for new storage building, 3 storage containers (8x40 feet each), permit subsequently canceled on 3/13/93
- 1988: Order to comply, building permit required for shed roof and electrical permit for trailer
- 1990: Inspection warrant from Building Department to Assistant District Attorney Daryl Roberts "the property is in violation of Section 11206 (a), Ch1, Art 3 of Title XI of the Napa County Code."
- 1992: Negative Declaration for Paintball activities
- 1992: Use permit approved for paintball, to Robert D'Elia of Concord, CA.
- 1993: Approval of use permit for paintball (in area west of project site boundaries) to Gladis Jarquin
- 1994: Notice of paintball use permit approval with expiration of 5/28/97, notice to Dean Laing of Vacaville, CA with instruction "no paintball games to be conducted between 10/15 and 4/1 of any year unless all required road and parking improvements are installed and approved by Department of Public Works and Napa County Fire Department."
- 1994: Request for inspection to building department with note "trailer Couch was living in burnt completely last night, per Chief Caldwell"
- 1995: Use permit for paintball, no map attached
- 2001: Sherwood Forest Paintball use permit approved, no map attached

Copies of maps and correspondence collected during this file review are included in Appendix E.

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6. SITE RECONNAISSANCE

Kleinfelder's assessment activities included a site reconnaissance. This section summarizes the findings from the site reconnaissance.

6.1 METHODOLOGY AND LIMITING CONDITIONS

Kleinfelder representative Sarah Kalika conducted a site reconnaissance on November 18, 2009, to assess and photograph present site conditions. Kleinfelder was accompanied by Mr. Chris Koenig of R.H. Hess Development Company, Mr. Michael Johnson of Griswold, LaSalle, Cobb, Dowd, and Gin, and a solid materials hauling contractor who is a potential bidder to remove solid waste material on behalf of our client. In addition, Mr. Glen Couch, his wife, and their attorney were also present to facilitate access to the Couch residence portion of the subject site.

The approximate site boundaries are shown on Plate 2 over an aerial photo from 2002. The northern portion of the 2002 aerial is shown on Plate 3, the central portion of the 2002 aerial photo from 2002 is shown on Plate 4, and the southern portion of the 2002 aerial photo from 2002 is shown on Plate 5. Color photographs of the site are shown in Appendix A. Site conditions discussed below are limited to readily apparent environmental conditions observed on the date of site reconnaissance.

6.2 ON-SITE OBSERVATIONS

The site consists of a eucalyptus grove, separated into several sections, as shown on Plate 2. The sections will be described as groups below.

Hurst Firewood Area: southern section of site, north of Eucalyptus Drive, south of Paintball Jungle operation, east of unpaved segment of Commerce Drive

Kleinfelder observed several piles of wood chips, concrete debris, approximately 11 abandoned pieces of equipment including heavy equipment, box trailers, semi-trucks, and one boat. None of the equipment appeared to be operational and several were observed to be leaking hydraulic fluid. One pole-mounted transformer was observed and was labeled "Non-PCB."

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Paintball Jungle Area (East): eastern central section of site, north of Hurst Firewood area, east of unpaved segment of Commerce Drive, south of Couch Residential area

Kleinfelder observed paintball operations, several small shed structures, a fenced area of compressed CO2 gas cylinders, a semi-paved parking lot area, shooting range with many plastic 55-gallon drums. The plastic 55-gallon drums appeared to be relatively new and were labeled as previously containing olive oil or vinegar. Much of the ground, trees, drums, and other plastic or wooden barriers constructed related to paintball, were covered in paintball paint and unexploded paintballs.

Animal Pens Area: eastern central section of site, north and east of Paintball Jungle

Kleinfelder did not have access to the interior of this area. Observations and photographs were taken from fence line perimeter. Kleinfelder observed at least 10 horses, several chickens and roosters, three pickup trucks, many covered areas constructed of wood with corrugated metal roofs, several plastic and metal 55-gallon drums with unknown contents, and several portable containers, assumed to contain water.

Couch Residential Area: northeastern portion of site, north of Paintball Jungle and animal pens

Kleinfelder observed approximately four structures, one used as a residence, one a garage, and the others outbuildings, assumed to be sheds. One house foundation partially constructed is located near the garage. In addition, Kleinfelder observed many storage areas, covered areas, vehicles including several cars, two vans, at least three pickup trucks, one fire truck, one school bus with no front wheels, at least three pieces of heavy equipment or parts (excavator, bulldozer), one temporary office trailer, at least two metal storage containers, two boats, small wood chipper, camper shells, and travel trailers, tank on wheels, and a motorcycle.

Equipment at the site that may contain hazardous materials included, but is not limited to, many small tanks, one propane tank, one yellow flammables cabinet with hand-written sign “Anthrax Powder Storage Container” which Kleinfelder believes may be a

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hoax label, several cans of paint, at least two air compressors, compressed air cylinders (helium or CO2 tanks), several gasoline cans, car batteries, fire extinguishers, and abandoned appliances.

Debris at the site included, but is not limited to, metal scrap, pipes, plastic debris, household garbage, old clothing, road signs, and several tires.

One gravestone was observed with several names as follows:

- Annie Hammond 1848-1922
- Sam'l B. Hammond 1878-1930
- Fred L. Hammond 1875-1931
- Mabel C. Hammond Sept 26 1886 aged 4 yrs, 11 mo, and 21 days
- Thomas Shields, native of Vermont (scratched out) 28, 1883 68 years, 15 days

It is Kleinfelder's opinion that the gravestone may have been transported from a cemetery or other source and not an actual gravesite.

Two wells were observed with adjacent small storage tanks (up to 150 gallons) that did not appear to be operating and did not appear to be connected to electricity or pipes.

One septic tank with buried pipe was observed near the house foundation.

One power pole was observed with three pole-mounted transformers, no PCB information was observed on the transformers, though they appeared to be in good condition without obvious signs of leaks.

"Concentrated Area": northern section of site, west of unpaved segment of Commerce Drive, east of Sherwood Forest Paintball

Kleinfelder observed a chain-link fenced area with debris including an outhouse, camper trailer, boat trailer, one boat, one enclosed & locked storage trailer, a few small bottles labeled motor oil, approximately 25 five-gallon buckets that appeared to be empty, a ladder, and various scrap pieces of plywood.

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Sherwood Forest Paintball Area and North Slough Creek: western side of site, west of unpaved segment of Commerce Drive

Kleinfelder observed several wooden structures and shelters, assumed to be for paintball operations. In addition, one truck was observed in the northwest corner of the operation, east of the creek.

A creek was observed along the northwestern boundary of the property. The creek appeared to flow south.

The site is bounded by commercial warehouses to the north, American Canyon Wastewater Treatment Plant to the northwest, undeveloped land and former landfill to the west, 4-H garden west of the area occupied by Hurst Firewood, Eucalyptus Drive and single-family residential houses to the south, and undeveloped land (Oat Hill) to the east.

Site observations are tabulated in Table 6.1.

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TABLE 6.1: SITE OBSERVATIONS

General Observations	Remarks	Observed	Not Observed
Hazardous chemical and petroleum products in connection with known use.	Fuels	X	
Fill dirt from an unknown source.	Hurst Firewood has various fill areas, another mound of fill in northwest corner along eastern side of creek	X	
Aboveground storage tanks (ASTs)	Various metal and plastic storage containers with unknown contents	X	
Underground storage tanks (USTs)			X
Odors	Animal odor near pens	X	
Pools of Liquid		X	
Drums		X	
Hazardous chemical and petroleum products in connection with unknown use.		X	
Unidentified substance containers		X	

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TABLE 6.1 (CONTINUED)
SITE OBSERVATIONS

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Chemical storage or agricultural chemical mixing areas			X
Asbestos, and lead based paints	Possible	X	
Polychlorinated biphenyls (PCBs)	Possible- three pole mounted transformers (unlabeled) Couch Residential area	X	
Pits, Ponds, or Lagoons	Various pits, undulating land	X	
Stained soil or pavement			X
Stressed vegetation			X
Hazardous Waste Storage			X
Solid Waste	Debris	X	
Waste Water			X
Process waste water			X
Wells	Two wells, unknown usage	X	
Dry wells			X

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TABLE 6.1 (CONTINUED)
SITE OBSERVATIONS

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Surface water	Creek	X	
Storm basins/catch			X
Storm drains			X
Drains and sumps			X
Septic system	One septic tank, near house foundation	X	
Loading and unloading areas	No specific loading and unloading areas	X	
Burned or buried debris	Various locations of buried debris (plastic, wood, cloth) many areas buried by eucalyptus leaves	X	

6.3 OFF-SITE OBSERVATIONS

Kleinfelder conducted a brief drive-by survey of the parcels adjacent to the site on the same day as the site reconnaissance. A summary of the off-site properties is summarized in the following table:

TABLE 6.2
SURROUNDING PROPERTIES

North	Commercial warehouses
South	Eucalyptus Drive, single-family residential houses
East	Undeveloped land, Oat Hill
West	American Canyon Wastewater Treatment Plant, closed landfill, 4-H garden, undeveloped land, slough, Napa River

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7. INTERVIEWS

Kleinfelder contacted “Key Site Managers” Michael Mochizuki of American Canyon Flat Land Inc., and Mr. Michael Johnson of Griswold, LaSalle, Cobb, Dowd, and Gin. Key Site Managers are contacted to obtain current and historical environmental information concerning the subject site. Mr. Mochizuki provided an interview questionnaire and “user questionnaire” form, completed by Mr. Chris Koenig, who has conducted due diligence research on behalf of American Canyon Flat Land Inc. A copy of this research has been provided to Kleinfelder and is included as “user provided information” in Appendix D and summarized in Section 4.5. A copy of the completed interview questionnaire as well as transmittal letter and backup information is included in Appendix F.

In addition to the completed questionnaire, Mr. Michael Mochizuki presented Kleinfelder with a letter that states that American Canyon Flat Land Inc. has been diligent in providing all of the information that they could find in regard to the history of the Couch Property. In addition, he states that the Couch’s have been unwilling to provide further information relating to the condition of the property and therefore American Canyon Flat Land has researched public records and conducted reasonable due diligence. He also states that American Canyon Flat Land Inc. cannot represent that there are not other potential environmental issues related to the Couch Property and ACFL has disclosed that which they have discovered through reasonable due diligence to determine potential issues relating to the Couch Property.

7.1 INTERVIEW WITH OWNER/MANAGER

Kleinfelder was unable to interview the current owner because no members of the Couch Family were willing to complete the interview form.

7.2 INTERVIEW WITH OCCUPANTS

The subject site is occupied by a member of the Couch Family who was not present during the site visit. No interviews were granted to Kleinfelder by the attorneys representing the current occupants.

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7.3 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Local government officials were contacted to obtain further information about environmental enforcement actions pending or ongoing at the site and adjacent facilities, or relevant permits (e.g. building, air quality, well abandonment, etc.) for the site and adjoining properties.

Napa County Department of Environmental Management

Kleinfelder contacted Napa County Department of Environmental Management. Kleinfelder reviewed available files for the property on November 10, 2009. A summary of records reviewed is located in Section 5.3.1.

San Francisco Bay Regional Water Quality Control Board

Kleinfelder contacted Melinda Wong of San Francisco Bay Regional Water Quality Control Board and requested to review any available files for the subject site. According to Ms. Wong, no files were available for the project site.

Napa County Building and Planning

Kleinfelder contacted the Napa County Department of Building and Planning. Kleinfelder reviewed available files for the property on November 10, 2009. A summary of records reviewed is located in Section 5.3.2.

Ed Colby, Napa County Planning

Kleinfelder interviewed Mr. Ed Colby, Planner III / Code Compliance for the Napa County Planning Department, on November 17, 2009. Mr. Colby stated that he has been associated with this site since 1990. Mr. Colby stated that he conducted a site visit, along with various County employees, Napa County Sheriff's Department, and Fire Department investigators in the early 1990's. Mr. Colby stated that he continues to perform periodic inspections of the property to assess progress on the cleanup order judgment of 1993. Mr. Colby stated that his most recent visit was in September 2008 and a report was issued in March 2009. A copy of this report is included in Appendix D, user provided information. During the interview, Mr. Colby reviewed the County Planning file for the site and described the various areas that County Code Enforcement divided the site into for ease of explanation in a report. Those areas include "Paintball 1, Concentrated Area, Staging Area, Area 1, Area 2" etc. Mr. Colby stated that the only

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permitted activities at the site are paintball and firewood. Mr. Colby indicated that his inspections were exterior only; he personally has not entered any of the structures. Mr. Colby also stated that inspections by code enforcement were conducted at the request of county council, in response to requests by the Couch family to release Napa County cleanup funds for environmental and waste cleanup. Mr. Colby explained that County funding was set aside to assist in the cleanup and Code Enforcement was required to perform progress inspections before additional funds could be released. Mr. Colby stated that Mr. Keith Caldwell, current Napa County Supervisor and former American Canyon Fire District Chief reported that a methamphetamine lab was discovered and removed in 2000 somewhere onsite. Mr. Colby did not have knowledge of where the lab was discovered and suggested Kleinfelder speak to Mr. Caldwell directly. In addition, Mr. Colby recommended Kleinfelder speak to Mr. John Kara at Napa County Department of Environmental Management to obtain additional information regarding hazmat data collected at the site.

John Kara, Napa County Department of Environmental Management

Kleinfelder spoke briefly with Mr. John Kara of NCDEM on November 10, 2009. Mr. Kara stated that he could not provide additional information other than what was in the NCDEM file for the property.

Keith Caldwell, Napa County Supervisor- District 5 (American Canyon Area)

Kleinfelder interviewed Mr. Keith Caldwell, current Napa County Supervisor representing District 5, which includes American Canyon. Mr. Caldwell stated that he was formerly employed at the American Canyon Fire District as the Fire Chief. Mr. Caldwell stated that he was raised in American Canyon and has knowledge of the site dating back to when he was a teenager. Professionally, he was associated with the site since the mid 1980's. Mr. Caldwell provided an account from memory of various inspections associated with the warrant granted in the early 1990's and various times the Fire Department responded to emergencies at the site. Mr. Caldwell stated that a multi-agency team performed an inspection at the site under an inspection warrant based on many complaints and concerns about fire hazards and illegal living conditions. Mr. Caldwell stated that he observed over 100 cars, some drums, heavy equipment (construction equipment and some cars, some were stolen), a flatbed trailer with 20-25 drums, two meth labs, and many areas of dumping and illegal occupancy. Mr. Caldwell stated that he had heard rumors from local residents that drums were buried onsite, but

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he was never able to find the locations. He was told by a local that drums may have been buried in the northwest corner of the site near an old stone fireplace. Mr. Caldwell identified two locations where meth labs were found and removed by the Sheriff's Department. One location was within the area identified by Napa County Code Enforcement as "Concentrated Area" within a chain-link fenced area. The other location was within the area currently occupied by Hurst Firewood. He stated that this location was approximately 100 yards west off of the eastern road within the area previously occupied by renters. Mr. Caldwell stated that red phosphorous was found and removed by the Sheriff's Department, and this chemical is typical of meth labs. Mr. Caldwell stated that within the firewood area, various motor oils and diesel fuel spills were observed and were minor. Mr. Caldwell described several fires within the Couch residential area of the site. Mr. Couch's mobile home burned in 1994; within the fire were guns, ammunition, and propane. Mr. Caldwell stated that the cars he observed were generally on the eastern side of the unpaved north-south road. Mr. Caldwell stated that within the Hurst Firewood area, Mr. Hurst sometimes performed engine repairs and that the approximately 30 people who lived in that portion of the site also periodically performed auto and engine repair.

In addition to environmental concerns, Mr. Caldwell stated that the area currently occupied by the American Canyon Wastewater Treatment Plant was cleared of eucalyptus trees, he heard that the trees were removed rather easily, but the root balls were approximately 10 feet in diameter and that "the biggest grinder west of the Mississippi" had to be hired to conduct stump grinding. Mr. Caldwell stated that a few root balls were transported to the 4-H area southwest of the site and are probably still there for viewing.

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8. EVALUATION

Kleinfelder performed this Phase I ESA in accordance with the scope and limitations of ASTM Practice E-1527-05 and the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfields Law). The purpose of this assessment was to evaluate the likelihood of RECs resulting from the present or past usage, storage, or disposal of hazardous substances or petroleum hydrocarbons at the subject site and in the surrounding area. Kleinfelder's findings and conclusions are presented below.

8.1 FINDINGS

For ease of description, the site is divided into several areas and described counterclockwise from Eucalyptus Drive (Plate 2):

- Hurst Firewood Area: located adjacent to the north of Eucalyptus Drive, south of an east/west unpaved road, and east of the unpaved section of Commerce Blvd. that runs north/south through the site;
- Paintball Jungle Area (East): located north of the east/west unpaved road and Hurst Firewood, south of the animal pens and Couch Residential Area, and on both sides of Commerce Blvd;
- Animal Pens Area: located north of Paintball Jungle and south of the Couch Residential Area;
- Couch Residential Area: located north of the animal pens, south of the property boundary, east of Commerce Blvd;
- "Concentrated Area" (name in accordance with County investigation and legal document maps): located west of Commerce Blvd across from the Couch Residential Area; and
- Sherwood Forest Paintball & North Slough Creek Area: located at the northwest corner of the property, west of the Concentrated Area.

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- Paintball Jungle Area (West): located on the western side of Commerce Boulevard, south of Sherwood Forest Paintball, north of the property line, east of the property line.

The site has been developed as a eucalyptus tree farm since at least 1937. A Phase I ESA was performed in 2004 by Environmental Science Associates (ESA) that covered the entire parcel, but findings and recommendations were restricted to the 2004 observations of conditions at the Couch Residence and Hurst Firewood Areas. A Phase II soil and groundwater investigation performed by Kleinfelder in 2005 was based on the recommendations from ESA's Phase I report and maps, and therefore addressed only a portion of the areas where previous dumping, spills, and leaks may have occurred. During the Phase II investigation, Kleinfelder collected soil samples but did not encounter groundwater for sampling.

This Phase I ESA represents a re-evaluation of the site based on new information provided to Kleinfelder since the original investigations.

The following is a summary of Kleinfelder's findings in each area.

Hurst Firewood Area:
This area is currently occupied by Hurst Firewood, a business owned by Mr. Hurst, used for cutting eucalyptus trees into firewood for sale. Previously, as few as 19 to as many as 30 people reportedly may have resided in this area, mainly north of area cleared of trees. These renters set up residences on small plots of land that were not connected to water, sewer, or electricity. According to Keith Caldwell, former American Canyon Fire Chief, many of these renters conducted short-scale engine and auto repairs and one methamphetamine lab was discovered and removed. In addition, Mr. Hurst previously stored approximately 50 vehicles and pieces of equipment at the site and performed small-scale engine repairs on these vehicles. Kleinfelder observed several stockpiles of wood chips and soil and concrete debris during the site visit.

Paintball Jungle Area (East):
This area is currently occupied by paintball games operated under the name Paintball Jungle. According to permitting records, paintball operations have occurred at the site

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since at least 1990. Prior to paintball operations, the majority of this area was occupied by junked cars, vehicles, drums, containers, trash, and other debris.

Animal Pens Area:
This area is currently occupied by animals including horses, roosters, and hens. The Couch family reportedly rents stalls and pens for horse boarding. Several vehicles were observed in this area as well as various storage containers. Kleinfelder did not have interior access to this portion of the site so observations were made from the perimeter fence. This area was reported to be occupied by various animals and was the site of illegal animal fighting activities.

Couch Residential Area:
This area is currently occupied by one member of the Couch family who lives on the property in a reportedly unpermitted dwelling. Kleinfelder observed at least 10 vehicles and hundreds of other pieces of equipment, various containers of paints, transmission oil, motor oils, areas of dumped garbage, three unpermitted wells, several large containers including tanks, tanks on wheels, structures, locked storage containers or structures that Kleinfelder could not access, and various debris. Previously, this area reportedly contained over 150 vehicles, hundreds of tires, additional structures occupied by other members of the Couch Family and possibly additional renters, and many widespread areas of debris.

Kleinfelder reviewed various documentation related to the 1993 court-ordered cleanup. This area of the site contained drums that were sampled by Catherine Moody of NCDEM and found to be either diesel or phenols which Robert Couch and David Couch reportedly described as “cresol.” Various subsequent court documents describe cleanup activities at the site and provide copies of household waste disposal at Devlin Road landfill in American Canyon (a Class III municipal landfill), tire disposal at a recycler, scrap metal at a recycler, and junked car removal and disposal. The documents do not include manifests for the hazardous materials found to be within drums, fluids from vehicles, and contents of small containers. These materials, if disposed of properly, would have been disposed of at the fire department or a Class II landfill by a certified waste hauler. However, Kleinfelder searched the DTSC and Cal-EPA database to obtain records of a possible RCRA generator ID number (required on

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the waste manifest for hazardous materials) and no RCRA ID number was found for the Couch Family. A RCRA ID was found for paintball operations only.

Concentrated Area:

This area was identified and labeled by Napa County investigators during previous investigations and information gathering. This area is currently occupied by a chain-link fence, wooden garage door barrier, outhouse, boat, boat trailer, and camper trailer. This area previously was occupied by various renters and reportedly was the site of an additional illegal methamphetamine lab, which was reportedly removed by the Napa County Sheriff's Department in approximately 2000.

Sherwood Forest Paintball Area:

This area, located on the northwest corner of the property, appears to be currently occupied by paintball operations, formerly operated under the name "Sherwood Forest" paintball. Kleinfelder is not sure whether this company still operates this portion of the site, or whether this area is used by Paintball Jungle. Kleinfelder observed several small structures in this area including an enclosure for CO_2 compressed gas containers, a pickup truck, and a wood chipping machine. This area previously was reported to be the "cleared area" and possible location of an outdoor fireplace. According to Keith Caldwell, this area reportedly was a location where drums may have been buried.

North Slough Creek (within Sherwood Forest Paintball Area):

A creek, which appears to drain southwest to the Napa River, is located on the northwest corner of the property near the site boundary. A rock and soil pile was observed along the eastern bank of the creek. It was reported to Kleinfelder by Mr. Michael Johnson that a concern exists regarding the runoff within the creek, which was based on a reported surface water quality violation that was issued to the adjacent American Canyon Wastewater treatment plant. According to Mr. Johnson, the wastewater treatment plant was concerned that the source for pollutants in the creek was the Couch Property. Kleinfelder has not seen a copy of the complaint or the results of any sampling or analysis that may have been performed.

Paintball Jungle Area (West):

This area, which comprises the majority of the area west of unpaved Commerce Blvd, was previously and now is currently used for paintball games. Several structures

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constructed of wood and 55-gallon drums were observed as well as two outhouses. Minor dumping was reported along the roadside but no residences or tenants occupied this area.

8.2 OTHER ISSUES

In addition, while not considered by definition to be RECs, the following other environmental conditions were revealed that could affect the subject site:

- A septic system exists at the subject site. The purpose of the septic system is to receive domestic sewage. If future construction activities encounter the septic system or the system is no longer in use, the system must be abandoned in accordance with applicable local permitting requirements and regulations.
- Although asbestos and lead is specifically excluded from the Phase I standards, Kleinfelder recommends that all structures be surveyed prior to demolition in compliance with EPA, Bay Area Air Quality Control Management District, and Napa County Building Department rules and regulations.
- Three wells were observed at the site. If these wells are no longer in use, they must be abandoned in accordance with applicable federal, state, and local regulations.
- A complaint and possible violation reportedly occurred related to waters of the creek, located on the property in the northwest corner. The City of American Canyon Water Treatment Facility was reportedly concerned by the possibility of source material leaching into the creek from materials on the Couch property.

8.3 DEVIATIONS AND ADDITIONAL SERVICES

The scope of this ESA does not incorporate ASTM Standard non-scope considerations, such as asbestos/lead-based paint, radon, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

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8.4 CONCLUSIONS AND RECOMMENDATIONS

Kleinfelder's Phase I ESA of the subject site revealed the following current and historic RECs associated with the site.

- There is ample evidence that residual petroleum hydrocarbons, solvents, and certain metals may have been released in shallow soil throughout the eastern portion (Hurst Firewood, Paintball Jungle (East), Animal Pens, and Couch Residential areas) of the site as well as within the western portion (Concentrated Area, Sherwood Forest Paintball and North Slough Creek area) of the site. These petroleum hydrocarbons were likely surface spills and dumping related to the storage of hundreds of pieces of equipment, at least 150 vehicles, areas of the site occupied by the current owner and areas rented to tenants, and areas of dumping.

- The majority of the site is currently used for paintball games. Depending on where the paintballs were manufactured, it is possible that paint within paintballs may have contained lead and was released to soil.

Based on Kleinfelder's review of the 1990 and 1991 inspections, 1993 court judgment and cleanup order and related photographs, aerial photograph from 2002, and recent site visit, Kleinfelder recommends the following investigations:

- Each of the three wells should be sampled for water quality and presence of various constituents. These wells appear to be unpermitted and should be abandoned properly in compliance with Federal, State, and local regulations.

- A soil and groundwater investigation should be conducted within each area of the site to assess the extent of chemical constituents of concern in the soil and groundwater including, but not limited to, petroleum hydrocarbons, metals, and volatile organic compounds.

- Surface water and sediment should be sampled within the creek to assess the presence of leached materials that may travel off-site within creek runoff.

- The septic tank should be abandoned in accordance with applicable regulations, if no longer in use.

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- A pre-demolition asbestos survey should be conducted in accordance with Federal, state, and local regulations.

8.4.1 Data Gaps

Although Kleinfelder attempted to obtain reasonably ascertainable information regarding the Site, some information was either not received or not readily available at the time of this report. Therefore, consistent with ASTM Standard E1527-05, the following data failures (data gaps) have been identified.

- Kleinfelder was not granted an interview with the current property owner.
- Kleinfelder was not granted an interview with the current site resident.
- Kleinfelder was not able to access the interior of the animal pens.
- Kleinfelder did not enter the interior of any locked vehicles, structure, or the dwelling.

Based on a review of the data gaps presented above, it is Kleinfelder's opinion that the data failure is not likely to have affected the identification of additional recognized environmental conditions at the site.

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9. REFERENCES

1. Environmental Data Resources, Radius Map Report, Couch Property, 2 Eucalyptus Drive, American Canyon, CA 94503.

2. Environmental Data Resources, Couch Property, 2 Eucalyptus Drive, American Canyon, CA 94503.

3. State of California – Department of Conservation, Division of Oil, Gas, and Geothermal Resources. (ftp://ftp.consrv.ca.gov/pub/oil/maps/Dist6/W6-1/MapW6-1.pdf)

4. Geologic Map and Map Database of Northeastern San Francisco Bay Region, Graymer, Jones, and Brabb, USGS, 2002, scale 1:100,000.

5. Topographic Map, Cuttings Wharf Quadrangle, 1949 photorevised 1981 (1 inch = 2,000 feet).

6. Soil Survey of Napa County, California, United States Department of Agriculture, Soil Conservation Service, 1978. (http://www.ca.nrcs.usda.gov/mlra02/napa/)

Other documents used in the preparation of this report are referenced within the report text.

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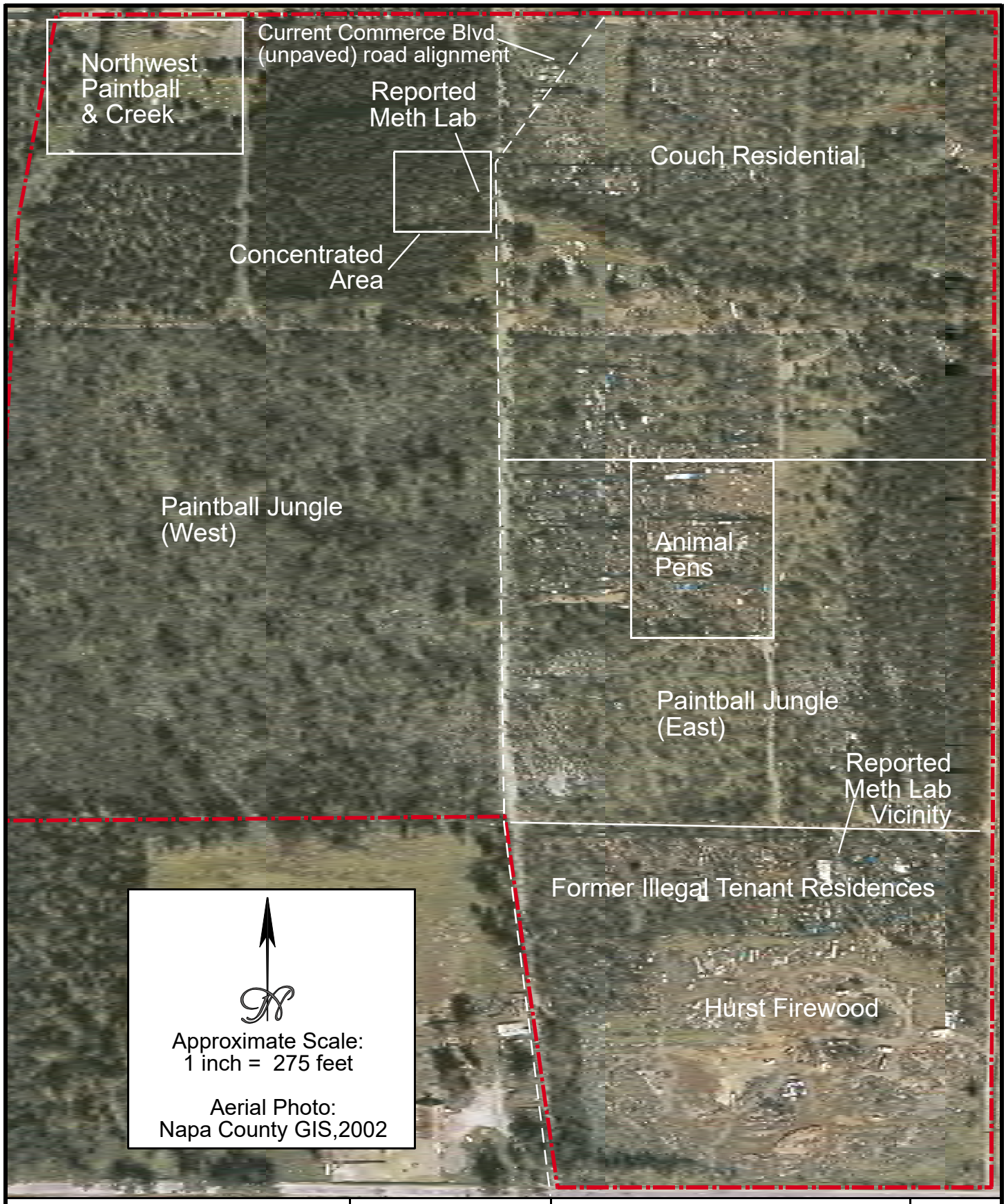

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Graphic By: S. Kalika	
Checked By: S. Kalika	
File Name: area_bound.fh11	

SITEPLAN
AREA BOUNDARIES
2002 AERIAL PHOTO

COUCH PROPERTY
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

Plate
2

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ICES
Innovative & Creative
Environmental Solutions

April 19, 2010 ICES 7011

Mr. Michael Mochizuki
American Canyon Flatland Company
7674 North Woodson Avenue
Fresno, California 93711

Subject: Limited Site Investigation
2 Eucalyptus Drive
American Canyon, California

Dear Michael:

Enclosed is the Limited Site Investigation Report documenting the soil sampling that was conducted by Innovative and Creative Environmental Solutions at 2 Eucalyptus Drive in American Canyon, California.

If you have any questions or comments concerning this report, please call Derek Wong or me.

Sincerely,

Peng Leong
Principal Engineer

Enclosure

Tel (510) 652-3222
Fax (510) 652-3555

3300 Powell Street
Suite #109
Emeryville, CA
94608

LIMITED SITE INVESTIGATION

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

April 19, 2010

ICES 7011

Prepared for:

Mr. Michael Mochizuki
American Canyon Flat Land Company
7674 North Woodson Avenue
Fresno, California 93711

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ICES

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April 19, 2010 ICES 7011

LIMITED SITE INVESTIGATION

2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

1.0 INTRODUCTION

This report presents the findings of the Limited Site Investigation that was conducted by Innovative and Creative Environmental Solutions (ICES) at the Hurst Firewood Area and the Paint Ball Jungle (West) located within 2 Eucalyptus Drive in American Canyon, California. ("the Site"; Figure 1).

The purpose of the investigation was to address the recommendations proposed in Kleinfelder's Phase I Environmental Site Assessment (ESA) report dated December 22, 2009 for parcels located within the Site. The investigation was limited to collecting soil samples from the shallow surface sediments within the Site and analyzing the samples for total petroleum hydrocarbons (TPH) as gasoline (TPHg); TPH as diesel (TPHd); TPH as motor oil (TPHmo); volatile organic compounds (VOCs); and metals.

2.0 SITE DESCRIPTION

The Site is located on the north side of Eucalyptus Drive and is within the legal jurisdiction of the City of American Canyon, in conjunction with Napa County and the State of California.

The Hurst Firewood Area is located adjacent to and north of Eucalyptus Drive. The Hurst Firewood Area consists of an approximately rectangular parcel covering an area of approximately 15.7 acres. The area is used as a storage yard and for cutting eucalyptus trees into firewood for sale.

The Paintball Jungle (West) is located northwest of the Hurst Firewood Area and is occupied by a eucalyptus grove covering an area of approximately 47.04 acres. The area is currently used

for paintball games.

3.0 BACKGROUND

Historically, the Site has been a eucalyptus grove. The Site has had numerous uses over the years, including reportedly illegal uses such as methamphetamine labs, hazardous waste storage, and temporary residential shelters. Currently, the southeastern portion of the Site is used as a storage yard and for cutting eucalyptus trees into firewood. Paint ball fields are located at the western portion of the Site.

A Phase I ESA was conducted by Environmental Science Associates of Sacramento, California in October 2004 for the Site and neighboring parcels. Environmental Science Associates' assessment revealed that there was past and present undocumented and illegal storage of hazardous materials and waste at the Hurst Firewood Area. Additionally, Environmental Science Associates reported that a large amount of soil containing some type of oil was deposited at the Hurst Firewood Area in the 1970s for a motorcycle track. A site investigation was recommended based on their findings.

Kleinfelder of Fairfield, California performed a Phase II Site Investigation in March through May 2005 for the Site and adjacent parcels. Soil samples were collected from sixteen sample locations and selectively analyzed for petroleum hydrocarbon constituents, polynuclear aromatic hydrocarbons (PAHs), total coliform, ecoli, pesticides, and metals. Laboratory analytical results of the soil samples indicated non-detectable concentrations of PAHs, total coliform, ecoli, and pesticides; and low to non-detectable concentrations of petroleum hydrocarbons. The metal concentrations detected in the soil samples were generally below the Regional Water Quality Control Boards Environmental Screening Levels (ESLs, where groundwater is a current or potential source of drinking water) for residential landuse, with the exception of arsenic, chromium, and vanadium. Arsenic, chromium, and vanadium concentrations which were at or above their respective residential ESLs were encountered in the surficial soil at the neighboring parcel, located directly north and east of the Site.

ICES conducted a Phase I ESA for the Site and neighboring parcels in March 2006. Based on the findings of the Phase I ESA, ICES recommended that a supplementary investigation be conducted at the Site.

A supplementary site investigation was performed by ICES in March 2006 for the Site and neighboring parcels. Laboratory analytical results indicated that soil samples collected from the Paintball Jungle (West) contained non-detectable concentrations of organochlorine pesticides; and concentrations of arsenic, chromium, lead, and mercury which were within typical background levels and also below their respective residential ESLs, with the exception of arsenic. Arsenic concentrations encountered in the soil samples exceeded the previous residential ESL of 5.5 mg/kg but were below the upper background range of 12 mg/kg. Results of the soil samples that were collected from the Hurst Firewood Area indicated non-detectable concentrations of SVOCs; and non-detectable to low concentrations of TPHd and TPHmo. The detectable TPHd and TPHmo contained in the soil samples were below the previous residential ESLs of 100 mg/kg and 500 mg/kg, respectively. Lead concentrations contained in the samples were within background levels and below the previous residential ESL of 150 mg/kg. Concentrations of arsenic, chromium, and vanadium contained in the soil samples collected from the neighboring parcel, located north and east of the Site, were within typical background levels and generally below their respective residential ESLs, with the exception of arsenic. Arsenic concentrations in nineteen of the twenty soil samples were above the residential ESL but at or below the upper bound of background range of 12 mg/kg.

Kleinfelder prepared an updated Phase I ESA for the Site and neighboring parcels in December 2009. Based on their findings, Kleinfelder recommended that a supplementary site investigation be performed.

4.0 LIMITED SITE INVESTIGATION

ICES collected soil samples on March 25, 2010. A total of eight soil samples were collected from eight sample locations. Samples TP-1 through TP-4 were collected within the Paintball Jungle (West) and samples TP-5 through TP-8 were collected at the Hurst Firewood Area. The approximate sample locations are shown in Figure 2.

Soil samples were collected from the shallow surficial soil at a depth of approximately 6 to 9 inches below the existing ground surface (bgs) by driving a precleaned brass tube into the floor of the shallow test pits.

After being sealed and labeled, the soil samples were immediately

placed in a chilled cooler containing crushed ice for transportation to the laboratory. Proper documentation and field chain-of-custody procedures were followed.

All equipment used during this investigation which might have come into contact with contaminated materials was thoroughly decontaminated before and after each use. This was accomplished by washing with Alconox (a laboratory-grade detergent) and rinsing with deionized or distilled water.

5.0 LABORATORY ANALYSIS

The soil samples were sent to McCampbell Analytical, Inc. of Pittsburg, California, a state-certified laboratory, and analyzed for:

- TPHg, TPHd, and TPHmo using EPA Method 8015B;
- VOCs using EPA Method 8260B; and
- CAM 17 Metals using EPA Method 6020A.

The samples were analyzed on a normal turnaround basis.

6.0 INVESTIGATION RESULTS

The laboratory analytical results are presented below and summarized in Tables 1 and 2. Laboratory certificates are included in Appendix A.

6.1 Laboratory Analytical Results

Analysis of the surficial soil samples indicated that:

Petroleum Hydrocarbons

- TPHg concentrations ranged from less than 1.0 mg/kg (not detected) to 2.6 mg/kg.
- TPHd concentrations ranged from 28 mg/kg to 160 mg/kg.
- TPHmo concentrations ranged from 28 mg/kg to 830 mg/kg.

Volatile Organic Compounds

- Acetone concentrations ranged from less than 0.05 mg/kg (not detected) to 0.066 mg/kg.
- 4-Isopropyl toluene concentrations ranged from less than 0.005 mg/kg (not detected) to 0.017 mg/kg.
- The remaining volatile organic compounds analyzed using EPA Method 8260B were below their respective detection limits.

Metals

- Antimony concentrations ranged from less than 0.5 mg/kg (not detected) to 1.1 mg/kg.
- Arsenic concentrations ranged from 4.9 mg/kg to 10 mg/kg.
- Barium concentrations ranged from 93 mg/kg to 500 mg/kg.
- Beryllium concentrations ranged from less than 0.5 mg/kg (not detected) to 0.60 mg/kg.
- Cadmium concentrations ranged from less than 0.25 mg/kg (not detected) to 0.43 mg/kg.
- Chromium concentrations ranged from 26 mg/kg to 40 mg/kg.
- Cobalt concentrations ranged from 5.5 mg/kg to 32 mg/kg.
- Copper concentrations ranged from 21 mg/kg to 50 mg/kg.
- Lead concentrations ranged from 19 mg/kg to 54 mg/kg.
- Mercury concentrations ranged from less than 0.05 mg/kg (not detected) to 0.29 mg/kg.
- Molybdenum concentrations ranged from less than 0.5 mg/kg (not detected) to 13 mg/kg.
- Nickel concentrations ranged from 27 mg/kg to 37 mg/kg.
- Selenium concentrations were less than 0.5 mg/kg (not detected).

- Silver concentrations were less than 0.5 mg/kg (not detected).
- Thallium concentrations were less than 0.5 mg/kg (not detected).
- Vanadium concentrations ranged from 25 mg/kg to 75 mg/kg.
- Zinc concentrations ranged from 34 mg/kg to 240 mg/kg.

7.0 DISCUSSION

Results of the soil samples collected from Paintball Jungle (West) indicated non-detectable to low concentrations of TPHg, TPHd, TPHmo, and VOCs. The detectable TPHg, TPHd, TPHmo, and VOCs detected in soil samples TP-1 through TP-4 were generally below their residential ESLs with the exception of sample TP-2. The TPHd contained in sample TP-2 of 160 mg/kg exceeded the residential ESL of 83 mg/kg. McCampbell Analytical, Inc. reported that oil range compounds were significant in sample TP-2. Based on the location of sample TP-2 within the eucalyptus grove, it appears that the elevated TPHd detected in the sample maybe the result of natural oil compounds from the eucalyptus trees.

Laboratory analytical results indicated that the samples collected from the Hurst Firewood Area contained non-detectable concentrations of TPHg; and detectable concentrations of TPHd and TPHmo. The detectable TPHd and TPHmo contained in samples TP-5 through TP-8 were generally below their respective residential ESLs with the exception of sample TP-8 (located at the southern portion of the area). Sample TP-8 contained TPHd and TPHmo concentrations of 140 mg/kg and 830 mg/kg which were above their respective residential ESLs of 83 mg/kg and 370 mg/kg.

Metal concentrations contained in the eight samples were generally within background levels and below their respective residential ESLs with the exception of arsenic and vanadium. Arsenic and vanadium concentrations in the soil samples were above their respective residential ESLs of 0.39 mg/kg and 16 mg/kg but within background levels.

Based on the findings of this and the previous investigations, it appears that the surficial soil within the Site has generally not been impacted by previous activities. The petroleum hydrocarbons encountered at the southern portion of the Hurst Firewood appears

to be limited to the surficial sediments within a low area at the entrance to the Hurst Firewood yard. The likely source of the petroleum hydrocarbons is from drips and leaks from the heavy equipment that were formerly used to handle the eucalyptus trees and associated firewood.

8.0 EXCLUSIONS

ICES assumes no responsibility or liability for the reliance hereon or use hereof of information contained in this report by anyone other than the party to whom it is addressed.

The evaluations and recommendations presented in this report are based on the limited site investigation results available at this time and could be revised if new information necessitating further review of the Site becomes available.

ICES

TABLE 1
SOIL SAMPLE RESULTS - PETROLEUM HYDROCARBONS AND VOCs
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

Sample ID	Depth (inches)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	Acetone (mg/kg)	4-Isopropyl toluene (mg/kg)	VOCs (mg/kg)
PAINTBALL JUNGLE (WEST)							
TP-1	6-9	<1.0	74	260	<0.05	<0.005	<0.005-0.1
TP-2	6-9	2.6	160	170	<0.05	0.0078	<0.005-0.1
TP-3	6-9	2.5	75	67	<0.05	<0.005	<0.005-0.1
TP-4	6-9	<1.0	28	28	<0.05	<0.005	<0.005-0.1
HURST FIREWOOD AREA							
TP-5	6-9	<1.0	62	54	0.066	0.017	<0.005-0.1
TP-6	6-9	<1.0	46	250	<0.05	<0.005	<0.005-0.1
TP-7	6-9	<1.0	53	140	0.061	<0.005	<0.005-0.1
TP-8	6-9	<1.0	140	830	<0.05	<0.005	<0.005-0.1
Residential ESL (1)		83.0	83.0	370.0	0.5	NE	---

Notes:
1. Shallow soils (<3m bgs), where groundwater is a current or potential source of drinking water.
NE = Not Established

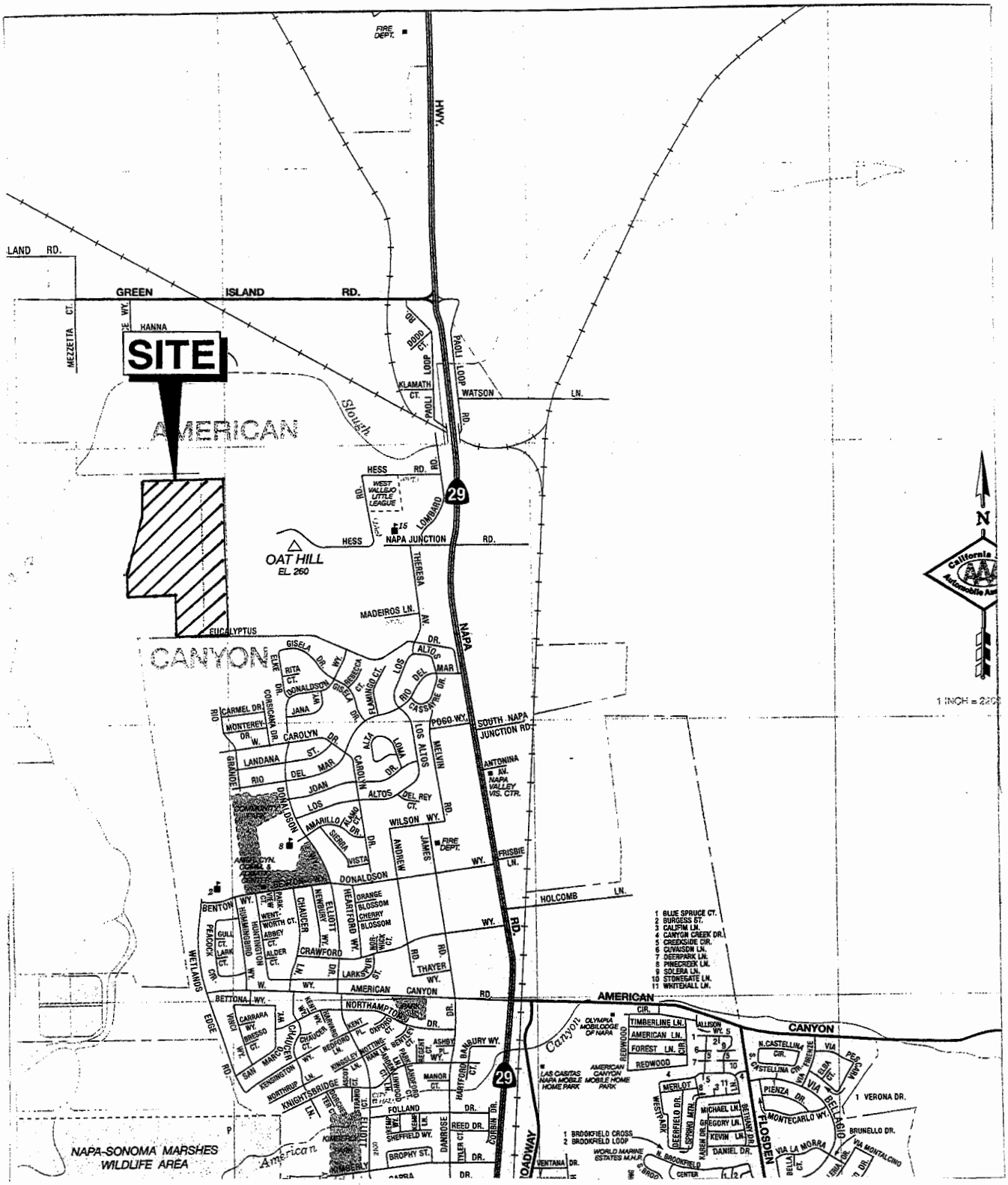
TABLE 2
SOIL SAMPLE RESULTS - METALS
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA

Sample ID	Depth (inches)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
PAINTBALL JUNGLE (WEST)																		
TP-1	6-9	<0.5	7.9	500	<0.5	0.29	27	29	26	22	0.071	0.55	36	<0.5	<0.5	<0.5	52	65
TP-2	6-9	0.74	8.8	350	<0.5	0.29	26	32	21	23	0.28	0.52	27	<0.5	<0.5	<0.5	46	34
TP-3	6-9	0.76	8.8	210	0.58	<0.25	38	8.6	30	22	0.074	<0.5	27	<0.5	<0.5	<0.5	63	52
TP-4	6-9	0.87	10	330	0.60	0.30	35	31	31	22	0.059	0.73	37	<0.5	<0.5	<0.5	65	62
HURST FIREWOOD AREA																		
TP-5	6-9	0.72	7.8	220	<0.5	<0.25	30	14	25	19	<0.05	<0.5	27	<0.5	<0.5	<0.5	52	42
TP-6	6-9	<0.5	6.1	120	<0.5	0.43	29	11	41	29	0.29	0.75	36	<0.5	<0.5	<0.5	71	85
TP-7	6-9	1.1	4.9	93	<0.5	0.29	40	5.5	50	54	0.28	13	27	<0.5	<0.5	<0.5	25	240
TP-8	6-9	0.91	9.6	120	0.50	<0.25	32	14	43	46	0.096	1.2	31	<0.5	<0.5	<0.5	75	110
Residential ESL (1)		6.3	0.39	750	4.0	1.7	NE	40	230	200	1.3	40	150	10	20	1.3	16	600

Notes:

1. Shallow soils (<3m bgs), where groundwater is a current or potential source of drinking water.

NE = Not Established



MAP SOURCE : CSAA

Scale: 1" : 2200'	April 2010

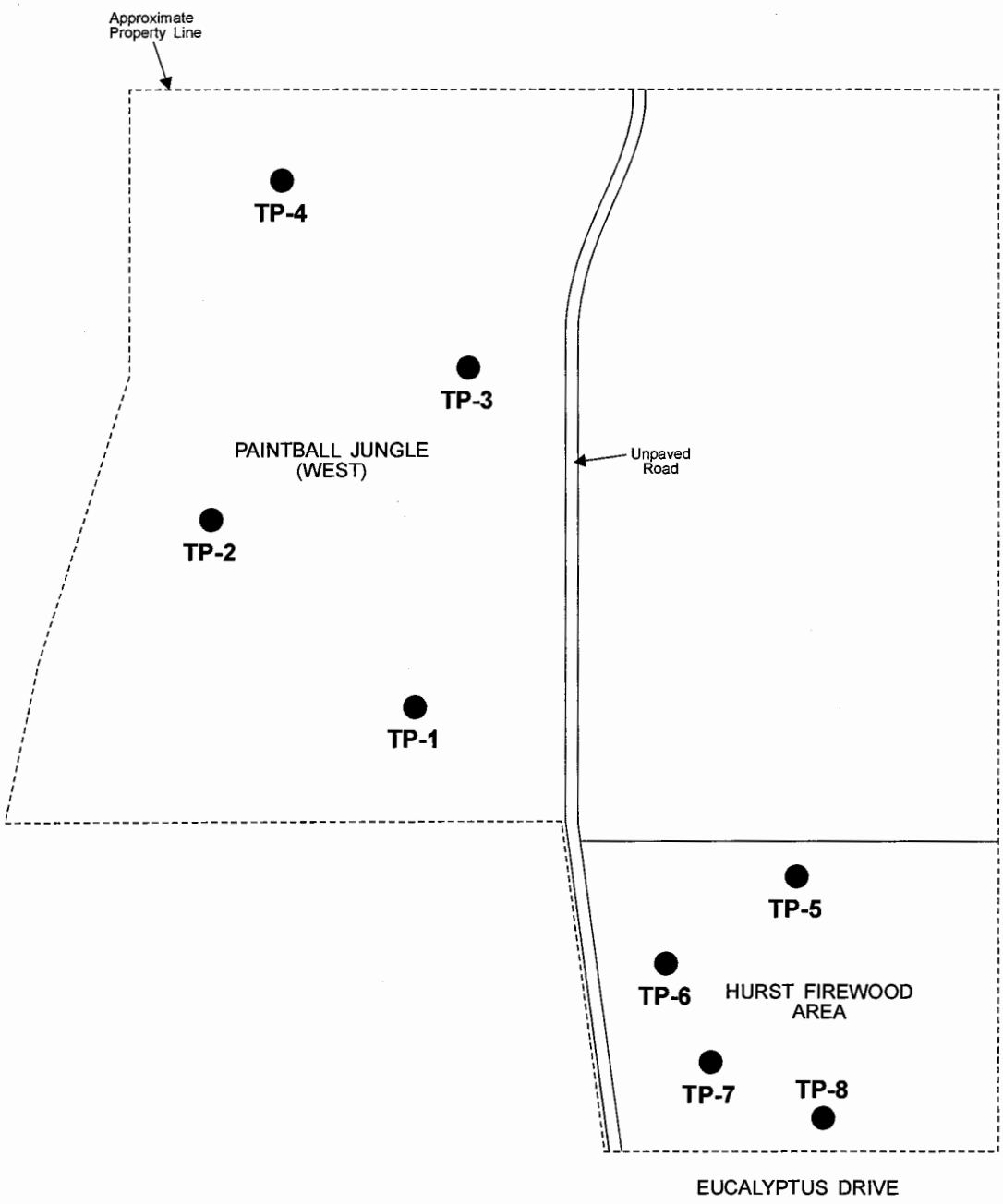
Innovative & Creative Environmental Solutions

SITE LOCATION

2 Eucalyptus Drive
American Canyon, California

Figure 1

Project 7011



N

EXPLANATION:

TP-1 Sample Location

Not-to-Scale	April 2010

ICES
Innovative & Creative Environmental Solutions

SAMPLE LOCATIONS

2 Eucalyptus Drive
American Canyon, California

Figure 2

Project 7011

APPENDIX A

LABORATORY CERTIFICATES

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/27/10-04/02/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B Analytical methods SW8015Bm Work Order: 1003757

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	TP-1	S	ND	1	81	
002A	TP-2	S	2.6	1	83	d9
003A	TP-3	S	2.5	1	80	d9
004A	TP-4	S	ND	1	86	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/31/10

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3550C Analytical methods: SW8015B Work Order: 1003757

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1003757-001A	TP-1	S	74	260	20	93	e7,e2
1003757-002A	TP-2	S	160	170	2	109	e7,e2
1003757-003A	TP-3	S	75	67	2	112	e2,e7
1003757-004A	TP-4	S	28	28	1	102	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-001A
Client ID	TP-1
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	100	%SS2:	121
%SS3:	117		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

McCampbell Analytical, Inc.
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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-002A
Client ID	TP-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	0.0078	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	101	%SS2:	121
%SS3:	116		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/27/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-003A
Client ID	TP-3
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	101	%SS2:	122
%SS3:	119		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/29/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003757

Lab ID	1003757-004A
Client ID	TP-4
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	109	%SS2:	116
%SS3:	86		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/30/10-04/02/10

CAM / CCR 17 Metals*

Lab ID	1003757-001A	1003757-002A	1003757-003A	1003757-004A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	TP-1	TP-2	TP-3	TP-4		
Matrix	S	S	S	S	S	W
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 1003757

Dilution Factor	1	1	1	1	1	1
Antimony	ND	0.74	0.76	0.87	0.5	NA
Arsenic	7.9	8.8	8.8	10	0.5	NA
Barium	500	350	210	330	5.0	NA
Beryllium	ND	ND	0.58	0.60	0.5	NA
Cadmium	0.29	0.29	ND	0.30	0.25	NA
Chromium	27	26	38	35	0.5	NA
Cobalt	29	32	8.6	31	0.5	NA
Copper	26	21	30	31	0.5	NA
Lead	22	23	22	22	0.5	NA
Mercury	0.071	0.28	0.074	0.059	0.05	NA
Molybdenum	0.55	0.52	ND	0.73	0.5	NA
Nickel	36	27	27	37	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	ND	ND	ND	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	52	46	63	65	0.5	NA
Zinc	65	34	52	62	5.0	NA
%SS:	101	98	115	120		

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 49547 | WorkOrder 1003757

EPA Method SW8015Bm | **Extraction SW5030B** | **Spiked Sample ID: 1003758-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	109	107	2.40	119	110	7.17	70 - 130	20	70 - 130	20
MTBE	ND	0.10	92.2	86.6	6.35	85.7	88.7	3.51	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	98.6	2.92	95	97.4	2.42	70 - 130	20	70 - 130	20
Toluene	ND	0.10	103	102	1.27	99.5	100	0.923	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	105	1.74	103	102	0.535	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	105	105	0	106	105	0.404	70 - 130	20	70 - 130	20
%SS:	87	0.10	108	109	1.12	106	108	2.63	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49547 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	04/02/10 1:16 PM	1003757-002A	03/25/10	03/26/10	03/31/10 9:00 PM
1003757-003A	03/25/10	03/26/10	04/02/10 1:58 PM	1003757-004A	03/25/10	03/26/10	03/27/10 7:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49546 WorkOrder 1003757

EPA Method SW8015B **Extraction SW3550C** **Spiked Sample ID: 1003757-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	28	40	107	115	4.22	104	103	0.684	70 - 130	30	70 - 130	30
%SS:	102	25	102	105	2.93	97	97	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49546 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	03/31/10 1:27 PM	1003757-002A	03/25/10	03/26/10	03/31/10 7:53 PM
1003757-003A	03/25/10	03/26/10	03/31/10 6:45 PM	1003757-004A	03/25/10	03/26/10	03/31/10 11:17 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49537 WorkOrder 1003757

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 1003735-008A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	79.8	80.3	0.577	80.8	81.3	0.620	70 - 130	30	70 - 130	30
Benzene	ND	0.050	116	118	1.62	115	117	1.21	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	79.5	90.9	13.4	81.2	103	23.2	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	113	113	0	115	113	2.00	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	87.6	90.5	3.25	90.8	87.1	4.20	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	97	94.9	2.25	94.7	101	6.52	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	121	116	3.60	119	116	1.84	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	105	105	0	106	107	0.908	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	79	79	0	82.1	80.7	1.82	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	89.8	1.18	88.1	90.7	2.91	70 - 130	30	70 - 130	30
Toluene	ND	0.050	102	104	2.15	110	106	3.14	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	109	108	0.883	109	107	1.11	70 - 130	30	70 - 130	30
%SS1:	100	0.13	91	93	1.34	93	94	1.32	70 - 130	30	70 - 130	30
%SS2:	121	0.13	104	108	3.57	107	104	2.54	70 - 130	30	70 - 130	30
%SS3:	119	0.013	98	101	3.01	99	108	8.46	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49537 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	03/27/10 1:46 AM	1003757-002A	03/25/10	03/26/10	03/27/10 2:24 AM
1003757-003A	03/25/10	03/26/10	03/27/10 3:02 AM	1003757-004A	03/25/10	03/26/10	03/29/10 4:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 1003757

EPA Method 6020A	Extraction SW3050B					BatchID: 49548			Spiked Sample ID: 1003757-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Antimony	0.87	50	105	105	0	10	103	104	1.45	75 - 125	20	75 - 125	20
Arsenic	10	50	95.6	97.8	1.84	10	101	102	0.990	75 - 125	20	75 - 125	20
Barium	330	500	93.2	95.3	1.28	100	101	103	1.47	75 - 125	20	75 - 125	20
Beryllium	0.60	50	97.9	98.8	0.924	10	107	106	0.469	75 - 125	20	75 - 125	20
Cadmium	0.30	50	100	102	1.81	10	103	105	1.64	75 - 125	20	75 - 125	20
Chromium	35	50	84.2	87.7	2.25	10	101	102	0.296	75 - 125	20	75 - 125	20
Cobalt	31	50	89	89.9	0.596	10	101	102	0.295	75 - 125	20	75 - 125	20
Copper	31	50	93	95.2	1.42	10	108	105	2.73	75 - 125	20	75 - 125	20
Lead	22	50	91.7	93.5	1.31	10	101	101	0	75 - 125	20	75 - 125	20
Mercury	0.059	1.25	99.9	103	2.79	0.25	104	104	0	75 - 125	20	75 - 125	20
Molybdenum	0.73	50	101	102	0.858	10	99.8	101	0.858	75 - 125	20	75 - 125	20
Nickel	37	50	89.7	93.7	2.40	10	104	105	1.06	75 - 125	20	75 - 125	20
Selenium	ND	50	96.6	99.2	2.61	10	98.1	98.2	0.163	75 - 125	20	75 - 125	20
Silver	ND	50	98.8	100	1.19	10	104	104	0	75 - 125	20	75 - 125	20
Thallium	ND	50	96.6	97.9	1.27	10	98.7	98.8	0.111	75 - 125	20	75 - 125	20
Vanadium	65	50	NR	NR	NR	10	102	102	0	75 - 125	20	75 - 125	20
Zinc	62	500	101	103	1.77	100	106	106	0	75 - 125	20	75 - 125	20
%SS:	120	250	103	104	1.50	250	101	102	0.865	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49548 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003757-001A	03/25/10	03/26/10	04/02/10 12:50 AM	1003757-001A	03/25/10	03/26/10	04/02/10 2:42 PM
1003757-002A	03/25/10	03/26/10	03/30/10 1:19 AM	1003757-002A	03/25/10	03/26/10	03/31/10 10:37 PM
1003757-003A	03/25/10	03/26/10	03/30/10 1:54 AM	1003757-004A	03/25/10	03/26/10	03/30/10 2:12 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

1003757

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

Report To: Peng Leong Bill To: Same

Company: ICES
P.O. Box 99288
Emeryville, CA 94662 E-Mail: derek_ices@yahoo.com
Tele: (510) 652-3222 Fax: (510) 652-3555
Project #: Ices Toil Project Name:
Project Location: 2 Eucalyptus - Paintball Jungle (West)
Sampler Signature: Derek

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
TP-1		3-25-10		1			✓				✓			
TP-2				1			✓				✓			
TP-3				1			✓				✓			
TP-4		↓		1			✓				✓			

Analysis Request

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Other	Other	Comments
✓		✓								✓			✓						Filter Samples for Metals analysis: Yes / No
✓		✓								✓			✓						
✓		✓								✓			✓						
✓		✓								✓			✓						

Relinquished By:	Date:	Time:	Received By:
Derek Wan	3/26/10	1500	
Relinquished By:	Date:	Time:	Received By:
	3/26/10	1925	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.8
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS 1
PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1003757 **ClientCode: ICES**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Peng Leong
ICES
P.O. Box 99288
Emeryville, CA 94662
(510) 652-3222 FAX (510) 652-3555

Email: derek_ices@yahoo.com
cc:
PO:
ProjectNo: #ICES 7011; 2 Encalyptus-Paintball Jungle (West)

Bill to:
Accounts Payable
ICES
P.O. Box 99288
Emeryville, CA 94662

Requested TAT: 5 days

Date Received: **03/26/2010**
Date Printed: **03/26/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1003757-001	TP-1	Soil	3/25/2010	☐	A	A	A									
1003757-002	TP-2	Soil	3/25/2010	☐	A	A	A									
1003757-003	TP-3	Soil	3/25/2010	☐	A	A	A									
1003757-004	TP-4	Soil	3/25/2010	☐	A	A	A									

Test Legend:

1	8260B_S	2	CAM17MS_S	3	G-MBTEX_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/27/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B Analytical methods SW8015Bm Work Order: 1003758

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	TP-5	S	ND	1	88	
002A	TP-6	S	ND	1	84	
003A	TP-7	S	ND	1	85	
004A	TP-8	S	ND	1	87	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 04/01/00-04/02/10

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3550C Analytical methods: SW8015B Work Order: 1003758

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1003758-001A	TP-5	S	62	54	1	108	e2,e7
1003758-002A	TP-6	S	46	250	20	80	e7,e2
1003758-003A	TP-7	S	53	140	2	110	e7,e2
1003758-004A	TP-8	S	140	830	50	102	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant

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Angela Rydelius, Lab Manager

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-001A
Client ID	TP-5
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.066	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	0.017	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	94	%SS2:	118
%SS3:	122		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-002A
Client ID	TP-6
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	93	%SS2:	118
%SS3:	122		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 03/30/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-003A
Client ID	TP-7
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.061	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	97	%SS2:	116
%SS3:	121		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
P.O. Box 99288		Date Received: 03/26/10
	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed: 04/01/10

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1003758

Lab ID	1003758-004A
Client ID	TP-8
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	104	%SS2:	111
%SS3:	123		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ICES	Client Project ID: #ICES 7011; 2 Encalyptus-Hurst Firewood	Date Sampled: 03/25/10
		Date Received: 03/26/10
P.O. Box 99288	Client Contact: Peng Leong	Date Extracted: 03/26/10
Emeryville, CA 94662	Client P.O.:	Date Analyzed 03/30/10-04/02/10

CAM / CCR 17 Metals*

Lab ID	1003758-001A	1003758-002A	1003758-003A	1003758-004A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	TP-5	TP-6	TP-7	TP-8		
Matrix	S	S	S	S	S	W
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 1003758

Dilution Factor	1	1	1	1	1	1
Antimony	0.72	ND	1.1	0.91	0.5	NA
Arsenic	7.8	6.1	4.9	9.6	0.5	NA
Barium	220	120	93	120	5.0	NA
Beryllium	ND	ND	ND	0.50	0.5	NA
Cadmium	ND	0.43	0.29	ND	0.25	NA
Chromium	30	29	40	32	0.5	NA
Cobalt	14	11	5.5	14	0.5	NA
Copper	25	41	50	43	0.5	NA
Lead	19	29	54	46	0.5	NA
Mercury	ND	0.29	0.28	0.096	0.05	NA
Molybdenum	ND	0.75	13	1.2	0.5	NA
Nickel	27	36	27	31	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	ND	ND	ND	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	52	71	25	75	0.5	NA
Zinc	42	85	240	110	5.0	NA
%SS:	108	104	120	114		

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49547 WorkOrder 1003758

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1003758-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	109	107	2.40	119	110	7.17	70 - 130	20	70 - 130	20
MTBE	ND	0.10	92.2	86.6	6.35	85.7	88.7	3.51	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	98.6	2.92	95	97.4	2.42	70 - 130	20	70 - 130	20
Toluene	ND	0.10	103	102	1.27	99.5	100	0.923	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	105	1.74	103	102	0.535	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	105	105	0	106	105	0.404	70 - 130	20	70 - 130	20
%SS:	87	0.10	108	109	1.12	106	108	2.63	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49547 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/27/10 2:27 PM	1003758-002A	03/25/10	03/26/10	03/27/10 2:58 PM
1003758-003A	03/25/10	03/26/10	03/27/10 3:28 PM	1003758-004A	03/25/10	03/26/10	03/27/10 8:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49546 WorkOrder 1003758

EPA Method SW8015B **Extraction SW3550C** **Spiked Sample ID: 1003757-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	28	40	107	115	4.22	104	103	0.684	70 - 130	30	70 - 130	30
%SS:	102	25	102	105	2.93	97	97	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49546 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	04/01/00 3:42 PM	1003758-002A	03/25/10	03/26/10	04/01/10 6:36 PM
1003758-003A	03/25/10	03/26/10	04/02/10 12:21 AM	1003758-004A	03/25/10	03/26/10	03/31/10 6:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 49537 WorkOrder 1003758

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 1003735-008A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	79.8	80.3	0.577	80.8	81.3	0.620	70 - 130	30	70 - 130	30
Benzene	ND	0.050	116	118	1.62	115	117	1.21	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	79.5	90.9	13.4	81.2	103	23.2	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	113	113	0	115	113	2.00	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	87.6	90.5	3.25	90.8	87.1	4.20	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	97	94.9	2.25	94.7	101	6.52	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	121	116	3.60	119	116	1.84	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	105	105	0	106	107	0.908	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	79	79	0	82.1	80.7	1.82	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	89.8	1.18	88.1	90.7	2.91	70 - 130	30	70 - 130	30
Toluene	ND	0.050	102	104	2.15	110	106	3.14	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	109	108	0.883	109	107	1.11	70 - 130	30	70 - 130	30
%SS1:	100	0.13	91	93	1.34	93	94	1.32	70 - 130	30	70 - 130	30
%SS2:	121	0.13	104	108	3.57	107	104	2.54	70 - 130	30	70 - 130	30
%SS3:	119	0.013	98	101	3.01	99	108	8.46	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49537 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/30/10 2:01 PM	1003758-002A	03/25/10	03/26/10	03/30/10 2:39 PM
1003758-003A	03/25/10	03/26/10	03/30/10 3:17 PM	1003758-004A	03/25/10	03/26/10	04/01/10 9:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 1003758

EPA Method 6020A			Extraction SW3050B			BatchID: 49548			Spiked Sample ID: 1003757-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Antimony	0.87	50	105	105	0	10	103	104	1.45	75 - 125	20	75 - 125	20
Arsenic	10	50	95.6	97.8	1.84	10	101	102	0.990	75 - 125	20	75 - 125	20
Barium	330	500	93.2	95.3	1.28	100	101	103	1.47	75 - 125	20	75 - 125	20
Beryllium	0.60	50	97.9	98.8	0.924	10	107	106	0.469	75 - 125	20	75 - 125	20
Cadmium	0.30	50	100	102	1.81	10	103	105	1.64	75 - 125	20	75 - 125	20
Chromium	35	50	84.2	87.7	2.25	10	101	102	0.296	75 - 125	20	75 - 125	20
Cobalt	31	50	89	89.9	0.596	10	101	102	0.295	75 - 125	20	75 - 125	20
Copper	31	50	93	95.2	1.42	10	108	105	2.73	75 - 125	20	75 - 125	20
Lead	22	50	91.7	93.5	1.31	10	101	101	0	75 - 125	20	75 - 125	20
Mercury	0.059	1.25	99.9	103	2.79	0.25	104	104	0	75 - 125	20	75 - 125	20
Molybdenum	0.73	50	101	102	0.858	10	99.8	101	0.858	75 - 125	20	75 - 125	20
Nickel	37	50	89.7	93.7	2.40	10	104	105	1.06	75 - 125	20	75 - 125	20
Selenium	ND	50	96.6	99.2	2.61	10	98.1	98.2	0.163	75 - 125	20	75 - 125	20
Silver	ND	50	98.8	100	1.19	10	104	104	0	75 - 125	20	75 - 125	20
Thallium	ND	50	96.6	97.9	1.27	10	98.7	98.8	0.111	75 - 125	20	75 - 125	20
Vanadium	65	50	NR	NR	NR	10	102	102	0	75 - 125	20	75 - 125	20
Zinc	62	500	101	103	1.77	100	106	106	0	75 - 125	20	75 - 125	20
%SS:	120	250	103	104	1.50	250	101	102	0.865	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 49548 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1003758-001A	03/25/10	03/26/10	03/30/10 6:18 AM	1003758-002A	03/25/10	03/26/10	04/02/10 1:08 AM
1003758-002A	03/25/10	03/26/10	04/02/10 2:48 PM	1003758-003A	03/25/10	03/26/10	04/02/10 1:16 AM
1003758-003A	03/25/10	03/26/10	04/02/10 2:53 PM	1003758-004A	03/25/10	03/26/10	03/30/10 2:47 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

1003758

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

Report To: Peng Leong	Bill To: Same
Company: ICES	
P.O. Box 99288	
Emeryville, CA 94662	E-Mail: derek_ices@yahoo.com
Tele: (510) 652-3222	Fax: (510) 652-3555
Project #: Ices 7011	Project Name:
Project Location: 2 Eucalyptus - Hurst Firewood	
Sampler Signature: Derek	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other	Analysis Request: MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
TP-5		3-25-10		1			✓				✓				✓		✓								✓			✓				Filter Samples for Metals analysis: Yes / No
TP-6		↓		1			✓				✓				✓		✓								✓			✓				
TP-7				1			✓				✓				✓		✓								✓			✓				
TP-8				1			✓				✓				✓		✓								✓			✓				

	Date:	Time:	Received By:
Relinquished By:	3-25-10	1650	
Relinquished By:	3-26-10	425	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.8
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1003758 **ClientCode: ICES**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Peng Leong
ICES
P.O. Box 99288
Emeryville, CA 94662
(510) 652-3222 FAX (510) 652-3555

Email: derek_ices@yahoo.com
cc:
PO:
ProjectNo: #ICES 7011; 2 Encalyptus-Hurst Firewood

Bill to:
Accounts Payable
ICES
P.O. Box 99288
Emeryville, CA 94662

Requested TAT: 5 days

Date Received: **03/26/2010**
Date Printed: **03/26/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1003758-001	TP-5	Soil	3/25/2010	☐	A	A	A									
1003758-002	TP-6	Soil	3/25/2010	☐	A	A	A									
1003758-003	TP-7	Soil	3/25/2010	☐	A	A	A									
1003758-004	TP-8	Soil	3/25/2010	☐	A	A	A									

Test Legend:

1	8260B_S	2	CAM17MS_S	3	G-MBTEX_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

APPENDIX I

RESUMES

Gyan L. Rusconi–Rodrigues

Project Scientist

Branch Location

- San Ramon, California

Education

- BS, Environmental Science, Biology Emphasis, University of California, Berkeley, 5/2016

Professional Registrations/ Certifications

- Registration, #Number, Date
- Registration, #Number, Date

Specialized Training

- CPR and AED Certification

ATC Start Date

- 8/2017

Gyan Rusconi-Rodrigues recently joined the ATC office in San Ramon as a Project Scientist. He will be assisting the Due Diligence Practice Group. Gyan has a background in environmental science, policy, and management with a focus in biology. He is proficient with Geographic Information Systems (GIS) and Global Positioning System (GPS) technologies. Gyan is fluent in Spanish and French and has served as a Spanish-English translator.

Areas of Expertise

- Phase I and II Site Assessment Services
- Construction Environmental Oversight
- Water Resource Management
- Geographic Information Systems (GIS)

Project Experience

Storesund Consulting/Engineering LLC – Kensington, CA

Project Support Specialist: Duties included writing permits, reading blueprints/project plans and specifications, GIS analyses and field surveying for water conservation and ecology restoration projects for trout unlimited, American Rivers, and San Mateo County Resources Conservation District. Also, performed RTK GPS surveys, Nuclear Compaction Testing, Ground Based LiDAR surveys, utilized Quantum GIS software, and created AutoCAD drawings.

Basic Environmental Inc. – Oakland, CA

Environmental Research Intern: Conducted Environmental Transaction Screens and Phase I site reviews for various clients. Reviewed files to identify sites with “known” or “potential” contamination and environmentally sensitive business activities on or adjacent of subject property. Additional duties included: environmental database searches, site reconnaissance, historical searches, interviews, and summarization of reports.

BRYAN CAMPBELL, PG, CHG
Branch Manager

PROFESSIONAL SUMMARY

Mr. Campbell is a dedicated consulting professional with more than 20 years of responsible and diverse experience with expertise in:

- Environmental Assessment
- Vapor Intrusion
- Cost Estimating
- Groundwater Remediation
- Soil Gas/Vapor Assessment
- Peer Reviews
- Hydrogeology
- Soil Remediation
- Project Management

His qualifications include program and project management, the preparation of cost estimates and proposals, fostering client relationships, budget management, staff mentorship and training, and technical/editorial review of deliverables.

Mr. Campbell has acted as the Senior Geologist in charge for sites impacted with hydrocarbons, solvents, metals, pesticides, MTBE, and Volatile and Semi-Volatile Organic Compounds. He has overseen a variety of investigations including:

- Site Assessments: Direct-Push (GeoProbe™), Auger, MIP/CPT and Sonic Methods
- Remediation System: Design of Groundwater, Soil Vapor, and Dual-Phase Systems
- Vapor Intrusion Surveys: Utilizing RWQCB and DTSC Guidelines
- Corrective Action Plans (CAP) and Site Conceptual Models (SCM)
- Aquifer Testing and Analysis / Natural Attenuation Analysis
- Groundwater and Unsaturated Zone Modeling

Mr. Campbell has extensive health and safety training which includes HAZWOPER, behavior-based safety, driver safety training, and others. He has served as a Director of Health and Safety and as a Safety Manager for company-wide and program-wide safety programs. Mr. Campbell has personally performed and overseen hundreds of field inspections and has been the lead investigator on near miss and incident investigations. He has trained and educated staff in safe work practices and implemented new safety policies and procedures company-wide.

He is adept at negotiating environmental solutions with regulators, attorneys and clients. He has performed senior review of technical documents as part of litigation support and financial auditing on complex environmental cases in support of the settlement of environmental claims.

PROJECT EXPERIENCE

- **Program Manager** Preparation of work scopes and cost estimates totalling $18 million for national assessment and remediation projects for sites located in California, Washington, Texas, and Colorado which were impacted with hydrocarbons, solvents, metals, and pesticides. Senior Project Manager for projects with major clients including Wells Fargo Bank, Bank of the West, and JP Morgan Chase.

- **Senior Geologist, Walnut Creek, California** Mentored and trained new staff including project level geologists and engineers as well as Project Managers. Educated staff in both basic and complex environmental consulting practices and procedures. Review of over 600 assessment and remediation reports. Managed advanced remediation projects including those with dual-phase extraction, soil vapor extraction, in-situ remediation, air sparging, and groundwater extraction. Provided cost estimating for entire project lifecycles from assessment to closure.

- **Vapor Intrusion Specialist** Advanced training and experience with vapor intrusion (VI) and considered to be the “go-to” person for VI. Performed vapor intrusion risk assessments using the Johnson and Ettinger model for sites across the country.

- **Program Manager** Responsible for the coordination, tracking, and evaluation of environmental data for a $3.2 million annual portfolio of approximately 40 environmental cases with ExxonMobil over a 5-year period for a total of $16 million overall. Achieved regulatory case closure of 22 sites over a 5-year period. Managed, trained, and supervised an 8-person team of Project Managers, geologists, engineers, and technicians. Reported directly to the Board of Directors of the company.

- **Senior Manager** Part of the contract renewal team for contracts with ExxonMobil totaling $50 million in revenue over 5 years. Personally negotiated directly with upper-level ExxonMobil managers in Houston Texas on behalf of the company to establish new unit rate scopes. Performed scoping, forecasting, and estimating for all projects within the portfolio. Performed the final review of all project invoices and change orders.

- **Senior Geologist** Performed senior review of technical documents as part of litigation support and financial auditing on complex environmental cases in support of the settlement of environmental claims. Senior Geologist in responsible charge for sites impacted with hydrocarbons, MTBE and solvents. Managed the permitting, compliance, and operation of soil and groundwater remedial systems exceeding $400,000 each.

- **Safety Manager** Health and Safety Manager for the company-wide safety program and safety instructor for a behavior-based safety system.

PROFESSIONAL REGISTRATIONS

- Certified Hydrogeologist (CHG) 975 in California
- Professional Geologist (PG) 7724 in California
- Licensed Geologist (LG) 2909 in Washington
- Professional Geologist (PG) 11244 in Texas
- North Carolina Geologist 2022

EDUCATION

- University of California at Berkeley - Bachelors in Geology

TRAINING AND CERTIFICATIONS

- Fundamental Contaminant Chemistry in Soil and Groundwater
- Contaminant Vapor Migration and Intrusion
- UC Berkeley Extension Classes in Remediation, Environmental Law, and Business
- HAZWOPER 29 CFR 1910.120 Training
- Behavior-Based Safety Instructor, CPR, First Aid, and Driver Safety Training

PROFESSIONAL AFFILIATIONS

- Groundwater Resources Association of California (GRAC)

AWARDS AND PRESENTATIONS

- GRAC Technical Review of EPA's Draft Vapor Intrusion Guidance, 2013
- GRAC Technical Committee – Review of Draft Low Threat UST Closure Policy, 2012
- ETIC's Award for "Outstanding Performance, Commitment, and Dedication," 2010
- ExxonMobil's Safety Award for Flawless Execution, 2008 - 2010
- "Subcontractor Stewardship" presentation at ExxonMobil's Annual Safety Forum, 2008
- ExxonMobil's "Best Practices" Award, 2007

APPENDIX J

RECORDS OF COMMUNICATION

HF219
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JEROME J. MAUTNER
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
County of Napa
931 Park Way Mall
Napa, California 94559

Attorneys for Plaintiff

MUNICIPAL COURT FOR THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

IN THE MATTER OF THE APPLICATION FOR AN INSPECTION REGARDING:
ROBERT COUCH PROPERTY
APN 058-030-017

NO.

INSPECTION WARRANT

THE PEOPLE OF THE STATE OF CALIFORNIA TO:

Any authorized personnel of the Napa County Department of Environmental Management, and to any peace officer,

Proof, by affidavit, having been made before me by Michael Collins,

THERE IS REASON TO BELIEVE that there exists at the

ROBERT COUCH PROPERTY
#2 EUCALYPTUS DRIVE
AMERICAN CANYON, CALIFORNIA
APN 058-030-017

conditions of nonconformity with the Napa County Code set forth in sections 5500, 5630, with the Health & Safety Code, set forth in sections 5411, 25189 and 25189.2, and with Napa Ordinance No. 213, as required by California Code of Civil Procedure, section 1822.50, et seq., for the issuance of an

ROME J. MAUTNER
DISTRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
1125 THIRD STREET
PA, CALIFORNIA 94559
707-253-4211

inspection warrant:

YOU ARE THEREFORE COMMANDED TO INSPECT, INVESTIGATE AND SEARCH, accompanied by authorized representatives of the establishment operator if present,

THE PROPERTY located at #2 Eucalyptus Dr., American Canyon, California, owned by Robert and Patricia Couch, Assesor's Parcel No. 058-030-017, a 165.05 acre parcel of densely wooded land, bordered on the South by Eucalyptus Dr., on the West by the American Canyon landfill and the Napa River, and on the North and East by a 4-strand barbed-wire fence, including but not limited to all structures of whatever type, nature or design used for habitation or ancillary to habitation uses,

WHICH INSPECTION SHALL INCLUDE the observation of physical conditions or processes, the taking of photographs, the taking of samples of materials, the conducting of any tests, the inspection and copying of documents and papers, and the questioning or conferring with the occupants of the property to obtain information bearing on whether the violations of the regulations and laws set forth above exist.

THIS WARRANT SHALL EXPIRE ON November 30, 1990, and the return must be executed by November 30, 1990.

Dated: 11/16/90

Judge of the Municipal Court

IOME J. MAUTNER
ISTRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
HALL OF JUSTICE
'25 THIRD STREET
A, CALIFORNIA 94559
707-253-4211

HF219
COR

NAPA COUNTY DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT
1195 THIRD ST., ROOM 205
NAPA, CA. (707) 253-4471

FACILITY: Couch Property Fac # HF219 Date: 11-19-90

ADDRESS: Eucalyptus Rd., American Canyon, APN 58-030-17

TO: Robert Couch

FROM: Napa County - Env. Mgmt. Dept.
Sheriff's Dept.

____ Telephone Conversation
____ Meeting/Conference
____ Site Visit
X Other Inspection Warrant

COMMENTS:

ORDER OF QUARANTINE

You are hereby notified that an Order of Quarantine is issued on the hazardous wastes on this property; pursuant to the State of California Health & Safety Code, Division 20, Section 25187.6(a).

Pursuant to Section 25187.6(a)(2) No person shall remove, transfer, or dispose of the hazardous waste until permission for the removal, transfer or disposal is given by an authorized agent, identified in the document as the Napa County Department of Environmental Management or The Napa County Sheriffs Department.

Pursuant to Section 25187.6(a)(c), Chapter 6.5, Division 20, State of California Health & Safety Code this Order of Quarantine shall take effect upon issuance and shall remain effective for thirty (30) days or until an authorized agent as identified in this document shall remove this Order of Quarantine .

Robert T. Couch Jr.
11-19-1990

FOR:
____ Action
____ Review
____ Information

cc: _____

:2-8/22/88

HF219
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Couch Property
Report of 11-19-90
HF 219

Photo #	Description
1	Entrance to Couch Property. Note tractor-trailer exiting property.
2	Inside Couch property, west of entrance road. Note compressed gas cylinders lying on the ground.
3	Area near Couch residence. Note the drum, tank abandoned automobiles and debris.
4	Storage building. Note Compressed gas cylinders, paint & oil containers, debris.
5	Cardboard cylinders labeled "Gamma Flame". Either a "paint" game device or other hoax device.
6	Numerous containers of paint and related products.
7	Numerous containers of paint, epoxies, cleaners antifreeze, engine additives, etc.
8	Huge piles of debris.
9	Box of Gamma Flame cylinders.
10	Drums and debris pile. CDF staff labeling drum.
11	Debris & drums.
12	Abandoned autos, debris & living quarters for persons unknown.
13	Asphalt pile in foreground. Bus in the background is living quarters for a family, including small children and an infant. Poly drum on the top of pickup truck has plastic tubing that delivers water to the bus.
14	Apparently a former underground storage tank. CDF staff person is commencing to test it for explosive vapors.

Couch Property
Report 11-19-92
HF 219

Photo #	Description
15	Another view of the storage tank and debris pile
16	Eucalyptus tree grove. "Paint" games held here.
17	Toppled, leaking drum.
18	Another drum, full.
19	Another former underground storage tank. This tank contained an oily material. A sample was collected here.
20	Another view of the tank being sampled.
21	Two drums. Both appear to be leaking. One is toppled.
22	Compressed gas cylinders. Ten were labled as containing hydrogen. All of the 21 cylinders observed in this area were in a deteriorated condition.
23	Vehicle on property. Dog's skull nailed to vehicle. Trash in truck bed.
24	A living area for persons unknown.
25	Two horses tethered by chains. No water. Various vehicles in the background, used as living quarters.

HF219
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NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
HAZARDOUS MATERIAL SECTION

625 IMPERIAL WAY, SUITE 9 • NAPA, CA 94559-1329
AREA CODE 707/253-4269 ATSS #528-4269
FAX 707/253-4545

Subject: Couch Property, #2 Eucalyptus Road, Am. Cyn.
APN #58-030-17 - Our File #HF 219

Date of Inspection: November 19, 1990

Purpose: Site Investigation Under Inspection Warrant

Report Prepared by: Catherine Moody, Senior Hazardous Materials Specialist, Department of Environmental Management, Hazardous Materials Section

On November 19, 1990, I accompanied members of the California Department of Forestry to inspect the property and to collect samples, take photographs and make notes regarding hazardous wastes and solid waste at the Couch Property in American Canyon.

The property is a one hundred sixty five acre parcel, heavily forested with eucalyptus trees. There are small dirt roads throughout much of the property. Pinpointing on specific locations on a map is difficult as there is a tremendous amount of all manner of debris, garbage, abandoned vehicles, machinery, equipment, trash heaps and concrete rubble,as well as 3 tanks and a railroad car. Trails and paths wind throughout the property.

Interspersed throughout the property are shelters where people are living, or were recently living. Some of these shelters used the debris piles as walls for their living quarters.

In addition, we found a box containing six cylindrical cardboard tubes, sealed on each end with wax and stenciled with the words "GAMMA-FLAME". The each tube is approximately ten inches in length, four inches in diameter. The cardboard tubing is approximately one-quarter inch in thickness. Inserted in this box was a piece of mail (unsealed) addressed to "Hollis Newman".

Scattered throughout the property are used automobile batteries and small containers of what is probably used oil and used antifreeze. There are also many small unlabeled containers, probably containing paint or automobile related wastes.

We observed many 55-gallon drums on the property however, most were empty, as determined either by observation (many lacked lids) or by tapping on the sides. Five drums were full or partially full. A sample was collected from each.

There are at least three tanks on the property. Two are of approximately ten-thousand gallon capacity and seemed empty. Apparently, these two tanks used to be underground storage tanks. One is of three-thousand capacity and was partially full of an oily liquid. A sample was collected from this tank.

There are many compressed gas cylinders scattered throughout the property; particularly propane cylinders. The propane cylinders was usually found in the garbage and debris piles.

Other compressed gas cylinders were grouped together in two areas: one group of five cylinders is in a wooden garage that presumably belongs to the Couch family. This garage is filled with all manner of clothes, trash, machinery, equipment, boxes and so forth and as well as five cylinders. (See photo #4).

Near the mobile home where the Couch family lives, adjacent to the road, are twenty-one compressed gas cylinders laying on the ground. Several of them were in a deteriorated condition with rust and corrosion forming on them. All of the cylinders looked like they have been outside for a long time; the paint was faded, the cylinders were scarred and rusty, and leaves and dirt had built up on them, partially burying them. We counted six acetylene cylinders, ten hydrogen cylinders, and five freon cylinders in this area.

Mr. Couch told me that he had tried to get the acetylene cylinders refilled but was refused due to the poor condition of the cylinder valves. He told me that he used the hydrogen cylinders to fill balloons. This concerned me since he seemed to me to be confusing hydrogen, a highly explosive and flammable gas, with helium, an inert gas commonly used to fill children's balloons.

In general, the hazardous wastes we observed fell into four categories;

1) oil or oily wastes
2) compressed gas cylinders
3) paints, lacquers, thinners and solvents
4) unknowns in small containers
5) automobile batteries

Sampling Summary:

All samples were collected by the Haz Mat Team composed of staff from of the California Department of Forestry and the American Canyon Fire Protection District. The Haz Mat Team also tested the two empty ten-thousand gallon tanks for the presence of volatile or toxic gases with hand-held meter device. The meter is a direct reading instrument that does not record findings. Neither tanks registered as having volatile or toxic gases.

A total of six liquid samples were collected. Five of the samples were taken from 55-gallon drums. One sample was taken from the three-thousand gallon tank. One of the cardboard cylinders stenciled "GAMMA-FLAME" was taken from the box if six.

One of the samples came from a drum located in area identified as Zone One; which was the southerly portion of the property that is either leased, rented or otherwise occupied by persons other than the Couch family. The drum was labeled Z-1-1. The sample was identified on the sample jar and on our Chain of Custody document as Sample Number One.

The other five liquid samples came from the drums and the tank located in Zone 3 and were identified on the sample jars and on our Chain of Custody document as Sample Numbers Two through Six.

Sample Z-1-2 consisted of one of the cardboard cylinders stenciled "GAMMA-FLAME". It was NOT included on the Chain of Custody document since we could not send it to a laboratory for analysis as there was concern that it might be explosive or incendiary device of some type, or possibly might contain a highly reactive metal. The device was subsequently x-rayed and opened by Sergeant Johnson of the Presidio Bomb Squad. It was found to be empty except for sawdust packing. Sergeant Johnson said he would list it on his report as a hoax device. He did say that the other cylinders were probably empty too.

Sample ID Number	Sample Type	Sample Jar #
Z-1-1	Liquid from drum	One
Z-1-2	Cardboard cylinder (Gamma-Flame)	N/A
Z-3-3	Liquid from ~~drum~~	Two
Z-3-4	Liquid from ~~tank~~	Three
Z-3-5	Liquid from ~~drum~~	Four
Z-3-6	Liquid from drum	Five
Z-3-7	Liquid from drum	Six

Areas of Concern:

In terms of hazard potential, the cylinders of hydrogen would represent the most immediate concern. Also, the cylinders in deteriorated condition or of unknown contents have hazard potential. Neither this Department nor the Department of Forestry have the sampling equipment necessary for obtaining gas samples.

The unlabeled drums and tank represent a hazard in that they are unidentified as to contents. Drum Z-3-1 (lying on its side); showed leakage from the top rim. (See photo #17). Drums Z-3-4- and Z-3-5 were resting on a wooden pallet that is heavily stained, and therefore are believed to be leaking. (See photo #21).
The tank Z-3-3 is resting on the ground, without a cap on the fill hole, instead it had a chunk of wood stuck in it. In addition, the tank is not braced in anyway to prevent overturning and it rests on bare earth. (See photo #20).

There are at least two areas on Zone One where twenty or more small containers (one gallon or less) of what look to be various paints, sealers, epoxies, lacquers, engine treatments, wood stains and so forth area stored. Many are rusty or stained and therefore their contents are uncertain but they are mostly like paint and related materials. One group is stored in a fairly neat fashion on a wooden pallet, another group is stored haphazardly in wooden boxes and on the ground. (see Photo #6 and #7)

I observed a large pile of granular asphalt material and asphalt chunks, which would not usually represent an environment hazard unless placed in or along a waterway. (See photo #13).

Judging by the soil piles, asphalt piles, debris piles and abandoned automobiles on the property it appears that the property owners are allowing dumping to take place on their property, perhaps for revenue. Receiving off-site wastes constitutes operating a Solid Waste facility without a Permit or variance.

In addition, Napa County Ordinance #213 makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit to do so.

An Order of Quarantine that forbids the removal of any hazardous wastes on the property for 30 days unless approval is received from this Department was present to Mr. Robert Couch by a representative of the Sheriff Department. Mr. Couch signed the Order verifying receipt. A copy appears as an attachment to this report.

Violative conditions:

Violative conditions are based wholly or partly on the following:

Section 25117(a), Chapter 6.5, Division 20, Health & Safety Code includes in the definition of a hazardous waste as any wastes or combination of wastes that pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Section 25124(e), Chapter 6.5, Division 20, California Health & Safety Code includes in the definition of waste a material that poses a threat to public health or the environment and is either or both mislabeled or not adequately labeled or is packaged in deteriorated or damaged containers.

Based on those definitions, I have determined the following violations.

1. Section 66471, Title 22, California Code of Regulations. The generator (property owner) failed to determine if the wastes are hazardous wastes pursuant to this section in that five (5) drumsand one tank on the property were found (by laboratory analysis) to be hazardous. These containers were unlabeled and at least one container (drum #Z-3-7) did not contain the type of material Mr. Couch stated it to be. Both Robert Couch and David Couch believed all the containers held "cresote".

2. Section 66508, Title 22, California Code of Regulations. The generator (property owner) failed to satisfy the storage requirements for hazardous and the ninety (90) day accumulation time limit for hazardous wastes in that all five of the drums and the tank that were found to contain hazardous wastes were unlabeled and, according to my conversations with Robert Couch and with David Couch, and by my observations on the condition of the containers, these five drums, the tank and the cylinders have been stored on the property for years.

3. Section 67241, Title 22, California Administrative Code. The generator (property owner) failed to manage hazardous waste properly in that the cylinders were lying on their sides, on the ground, adjacent to a road. Several were severely rusted and all of which appeared to be in a deteriorated condition. At least three of drums were severely rusted, one was definitely leaking (Z-3-1) and two were suspected of leaking (Z-3-3 and Z-3-4).

4. Napa County Ordinance 213, Article VI, Section I makes it unlawful to operate a refuse disposal area in the unincorporated area unless possessing a permit from the Health Department to do so. Based on my observations and my discussion with David Couch the property owners have allowed dumping to take place on this property and have allowed refuse to accumulate on this property. (See all photos).

Attachments: (1) Order of Quarantine
(2) Chain of Custody
(3) Photographs (twenty-five)
(4) Laboratory Results

HF219
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RECEIVED

NOV 26 1991

HAZARDOUS MATERIALS SECTION
DEPT OF ENVIRONMENTAL MANAGEMENT

COUCH PROPERTY VIOLATIONS

I. Zoning and Building Violations

1. The property is only zoned for one single-family dwelling and for agricultural uses. Despite this, there are twenty other structures (ten of which are inhabited, and ten of which are built for storage or for housing chickens). Also inhabited are ten trailers, two buses, and a camper shell. None of these inhabited structures are permitted uses (NCC 12231, 12107)

2. The twenty stuctures all exceed 120 square feet of roof area and require building permits, which were not obtained (UBC 301(a)).

3. The one permitted dwelling is still under construction and has never been completed. An unapproved, unpermitted underground utility trench has been dug.

4. The owners are living in a mobile home which is to be in dead storage, but is being used as a residence by the owners (NCC 11010).

5. There is no approved water supply and there are two unapproved water wells that have been dug on the property (NCC 5505, 5230).

6. The entire parcel constitutes an illegal junk yard (NCC 6051).

7. Evidence exists regarding the occurrance of paint-ball games which have occurred and been advertised. There is no approved use permit for this activity.

8. All of the residents in the unpermitted structures are renting from the owners, a use not permitted in this zoning. (NCC 12231, 12107).

10. The property is being used to store heavy construction equipment (such as dump trucks, skip loaders, backhoes, and semitrailers), a use not contemplated by the zoning.

11. The entire parcel constitutes a public nuisance (NCC 12903, 11021).

II. Environmental Management-Health and Safety Problems

1. There is no approved sewage disposal or approved septic system present in the park. Sewage disposal ranges from holes in the ground, to merely allowing sewage to run on the ground to an outhouse type structure (NCC 5621, 5622, H&S 5411).

2. There is the illegal accumulation of refuse, debris, trash, and garbage in places located throughout the property. Owners are operating a refuse disposal area without a permit, in violation of Napa County Ordinance No. 213.

3. The property contains unlocked abandoned refrigerators, in violation of Penal Code Section 402(b).

III. Environmental Management-Toxics Problems

1. Small amounts of toxic wastes have been discovered on the property, including oil, compressed gas cylinders, paints, lacquers, thinners, solvents, used auto batteries, containers with antifreeze.

2. In addition, three large old abandoned underground storage tanks are present on the property, one of which is partially full of liquid that tested as hazardous waste.

3. The violations here range from storage of hazardous wastes over 90 days without a permit (22 CCR 66508, and H & S 25189.2) to failure of the generator to determine if his wastes are hazardous (22 CCR 66471) to failure to properly manage hazardous wastes (22 CCR 67243).

IV. Fire and Forestry Violations

1. There is not adequate clearance between combustable debris and material and the various residential structures (NCC 8871, Public Resources Code Section 4291).

2. Residents have been found to be burning their household trash and garbage in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301).

V. CHP/Public Works Violations

1. The property contains over 230 abandoned vechicles (NCC 4700)

2. The proeprty contains numerous dismantled vehicles, for which the certificate of ownership, the registration card, and the license plates were not delivered to DMV before dismantling began (Vehicle Code Section 5500).

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HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

COUCH TIME LINE

DATE	PROJECT TO BE ACCOMPLISH	PARAGRAPH REF'D
4-16-93	Deadline for defendants to serve tenants with notices.	Paragraph 1
	Deadline to provide D.A. with names of scrap dealers.	Paragraph 3
5-1-93	Deadline to file unlawful detainer actions and serve tenants with Summons and Complaint.	Paragraph 2
6-15-93	Deadline to receive bids from scrap dealers; highest bid to be accepted.	Paragraph 3
6-30-93	Deadline for defendants to collect in one place all items of property they wish to keep (County should inspect this property).	Paragraph 4
	Deadline for defendants to enter into contract with scrap dealer, requiring dealer to commence work by 7-15-93 and to complete work in 150 days.	Paragraph 5
	Deadline for defendants to commence removal of trees to create fire breaks around their places of residence, work to be completed by 8-29-93.	Paragraph 8
7-15-93	Deadline for scrap dealer to commence removal work.	Paragraph 5
8-14-93	Deadline for defendants to enter into contract with a hazardous waste consultant.	Paragraph 14
8-29-93	Deadline for defendants to complete creation of fire breaks.	Paragraph 8
9-13-93	Deadline for hazardous waste consultant to submit plan.	Paragraph 14
10-13-93	Deadline for hazardous waste consultant to commence removal operations, and to complete all removal within 120 days.	Paragraph 14

12-12-93	Deadline for all scrap to be removed from the property; removal triggers the provisions of paragraph 15. and May trigger paragraph 9.	Paragraph 5 Paragraph 9
2-10-94	Deadline for defendants to remove all garbage if acting on their own.	Paragraph 15
	Deadline for hazardous waste consultant to remove all hazardous waste.	Paragraph 14
3-12-94	Deadline for defendants to obtain bids from a solid waste hauler.	Paragraph 15
3-27-94	Deadline for defendants to enter contract with solid waste hauler.	Paragraph 15
4-11-94	Deadline for solid waste hauler to commence removal operations, with 150 days to complete all removal.	Paragraph 15
9-8-94	Deadline for solid waste hauler to have removed all garbage debris, etc.	Paragraph 15

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ENDORSED

FILED MAR 17 1993

JANICE F. NORTON
COURT EXECUTIVE OFFICER
J. MILES

RECEIVED

MAR 19 1993

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

ANTHONY PEREZ
DISTRICT ATTORNEY
DARYL A. ROBERTS
DEPUTY DISTRICT ATTORNEY
COUNTY OF NAPA
931 PARKWAY MALL
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(707) 253-4211

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF NAPA

THE PEOPLE OF THE STATE OF CALIFORNIA,

PLAINTIFF,

VS.

ROBERT L. COUCH, et. al.,

DEFENDANTS.

NSC: 64010

FINAL JUDGMENT AND PERMANENT INJUNCTION

This matter came on regularly before the Court for trial on the 17th, 23rd, 24th of February, and the 1st of March, 1993. Appearance on behalf of plaintiff was made by Deputy District Attorney Daryl A. Roberts, appearance on behalf of Defendant Patricia K. Couch was made by Norbert U. Frost of Frost & Healy, and Defendant Robert L. Couch appeared on behalf of himself. Evidence having been presented and accepted by the Court, arguments having been made, the Court having considered the evidence and the pleadings in this matter, good cause appearing, and in the furtherance of justice,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
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I

FINDINGS OF FACT

The Court finds that Robert L. Couch and Patricia K. Couch, defendants herein, are co-owners of the property located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017.

The Court further finds that the evidence produced by plaintiff in this matter establishes the following with regard to defendants' property, located at #2 Eucalyptus Drive, American Canyon, California, Napa County Assessor's Parcel No. 058-030-017:

1. At least 100 and possibly as many as 286 abandoned motor vehicles are on the property, in violation of Napa County Code §4700;

2. Defendants' property contains an unknown but large number of accumulations or piles of garbage, refuse, debris, metals, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, household trash, furniture, junked appliances, and other similar items, in violation of the Napa County Garbage Ordinance No. 213;

3. Probably less than 10 abandoned refrigerators are located on the property in violation of Penal Code §402(b);

4. There are numerous illegal sewage disposal systems ranging from holes in the ground and outhouses to septic systems installed, in violation of Napa County Code §§5621, 5622 and Health & Safety Code §5411;

5. For property zoned Agricultural-Watershed, of which the

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only permitted use is one single family dwelling, a second dwelling unit and a guest cottage, a number of other inhabited structures existed on the property ranging from lean-tos to trailers and buses, which structures were on plots of land being rented by the defendants to various tenants and none of these structures had legal water supplies or permitted sewage disposal systems, all in violation of Napa County Code §§12231,12107;

6. All of these the inhabited structures, as well as approximately 10 chicken coops with roof areas exceeding 120 square feet, were constructed without benefit of building permits, in violation of the Uniform Building Code §301;

7. One water well had been installed or constructed on the property without benefit of permits, in violation of the Napa County Code §§5505 and 5230;

8. In a number of areas on the property, the storage of heavy construction equipment occurred, a use not allowed by the zoning, in violation of Napa County Code §§12231 and 12107;

9. Small amounts of hazardous waste have been illegally stored or disposed of on the property, in violation of Health & Safety Code §25189.2;

10. Defendants are living in a mobile home for which the use permit has expired, and the one dwelling for which a building permit was issued is still under construction, and contains an unapproved, unpermitted underground utility trench, in violation of Napa County Code §11010;

11. Tenants have burned their household trash or

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agricultural debris, in violation of Bay Area Air Quality Management District Regulations (Regulation 5, Section 301) and the Napa County Garbage Ordinance;

12. Adequate clearance does not exist between combustible debris and material and the residences of defendants in violation of Napa County Code §8871 and Public Resources Code §4291;

In addition to the above specific findings, the Court finds that Patricia K. Couch has cooperated with Plaintiff in its efforts to remedy the above-described conditions of defendants' property, including but not limited to, serving tenants with notices terminating tenancies and notices of building code violations, and cleaning and removing certain debris, garbage, refuse, trash and other similar items.

The Court finds that Robert L. Couch has accepted rent from at least one tenant in violation of the preliminary injunction issued by this Court.

II
CONCLUSIONS OF LAW

The Court finds that, based upon the evidence produced by plaintiff during trial, the defendants have been and are presently maintaining upon their property a public nuisance. Specifically, the Court bases this conclusion on both a public nuisance per se theory, as numerous conditions of defendants' property violate specific Napa County Code Sections relating to nuisances, as well as a common law nuisance theory, as the condition of the property meets the criteria as set forth in California case law regarding the existence of public nuisances.

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In addition, based upon the evidence produced at trial, the Court finds that the defendants, by renting or leasing of portions of their property to tenants either for living on the property or for storage of belongings, engaged in unfair competition, as defined by Business & Professions Code §17200, as such activity was a business activity which violated the zoning laws of the County of Napa, and provisions of the Uniform Housing Code.

III
JURSIDICTION AND APPLICABILITY

The Court has jurisdiction of the subject matter hereof and the parties hereto.

The provisions of this final judgment are applicable to defendants Robert L. Couch and Patricia K. Couch, and to their agents, servants, employees, representatives, heirs, successors in interest, and any and all other persons acting in concert with or participating with defendants who have actual or constructive notice of this judgment.

IV
PROHIBITORY INJUNCTION

Defendants are permanently enjoined and restrained, pursuant to Civil Code §3494 and Business & Professions Code §17203, from doing, directly or indirectly, any of the following:

1. From leasing or renting any portion of the property unless any such lease or rental is in conformance with the zoning of the property and the terms of this judgment.

2. From bringing onto their property or causing to be

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brought onto their property any of the following items:

a. Any junk, scrap, or dismantled or abandoned motor vehicles of any kind, including but not limited to automobiles, trucks, vans, buses, or motorcycles;

b. Any debris of any kind including but not limited to scrap lumber, scrap metal, broken concrete, other types of spoils, dirt, rubble, rock, or gravel unless the presence of such debris is consistent with the zoning of the property or not violative of any applicable law or ordinance;

c. Any junk of any kind, including but not limited to abandoned vehicle parts or components, junked appliances, junked appliance parts or components, tanks, machines, machinery parts or components;

d. Any garbage, rubbish, refuse, trash, or other similar type material;

e. Any hazardous wastes, including but not limited to waste oil, spent gasoline, gasoline products, gas cylinders, paints, lacquers, thinners, solvents, batteries, anti-freeze, or other similar material.

3. From constructing or maintaining any sewage disposal system unless defendants procure a valid and current permit to do so, and follow all conditions and requirements of said permit.

4. From erecting, constructing, enlarging, altering, repairing, moving, improving, or demolishing any structure or building on defendants property unless defendants comply with the provisions of Uniform Building Code §301, and follow all

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conditions and requirements of any building permit required pursuant to the provisions of this section.

5. From installing or maintaining any water well on the property unless defendants procure a valid permit to do so, and follow all conditions and requirements of said permit.

6. From storing heavy construction equipment on the property unless the presence of such equipment would be consistent with the zoning of the property, or the equipment is being used to fulfill defendants' obligations under this judgment, or any construction or development performed is pursuant to a valid permit.

7. From storing or disposing of hazardous waste unless defendants do so in compliance with the provisions of the Hazardous Waste Control Act.

8. From allowing inadequate clearance between combustible debris material and any inhabited structure as required by Public Resources Code §4291.

9. From dismantling any motor vehicle unless done in compliance with the zoning laws of the parcel, and in compliance with Vehicle Code §5500.

10. From burning trash or other similar type debris, including agricultural debris, except as allowed by regulations promulgated by the Bay Area Air Quality Management District.

V
MANDATORY INJUNCTION

Defendants, are hereby ordered and mandated as follows:

1. Within 30 days from the filing of this judgment, Robert

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L. Couch or Patricia K. Couch shall do the following:

a. Personally serve a written notice upon each person (other than defendants or members of their immediate family) residing on defendants' property, #2 Eucalyptus Drive, American Canyon, Napa County, California, which provides that each resident has 30 days from the receipt of the notice to remove themselves and all their personal belongings from defendants' property, and that their failure to move their belongings off the property within the time indicated in the notice will constitute an abandonment of those belongings and may be disposed of pursuant to Civil Code §1980 et. seq.

b. Personally serve each and every person who has left personal belongings on defendants' property but does not reside there with a notice requiring them, within 30 days of receipt of the notice, to remove those personal belongings from defendants' property, and that any property left on the premises after the 30 day period will be deemed abandoned and may be disposed of pursuant to Civil Code §1980 et. seq.

c. In the event defendants are unable to personally serve any person, defendants shall cause such notice to be posted in a conspicuous area where the belongings are situated and a copy of the notice mailed to such persons at their last known address. If defendants are unable to locate tenants or their last known address,

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they may apply to this Court for an order permitting publication of any notices required herein in the Napa Register, a newspaper of general circulation, to give tenants notice.

2. Within 45 days from the filing of this judgment, defendants shall cause to be filed unlawful detainer complaints against any and all tenants who remain on the property after the 30 day notice period has expired (as referred to above in paragraph 1), and shall properly serve each tenant with summons and complaint as required by law. In addition, defendants are hereby ordered to diligently pursue these unlawful detainer actions until all tenants have been removed from the property, and their property has been removed or been deemed abandoned. It is further ordered that to the extent the service of any tenants with required process and/or pursuit of these unlawful detainer actions prohibits defendants from meeting any time deadline, as set forth in this mandatory injunction, defendants shall be given an extension of time for meeting that deadline equivilant to the amount of time spent by defendant in pursuing these unlawful detainer actions.

3. Within 30 days of the filing of this judgment, each party to this action shall provide to the District Attorney's Office the name, address, and phone number of a scrap or junk dealer. The District Attorney's Office shall prepare a list of the scrap or junk dealers designated by each party and serve the list on defendants. Further, Defendants shall allow any scrap or

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junk dealer so named to enter the property during reasonable times (8:00 a.m. to 6:00 p.m. Monday through Friday) for the purpose of assessing the status of the property and coming up with a bid for how much money that scrap or junk dealer would pay to remove all valuable items of scrap and abandoned motor vehicles (but excluding those items set aside by defendants pursuant to the provisions of paragraph 4, below) on the property. Only bids obtained within 90 days of the filing of this judgment shall be considered. The dealer offering the highest bid shall be chosen.

4. Defendants shall, within 105 days of the filing of this judgment, collect in one place on their property, unless physically impossible to do so, all operable motor vehicles, operable pieces of construction equipment or vehicle whose purpose is consistent with the agricultural zoning of the property, and any and all other valuable items that defendants contend are not scrap or junk, or an abandoned motor vehicle, and whose storage on the property is consistent with the zoning of the property. Once this has occurred, defendants shall then allow county officials to enter the property to inspect this collection of items to determine if their storage on the property would be consistent with the zoning of the property. If so, none of these items of property would be subject to any of the provisions set forth in paragraphs 5 and 15, below. In the event there is a dispute between defendants and county officials regarding any or all of these items of property, such dispute

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shall be brought to hearing before this court upon 15 days written notice by either party. Opposition papers shall be filed at least 5 days before the hearing and reply papers shall be filed at least 3 days before the hearing. Defendants will be deemed to have abandoned all other items of scrap, junk, debris and abandoned motor vehicles on the property if not collected and set aside by the deadline set forth in this paragraph, or if ordered by court after hearing.

5. Robert L. Couch and/or Patricia K. Couch shall, within 105 days of the filing of this judgment, enter into a contract with the scrap or junk dealer chosen pursuant to paragraph 3, above, which contract will provide for the following:

a. It will set forth the price to be paid by the dealer for the abandoned motor vehicles and scrap to be removed from the property and it will require the dealer to remove all abandoned motor vehicles and not merely select and remove the motor vehicles and scrap bringing the dealer the highest and/or best price.

b. It will set forth a time period within which the scrap dealer is to remove all abandoned motor vehicles and valuable scrap from the property, with the period not to exceed 150 days, and the period to commence no later than 120 days from the filing of this judgment.

c. It will require the scrap dealer to keep legible records regarding the numbers of abandoned motor vehicles removed, and the weight of scrap removed, as well as legible records regarding

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the payment of moneys on either a price per vehicle or price per weight basis. Further, it will require the scrap dealer to, on weekly basis, provide these records both to defendants and to the District Attorney's Office.

d. The bid will require the dealer to handle and dispose of, in a lawful manner, all hazardous waste that may be generated by the removal of motor vehicles, including motor oil, gasoline, diesel fuel, brake fluid, transmission fluid, batteries, and catalytic converters, and any other similar hazardous materials that are commonly found in motor vehicles.

e. The bid will require the dealer to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of abandoned motor vehicles and valuable scrap items to a trust fund, to be maintained by the District Attorney's Office, as more fully described in paragraph 13, below.

6. Defendants shall allow the chosen scrap or junk dealer to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the dealer's efforts to remove from the property all abandoned motor vehicles and valuable scrap items.

7. Defendants shall not in any manner interfere with or obstruct any and all County officials who may enter the property during reasonable hours to do the following: appraise any or all abandoned motor vehicles on the property for the purpose of issuing salvage certificates; monitor efforts to remove and properly dispose of hazardous wastes; monitor efforts to properly

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remove abandoned motor vehicles and scrap from the property; monitor efforts to remove or destroy all illegal sewage disposal systems on the property; monitor efforts to raze all structures which are abandoned or condemned; monitor all efforts to remove from the property all garbage, rubbish, trash, spoils, and other similar unpermitted materials.

8. Within 105 days of the date of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall commence to remove or have others undertake the removal of trees, bushes, and shrubs required to create an approximate 30 foot firebreak around the mobile home in which defendants are residing, and any other structure inhabited by any other member of defendants' immediate family. Such removal shall be completed within 165 days of the filing of this judgment.

9. In the event the District Attorneys Office determines, at any time, that income generated from the removal of abandoned motor vehicles and other valuable scrap is insufficient to pay for the removal of hazardous waste, debris, garbage, rubbish, trash (and all other items referred to in paragraph 13), the razing of structures on the property and subsequent removal of razed debris, and the removal or destruction of the illegal sewage disposal systems, then the District Attorney's Office may notify the defendants in writing of such situation.

10. Within 30 days of receipt of the notice from the District Attorney's Office referred to in paragraph 9, above, each party shall provide to the District Attorney's Office the

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name, address, and phone number of a commercial harvester wood pulp processor or other wood products dealer for the purpose of obtaining a bid to remove or thin out the eucalyptus trees present on defendants property, and to sell the trees for firewood or other income generating purposes. Either defendant may designate the areas where the trees may be removed or thinned out. Further, Defendants shall allow any commercial harvester or processor so named to enter the property during reasonable times for the purpose of assessing the status of the property and arriving at a bid for how much money that harvester or processor would pay to remove or thin out trees for the purpose of resale as firewood or other purpose. Only bids obtained within 60 days of defendants receipt of the notice referred to in paragraph 10 shall be considered. The harvester or processor offering the highest bid shall be chosen.

11. Robert L. Couch and/or Patricia K. Couch shall, within 75 days of receipt of the notice referred to in paragraph 9, enter into a contract with the chosen harvester, which contract will provide for the following:

a. It will set forth the price to be paid by the harvester or processor for the removal of trees from the property, and the approximate number of trees, or cords of firewood or weight of wood pulp, to be removed from the property.

b. It will set forth a time period within which the harvester is to remove trees from the property, with the period not to exceed 120 days, and the period to commence no later than

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120 days from the date of defendants' receipt of the notice referred to in paragraph 9.

c. It will require the harvester or processor to apply for a timber harvest plan with the California Department of Forestry, and will require the harvester or processor to follow all conditions and requirements of any such plan as approved by said Department of Forestry.

d. It will require the harvester or processor to keep legible records regarding the numbers of trees removed or the cords of firewood removed or weight of wood pulp removed, as well as legible records regarding the payment of moneys on either a price per tree or price per cord basis. Further, it will require the harvester to, on a weekly basis, provide these records both to defendants and to the District Attorney's Office.

e. The contract will require the harvester or processor to pay, on a weekly or monthly basis (to be negotiated), all moneys generated by the removal of trees to the trust fund to be maintained by the District Attorney's Office, as described in paragraph 13, below.

12. Defendants shall to allow the chosen harvester or processor to enter the defendants' property at reasonable times and shall not in any manner interfere with or obstruct the harvester's or processor's efforts to remove designated trees from the property.

13. The District Attorney's office shall maintain a trust fund whose primary purpose shall be to pay for removing from

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defendants' property hazardous waste, the various piles and accumulations of debris, garbage, rubbish, trash, metals, scrap lumber, broken concrete, spoils, contractor materials, rubber tires, vehicle parts, junked furniture and appliances, and oth similar items from the property, removing and destroying all illegal sewage disposal systems, and razing all structures whi are abandoned or condemned and removing the debris produced from such razing. Defendants may be reimbursed from this trust fund for costs they have incurred themselves in cleaning up the property, upon presenting bills, receipts or invoices, but only after the primary purpose of the fund, as set forth above, has been met, and there is money remaining in the trust fund for such reimbursement. Any funds remaining in the trust fund after completion of all clean up activities required under this injunction shall be paid to defendants.

14. Within 150 days of the filing of this judgment, Robert L. Couch and/or Patricia K. Couch shall enter into a contract to retain the services of a licensed hazardous waste consultant, licensed hazardous waste hauler, or licensed hazardous waste dealer to identify and remove from the property any and all hazardous wastes present. The contract shall contain the following provisions:

a. It shall set forth a time period within which the consultant, hauler or dealer shall produce a plan to identify and remove all hazardous waste on defendants' property, with the plan to be produced by a date no later than 30 days from the date the

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contract is entered into.

b. It shall provide a time period for which all hazardous wastes shall to be removed, with the period not to exceed 120 days, and to commence no later than 60 days from the date the contract is entered into;

c. It will set forth the price to be paid by the consultant, hauler or dealer for any hazardous waste removed from the property which has some value and will set forth the cost for properly disposing of all other hazardous wastes which are present on the property.

d. It would provide for the maintenance of hazardous waste manifests for the tracking of the hazardous waste removed and properly disposed of, with the requirement that the consultant, hauler or dealer shall provide forthwith copies of these manifests both to the defendants and to the District Attorneys Office.

15. Once all valuable scrap, abandoned motor vehicles, and designated trees for firebreak purposes have been removed from the property, defendants shall either obtain bids from solid waste haulers for the cost to clean up, raze structures and remove from the property all remaining items of waste or garbage (including all piles of debris, garbage, rubbish, trash, and similar materials on the property, all debris created from the razing of structures on the property, along with any items of scrap, and motor vehicles that were left on the property because they were not valuable or income generating and were not picked

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up by any scrap dealer) or defendants or their designees may clean up and remove from the property all of these remaining items of waste or garbage.

a. If defendants act upon their own, they shall remove all remaining items of waste or garbage and any necessary clean up shall be completed within 60 days of the date that all valuable scrap, motor vehicles, and trees for firebreak purposes have been removed.

b. In the event defendants or their designees fail to meet the 60 day requirement as set forth in subparagraph a, above, then defendants shall within 30 days after the 60 day period has expired, obtain bids from solid waste haulers for the cost to clean up the property, as set forth above.

c. Within 45 days after the end of the 60 day period, Robert L. Couch and/or Patricia K. Couch shall enter into a contract with the solid waste hauler giving the lowest bid, which contract shall provide for the following:

(1) It shall provide a time period for which all structures shall be razed and all remaining wastes on the property shall be removed, with the period not to exceed 150 days, and to commence no later than 60 days after the expiration of the 60 day period noted above;

(2) It will set forth the price to be charged by the solid waste hauler for the removal of the remaining waste on the property, including the cost of properly disposing of all of these wastes at a State licensed solid waste landfill. It will

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require the solid waste hauler to maintain legible records regarding the removal of the waste from the property and the costs incurred.

VI
RESERVATION OF JURISDICTION

The Court hereby reserves jurisdiction with regard to the following issues:

1. Issues pertaining to the need for defendants to obtain use permits or building permits for the structures on their property that they or their immediate family members reside in or otherwise intend to occupy;

2. Issues regarding the destruction of any unpermitted water wells that exist on the property;

3. Issues regarding the burning of household trash, garbage, or agricultural debris on the property;

4. Issues regarding the destruction or removal of any illegal sewage disposal systems on the property.

5. Issues regarding the razing of agricultural structures constructed on the property without benefit of building permits.

6. Issues regarding authorizing the County of Napa to enter defendants' property and conduct all clean-up and removal activities, including the removal of income generating items as have been addressed by this judgment, in the event defendants or either defendant fail to comply with the provisions of the mandatory injunction.

6. Issues regarding the issuance of civil penalties pursuant to Business & Professions Code §17206.

ANTHONY PEREZ
ISTRICT ATTORNEY
BLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
31 PARKWAY MALL
PA, CALIFORNIA 94559
707-253-4211

VII
MODIFICATION AND ENFORCEMENT

Any party to this judgment may seek leave of the court upon 15 days notice to the parties hereto and upon a showing of good cause, to modify, amend, or add to any of the provisions of this judgment.

The Court retains jurisdiction, in the event either Robert L. Couch or Patricia K. Couch individually, or both, interfere with, impede, refuse or fail to comply with any provision of this judgment, to make such orders as will prevent further contempt, prevent waste, and protect the property or title to the property, including but not limited to, appointing the defendant who is not in contempt, or a non-party, as a receiver for the purpose of ensuring compliance with this judgment, managing the subject property, and executing any agreements required to comply with this judgment. Further, jurisdiction is retained for the purpose of enabling any party to apply to the Court for such further orders and direction as may be necessary and appropriate for the construction or carrying out of this judgment, for the enforcement of compliance herewith, or for the punishment of violations thereof.

VIII
EFFECT AND ENTRY

This final judgment shall take effect immediately upon entry.

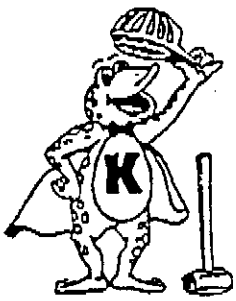
The Clerk is ordered to enter this final judgment forthwith.

Date: March 17, 1993

PHILIP A. CHAMPLIN
JUDGE OF THE SUPERIOR COURT

ANTHONY PEREZ
DISTRICT ATTORNEY
PUBLIC ADMINISTRATOR
PUBLIC GUARDIAN
COUNTY OF NAPA
931 PARKWAY MALL
NAPA, CALIFORNIA 94559
707-253-4211

HF219
COR



KROEKER, Inc.

Demolition and Environmental Contractors

CA License #621866 A C12 C21 C57 C61/D06 HAZ ASB HIC & AZ License #131453 A

www.KROEKERINC.com

April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

HF219
COR

SUBJECT: Status of Enforcement Action:
- Couch's Eucalyptus Grove
- Green Island Road Vehicle Dismantling Yards.

DATE: April 25, 2003

Eucalyptus Grove

On April 16, 2003, in response to a request by Chief Keith Caldwell, ACFPD, Deputy District Attorney, Rich Zimmerman and myself, plus the City of American Canyon's Chief Building Inspector, Joe Willer and newly-hired Code Enforcement Officer, James Cannon, drove through Eucalyptus Grove to make a visual inspection of the Couch's cleanup attempt. We observed many remaining chicken enclosures, another occupied area exhibiting a trailer and misc. storage and a vastly increased wood-cutting and processing operation leased by Bruce Hurst. Oak is now imported and processed at this location in addition to the on-site removal and cutting of existing eucalyptus trees. There are also two operating paintball game facilities on the property, one of which has not complied with the conditions of approval of its' use permit. Deputy District Attorney Rich Zimmerman is researching the current status of any existing legal action by the Napa Superior Court in Daryl Robert's absence. My plan is to send letters of violation to Mike Sinatra, the lessee/operator of "Sherwood Forest" and Bruce Hurst, the lessee/operator of "Oregon Firewood". Robert and Patricia Couch will, of course, be notified as property owners.

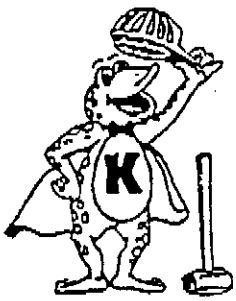
I did make two previous inspections of Eucalyptus Grove on October 22, 2001 and January 14, 2002, in response to a request by Deputy District Attorney Daryl Roberts. I have attached a copy of each inter-office memo for your review.

Green Island Road Dismantling Yards

There are four vehicle dismantling yards still operating on Green Island Road and a previously existing yard that was located at 2600 G. I. Road (*Uribe-Pantoja*, use permit revoked in 1999) that still continues to be a legal problem for the District Attorney's office. *California Auto Dismantling*, located at 1578 and *Brian Abbott Dismantling* located at 2580 Green Island Road are operating in compliance with their use permit conditions of approval. *Baker Auto Dismantling*, at 1678 G. I. Road, has been offered for sale and presently exhibits vehicle storage outside of the perimeter fencing. *Vallejo Pull-A-Part*, owned by Isiah ("Poochie") Lewis, located at 2744 Green Island Road, has been a long-standing problem and should be

the focus of our next public nuisance abatement action. There are no current actions taken against any of the yards mentioned above with the exception of the District Attorney's case against Celerino Uribe and Juan Pantoja-Guzman, owners of 2600 Green Island Road. Periodic monitoring of the dismantling yards along Green Island Road, as well as other south county locations, continues by this department and the Department of Environmental Management and often with the American Canyon Fire Protection District.

HF219
COR



KROEKER, Inc.

Demolition and Environmental Contractors

CA License #621866 A C12 C21 C57 C61/D06 HAZ ASB HIC & AZ License #131453 A

www.KROEKERINC.com

April 30, 2003

Trent Cave, R.E.H.S.
Napa County
1195 Third Street, Room 101
Napa, CA 94559

RE: CLEARING AND GRUBBING OF THE COUCH PROPERTY, AMERICAN CANYON, CALIFORNIA

Mr. Cave:

Thank you for the opportunity to submit our fees for the project referenced above. Below you will find our scope of work and our special provisions and exclusions.

SCOPE OF WORK
Demolish all structures and animal pens located on the Couch property, (prior to demolishing the structures an asbestos survey and a release from the air board will be required, along with county or city permits). This proposal does not include any abatement work or costs associated with abatement if any hazardous materials are discovered in the survey.

Remove and dispose of all miscellaneous debris and garbage.

Remove (2) 10,000-gallon fuel tanks, (tanks are presumed to be non-hazardous).

Remove all trees and stumps within the property, removing roots to a minimum of 2". Trees and stumps will be chipped onsite, with all chips and debris hauled offsite for recycling or disposal.

Provide dust control throughout our scope of work.

Our price for this work is: $ 714,000.00
This work is quoted during dry weather months only.

Breakdown of our services for budget purposes:

Remove structures, all animal pens, debris and garbage, working around and leaving the trees and stumps.
Our price for this work is: $ 434,000.00

Remove weeds, trees and stumps.
Our price for this work is: $ 280,000.00

EXCLUSIONS: Removal, transportation, or disposal of any hazardous waste, passage due to weather, import or export of soil, grading, backfill or compaction. Prevailing wage. Any special permits that maybe required other than those quoted above.

Best regards,

Jeff Kroeker
Manager
jknapa

HF219
COR

John

NAPA COUNTY

OFFICE OF COUNTY COUNSEL
1195 THIRD STREET, SUITE 301, NAPA, CALIFORNIA 94559
AREA CODE 707/253-4521 FAX 707/259-8220

ROBERT WESTMEYER, County Counsel

MARGARET L. WOODBURY, Chief Deputy
LAURA J. ANDERSON, Deputy
JACQUELINE M. GONG, Deputy
SILVA DARBINIAN, Deputy
STEPHEN G. STANTON, Deputy
ROBERT C. MARTIN, Deputy

PATRICIA L. TYRRELL, Deputy
ROBERT W. PAUL, Deputy
JENNIFER YASUMOTO, Deputy
KRISHAN CHOPRA, Deputy
CARRIE R. GALLAGHER, Deputy

January 25, 2005

Norbert Frost, Esq.
Law Offices of Norbert Frost
1517 Tennessee Street
Vallejo, CA 94590

Re: City of American Canyon v. Couch

Dear Mr. Frost:

On December 9, 2004, I sent you a letter requesting an accounting of the trust funds being held to perform the required cleanup of the Couch property. To date, I have not received anything from you in this regard and would appreciate receiving such an accounting in the near future. I believe it is beneficial for all parties to know where we stand as to what funds remain to perform the necessary cleanup activities that remain.

There also remain numerous tasks listed in the Stipulated Order that need to be performed. I believe the following summarizes the major issues that remain (the identified paragraph numbers coincide with the Order):

1. Paragraph 1 - Identification of all tenants/occupants on the property. Other than Hurst Firewood and Sherwood Forest, please provide an update on who remains on the property or has some tenancy interest.

2. Paragraph 7 - The Order required the five trailers to be removed from the property by February 15, 2004, or obtain the appropriate permits for them to remain. This work remains uncompleted.

3. Paragraph 8 - The Couch's were required to demolish/remove the four underground tanks no later than May 1, 2004. These items still remain on the property.

4. Paragraph 10 - Scrap metal was to have been removed from the property by May 31, 2004. Although some has been removed, there still remain some such items on the property.

5. Paragraph 11 - By May 1, 2004, the Couch's were to remove all abandoned or dismantled motor vehicles (other than those belonging to the Couch's), and remove the fifteen pieces of heavy equipment. Numerous motor vehicles remain, and the County would like assurances that those remaining are in fact the personal property of the Couch's. Various pieces of heavy equipment have not yet been removed.

6. Paragraph 13 - All motor vehicle tires were to have been removed by March 1, 2004. Although the vast majority has been removed, there still remain some tires on the property.

7. Paragraph 15 - Appropriate permits were to have been obtained for Dave Couch's barn by May 1, 2004, or be demolished and removed by May 31, 2004. The barn remains and has not been permitted.

8. Paragraph 16 - Appropriate permits were to have been obtained for Robert Couch's garage and sheds or be demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

9. Paragraph 18 - All structures in Area 5 used by Glen Couch were to have been demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

10. Paragraph 19 - All structures in Area 5 used by George Couch were to have obtained necessary permits or have been demolished and removed by May 31, 2004. The requirements of this paragraph have not been complied with.

The timelines established in the Stipulated Order for completing the above referenced tasks have not been complied with. I would hope that your clients would continue with their cooperative efforts to bring the property into compliance with the terms and conditions set forth in the Stipulated Order. To that end, please provide me with a timeline in which your clients believe they can accomplish the necessary remaining work in the near future. Hopefully their proposal will be acceptable, which will obviate the need for the County to seek judicial assistance in having these tasks completed. Your prompt attention to these matters is requested.

Very truly yours,

Robert Paul

Robert Paul, Deputy County Counsel

cc: Daryl Roberts - District Attorney Office
Trent Cave - Director Environmental Management
Ed Colby - County Code Enforcement

HF219

LIST OF REPORTS
COUCH PROPERTY
2 EUCALYPTUS DRIVE, AMERICAN CANYON, CA
NAPA COUNTY SITE LOP-219

Report No.	Report Date	Report Title/Description
#1	not shown	Analytical report (samples collected 11/09/1990

HF219
RPT

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-1

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM ONE	Aqueous	STEVEN WALLIS	19 NOV 90/13:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Chloride	15.	1.0	mg/L	(325.3)	12-11-90	FH	
pH	<0.5		Units	(150.1)	12-11-90	FH	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit
** Qualitative analysis indicated a high level of sulfate.

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

CALTEST ANALYTICAL LABORATORY

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number: 90-11288-6

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

PROJECT: ROBERT COUCH PROPERTY

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
DRUM SIX	Aqueous	STEVEN WALLIS	19 NOV 90/16:00	21 NOV 90

CONSTITUENT	RESULT	*D.L.	UNITS	METHOD	ANALYZED	BY	NOTES
Phenol	65.5	0.02	mg/L	9065	12-12-90	MT	

EPA SW-846 Method, except where noted
() indicates EPA 600/4 METHODS; SM indicates Standard Methods 17th edition.
* Detection Limit

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Laboratory Director

1885 North Kelly Rd. • Napa, California 94558 • (707) 258-4000
FAX: 707-226-1001

CALTEST ANALYTICAL LABORATORY

RECEIVED
JAN 24 1991
HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CERTIFIED ENVIRONMENTAL SERVICES

Lab Number 90-11288-1 & 6

PROJECT: ROBERT COUCH PROPERTY

CLIENT: Catherine Moody
Napa County, Dept. of Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

The quality control data pertinent to the above samples submitted on November 21, 1990 is as follows:

CONSTITUENT	DUPLICATION (mg/L)	SPIKE RECOVERY (%)	EXT.STD.RECOVERY (%)
Chloride	120 / 120	105	96
Phenol	0.114 / 0.113	114	88

CALTEST ANALYTICAL LABORATORY

Maynard Albertson
Lab Director

MA:ct
1/22/91

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacterio & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
M8D5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#446A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST-TO-COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/arc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: NB-1449
Collected: 11/19/90
Received: 11/21/90
Tested: 11/30/90
Collected by: S. Wallis

FUEL FINGERPRINT ANALYSIS
CAL DHS (TPH Draft) Method & EPA Method 8240/8260-(GC/MS)
Extracted by EPA Method 5030 (purge-and-trap)**

Napa County Department of
Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

SAMPLE DESCRIPTION:
Proj #APN 58-030-17, Robert Couch Property
C#9011-288-6
Drum #6, Liquid

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Total Purgeable Petroleum Hydrocarbons		
(Diesel #2)	100.	4400.
(Gasoline, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits.....	100.	not found
Percent Surrogate Recoveries		93/97/87

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

NOTE: High concentration of some analytes caused the sample to be run diluted, resulting in raised Practical Quantitation Limits for all analytes. Refer to instrument Blank for undiluted Practical Quantitation Limits.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/04
NB1449F2.wr1/FFP57
MH/hc/gb/gb/hc

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
141 Suburban Road , Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: B113ØØ
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:

Fuel Fingerprint Analysis - CAL DHS TPH Method & EPA Method 824Ø/826Ø-(GC/MS)
Extracted by EPA Method 5Ø3Ø (purge-and-trop)**

CCAS-NAPA

SAMPLE DESCRIPTION:
Instrument Blank for 11/3Ø/9Ø MSD#1

Compound Analyzed	Detection Limit in ug/l (PQL)*	Concentration in ug/l
Benzene	Ø.1	not found
Toluene	Ø.5	not found
Ethylbenzene	Ø.5	not found
Xylenes	Ø.5	not found
1,2-Dichloroethane (EDC)	Ø.1	not found
Ethylene Dibromide (EDB)	Ø.1	not found
Total Purgeoble Petroleum Hydrocarbons (Gasoline)	5Ø.	not found
(Diesel #2, Stoddard Solvent, Kerosene, Jet Fuel, Mineral Spirits) ...	5Ø.	not found
BTX os a Percent of Total Fuel		n/a
Percent Surrogate Recoveries		73/83/1Ø4

*(Practical Quantitation Limit)
**Soils sonicated during extraction
Constituents reported as "not found" would have been reported if present at or above the listed practical quantitation limit.

Respectfully submitted,
COAST-to-COAST ANALYTICAL SERVICES
Mary Havlicek
Mary Havlicek, Ph.D.
President

MSD #1-12/Ø4
B113ØØFW.wr1/FFP57
MH/hc/gb/hc

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	•	San Luis Obispo, CA 93401	•	(805) 543-2553	•	Fax (805) 543-2685
751 S. Kellogg, Suite A	•	Goleta, CA 93117	•	(805) 964-7838	•	Fax (805) 967-4386
1885 North Kelly Road	•	Napa, CA 94558	•	(707) 257-7211	•	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	•	Sacramento, CA 95826	•	(916) 368-1333	•	Fax (916) 362-2484
2400 Cumberland Dr.	•	Valparaiso, Indiana 46383	•	(219) 464-2389	•	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
POLYNUCLEAR AROMATICS				
Acenaphthylene	(208968)	50.	ND	
Acenaphthene	(83329)	50.	150.	
Anthracene	(120127)	50.	60.	
Benzo(a)anthracene	(56553)	50.	ND	
Benzo(b)fluoranthene	(205992)	50.	ND	
Benzo(k)fluoranthene	(207089)	50.	ND	
Benzo(a)pyrene	(50328)	50.	ND	
Benzo(ghi)perylene	(191242)	50.	ND	
Chrysene	(218019)	50.	ND	
Dibenzo(a,h)anthracene	(53703)	50.	ND	
Fluoranthene	(206440)	10.	20.	
Fluorene	(86737)	50.	440.	
Indeno(1,2,3-cd)pyrene	(193395)	50.	ND	
Naphthalene	(91203)	50.	850.	
Phenanthrene	(85018)	50.	910.	
Pyrene	(129000)	10.	50.	
Methylnaphthalenes		50.	9400.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/11/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
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CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4888-1
Project : CDG/County Haz Mat

Analyzed : 01/09/91
Analyzed by: LP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
G-4504-1 Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL mg/Kg	RESULT mg/Kg	NOTE
SPECIFIC PHENOLS-ACID FRACTION				
4-Chloro-3-methylphenol	(59507)	50.	ND	
2-Chlorophenol	(95578)	50.	ND	
2,4-Dichlorophenol	(120832)	50.	ND	
2,4-Dimethylphenol	(105679)	50.	1400.	
2-Methylphenol	(95487)	50.	130.	
4-Methylphenol	(106445)	50.	1300.	
Pentachlorophenol	(87865)	50.	ND	
Phenol	(108952)	50.	ND	
2,3,4,6-Tetrachlorophenol	(95487)	50.	ND	
2,4,5-Trichlorophenol	(95954)	50.	ND	
2,4,6-Trichlorophenol	(88062)	50.	ND	
Total Listed Chlorophenols		50.	ND	
Total Listed Phenols		50.	2800.	

CCAS is Certified by CA Department of Health Services: Laboratory #131
* RESULTS listed as 'ND' were not detected above the listed PQL (Practical Quantitation Limit)

01/09/91
MSD5/#K44A
MH/erc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

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2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-1
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Two	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K44A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2400 Cumberland Dr. • Valparaiso, Indiana 46383 • (219) 464-2389 • Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-2
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Three	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K45A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	•	San Luis Obispo, CA 93401	•	(805) 543-2553	•	Fax (805) 543-2685
751 S. Kellogg, Suite A	•	Goleta, CA 93117	•	(805) 964-7838	•	Fax (805) 967-4386
1885 North Kelly Road	•	Napa, CA 94558	•	(707) 257-7211	•	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	•	Sacramento, CA 95826	•	(916) 368-1333	•	Fax (916) 362-2484
2400 Cumberland Dr.	•	Valparaiso, Indiana 46383	•	(219) 464-2389	•	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-3
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Four	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K46A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

141 Suburban Road	San Luis Obispo, CA 93401	(805) 543-2553	Fax (805) 543-2685
751 S. Kellogg, Suite A	Goleta, CA 93117	(805) 964-7838	Fax (805) 967-4386
1885 North Kelly Road	Napa, CA 94558	(707) 257-7211	Fax (707) 226-1001
9333 Tech Center Dr., Ste. 800	Sacramento, CA 95826	(916) 368-1333	Fax (916) 362-2484
2400 Cumberland Dr.	Valparaiso, Indiana 46383	(219) 464-2389	Fax (219) 462-2953

CLIENT: Napa Co Dept of Env Management
Caltest Associates
1885 North Kelly Road
Napa, CA 94558

Lab Number : G-4504-4
Project : CDG/County Haz Mat

Analyzed : 11/30/90
Analyzed by: DP
Method : EPA 8270

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
Drum Five	Free Product/ Liquid	Steven Wallis	11/19/90	11/23/90

CONSTITUENT	(CAS RN)	*PQL %	RESULT %	NOTE
TOTAL SEMIVOLATILE PETROLEUM HYDROCARBONS				1
Total Petroleum Hydrocarbons (Diesel #2)		0.05	>99.	
Total Petroleum Hydrocarbons (Diesel #4)		0.05	Not Found	
Total Petroleum Hydrocarbons (Crude Oil)		0.05	Not Found	
Total Petroleum Hydrocarbons (Jet Fuel)		0.05	Not Found	
Total Petroleum Hydrocarbons (Kerosene)		0.05	Not Found	
Total Petroleum Hydrocarbons (Stoddard Solvent)		0.05	Not Found	
Total Petroleum Hydrocarbons (Motor Oil)		0.05	Not Found	

RESULTS listed as 'Not Found' would have been reported if present at or above the listed PQL
* Practical Quantitation Limit
(1) Sample Preparation on 11/30/90 by DSP using 3580

12/04/90
MSD5/#K47A
MH/erc/lap

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D.
President

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 934Ø1
(8Ø5) 543-2553

Lab Number: QS-112Ø-1
Collected:
Received:
Tested: 11/3Ø/9Ø
Collected by:
Extracted on: 11/2Ø/9Ø

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/827Ø (GC/MS)

CCAS

SAMPLE DESCRIPTION:
ANALYTE-FREE WATER SPIKE, Spiked to 16ØØØ ug/L with Diesel #2

Component Determined	Detection Limit in ug/L (PQL)*	Concentration w/spike in ug/L	Percent Recovery
Total Petroleum Hydrocarbons (Diesel #2)	2ØØ.	8ØØØ.	5Ø.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 351Ø.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/Ø7/9Ø
QS112Øt1.wr1/71
MH/dp/lp/co

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
141 Suburban Road
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: QL-1120
Collected:
Received:
Tested: 11/30/90
Collected by:
Extracted on: 11/20/90

TOTAL PETROLEUM HYDROCARBON ANALYSIS
EPA METHOD 625/8270 (GC/MS)

CCAS

SAMPLE DESCRIPTION:
EPA METHOD 3510 METHOD BLANK

Component Determined	Detection Limit in ug/L (PQL)*	Concentration in ug/L
Total Petroleum Hydrocarbons	200.	<200.

*(Practical Quantitation Limit)

The values presented are developed by comparison of sample extracts with a simulated extract prepared from authentic Diesel #2. Internal standards are employed for greater accuracy. Sample was extracted by EPA Method 3510.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Donald R. Cortes, Group Leader

Mary Havlicek, Ph.D., President

MSD#5
12/07/90
QL1120t.wr1/71
MH/dp/dp/co

RECEIVED

JAN 24 1991

HAZARDOUS MATERIALS SECTION
DEPT. OF ENVIRONMENTAL MANAGEMENT

CHAIN-OF-CUSTODY RECORD

AHF 2/19
RPF

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
625 Imperial Way, Suite 9
Napa, California 94559

Note: Level One OC gross work only

Date of Sample Collection		Turnaround Time
NOV 19, 1990	APN 58-030-17	standard

Responsible Party	Site Name	
Robert Couch and Occupants	Robert Couch Property	
Site Address	**City**	**Zip Code**
#2 Eucalyptus Drive	American Canyon	

Signature of Sample Collector	Name of Collector (print)	Company/Agency
Steven Wallis [signature]	Steven Wallis	CDF / County Haz Mat

SAMPLE #	SAMPLE TYPE	TYPE & # OF CONTAINERS	TIME OF COLLECT approx	ANALYSES REQUESTED	COMMENTS/ DETECTION LIMITS
drum one	liquid	glass jar one pint	1:00pm	pH, chlorides	pH ≈ 1, suspect HCL
drum two			2:00pm	tph, heavy	dark red-brown, viscous
drum three			2:30pm	tph, heavy	dark red-brown, viscous
tank four			3:00pm	tph, heavy	dark red-brown viscous
drum five			3:45pm	tph, heavy	dark red-brown viscous
drum six	liquid	glass jar one pint	4:00pm	tph, light, phenol	brown-green, non-viscous

Samples 2 thru 5 may be hydraulic oil or motor oil

Chain of Custody:

	Relinquished by (Sign & Print)	Company/Agency	Time and Date
1	[signature]	County Haz Mat	1625
2	Catherine S. Moody	Napa County Dept of Env. Mgmt	1625
3	Catherine S. Moody	Napa County Dept. of Env. Mgmt	1125 11-21-90
4	Peter W. Halpin	Caltest Laboratory	1125 11-21-90
5			
6			

Method of Shipment: Hand delivered.

Shipping Requirements/Special Remarks:

White-Remains with Samples Returned from Lab with Results Yellow-Courier Pink-Sampler

CALTEST ANALYTICAL LABORATORY
Certified Environmental Services

1885 North Kelly Rd. • Napa, California 94558
(707) 258-4000 • FAX: 707-226-1001

INVOICE NO. 5698

]
Napa County Department of
/Environmental Management
625 Imperial Way, Suite 9
Napa, CA 94559

INVOICE DATE	LAB NUMBER	
January 29, 1991	9011-288-1 to 6	
PROJECT NUMBER	**PURCHASE ORDER NUMBER**	**TERMS**
#2 Eucalyptus Drive - Robert Couch Property	Sampled 11/19/90	Net 30 Days

QTY.	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
	Professional Services		
4	EPA 8270 Semivolatile Petroleum Hydrocarbons	160.	$ 640.
	EPA 8015 Total Purgeable Petroleum Hydrocar	80.	80.
	EPA 8270 Acid Fraction + PNA	140.	140.
	pH	10.	10.
	Chloride	20.	20.
	Phenols	40.	40.
			$ 930.

Our File HF219

See [illegible]
[illegible] questions

Accounts past due will atuomatically receive a FINANCE CHARGE of 1.5% per month on the upaid balance.

REMITTANCE

2690

Environmental

Cover Sheet

APN	058 - 030 - 066 - 000
Permit #	
Program	SD
DocType	pmt
Street #	2
Street Name	Eucalyptus Dr
Year	1966



58-030-17

OWNER Robert Caudle Job Address Napa Disposal Dump Rd.

HOME ADDRESS 1899 Delux, Vjo. Phone Date 6-3-66

CONTRACTOR Self Phone

LOT SIZE 1.65 ac. X LOT BLOCK IN SUBDIV.

WATER SYSTEM ☐ PUBLIC ☑ INDIVIDUAL WELL ☐ Building Dept. Form Received

SEWAGE DISPOSAL PERMIT

County of Napa — Department of Public Health

P. O. Box 749 — 2281 Elm Street — BAldwin 4-5433

No 2730

WORK APPLIED FOR:

- ☑ Dwelling ☐ Other
- ☑ New Construction
- ☐ Additions, alterations, repairs
- ☑ Private ☐ Subdivision
- ☑ No. Bedrooms 5 ☐ Garbage Grinder

Pre. Inspection: Date Initial

TANK 1200

DISPOSAL FIELD 6 - 100' lines

(See specification sheets)

Location: Napa Disposal Dump Rd. PERMIT FEE $ 10.00

PAID 6-3-66 RECEIPT NO. 27115

Form by D.J.S. SIGNED Robert F. Caudle

2692

(A) FORMS, TRENCHES: Date 9-24-73 Initials JM Tank Level ___/___

inspected 1,200 gal. septic tank and 3-100' leach lines — (2 more lines must be installed and inspected). JM

(B) FINAL: Date Approved 10-9-73 Initials JM /

inspection of final 2 100' lines — system completed —

House Set Back ___ Soil Type ___ Slope / 100 ___ Direction ___

Drain Field

Nearest Lot Line Front ☐ Side ☐ Rear ☐ No. of Lines ___ Length Each ___

Distance Between ___

Distance, Lines from Foundation ___ Gravel under ___ over ___ Top of Tile to Finish Grade ___

Distance well from drainfield 100+ No. of Bathrooms 5 No. of Family Units 2

Remarks ___

2693

FROM: Napa County Planning Commission TO: Napa County Health Department

Zoned M-2 - Use Permit Req.

Please review the following proposed development for conformance with laws and ordinances enforced by your department.

Name Robert L. Couch
Owner, Contractor, Subdivider (Circle one)

Job Address

Mailing Address 58-030-17

Type of Development Dwelling

Signed J. Hughes
Planning Commission

Date 3-11-66

Approved: Date 6-3-66 By: D.T. Barlow
Health Department

Remarks:

BOARD'S APPROVAL GIVEN ON 11-26-66
PLANNING COMM. DENIED REQUEST ON 4-4-66

Form: HD-BD #1 (1-1-64)

2694

Environmental

Cover Sheet

APN	058 -030 -006 -000
Permit #	
Program	up
DocType	COR
Street #	2
Street Name	Eucalyptus Dr
Year	



NAPA COUNTY CONSERVATION, DEVELOPMENT and PLANNING DEPARTMENT

Charles Wilson
Director

1195 Third Street, Room 210 • Napa, CA 94559-3092
Telephone 707/253-4416 FAX 707/253-4336

July 3, 2001

Michael Sinatra
SHERWOOD FOREST PAINTBALL
1236 Spring Street
St Helena CA 94574

RE: Use Permit #00308-UP
APN 58-030-~~017~~ 06

Dear Mr. Sinatra:

Please be advised that the above-referenced **Use Permit** was **APPROVED** by the Napa County Conservation, Development & Planning Commission on June 6, 2001 based on the attached conditions. The permit became effective on June 21, 2001, pursuant to Napa County Code Chapter 2.88.

Pursuant to Section 18.124.080 of the Napa County Code, the use permit must be activated within one year and ten calendar days from the approval date, or it shall automatically expire and become void on **June 17, 2002.**

An extension of time in which to activate the permit may be granted for a maximum of 12 months, upon application no more than 45 days prior to expiration, and payment of fees in effect at the time of application.

This letter is your only notice regarding expiration and procedures for extension of this permission.

Very truly yours,

Robert Miller for
Michael Miller
Deputy Planning Director

RECEIVED
JUL 06 2001
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

cc. John Tuteur, Assessor
Gary Brewen, Building Codes Administrator
Larry Bogner, Public Works
Christine Secheli, Environmental Management
Barbara Easter, County Fire Department
Charles Meibeyer, Attorney
Robert Couch, property owner

CONDITIONS OF APPROVAL
Use Permit #00308-UP (Sinatra/Couch)

1. The permit is limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 50 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration. Days and hours of operation shall be limited to weekends for general public use and weekdays by groups on a prior appointment basis, sunrise to sunset.

2. The permit shall be limited to a ten (10) year period, with department review at three (3) and six (6) years. The permit holder shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The permit holder may seek use permit approval at the end of the ten (10) years.

3. A written maintenance agreement, which provides for annual inspections and recommended improvements of the on-site access road by the permit-holders engineer, shall be submitted to the Director and to the Department of Public Works on an annual basis.

4. A minimum of twenty (20) off-street parking spaces shall be maintained on a surface approved by the Department of Public Works.

5. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

6. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to the County's Risk Manager.

7. The permit holder shall comply with all applicable building codes, zoning standards and requirements of various County departments and other agencies as stated in the following:
   Department of Public Works letter of ~~April 25, 2001.~~ MAY 18, 2001 RP
   Department of Environmental Management memo of February 2, 2001.
   Napa County Fire Department memo of January 30, 2001.

8. An overflight and noise easement, acceptable to the Director of Aviation, shall be dedicated to the County of Napa prior to conducting any paintball games.

9. No tournaments or special events shall be conducted on the property.

10. No overnight camping or overnight stay in vehicles shall be allowed.

11. Fires and/or outdoor cooking shall be prohibited.

12. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

13. No alcoholic beverages shall be consumed on-site.

14. The playing field boundary shall be clearly marked.

15. Access roads shall remain clear and gates unlocked during playing hours.

16. Security personnel shall be provided from among those in attendance.

17. At the end of each playing day, the site, access road and surrounding area shall be left in a clean and orderly condition.

18. All staff costs associated with monitoring compliance with these conditions and project revisions shall be borne by the applicant and/or property owner, other than those costs related to investigation of complaints of non-compliance which are determined to be unfounded. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time.

PUBLIC WORKS DEPARTMENT
INTER-OFFICE MEMO

May 18, 2001

TO: Conservation Development and Planning Department

FROM: Annamaria Martinez, Junior Engineer

SUBJECT: **REVISED:** Sinatra/Sherwood Forest Paintball,
#2 Eucalyptus Drive, American Canyon
APN# 058-030-017, File #00308-UP

This application will allow the applicant to establish a paintball recreational operation and to construct eight new parking spaces on a 10-acre portion of a 165.5-acre parcel located on the north side of Eucalyptus Drive approximately 4,000-feet west of Donaldson Way.

EXISTING CONDITIONS:

1. Existing access road is 12-feet wide at the connection with Eucalyptus Drive, varying in width from 11 to 14-feet to the proposed entrance to the Paintball Park. The access road is roughly a four-inch thick gravel road.

2. An existing swale along Eucalyptus Drive is in disrepair near the access driveway and there is no visible culvert.

3. Parking surface is currently dirt and gravel.

RECOMMENDED CONDITIONS:

1. Access drive shall be a minimum of 18 feet wide with 2 feet of shoulder. Structural section shall be a minimum 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent. (County Road and Street Standards, Page 9, Par. 12)

   An exception to the Napa County Road and Street Standards was granted to the previous use permit holder for said property. The Public Works Department granted the exception for the access road due to the limited use of the property, i.e. weekend and dry-weather use only, and a letter written by a registered Civil Engineer, in which the engineer states that access road is acceptable for intended uses. The current applicant also proposes limited use of the property and has submitted, along with his application, a letter from Bartelt Engineering; therefore, the conditions of the previous exception also apply to this applicant.

2. Any parking proposed by the applicant or required by the Planning Commission as a condition of this use permit must have a minimum structural section of 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent.

   An exception to the Napa County Road and Street Standards for commercial parking areas was also granted to the previous use permit holder based on the limited use of the facility and the assertion by a licensed civil engineer that the access road and parking areas are acceptable for the intended use. (See #1 above)

3. Parking lot details shall conform to the requirements of the latest edition of the "Napa County Road and Street Standards."

4. Any necessary storm drainage improvements shall conform to the latest "Napa County Road and Street Standards."

   This includes the addition of a culvert and repair of the swale at the driveway connection with Eucalyptus Drive.

5. The applicant must obtain an encroachment permit for any work performed within the Napa County Right-of-Way, including item number 4, above.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items at this time please contact Annamaria Martinez or Larry Bogner of this office.

cc: Michael Sinatra, 1236 Spring Street, St. Helena, CA 94574
Robert and Patricia Couch, c/o #2 Eucalyptus Drive, American Canyon, CA 94588

MEMORANDUM

RECEIVED
FEB 05 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEP

February 2, 2001

TO: Napa County Planning Department, Jeff Redding, Director

FROM: Napa County Environmental Management Department,
Christine Secheli, R.E.H.S., Environmental Health Manager

Use Permit Application for Michael Sinatra/Sherwood Forest Paintball
Located at2 Eucalyptus Drive
Assessor Parcel # 58-030-17
File # 00308-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

3. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

cc: Mr. Michael Sinatra, 1236 Spring St., St. Helena, CA 94574
Mr. Robert Couch, c/o #2 Eucalyptus Dr., American Canyon, CA 94588

RECEIVED
JAN 30 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

INTER-OFFICE MEMO

TO: Jeffrey Redding, Director
Conservation, Development, and Planning Department

FROM: Barbara Easter, Fire Department

DATE: January 30, 2001

SUBJECT: Sinatra/Sherwood Forest Paintball Use Permit Comments
Apn: 058-030-017 00308-UP

Site Address: 2 Eucalyptus Drive, American Canyon

The Napa County Fire Marshal staff has reviewed the Sinatra/Sherwood Forest Paintball Use Permit application to establish a paintball recreational operation on a 10-acre site. We recommend that the following items be incorporated as project conditions or mitigation measures if the commission approves the project.

1. Access roads from the public and/or private right-of- ways to the project/ building site shall comply with Napa County Road and Street Standards and shall be reviewed by the Napa County Public Works Department.

2. The request for beneficial occupancy ***will not*** be consider until all fire and life safety issues have been installed, tested and final.

3. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide driving capabilities in all weather conditions. Said access shall be provided prior to any construction or storage of combustible materials on site.

4. The approved address numbers shall be placed on each building by the applicant in such a position as to be plainly visible and legible from the street fronting the property and shall be placed as to be seen from all entrances. Proposed address shall be indicated on the elevation drawings contained within the building plan submittal. The address numbers shall be a minimum of 10" in height, contrasting in color with their background and shall be illuminated.

5. An approved project sign shall be placed at vehicle access points into the project during construction to assist emergency responders. The sign shall identify the project name and address. Such signs shall be clearly visible and legible from the street fronting the project.

6. A Knox box or a Knox Cabinet shall be installed at approved location by the Napa County Fire Marshal's Office. If the building/suites are protected by a fire or burglar alarm system, the boxes will require "*tamper*" monitoring.

7. The Knox rapid entry system shall have one or all of the following items placed in the Knox box or Knox cabinet, dependant on requirements of this facility:

    1. A minimum of 2 master keys to the building(s) for emergency access.
    2. Scaled site plan of the facility, identifying all buildings, hydrants, fire department access around the facility, and location of all water, electric, and gas shut-off valves.
    3. Scaled floor plans of all buildings showing doors, offices, etc.
    4. Napa County Hazardous Materials Business including all MSDS forms, etc.

8. "Fire Plan Review and Inspection" fees shall be paid to the Fire Department for all applicable plan review and inspection work at the established deposit basis plus project consultation time at the hourly rate of $59 per hour (Napa County Resolution 92-65).

BYRON J. CARNIGLIA
Fire Chief

By: Barbara A. Easter

Barbara Easter
County Fire Inspector

BJC/be/be
cc: Applicant, D-1404 Loveless,
B-1416 Streblew, CFM Files, Chron

MEMORANDUM

February 2, 2001

TO: Napa County Planning Department, Jeff Redding, Director

FROM: Napa County Environmental Management Department,
Christine Secheli, R.E.H.S., Environmental Health Manager

Use Permit Application for Michael Sinatra/Sherwood Forest Paintball
Located at2 Eucalyptus Drive
Assessor Parcel # 58-030-~~17~~ 66
File # 00308-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

3. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

cc: Mr. Michael Sinatra, 1236 Spring St., St. Helena, CA 94574
Mr. Robert Couch, c/o #2 Eucalyptus Dr., American Canyon, CA 94588

UP/ SE-1. adequate Any permanent.....
SW-4, 1

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
JAN 19 2001
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

60-1366

TO: Environmental Management 58-030-17

APPLICATION TITLE: SINATRA/SHERWOOD FOREST PAINTBALL FILE #: 00368 UP

RESPONSE REQUEST DATE: 01/19/01 RESPONSE RETURN DATE: 02/05/01
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 • (707) 253-4416

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW:AC

FILE NO: 00308-UP

REQUEST:

Use Permit request to establish a paintball recreational operation on a 10 ac. portion of a 165.5 ac. parcel located on the north side of Eucalyptus Drive approximately 4000 feet west of Donaldson Way within an AW:AC zoning district. (APN 58-030-017)

Date Submitted: 17 Jan 01

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Michael Sinatra Telephone#: (707) 522-7566

Site Address: #2 Eucalyptus Drive, American Canyon, CA 94588
No Street City State Zip

Mailing Address: 1236 Spring Street, St. Helena, CA 94574
No Street City State Zip

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert & Patricia Couch Telephone#: (707) 644-6239

Mailing Address: c/o #2 Eucalyptus Drive, American Canyon, CA 94588
No Street City State Zip

Assessor's Parcel #(s): Portion of 58-030-017 **Existing Parcel Size:** 165.5 Acres

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Michael Sinatra 10-16-2000 Robert L. Couch, Jr. 10/16/2000
Signature of Applicant **Date** **Signature of Property Owner** **Date**

Michael Sinatra
PRINT NAME

Robert L. Couch, Jr
PRINT NAME

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

Total Fee: ~~$1376.00~~ 125.00 + 2,240.00 Receipt# 99901 Received by: W. F. Sellick Date: 17 Jan 01

($125.00 pre-applicationfee + $1251.00 balance due)

CDPC 3/25/98

2706

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Opereration of a recreational paintball playfield within a eucalyptus grove on weekends for public useand on weekdays by private appointment only.

B. Project Phases: [x] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date ~~for Each Phase:~~ Phase 1 Spring, 2001 Phase 2: _____

D. Actual Construction Time Required for Each Phase: [ ] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: Upgrade of access road for customer use and for use by emergency vehicles.

F. Additional Licenses/Approval Required: N/A

District: _____ Regional: _____
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): proposed total floor area on site: N/A
new construction: N/A

existing structures or portions thereof to be utilized: N/A

existing structures or portions thereof to be moved: N/A

B. Floor Area Devoted to each separate use (in square ft): N/A

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: N/A new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Height of Crane necessary for construction of new buildings (*airport environs*): N/A

F. Type of Exterior Night Lighting Proposed: N/A

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	12	20
B. Customer Parking Spaces:	11	18
C. Employee Parking Spaces:	1	2
D. Loading Areas:	N/A	

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IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:		Weekends & weekdays by prior appointmen
B. Expected Hours of Operation:	Sunrise-Sunset	Same
C. Anticipated Number of Shifts:		One
D. Expected Number of Full-Time Employees/Shift:		One
E. Expected Number of Part-Time Employees/Shift:		None
F. Anticipated Number of Visitors • busiest day:		50
• average/week:		250
G. Anticipated Number of Deliveries/Pickups • busiest day:		2
• average/week:		4

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities N/A

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers N/A

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

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NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc.)	Bottled Water	
B. Name of Proposed Water Supplier (if water company, city, district):		
annexation needed?	Yes___ No___	Yes___ No___
C. Current Water Use (in gallons/day):		
Current water source:		
D. Anticipated Future Water Demand (in gallons/day)		
E. Water Availability (in gallons/minute):		
F. Capacity of Water Storage System (gallons):		
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):		

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g., on-site septic system on-site ponds, community system, district, etc.):	portable/chemical toilets	
B. Name of Disposal Agency (if sewage district, city, community system):	by operator	
annexation needed?	Yes___ NoXX	Yes___ NoXX
C. Current Waste Flows (peak flow in gallons/day):	N/A	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	N/A	
E. Future Waste Disposal Capacity (in gallons/day):	N/A	

III. SOLID WASTE DISPOSAL		
A. Operational Wastes (on-site, landfill, garbage co., etc.)	Landfill	
B. Grading Spoils (on-site, landfill, construction, etc.)	on-site	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (on-site, landfill, garbage co., waste hauler, etc.):	N/A	
B. Name of Disposal Agency (if landfill, garbage co., private hauler, etc.):		

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JAN 17 2001
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

PROJECT STATEMENT FOR MICHAEL SINATRA USE PERMIT APPLICATION

This application is for a use permit on behalf of Michael Sinatra doing business as "Sherwood Forest Paintball" for the operation of a paintball playing field on a 10-acre portion of a 165.5-acre parcel owned by Robert and Patricia Couch. That entire parcel is known as APN 58-030-17.

The applicant, Michael Sinatra, is an experienced operator of this type of recreational playing field. Since 1992 Mr. Sinatra operated a similar playing field on Mare Island and has operated another in the City of Rohnert Park since 1995. Due to a development project undertaken by the California Department of Transportation, Mr. Sinatra was forced to relocate his Mare Island operations with essentially no notice when Highway 37 improvements commenced. After an exhaustive search, the Couch property has been determined to be the only suitable location for Mr. Sinatra's business in the greater Bay Area.

This particular area of American Canyon has long since been associated with paint ball playing fields. With apparent recognition of the entertainment value of this activity for diverse segments of the population, these operations have been consistently granted use permits by the County to operate on the Couch property. Examples include:

1. Mr. Dean Laing previously operated a paintball playing field, use permit #93388-UP, on just one half of the 10-acre space covered by this application. With a lease on only approximately 5 acres, Mr. Laing obtained approval from the County for 20 people to use his playing field each day. That number of people was served by 12 parking spaces.

2. The "Paintball Jungle" business (known in Permit #94354-UP, as "Vallejo Paint Ball Park") is operating under a ten year use permit. This site is directly adjacent to the Sherwood Forest site and is operated by Robert D'Elia. It was first granted a use permit by the County in May of 1994. That use permit allows up to 50 people each day to play paintball games at this site. To accommodate them, a total of 20 parking spaces were created by the operator and approved by the County. One issue that caused particular concern to the County when that application was considered was the lack of quality access roads. In particular, there was concern that emergency vehicles would not have access to the playing field during winter months. That concern was subsequently addressed when the applicant presented an engineer's report in which he agreed to improve the access roads to conform with the Napa County Fire Department's standards.

3. Finally, Use Permit # 91541-UP previously was in effect for a paintball operation on another section of the Couch property.

Mr. Sinatra proposes to operate his playing field similar to the preexisting paintball operations on the Couch Property. As such, his playing field will be open from sunrise to sunset on weekends for general public use. Due to the success of paintball fields for a greater audience in recent years, he also proposes to use the playing field for weekdays by groups on a prior private appointment basis. The audiences he can reach with this weekday use include church groups, non-profit organizations, and youth civic, and corporate groups. With twice the space as Dean Laing, Mr. Sinatra has requested an increase in the operation's capacity up to 50 people each day. To accommodate these additional users, Mr. Sinatra proposes to increase his parking by 8 spaces up to a total of 20 spaces, the same number as has been required for the D'Elia operation, which also is permitted for up to 50 customers per day.

Mr. Sinatra is aware of concerns that the access road leading to his playing field may not permit emergency vehicles to reach his playing field in winter months. To this end, consistent with the requirements imposed on Mr. Elia, Mr. Sinatra proposes to retain the services of a qualified engineer to advise him regarding the work that needs to be performed to provide all weather access to the site. This plan would be submitted for approval by the Public Works Department as a condition of approval for the project. Customers will access Mr. Sinatra's portion of the Couch Property by turning off Eucalyptus Drive on the easterly edge of the eucalyptus grove in which the paintball activities take place, driving in a northerly direction along an existing uninmproved access road that Mr. Sinatra will improve. These improvements will substantially improve the quality of the access road serving Mr. Sinatra's site. They will also serve to improve the safety of the access to the entire Couch property.

RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Sherwood Forest Paintball Player History

I have operated Mare Island Paintball in Vallejo on land leased to me by the City of Vallejo for approximately ten years. I have been displaced by Cal Trans due to the Highway 37 widening project. It is important to stay in the same area because a majority of my players come from the local area of Napa, the Highway 29 corrider, American Canyon and Vallejo. This year at the Napa County Fair we had a booth promoting Paintball. The only advertising I am currently doing is on the AT&T cable message channel which covers Napa. I have many players from all walks of life from Napa who have enjoyed Paintball. This new location off Highway 29 brings me several miles closer to my playership.

BARTELT engineering

January 11, 2001
#00-83

Jeff Redding
Napa County Conservation, Development
and Planning Department
1195 Third Street, Room 210
Napa, CA 94559

Re: Sherwood Forest Paintball Facility, Eucalyptus Drive, Napa County, CA, APN 058-030-017

Dear Mr. Redding:

At the direction of Michael Sinatra, proprietor of Sherwood Forest Paintball Facility, I have evaluated the current condition of the existing access road. The location of the existing facility is in Napa County west of the city limits of American Canyon. The facility is accessed by an existing road north of Eucalyptus Drive, approximately 4,000 feet west of Donaldson Way. The road in question proceeds north approximately 650 feet from it's intersection with Eucalyptus Drive to the parking lot as shown on the attached site plan. My review included emergency vehicle accessibility to the site year round.

A site reconnaissance revealed that the existing access road and parking lot has a 2 inch to 4 inch layer of 1"-1½" clean, crushed drain rock over a firm, sound base. There was no evidence of base weakness throughout the roadway or parking lot. Additionally, there is sufficient roadway width, height and turning radii's for emergency vehicles access. I concluded that the site can be accessed all year round by appropriate emergency vehicles.

If you have any questions or comments regarding this project please feel free to call me.

Sincerely,

Paul N. Bartelt, P.E.
Principal

PNB:sd

cc: Michael Sinatra, Sherwood Forest Paintball Facility
Chuck Meibeyer

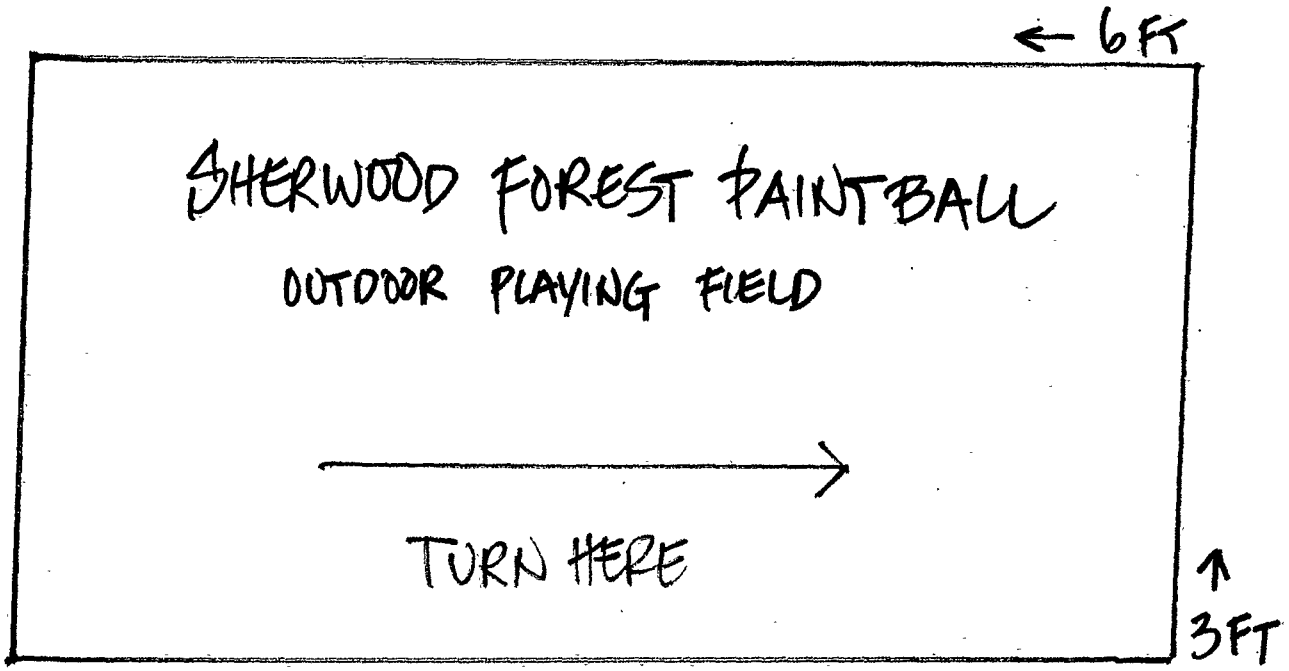
RECEIVED
JAN 17 2001
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

civil engineering
land planning
1339 pearl street #205
napa, california 94559
(707) 258-1301
(707) 258-2926 fax

2713

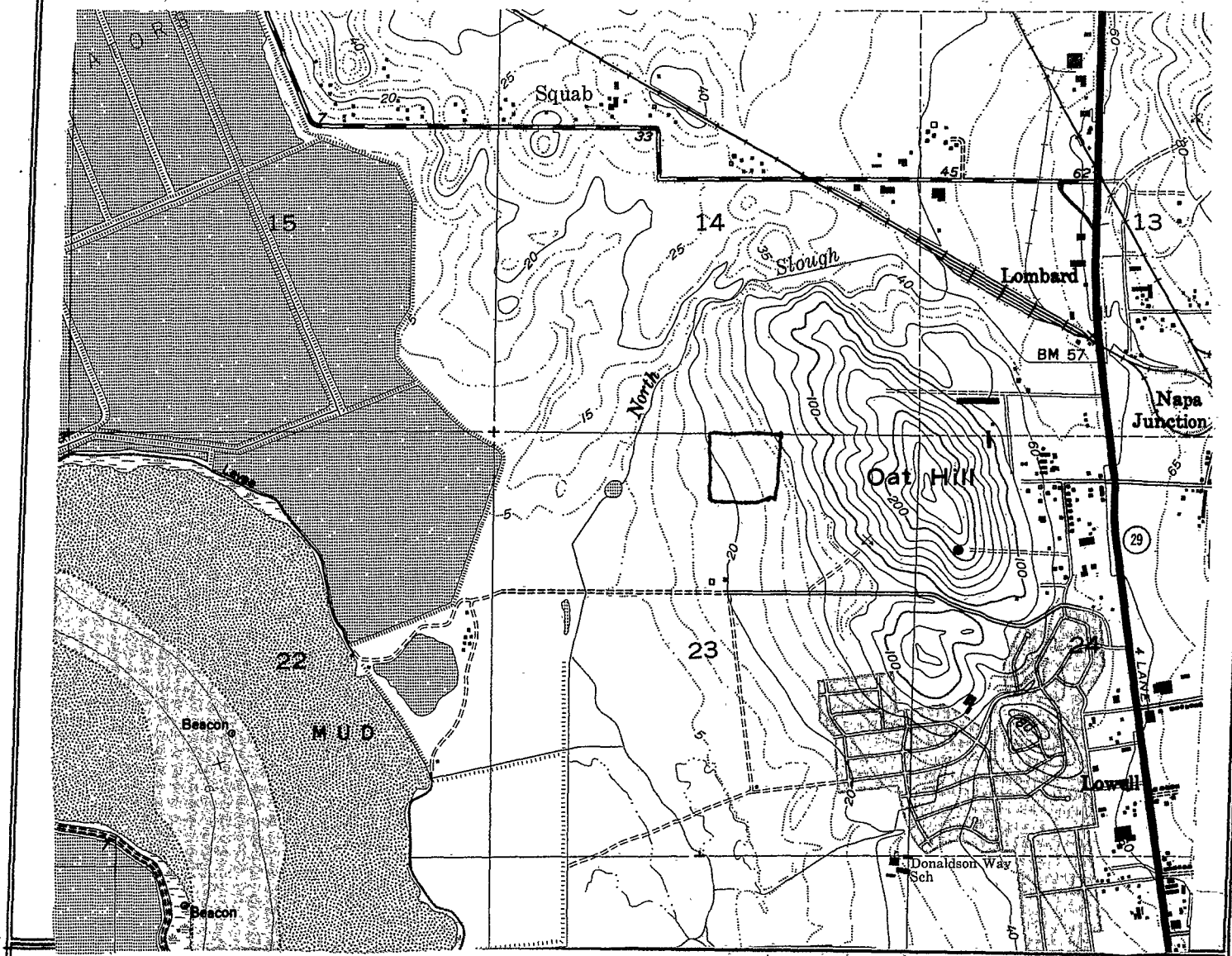
Sherwood Forest Paintball Sign Detail

The sign is made of exterior plywood. It is three feet tall. Six feet wide. One half inch thick. It is painted white with black vinyl letters. The top letters are three and one quarter inches tall. The lower letters are two and one half inches tall. It is attached to two four by fours which will be cemented in the ground.



Sinatra Application **SITE LOCATION MAP (U.S. GEOLOGICAL SURVEY)**

GEOLOGICAL SURVEY QUADRANGLE TITLE: Cuttings Wharf	COUNTY FILE NO. _____

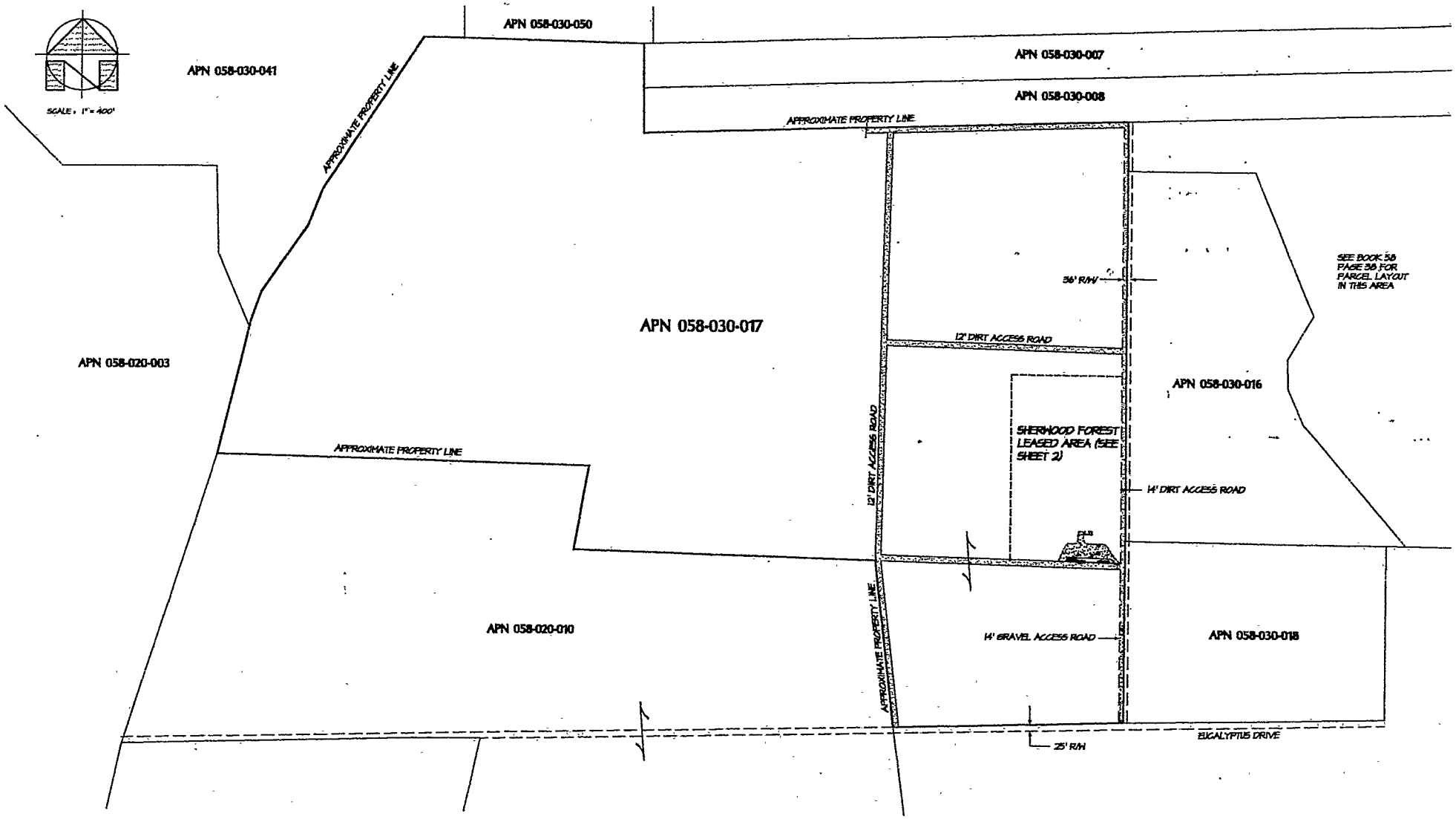


LEGEND

Show the following information on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		

APPLICANT NAME: John Doe

AP NO: 000-000-000
DATE: April 8, 1996

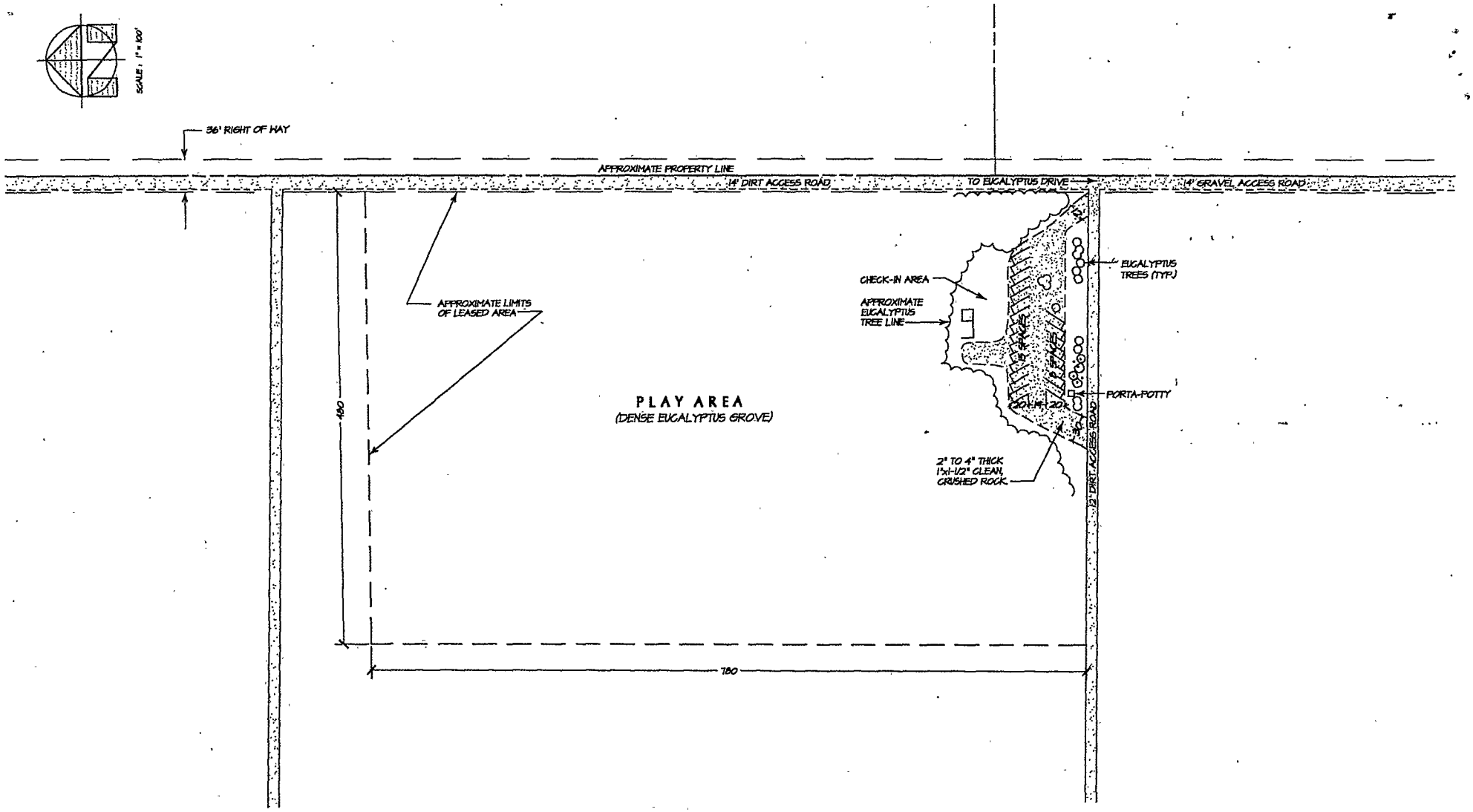


BARTELT engineering
civil engineering · land planning
1339 pearl street #205, napa, ca 94559
(707) 258-1301 · fax (707) 258-2926

OVERALL SITE PLAN

SCALE : 1" = 400'

Sherwood Forest Paintball Facility
#2 Eucalyptus Drive
American Canyon, CA
January 2001
APN 058-030-017
Job no. 00-83
Sheet 1 of 2



BARTELT engineering
civil engineering · land planning
1339 pearl street #205, napa, ca 94559
(707) 258-1301 · fax (707) 258-2926

PARKING LAYOUT

SCALE : 1" = 100'

Sherwood Forest Paintball Facility
#2 Eucalyptus Drive
American Canyon, CA
January 2001
PTN APN 058-030-017
Job no. 00-83
Sheet 2 of 2

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: **Napa County Planning Dept. - Jeffrey Redding, Director**

FROM: **Department of Environmental Management - Chris Secheli, R.E.H.S.**

SUBJECT: **Use Permit Application for Robert D'Elia/Patricia Couch**

DATE: **June 19, 1995**

APN 58-030-~~17~~ 66 **FILE # 94354-UP**

Located at 2 Eucalyptus Dr.

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilets be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors. That adequate containers be provided for the collection of recyclables.

cc: Robert D'Elia, 516 Temple Way, Vallejo, CA 94591
COUNTY/9411

UP
SE-1 adequate
SE-9

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

#9411

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY R. REDDING
Director

RECEIVED
JUN 16 1995
DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY
REQUEST FOR COMMENTS

TO: Env. Mgmt.

APPLICATION TITLE: Robert D'Elia/Patricia Couch FILE #: 94354-UP

RESPONSE REQUEST DATE: 6-15-95 RESPONSE RETURN DATE: 6-29-95
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____
   Response Prepared by: _____
   Title: _____
   Date: _____

jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 (707) 253-4416

RECEIVED
JUN 13 1995
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW:AC

FILE NO: 94354-UP

REQUEST: To renew permit for a paintball parks practice field and expand the daily number of participants from 30 to 50 on a 40 ac. portion of a 165 ac. parcel north of Eucalyptus Dr. approx. 4200 ft west of Donaldson Way (AP# 58-030-17)

Date Submitted: 13 June 95

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: (707) 552-2426

Address: 516 (No) Temple Way (Street), Vallejo (City), CA (State) 94591 (ZIP)

Status of Applicant's Interest in Property: Lessee

Property Owner's Name: Patricia Couch Telephone #: (707) 553-2423

Address: POB 4191 (No Street) Vallejo (City), CA (State) 94590 (ZIP)

Site Address (if any): 2 (No) Eucalyptus Dr. (portion only) (Street) American Canyon (City)

Assessor's Parcel #: 58-030-17 Existing Parcel Size: 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert D'Elia 6/12/95
Signature of Applicant Date

Robert D'Elia
PRINT NAME

Patricia K. Couch 6/11/95
Signature of Property Owner Date

Patricia K. Couch
PRINT NAME

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 00847 Received by: Barbara Abate Date 6/13/95

CDPD#2-17-92)

2720

5

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paintball Park & Practice Field; Indefinite renewal & expand daily participants from 20 to 50.

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: NA Regional: NA
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	25	25
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

IV. TYPICAL OPERATION		Existing	Proposed
A.	Days of Operation:	weekends	weekends
B.	Expected Hours of Operation:	9-4	9-4
C.	Anticipated Number of Shifts:	1	1
D.	Expected Number of Full-Time Employees/Shift:	0	0
E.	Expected Number of Part-Time Employees/Shift:	0	0
F.	Anticipated Number of Visitors •busiest day:	20	50
	•average/week:	30	60
G.	Anticipated Number of Deliveries/Pickups •busiest day:	1	1
	•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

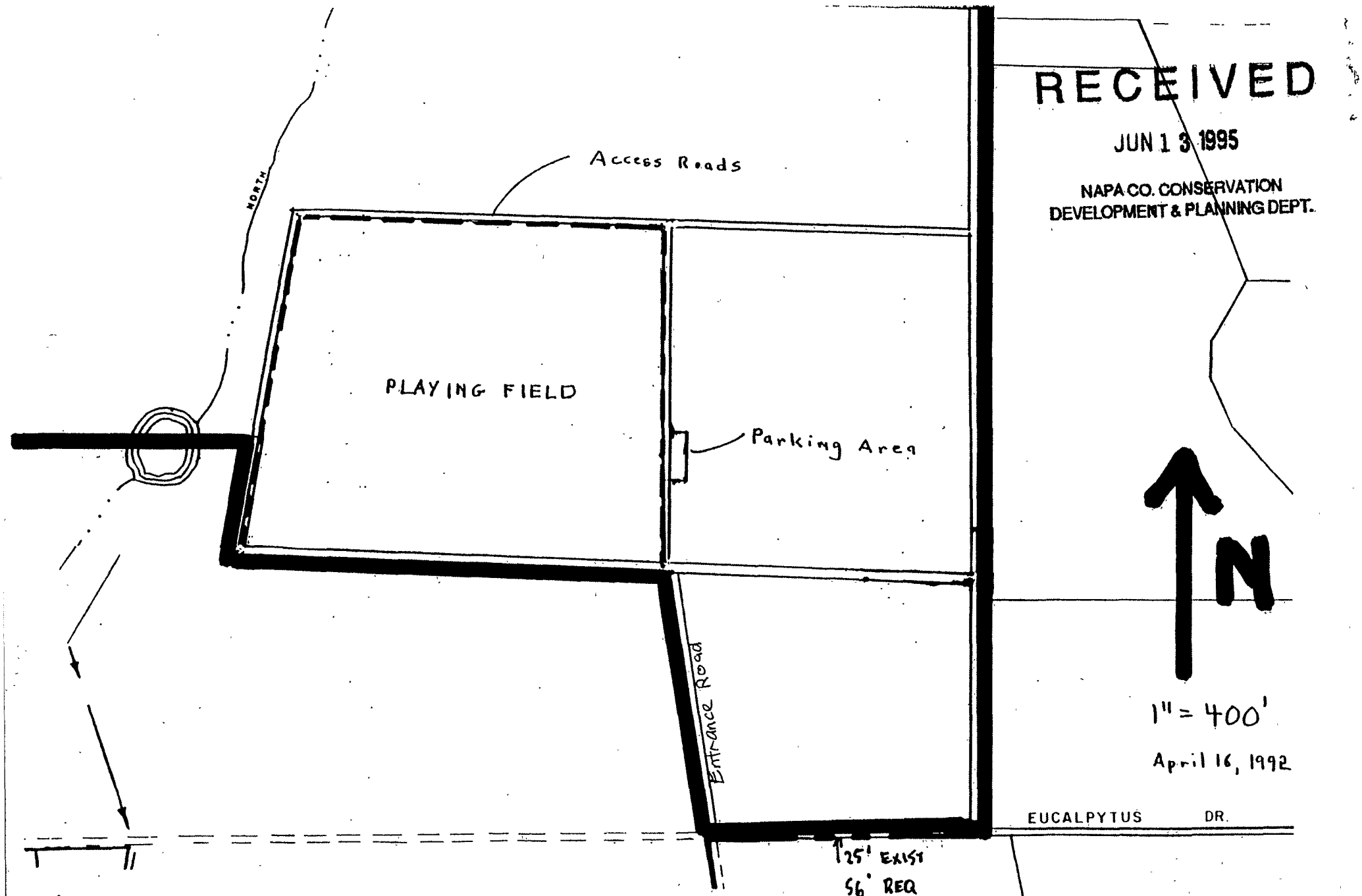
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled & Cooler	—
B. Name of Proposed Water Supplier (if water company, city, district):	none	—
annexation needed?	Yes___ No✓	Yes___ No✓
C. Current Water Use (in gallons/day):	0	0
Current water source:	—	—
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-john	
B. Name of Disposal Agency (if sewage district, city, community system):	M&M Sanitary	
annexation needed?	Yes___ No✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL		
A. Operational Wastes (on-site, landfill, garbage co., etc.)	private contract	
B. Grading Spoils (on-site, landfill, construction, etc.)	none	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (on-site, landfill, garbage co., waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage co., private hauler, etc.):	none	



RECEIVED
JUN 13 1995
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RDE

VALLEJO PAINTBALL PARK

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Jarquin/Couch-Paintball

DATE: August 31, 1994

APN 58-030-~~17~~ 66 **FILE #** 91541-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables.

cc: Gladis Jarquin, 964 Santa Lucia Ave., San Bruno, CA 94066
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/6010

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Christine M. Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Dean J. Laing, D.B.A. Storm Paintball Park

DATE: March 3, 1994

APN 58-030-~~17~~ 66 FILE # 93388-UP

Located at No. 2 Eucalyptus Drive

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Any permanent toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Dean J. Laing, 1989-7 Peabody Road, #268, Vacaville, CA 95687

usr/pamela/planning/COUNTY/7959

Chris

UP
SE-1 adequate chemical toilet facilities provided....
SW-1,4

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
FEB 28 1994
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY
REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: Dean Laing / Storm Paintball FILE #: 93388-up

RESPONSE REQUEST DATE: 2-28-94 RESPONSE RETURN DATE: 3-14-94
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

2727

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
FEB 24 1994
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

Currently Approved For PaintBall Permit # 91435-UP

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 93388-UP

REQUEST: To operate Paintball Playing Field on weekends, For Aprx 20 people on A 5Ac Portion of 165.5 Parcel # APN 5803017

Date Submitted: 2-24-94

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

D.B.A STORM PAINTBALL PARK

TO BE COMPLETED BY APPLICANT (please print or type)

Applicant's Name: Dean J Laing **Telephone #:** (707) 446-7786

Address: 1989-7 Peabody Rd #268 Vacaville CA 95687
No Street City State ZIP

Status of Applicant's Interest in Property: STORM PAINTBALL FIELD

Property Owner's Name: Robert couch and Patrica **Telephone #:** (707) 642-2887

Address: 2 Eucalyptus dr American Canyon CA 94589
No Street City State ZIP

Site Address (if any): NO # Eucalyptus DR American canyon
No Street City

Assessor's Parcel #: 058-030-017-000 **Existing Parcel Size:** 165.5

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

D Laing 2/11/94
Signature of Applicant Date

Patricia K Couch
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 54744 Received by: R. Nolan Date 2-24-94

CDPD(12-17-92)

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Field FOR playing PAINT Ball

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): None proposed total floor area on site: None

new construction: N/A

existing structures or portions thereof to be utilized: None

existing structures or portions thereof to be removed: None

B. Floor Area Devoted to each separate use (in square ft):

living: N/A storage/warehouse: N/A offices: OFFSite
sales: N/A other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Type of Exterior Night Lighting Proposed: N/A

III. PARKING	**Existing**	**Proposed**
A. Total On-Site Parking Spaces:	50	~~20~~
B. Customer Parking Spaces:	—	—
C. Employee Parking Spaces:	—	—
D. Loading Areas:	—	—

RECEIVED
FEB 24 1994
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	~~weekends~~ 2	SAT SUN
B. Expected Hours of Operation:	[illegible]	9-4 Dawn to Dusk
C. Anticipated Number of Shifts:	0	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	[illegible]0	20
•average/week:	[illegible]0	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	N/A [illegible]	1 per month as needed
•average/week:	N/A [illegible] month	2 per month

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: N/A
- bar seating capacity: N/A
- public meeting room seating capacity: N/A
- assembly capacity: N/A

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:	N/A	—
• total number of guests/children:	N/A	—
• total number of bedrooms:	N/A	—
• distance to nearest existing/approved facility/center:	N/A	—

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	None Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0 —	— —
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Septic John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	MSM Sanitary (Napa) Yes___ No ✓	 Yes___ No ✓
C. Current Waste Flows (peak flow in gallons/day):	0	—
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	—
E. Future Waste Disposal Capacity (in gallons/day):	0	—

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	Private contract	Private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None	NA
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	NA

RP Scherer NORTH AMERICA
DIVISION OF R. P. SCHERER CORPORATION

P.O. BOX 5600, CLEARWATER, FLORIDA 34618-5600 • AREA CODE 813-572-4000

RECEIVED
FEB 24 1994
NAPA CO. CONSERVATION, DEVELOPMENT & PLANNING

March 25, 1988

Mr. Ron Childress
623 Trenton Way
Burlingame, CA 94010

Dear Mr. Childress:

Reference is made to your inquiry as to the toxicity of paintballs to the skin and environment.

The ingredients used in Scherer paintballs are listed by the U.S. Food and Drug Adminstration's Center for Food Safety and Applied Nutrition as suitable for use in food products. In addition, the color additives are specifically listed as permitted for use in cosmetic products.

We wish you success on starting your indoor game.

Sincerely,

William E. Heary

William E. Heary
Director, Quality Assurance

WEH/pac

bcc: J. Perlmutter
L. Kelly

Experience the
**** Excitement!***
**** Rush of adrenaline!***
**** Challenge of surviving!***
**** Sweet taste of victory!!***

CONGRATULATIONS! You're about to be introduced to the most thrilling and fastest growing sport of the 90's. PAINTBALL ADVENTURE GAMES. We're sure that once you've experienced a day of this exciting game, you and your friends will be back for more. A day of fun is GUARANTEED!

WHAT IS THE GAME OF PAINTBALL?
The basic two-team game is to capture the flag from the opposing team and successfully return with it to your own flag camp. Each player is armed with a special constant air gun designed to fire harmless paint pellets which mark their target on impact. Once a player is marked, he/she is eliminated. The game provides an opportunity to test your individual skills of stealth and tactics as well as stressing team work, planning and good humored competition.

WHO PLAYS THE GAME?
Anyone and everyone---men and women , all walks of life; office worker, college students, housewives, lawyers---everyone who wants to have a blast!
An ever increasing number of companies, both small and large, are discovering the game and forming department teams to challenge one another. (How about challenging your supervisory staff?!)

DO I NEED MY OWN EQUIPMENT?
No. Everything you need is at the field for rent. Once you get hooked you will most likely want to buy your own equipment. We also have limited equipment and supplies available for purchase.

IS THE GAME SAFE?
Absolutely. It is safer than most any competitive sports. Safety is stressed at our field. The CO2 powered pistol has been specifically engineered for this use. The "pellets" are soft water color marking capsules that are water soluble and do not harm the environment. SAFETY GOGGLES ARE PROVIDED AND WEARING THEM AT ALL TIMES IS REQUIRED.

IS THIS A RADICAL OR MILITANT ORGANIZATION?
Absolutely not! It's a game of strategy, hide and seek, cowboys and Indians all rolled up into one. These games are not a preparation for real combat. We have no affiliation with actual military groups. We're just here to have fun----- and lots of it!!

DO I NEED A TEAM TO PLAY?
No. You can come solo, with a couple of friends or a big group. We will divide everyone into two teams to ensure equitable levels of experience. Private games can also be arranged for groups of 30 or more.

WHAT DO I WEAR?
Any type of comfortable clothing (jeans, sweat shirt) is fine. Long-sleeves are recommended. The water dye should wash right out. We also have camouflage clothing available for rent on the field.

WHERE ARE THE GAMES PLAYED?
The field is outdoors on 36 acres located in a eucalyptus grove in Vallejo with thick brush, forts, bunkers and towers providing lots of cover to hide from the opposing team.

WHEN IS THE GAME PLAYED?
Every Saturday and Sunday. (Special arrangements to play during the week can be made for groups of 30 or more.) Players arrive usually around 9:00 a.m. and we wrap up the day approximately 4:00 p.m. (or later if players desire). Each game lasts approximately 20 to 30 minutes.

*** HOW MUCH DOES IT COST?**
Admission: $ 13.00 per person with own equipment.
Gun rentals: $ 10.00 for constant air gun. Includes 1st tank of air free,bulk loader, barrel plug, face mask + goggles . $ 20.00 for limited No. of semi-auto guns.
Paint pellets: $ 13.00 per box of 200 (save on purchase by the case.)

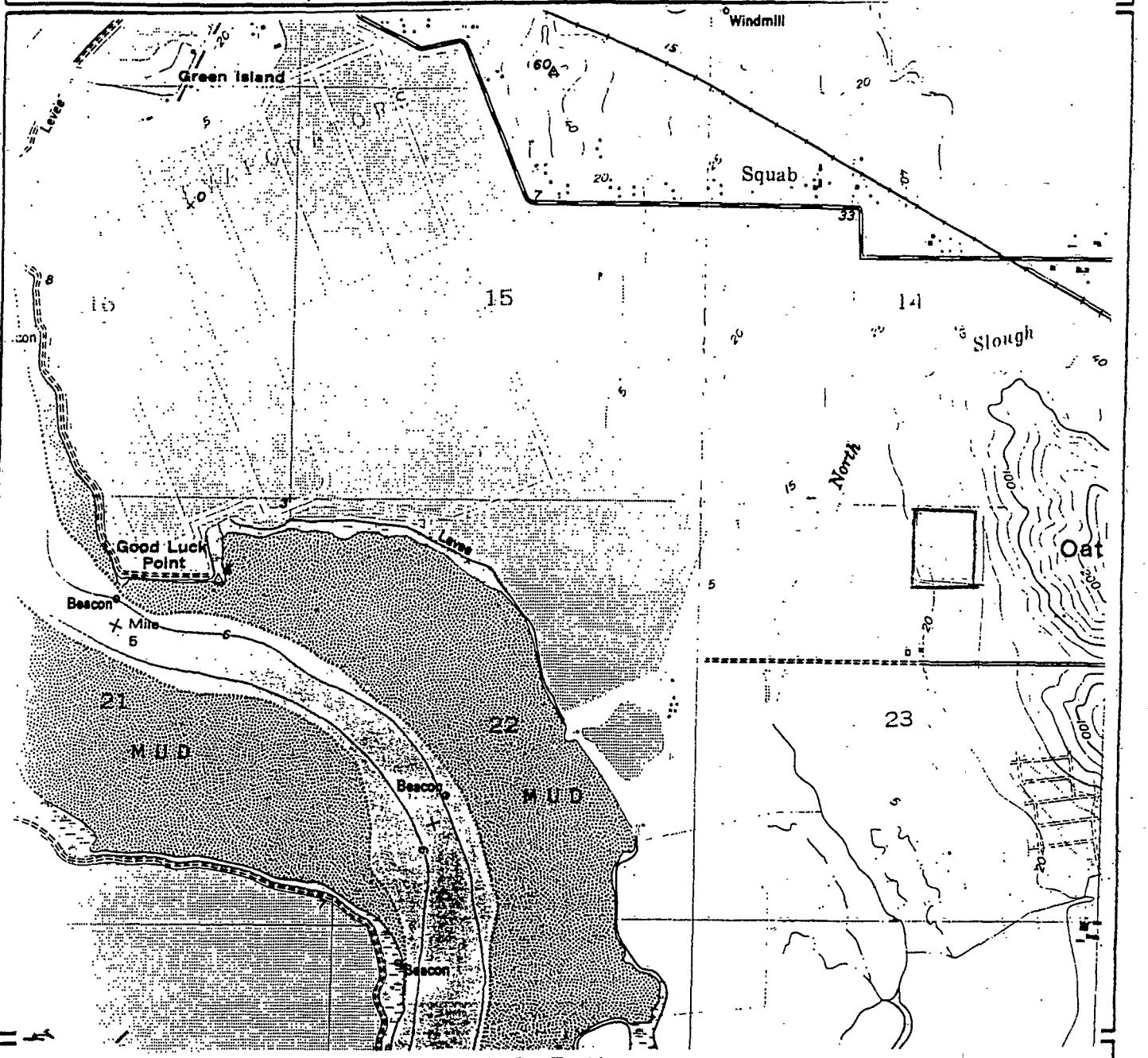
*** CLUB MEMBERSHIP**
A $ 10.00 membership card (valid for 3 months) will allow you to save substantially on all of the above costs.

HOW DO I ARRANGE TO PLAY?
Large groups require advance reservations + a deposit. Please call for information. Walk-ons may show up at the field but we suggest calling prior to the day of play to let us know you are coming.

OUR #1 GOAL IS CUSTOMER SATISFACTION. PLAN ON JOINING US SOON!

U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

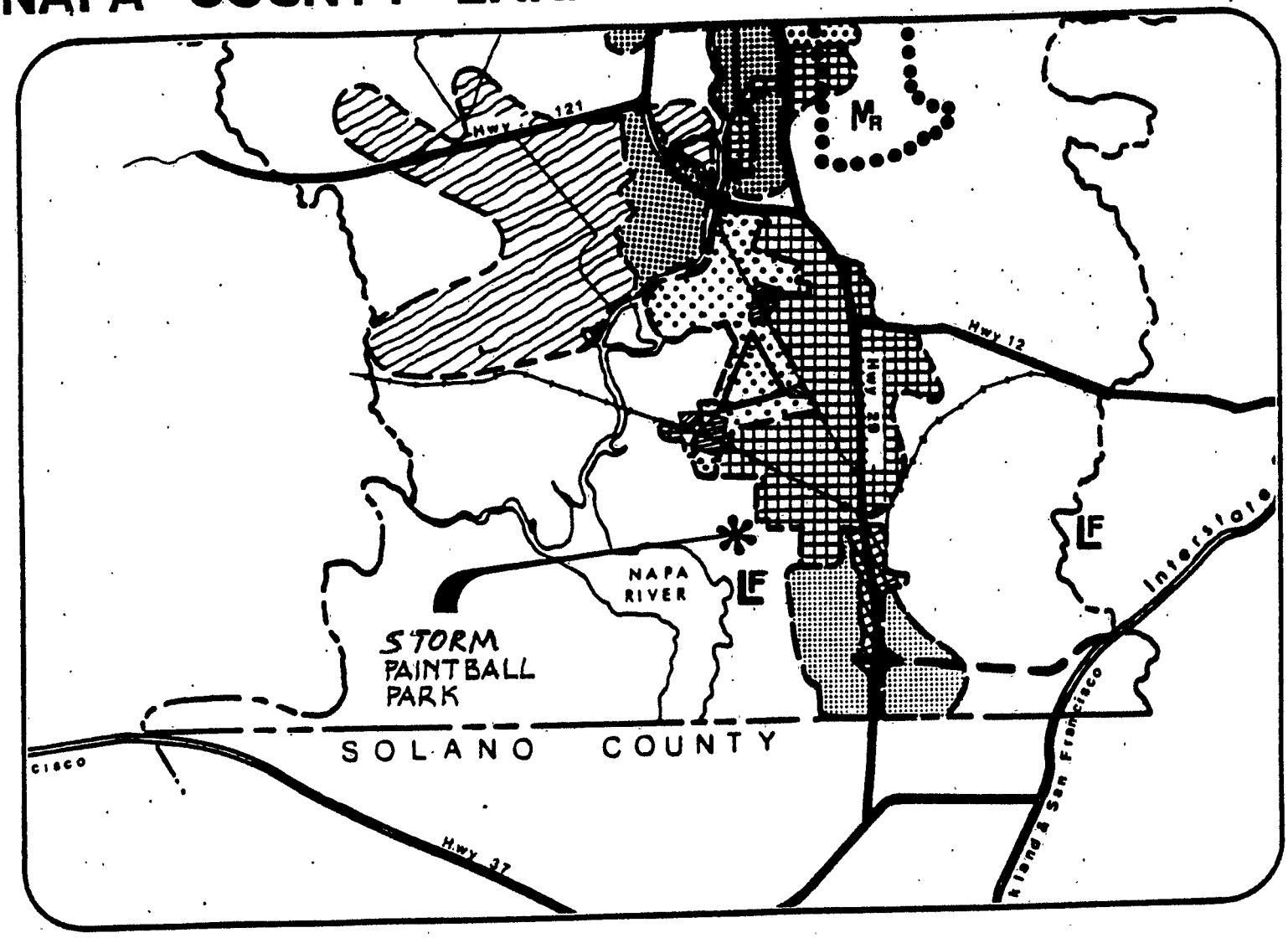
GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 91541-UP



LEGEND

The following information shall be shown on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

OPEN SPACE

- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

SCALE IN MILES
0 2

APN
58-030-17

2735

EXHIBIT "A"

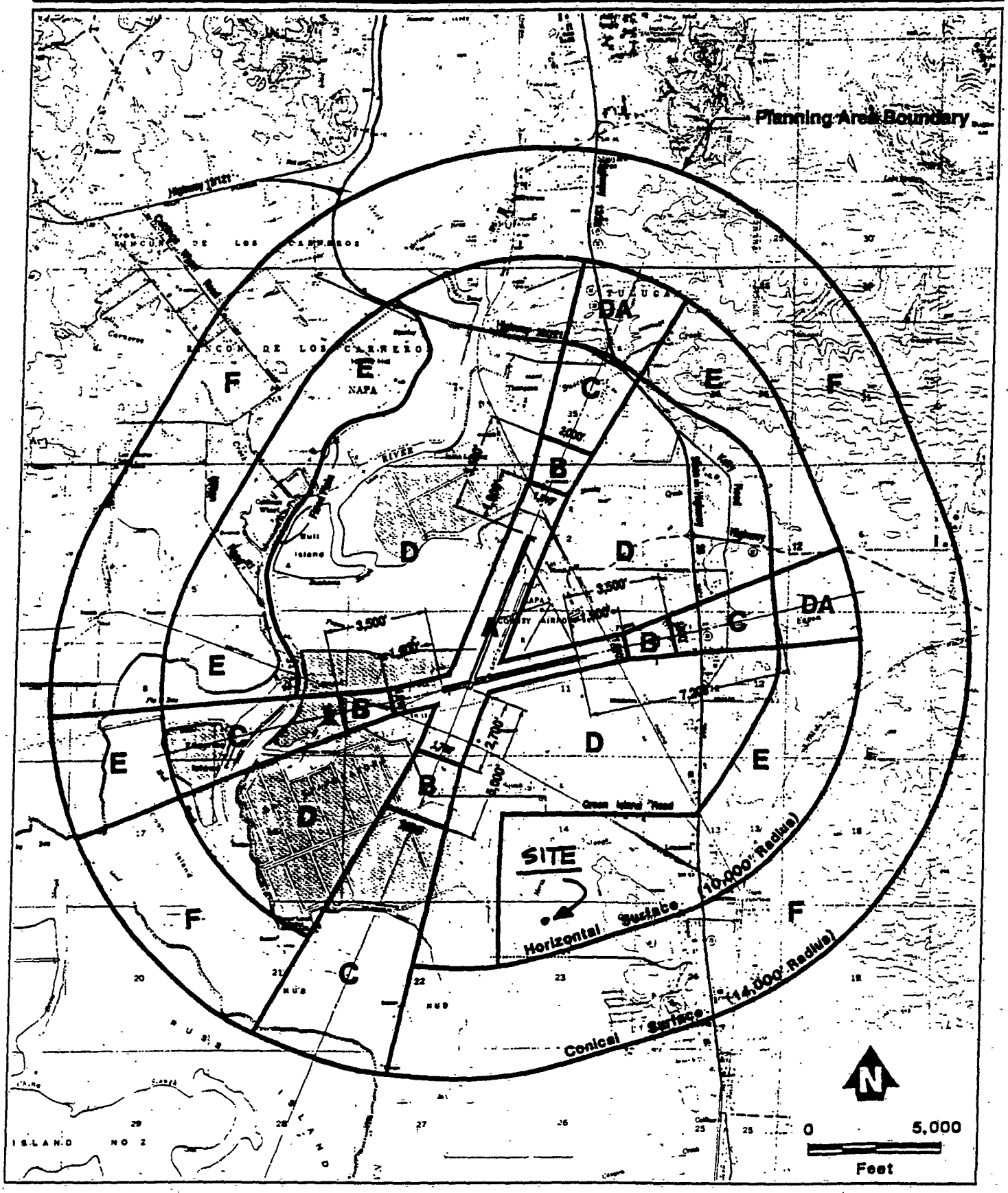
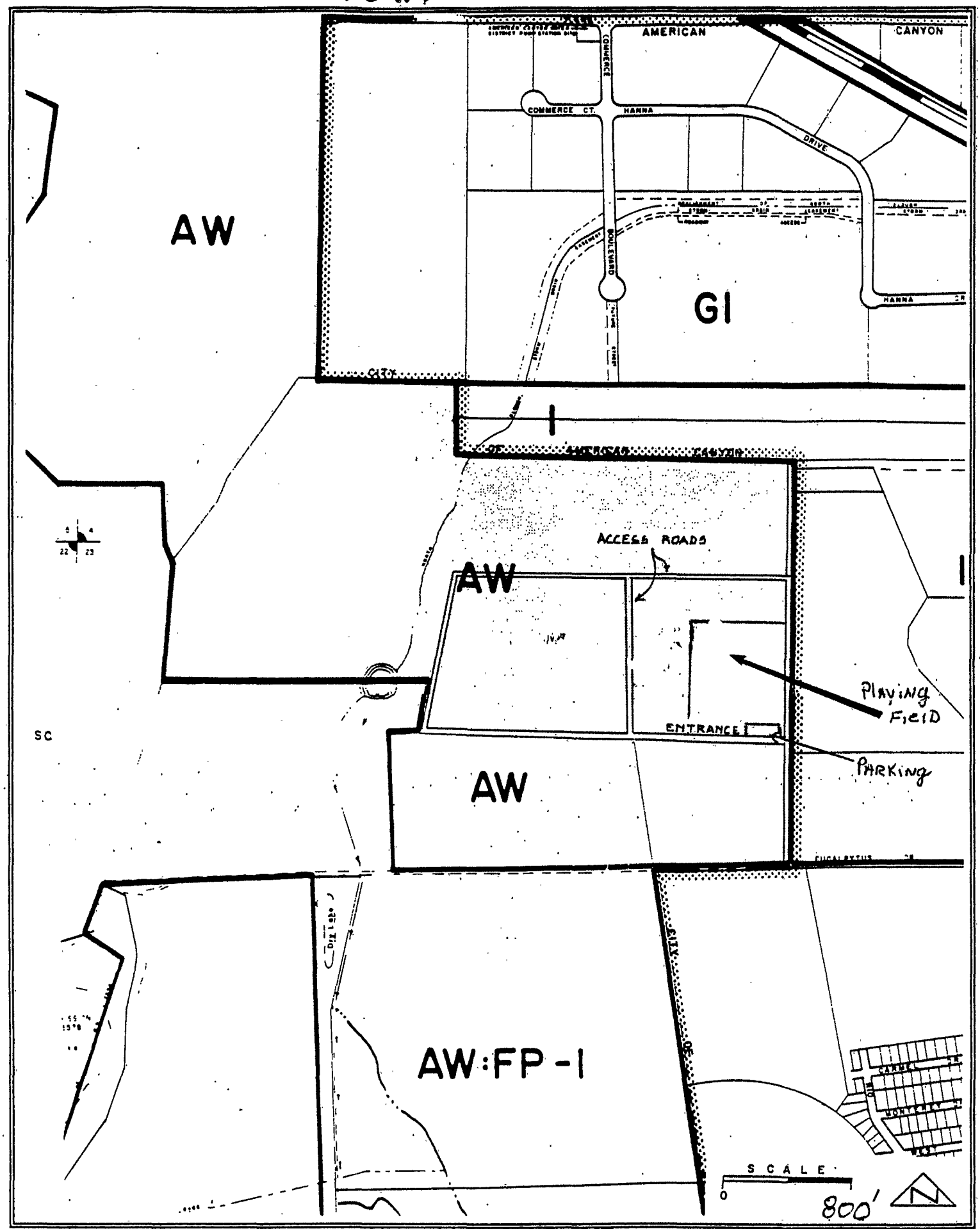


Figure 3A

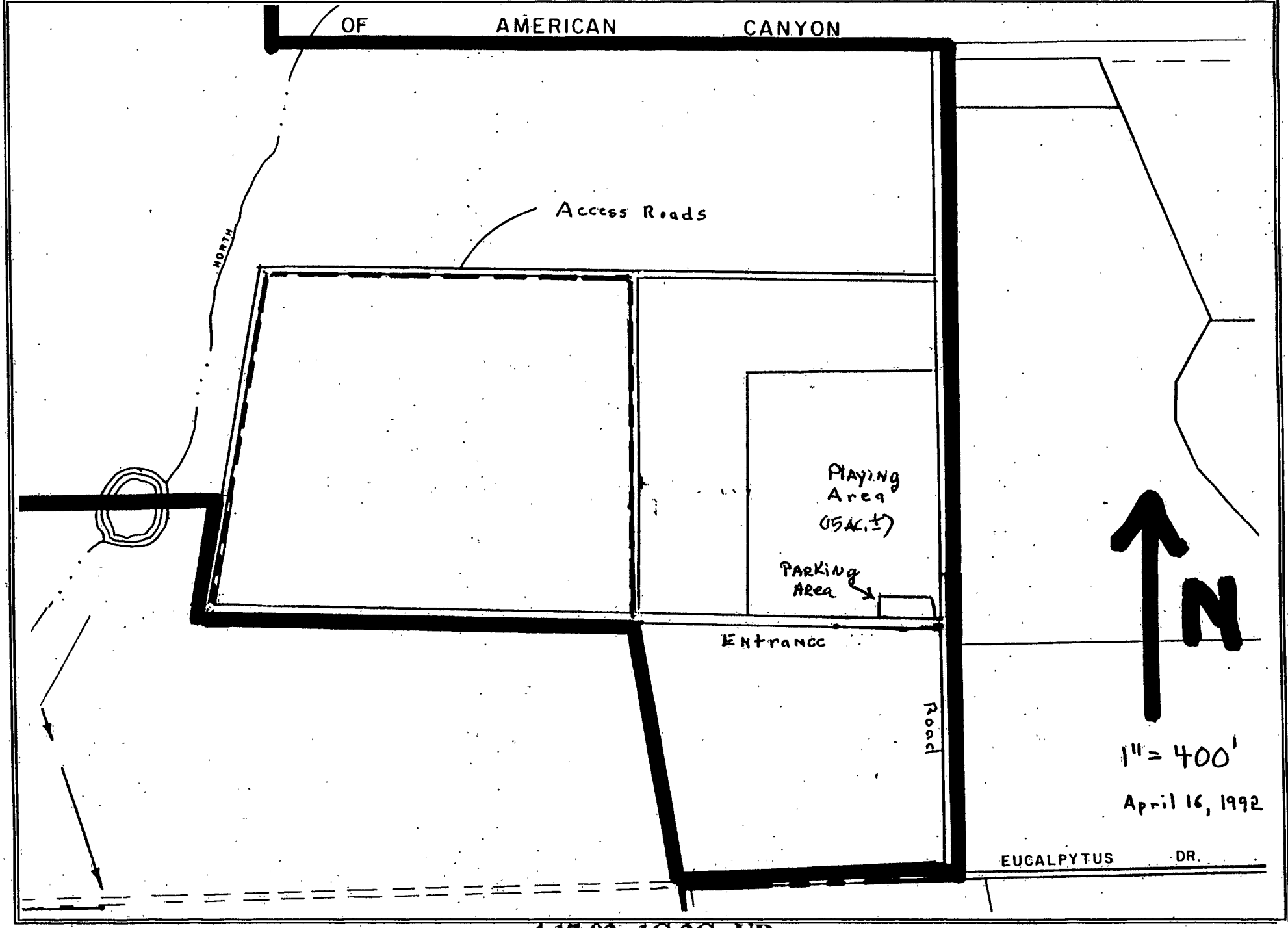
STORM PAINTBALL PARK



4-17-92 1C,2C UP

2737

STORM PAINTBALL PARK



4-17-92 1C,2C UP

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: **Napa County Planning Dept. - Jeff Redding, Director**

FROM: **Dept. of Environmental Mgmt. - Chris Sechrist, R.E.H.S.**

SUBJECT: **Use Permit Application for Jarquin/Couch-Paintball**

DATE: **August 13, 1992**

APN 58-030-17 66 FILE # 91541-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Gladis Jarquin, 964 Santa Lucia Ave., San Bruno, CA 94066
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/6010

see planning/county/5635

6000

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
AUG 07 1992
DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: JARQUIN / COUNTRY CLUB FILE #: 91541-UP

RESPONSE REQUEST DATE: 8/7/92 RESPONSE RETURN DATE: 8/21/92
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____
   Response Prepared by: _____
   Title: _____
   Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91541-UP

REQUEST: Use Permit for Paint Ball Club ON WEEKENDS FOR 30 PEOPLE (AW Zone) AGRICULTURAL WATERSHED DIST. ON A 36 ACRE PORTION OF A 165 ACRE PARCEL LOCATED NORTH OF EUCALYPTUS DRIVE APP. 7000 FT WEST OF DONALDSON WAY (APN # 58-030-017) AND ACCESSED THEREFROM

Date Submitted: JUNE 29, 1992

Date Complete: AUG. 5, 1992

Date Published: _____

	ZA	CDPC	BS APPEAL
Hearing	—	—	_____
Action	—	—	_____

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Gladis F. Jarquin Telephone #: (415) 583-9105

Address: 964 Santa Lucia Ave. San Bruno CA 94066
No Street City State ZIP

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert L. Couch, Jr. Telephone #: (707) 642-3887

Address: 2 Eucalyptus Drive American Canyon, CA
No Street City State ZIP

Site Address (if any): 2 Eucalyptus Drive, American Canyon, CA
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Gladis F Jarquin
Signature of Applicant Date

Robert L. Couch Jr. 5-2-1992
Signature of Property Owner Date

EC 42848
$750.00

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

Received by: _____

RECEIVED
JUN 29 1992
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Recreational and practice paintball games

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) Now

C. Estimated Completion Date for Each Phase: Phase 1: completed Phase 2: _____

D. Actual Construction Time Required for Each Phase: [ ] less than 3 months [ ] More than 3 months Not applicable

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: None Regional: None
State: None Federal: None

II. BUILDINGS

A. Floor Area of Project (in square ft): None proposed total floor area on site: _____

new construction: None

existing structures or portions thereof to be utilized: NONE

existing structures or portions thereof to be removed: None

B. Floor Area Devoted to each separate use (in square ft):

living: None storage/warehouse: None offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: None

D. Type of New Construction (e.g., wood-frame): None

E. Type of Exterior Night Lighting Proposed: None

III. PARKING	Existing	Proposed
A. Total On-Site Parking Spaces:	30	30
B. Customer Parking Spaces:	"	"
C. Employee Parking Spaces:	—	—
D. Loading Areas:	N/A	N/A

IV. TYPICAL OPERATION		Existing	Proposed
A.	Days of Operation: FAIR WEATHER	Sat. + Sun.	Same
B.	Expected Hours of Operation:	9-4	Same
C.	Anticipated Number of Shifts:	1	1
D.	Expected Number of Full-Time Employees/Shift:	0	0
E.	Expected Number of Part-Time Employees/Shift:	0	0
F.	Anticipated Number of Visitors •busiest day:	25	30
	•average/week:	25	30
G.	Anticipated Number of Deliveries/Pickups •busiest day:	0	0
	•average/week:	0	0

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: N/A
- bar seating capacity: N/A
- public meeting room seating capacity: N/A
- assembly capacity: N/A

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:	N/A	N/A
• total number of guests/children:	N/A	N/A
• total number of bedrooms:	N/A	N/A
• distance to nearest existing/approved facility/center:	N/A	N/A

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Water coolers and Bottled Water	Same
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	N/A Yes___ No___	N/A Yes___ No___
C. Current Water Use (in gallons/day): Current water source:	∅ —	∅ —
D. Anticipated Future Water Demand (in gallons/day)	∅	∅
E. Water Availability (in gallons/minute):	∅	∅
F. Capacity of Water Storage System (in gallons):	∅	∅
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	∅	∅

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	∅
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M+M Sanitary Yes___ No✓	∅ Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	∅	∅
D. Anticipated Future Waste Flows (peak flows in gallons/day):	∅	∅
E. Future Waste Disposal Capacity (in gallons/day):	∅	∅

III. SOLID WASTE DISPOSAL	
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	M+M Sanitary —

IV. HAZARDOUS/TOXIC MATERIALS	
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None —
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	None —

HAZARDOUS MATERIALS INFORMATION SHEET

List all acutely\extremely hazardous materials that will be used or stored at the site:

C.A.S.#	Chemical Name	Physical State	Largest Amount
None			

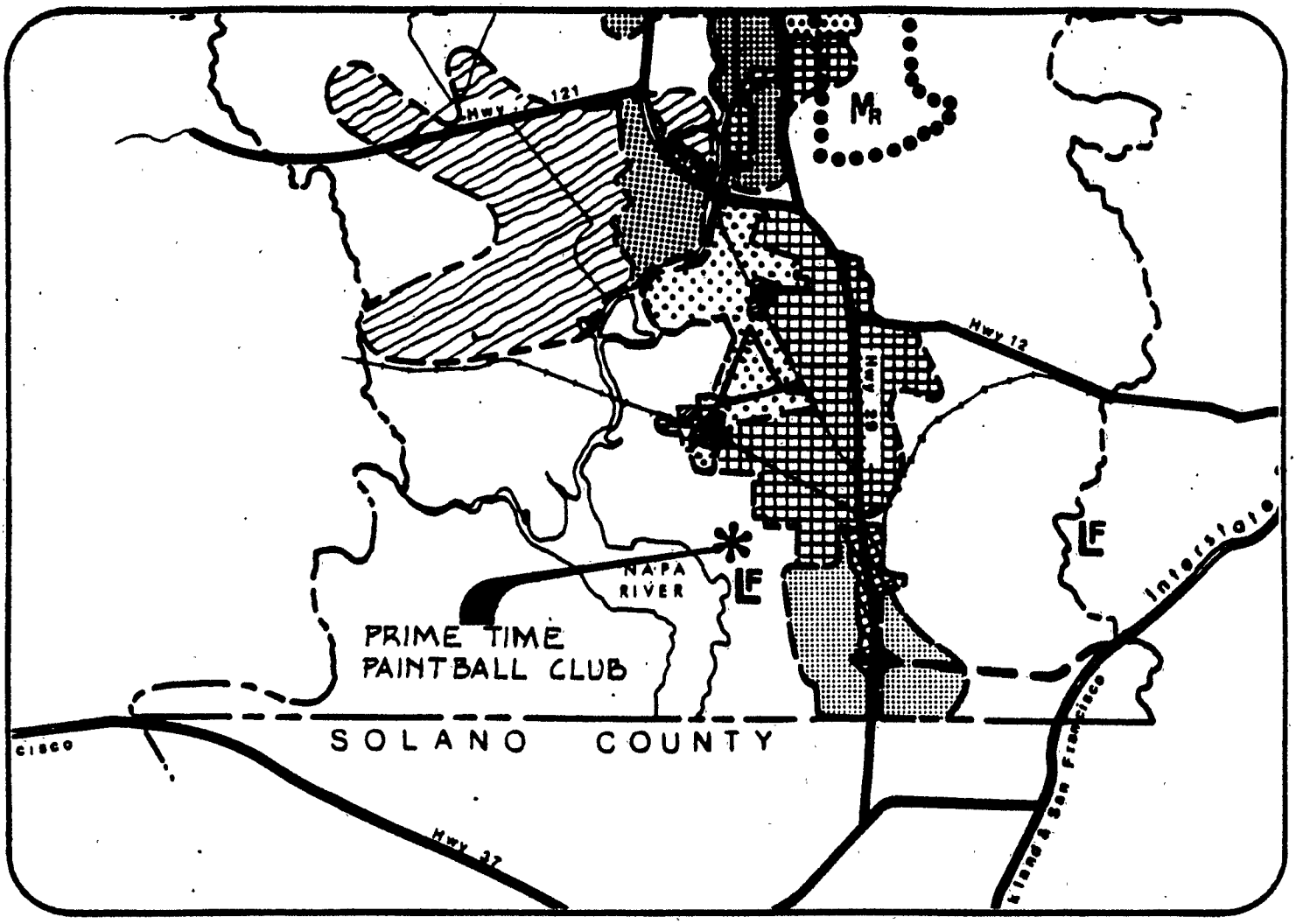
List the hazardous materials that are stored or handled at any one time, equal to or greater than any one of the following amounts: 500 pounds of solids, 55 gallons of liquids, 200 cubic feet of compressed gasses (s.t.p.). Aggregate amounts of the same hazard class are considered one type of hazardous material and must be listed individually below.

C.A.S.#	Chemical Name	Physical State	Largest Amount
	CO^2	Liquid	50 lbs.

If you are unsure about the C.A.S. #, etc., your distributor or supplier should be able to provide you with a M.S.D.S. (Material Safety Data Sheet) which will contain that information. Your Workman's Compensation Insurer and the local libraries may also have access to this information.

If you are a tenant, you are responsible for proper notification to the property owner.

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

OPEN SPACE

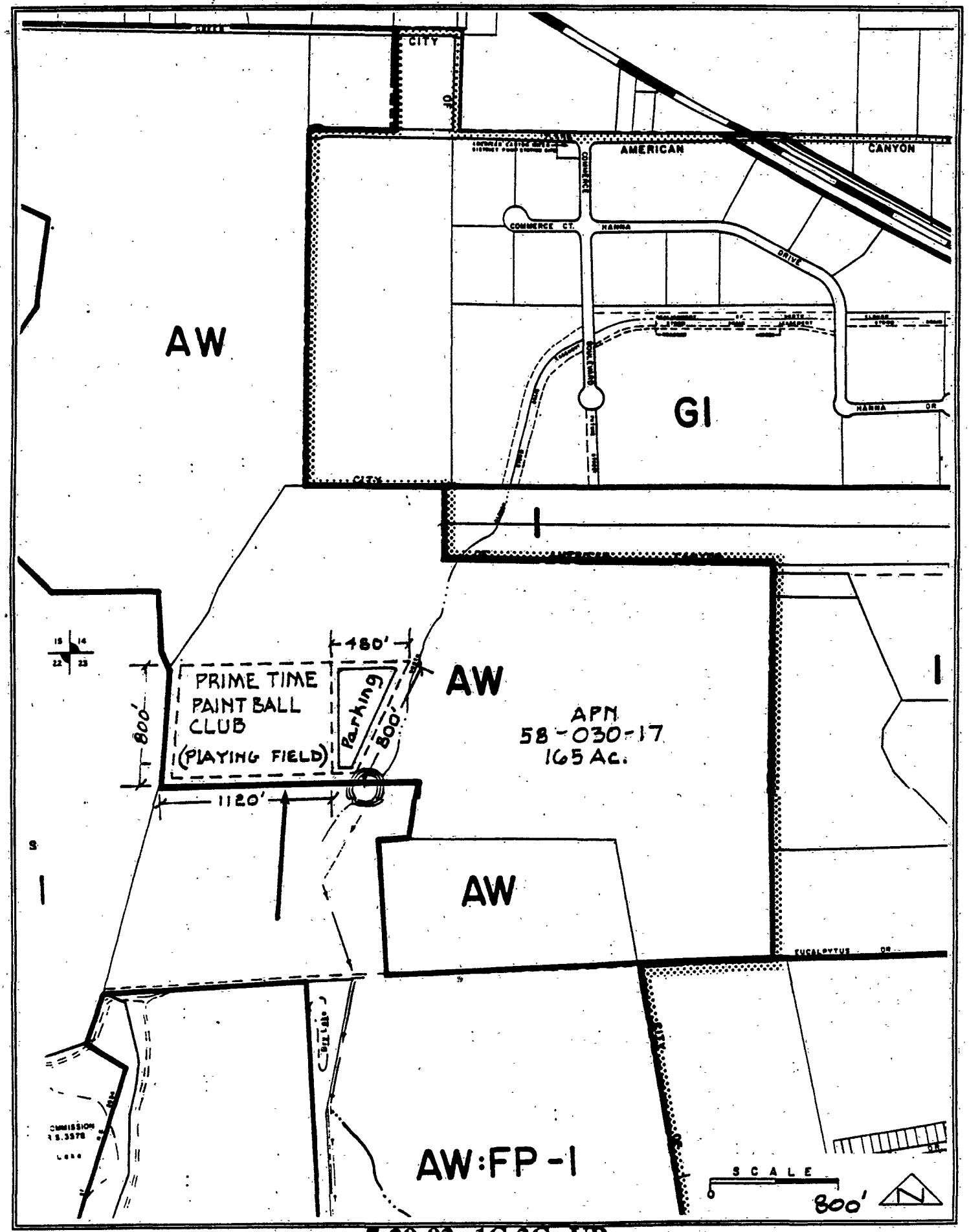
- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

SCALE IN MILES
0 2

APN
58-030-17
7-29-92
10.2C UP

2746

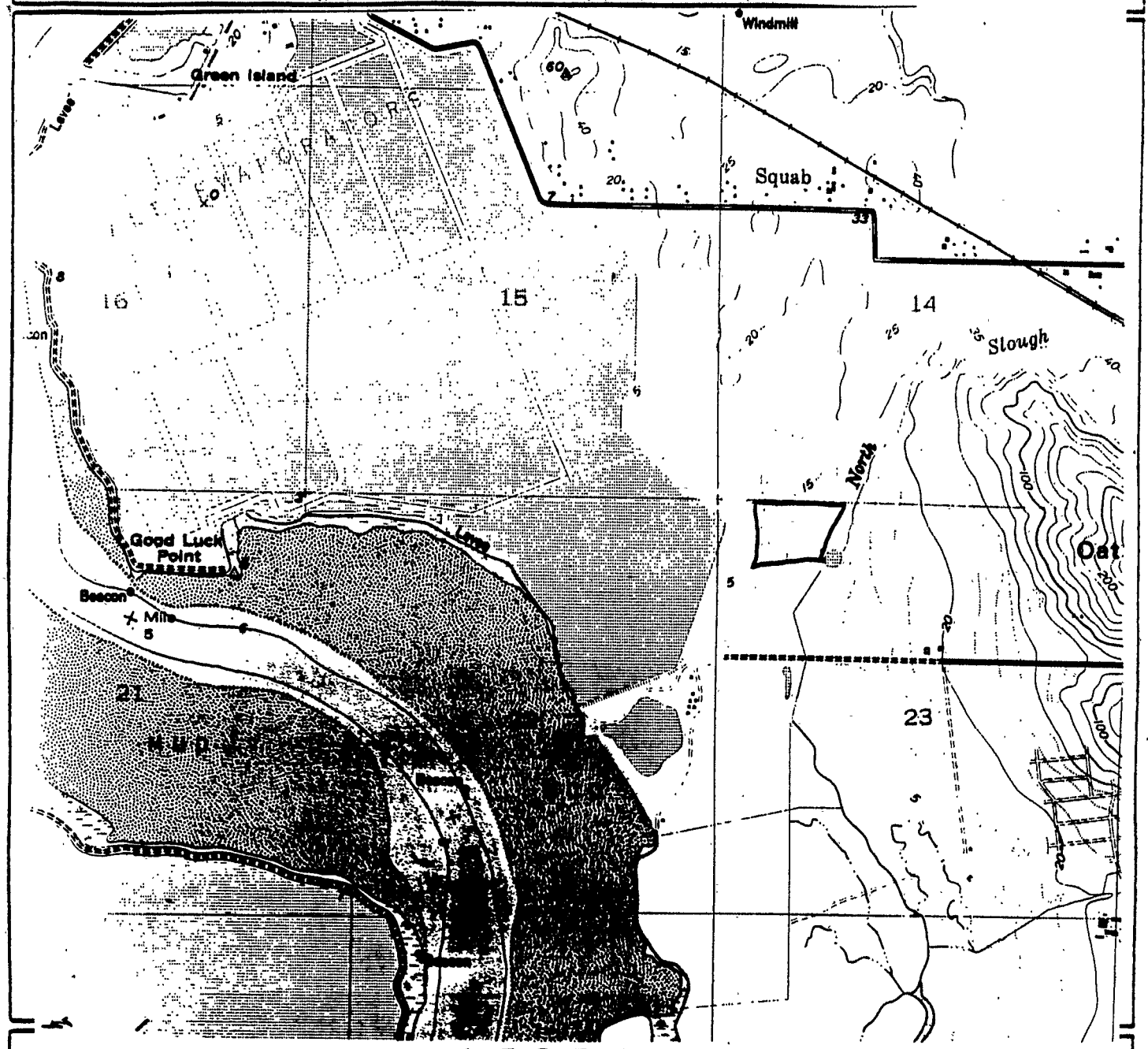
JARQUIN / PRIME TIME PAINTBALL CLUB



7-29-92 1C,2C UP

U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 9154I-UP



LEGEND

The following information shall be shown on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		

#5635

NAPA COUNTY

CONSERVATION -- DEVELOPMENT AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY REDDING
Director

July 13, 1992

RECEIVED
JUL 15 1992
DEPT. OF
ENVIRONMENTAL MANAGEMENT

Assessor's Parcel # 58-030-17

Robert D'Elia
3496 Hillsborough Dr.
Concord, CA 94520

Dear Mr. D'Elia:

Please be advised that **Use Permit Application Number 91435-UP** has been approved by the Napa County Conservation, Development and Planning Commission based upon the following conditions.

(SEE ATTACHED LIST OF CONDITIONS OF APPROVAL)

APPROVAL DATE: July 8, 1992 **EXPIRATION DATE: July 18, 1993**

The use permit becomes effective ten (10) working days from the approval date unless an appeal is filed with the Napa County Board of Supervisors pursuant to Title XIII of the Napa County Code. You may appeal the conditions of approval. In the event an appeal is made to the Board by another, you will be notified.

Pursuant to Section 12806 of the Napa County Code, the use permit must be activated by actual use of the facilities for the permitted purposes within one (1) year and ten (10) calendar days from the approval date or the use permit shall automatically expire and become void. A one-year extension of time in which to activate the use permit may be granted by the County provided that such extension request is made thirty (30) days prior to the expiration date. A request for an extension of time is subject to payment of a $300.00 filing fee.

This letter serves as the only notice you will receive regarding the expiration date of your permit or procedures for extension.

Very truly yours,

MICHAEL MILLER
Deputy Planning Director

cc: Jeffrey Redding, Director
John Tuteur, County Assessor
Gary Brewen, Building Codes Administrator
Bill Bickell, Director of Public Works
Trent Cave, Director of Environmental Management
Robert L. Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589

CONDITIONS OF APPROVAL
Use Permit #91435-UP (Robert D'Elia) July 8, 1992

1. The permit be limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 20 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration.

2. The permit be limited to a three (3) year period. The applicant shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The applicant may seek use permit approval at the end of the three (3) years.

3. No tournaments or special events shall be conducted on the property.

4. The hours of operation shall be limited to weekends and weekday holidays, sunrise to sunset.

5. No overnight camping or overnight stay in vehicles shall be allowed.

6. Fires or outdoor cooking is prohibited.

7. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

8. No alcoholic beverages shall be consumed on-site.

9. Provision for twenty (20) off-street parking spaces shall be maintained on a surface approved by Public works.

10. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

11. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to County Counsel.

12. The playing field boundary shall be clearly marked.

13. Access roads shall remain clear and gates unlocked during playing hours.

14. Security personnel shall be provided from among those in attendance.

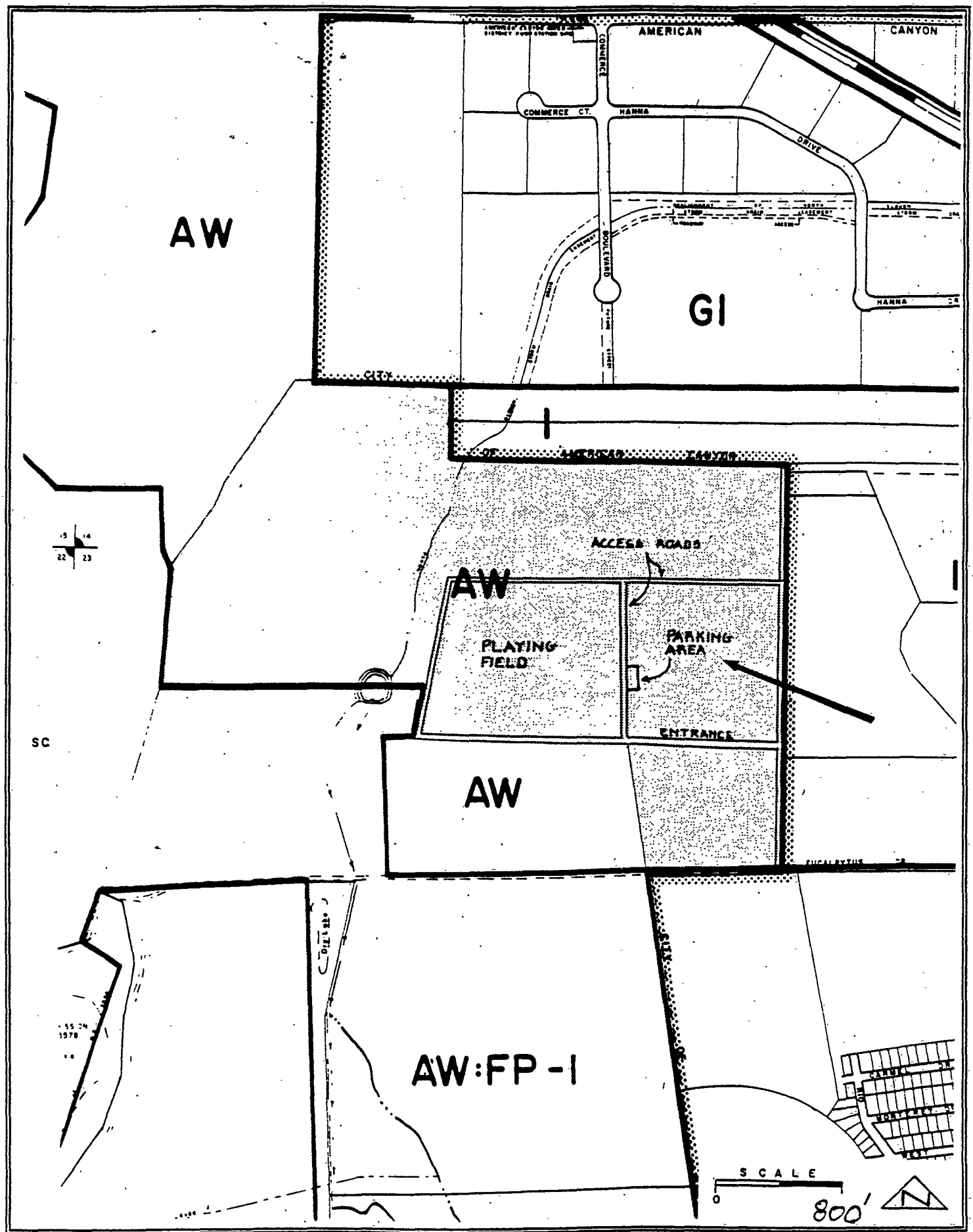
15. At the end of each playing day, the site shall be left in a clean and orderly condition.

16. An overflight and noise easement shall be dedicated to the County of Napa prior to conducting any paintball games. The easement shall be acceptable to and approved by the Director of Aviation and the County Counsel.

17. Compliance with all applicable building codes, zoning standards and requirements of various County departments and other agencies.

mmp10

VALLEJO PAINTBALL PARK



4-17-92 1C,2C UP

22

2751

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Robert D'Elia/Vjo Paintball Park

DATE: June 22, 1992

APN 58-030-17 66 FILE # 914235-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of one toilet will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Robert D'Elia, 3496 Hillsborough Dr., Concord, 94520
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/5635

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL HEALTH

TRENT CAVE, R.S.
Director of Environmental Health

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 ATSS 528-4471

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Chris Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Robert D'Elia/Vjo Paintball Park

DATE: May 5, 1992

APN 58-030-17 FILE # 914235-UP

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided by a chemical toilet service company with a valid permit issued by the Napa County Dept. of Environmental Management. A minimum of two toilets will be required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Robert D'Elia, 3496 Hillsborough Dr., Concord, 94520
Robert Couch, Jr., 2 Eucalyptus Dr., American Canyon 94589
/planning/county/5635

UP "THAT ADEQUATE CHEMICAL TOILET FACILITIES BE PROVIDED BY A CHEMICAL TOILET SERVICE COMPANY WITH A VALID PERMIT ISSUED BY THE NCDEM. A MINIMUM OF TWO TOILETS WILL BE REQUIRED."

SW-1
SW-4

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED
APR 21 1992
DEPT. OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: VALLEJO PAINTBALL PARK FILE #: 91435-UP

RESPONSE REQUEST DATE: 4/20/92 RESPONSE RETURN DATE: 5/4/92
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91435-UP

REQUEST: TO OPERATE A PAINTBALL PLAYING FIELD ON WEEKENDS FOR 20 PEOPLE ON A 40± ACRE PORTION OF A 165.05-ACRE PARCEL (APN 58-030-17) SITUATED NORTH OF EUCALYPTUS DR APPROXIMATELY 4200 FT WEST OF ITS INTERSECTION WITH DONALDSON WAY

Date Submitted: 16 April '92

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: 510 827-9727

Address: 3496 Hillsborough Dr., Concord, CA 94520
No Street City State ZIP

Status of Applicant's Interest in Property: Lessee

Property Owner's Name: Robert L. Couch JR Telephone #: (707) 642-2887

Address: 2 Eucalyptus Dr., American Canyon, CA 94589
No Street City State ZIP

Site Address (if any): no number, Eucalyptus Dr., American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: ~~±~~ 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert B D'Elia
Signature of Applicant Date

Robert L. Couch Jr. 4/12/1992
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$750.00 GC 41614 Check # 4113 Received by:

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Park + Practice field

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	60	20
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

RECEIVED
APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	weekends	weekends
B. Expected Hours of Operation:	9-4	9-4
C. Anticipated Number of Shifts:	1	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	20	20
•average/week:	30	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	1	1
•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

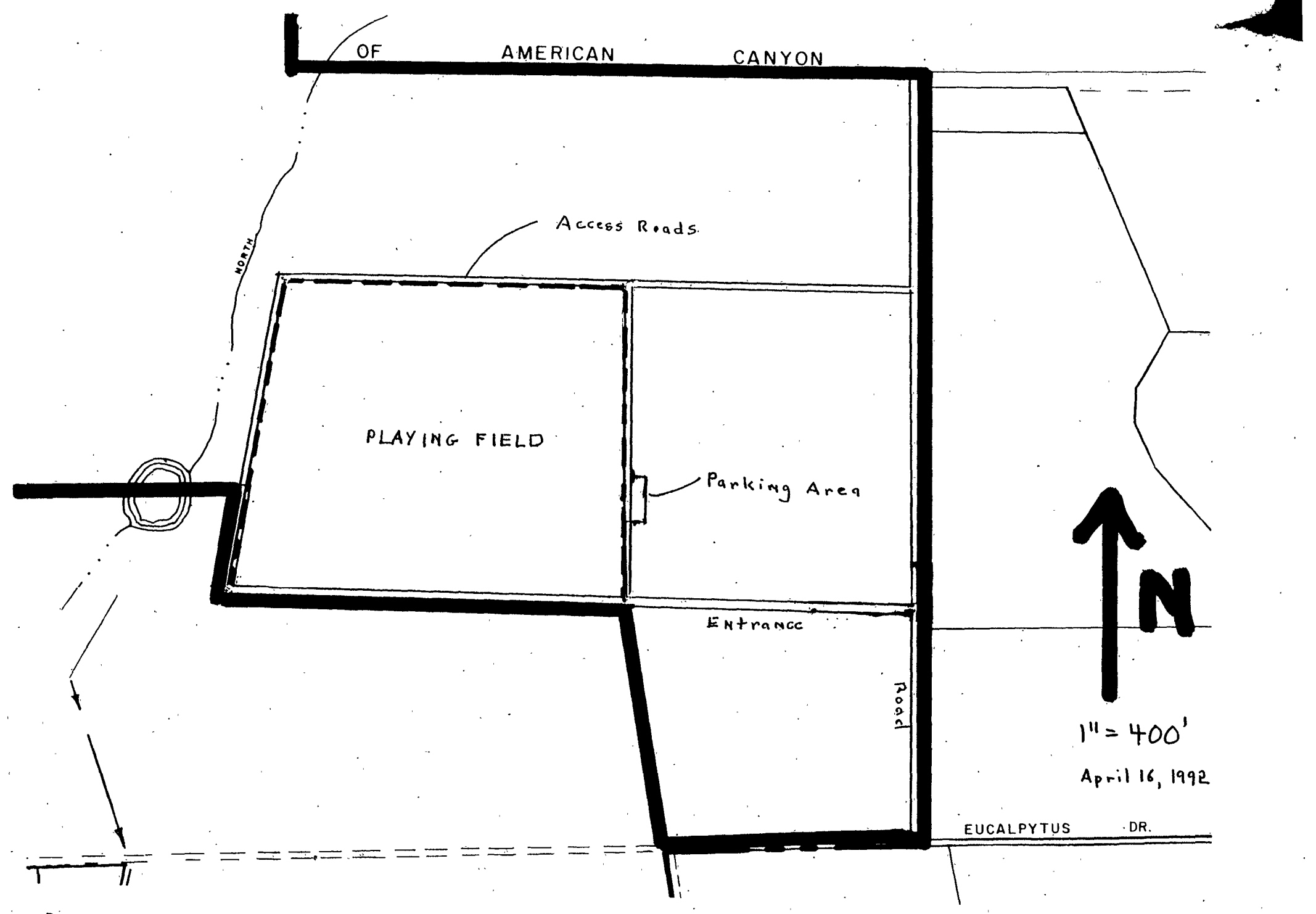
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled + Cooler ~~none~~	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	none Yes___ No✓	— Yes___ No✓
C. Current Water Use (in gallons/day): Current water source:	0	0
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M&M Sanitary Yes___ No✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL	
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	



Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RDE

VALLEJO PAINTBALL PARK

DIVISION OF ENVIRONMENTAL HEALTH
1195 Third Street, Room 205
Napa, CA 94559 (253-4471)

TO FILE

FROM CMS

DATE 4-16-92

SUBJECT PAINT BALL USE PERMIT

FOR ( ) Initial ( ) Signature ( ) Approval ( ) Comments ( ) Discussion ( ) Info.

PLEASE ( ) File ( ) Return ( ) Draft Reply ( ) Route To

MESSAGE PRE-APP MEETING OF THIS DATE — 2 DAYS/WEEK (SAT/SUN.) MAX # PEOPLE 30/WEEKEND. BOTTLED WATER TO BE PROVIDED, CHEMICAL TOILETS TO BE PROVIDED. GARBAGE TO GO TO AN APPROVED GARBAGE HAULER.

ONLY USING A 40 AC. PORTION OF THE LAND.

EH 121
Revised 5/81

2760

#5635

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

JEFFREY R. REDDING
Director

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

RECEIVED

MAY 08 1992

DEPT. OF
ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION AND INITIAL STUDY
REQUEST FOR COMMENTS

TO: Environmental Management

APPLICATION TITLE: VALLEJO PAINTBALL PARK FILE #: 91435-UP

RESPONSE REQUEST DATE: 4/20/92 RESPONSE RETURN DATE: 5/4/92
FINAL REQUEST DATE: 5/8/92 FINAL RESPONSE DATE: 5/15/92

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☐ No
   If yes, indicate required permits: _____
2. Indicate areas of environmental concern and availability of appropriate technical data: _____
3. Do you recommend: ☐ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed): _____
5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☐ No
6. Name of contact person: _____ Telephone: _____

Response Prepared by: _____
Title: _____
Date: _____

:jcmas2/comments2

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

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APR 16 1992
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

APPLICATION FOR USE PERMIT

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 91435-UP

REQUEST: TO OPERATE A PAINTBALL PLAYING FIELD ON WEEKENDS FOR 20 PEOPLE ON A 40± ACRE PORTION OF A 165.05-ACRE PARCEL (A.P.N. 58-030-17) SITUATED NORTH OF EUCALPYTUS DR APPROXIMATELY 4200 FT WEST OF ITS INTERSECTION WITH DONALDSON WAY

Date Submitted: 16 April '92

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing	—	—	—
Action	—	—	—

TO BE COMPLETED BY APPLICANT
(please print or type)

Applicant's Name: Robert B. D'Elia Telephone #: 510 827-9727

Address: 3496 Hillsborough Dr., Concord, CA 94520
No Street City State ZIP

Status of Applicant's Interest in Property: Leasee

Property Owner's Name: Robert L. Couch JR Telephone #: (707) 642-2887

Address: 2 Eucalyptus Dr., American Canyon, CA 94589
No Street City State ZIP

Site Address (if any): no number, Eucalyptus Dr., American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: ~~A~~ 165.05

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

Robert B D'Elia
Signature of Applicant Date

Robert L. Couch Jr. 4/12/1992
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$750.00 GC 41614 Check # 4113 Received by: WES

2762

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Park + Practice field

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months no construction
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: none

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): none proposed total floor area on site: _____

new construction: _____

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: _____ storage/warehouse: _____ offices: _____
sales: _____ other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): _____

E. Type of Exterior Night Lighting Proposed: _____

III. PARKING

	Existing	Proposed
A. Total On-Site Parking Spaces:	60	20
B. Customer Parking Spaces:	0	0
C. Employee Parking Spaces:	0	0
D. Loading Areas:	0	0

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

IV. TYPICAL OPERATION	Existing	Proposed
A. Days of Operation:	weekends	weekends
B. Expected Hours of Operation:	9-4	9-4
C. Anticipated Number of Shifts:	1	1
D. Expected Number of Full-Time Employees/Shift:	0	0
E. Expected Number of Part-Time Employees/Shift:	0	0
F. Anticipated Number of Visitors •busiest day:	20	20
•average/week:	30	30
G. Anticipated Number of Deliveries/Pickups •busiest day:	1	1
•average/week:	2	2

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: _____
- bar seating capacity: _____
- public meeting room seating capacity: _____
- assembly capacity: _____

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:		
• total number of guests/children:		
• total number of bedrooms:		
• distance to nearest existing/approved facility/center:		

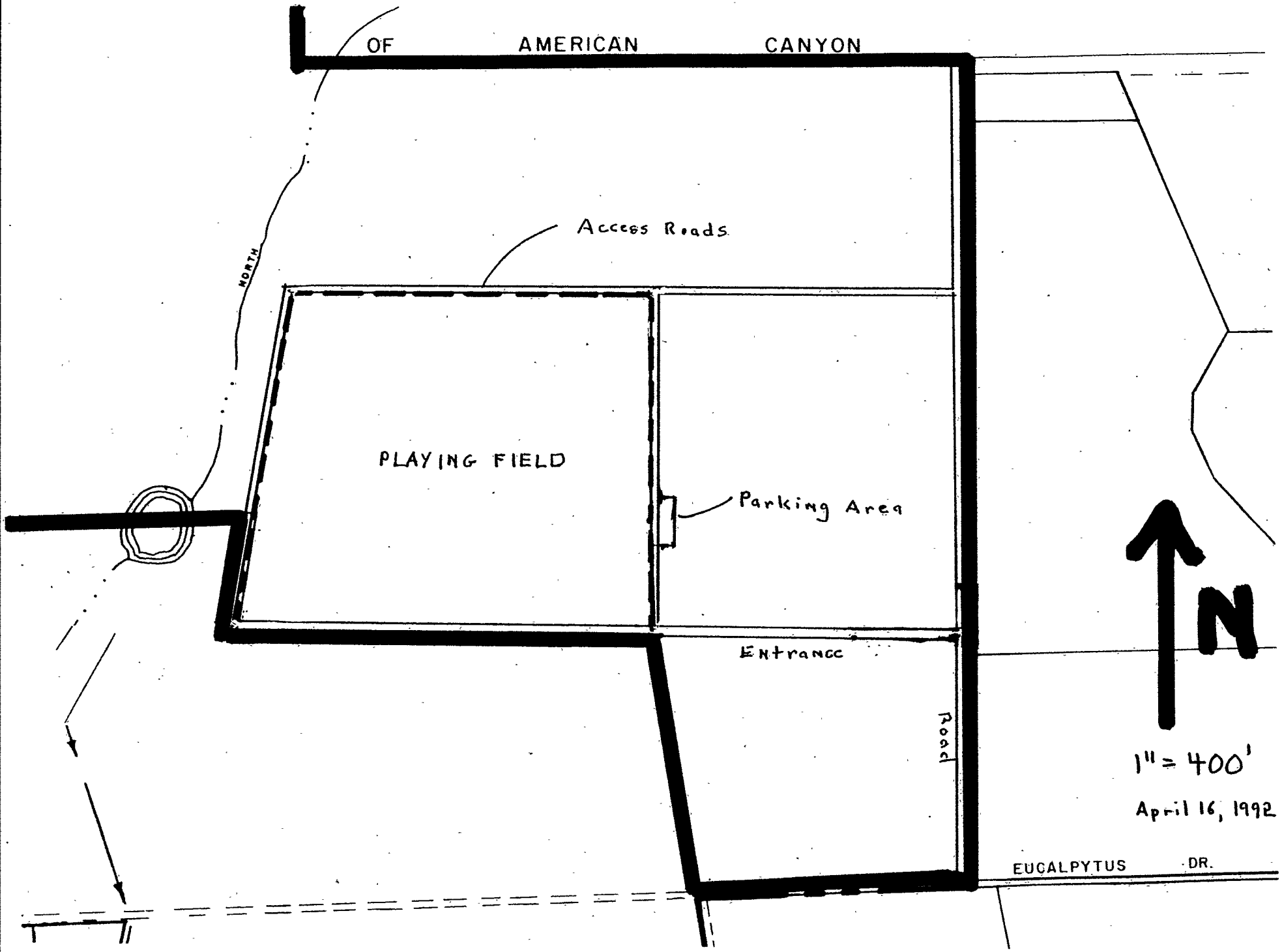
WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled + Cooler ~~none~~	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	none Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0	0
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Porta-John	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	M&M Sanitary Yes___ No ✓	Yes___ No___
C. Current Waste Flows (peak flow in gallons/day):	0	
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	
E. Future Waste Disposal Capacity (in gallons/day):	0	

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	private contract	

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	none	
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	



Property Owner: Couch
APN: 58-030-17

Applicant: Robert D'Elia

RBD

VALLEJO PAINTBALL PARK

INTERDEPARTMENTAL MEMORANDUM

DATE 10-11-73

66

FROM:
- ___ PLANNING DEPARTMENT
- X BUILDING DEPARTMENT
- ___ HEALTH DEPARTMENT

TO:
- ___ PLANNING DEPARTMENT
- ___ BUILDING DEPARTMENT
- X HEALTH DEPARTMENT

REGARDING:
A.P. FILE # 58-030-47
TYPE OF DEVELOPMENT
Dwlg

FLOOD PRONE AREA
YES ☐ NO ☒

FORM BY: D. Silvestre

NAME Robert L. Couch

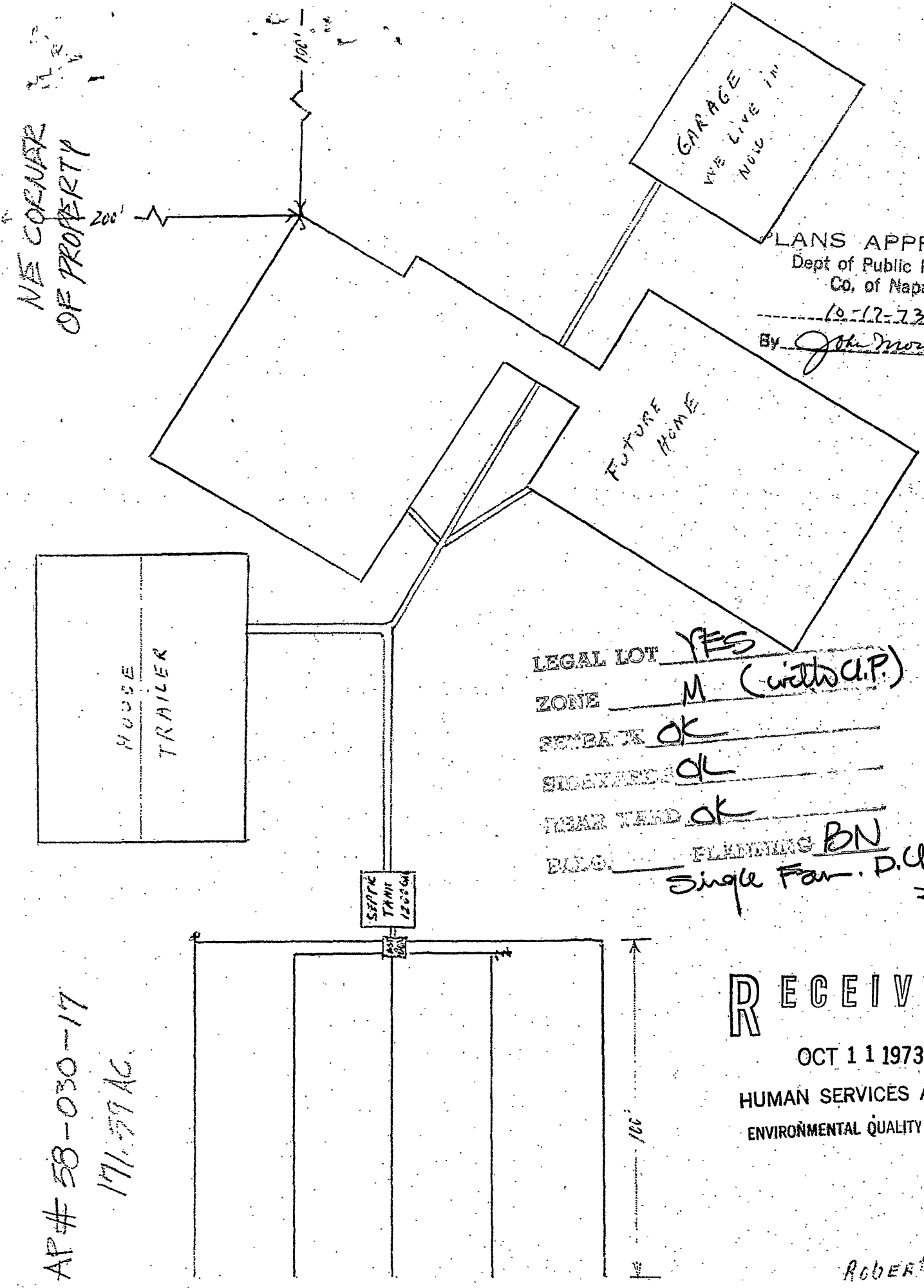
ADDRESS Eucalyptus Dr.

PURPOSE:
- X APPROVE AND RETURN
- ___ INFORMATION

APPROVED: BY John Monaco DATE 10-17-73

MEMO OR REMARKS Sewage disposal system has been installed.

H.D. - B.D. - P.D. #1 12/71 2767



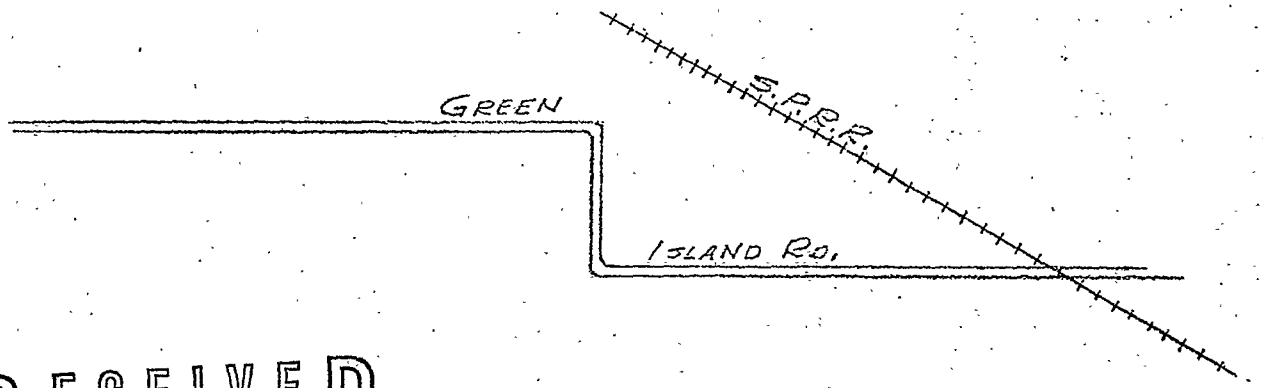
PLANS APPROVED
Dept of Public Health
Co. of Napa
10-17-73
By John Moroni

LEGAL LOT YES
ZONE M (with U.P.)
SETBACK OK
SIDEYARDS OK
REAR YARD OK
BLDG. PLANNING BN
Single Fam. D.U.

RECEIVED
OCT 11 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

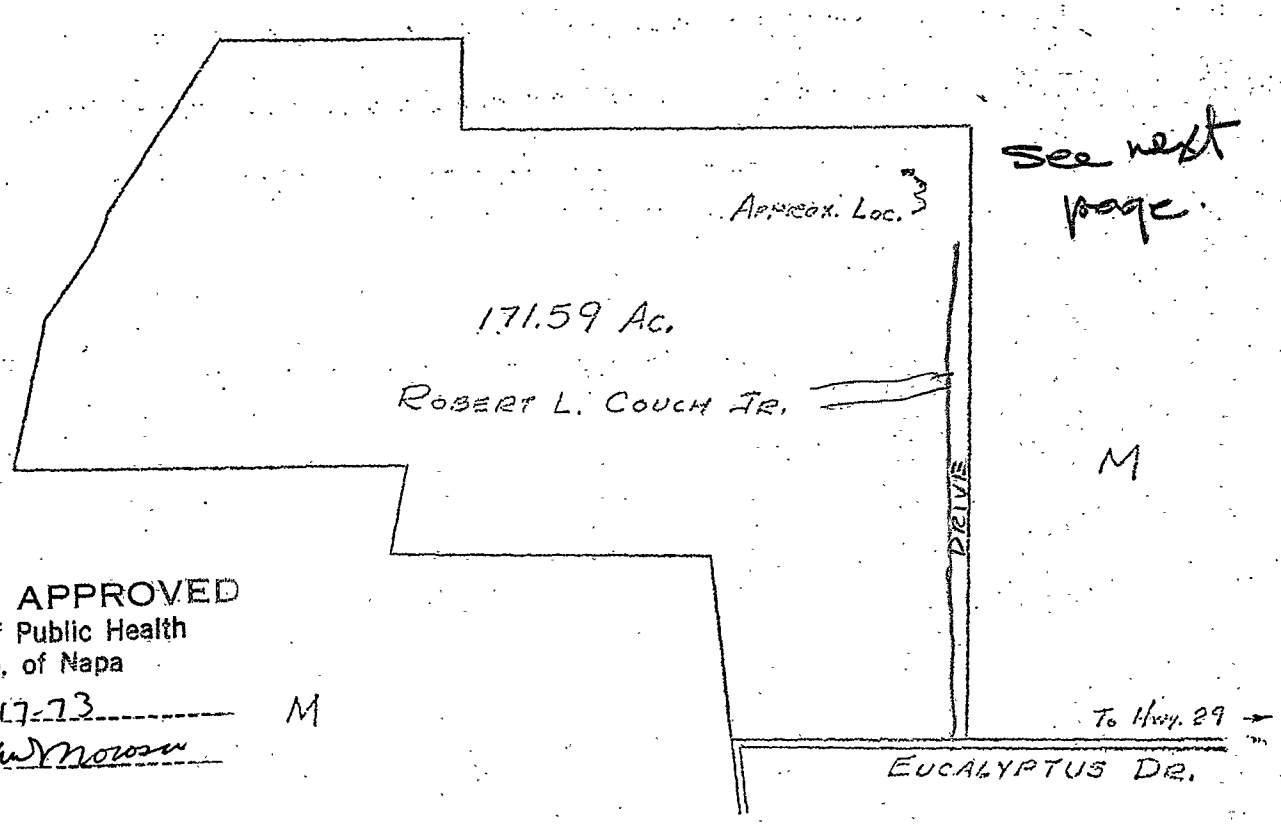
AP # 58-030-17
171.59 AC

Robert L. Couch
2 Eucalyptus Dr.
Vallejo, C 2768-
44590



RECEIVED
OCT 11 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

M



See next page.

PLANS APPROVED
Dept of Public Health
Co. of Napa
10-17-73
By John Monroe

M

SCALE 1" = 800'

N

Informational Trailer Permit Map
Conservation, Development & Planning Department

ROBERT L. COUCH
TRAILER PERMIT
REQUEST

To obtain a temporary trailer permit for watchman/caretaker purposes on a 171-acre parcel of land located approximately 3,200 feet west of State Highway 29 and 2,500 feet south of Green Island Road within an "M" District. (Assessor's Parcel #58-030-17)

The Director reported that this proposal had been continued by the Commission from the September 5th meeting pending review of use permit and building permit applications on file with the Conservation, Development and Planning Department. Department records, he said, had indicated that a Use Permit to build a residence on the property had been denied by the Commission on April 4, 1966 but approved by the Board of Supervisors on appeal on May 26, 1966. A building permit and certificate of occupancy had been issued to the applicant in March of 1967, within one year of Board approval, for the construction of a garage. Related electrical and plumbing permits had also been issued. It would appear, he continued, that that action had been taken within the required one-year period to start the construction of a residence on the property.

Based on the submitted information and further discussion with the applicant, it would also appear that a temporary construction trailer would be more appropriate to the situation than the request for a temporary watchman trailer. It was the recommendation of the Department, therefore, that the applicant's request for a temporary watchman trailer permit be denied and he be allowed to apply for a temporary construction trailer pending issuance of a building permit and with a waiver of the additional filing fee.

During public hearing, Mr. Couch appeared briefly in support of the proposal indicating his concurrence with the Department's recommendations.

No opponents were present

MOTION BY PELISSA, SECONDED BY MC FARLAND

that the Temporary Trailer Permit Request of Robert L. Couch be denied based on the findings of the Department and that he be allowed to file a new application without additional filing fee in the future for a temporary construction trailer when he was prepared to proceed with construction.

This motion carried on the following roll call vote:

AYES: Blaufuss, Ingalls, McFarland, Pellissa and Vanderschoot
NOES: None
ABSENT: None

Findings and recommendations on which the Commission based their denial of this request are as follows:

FINDINGS:

1. This proposal was continued by the Commission from its September 5, 1973 meeting pending review of use permit and building permit applications on file with the Conservation, Development and Planning Department. Department records indicate that:

   a. A use permit to construct a single-family residence on the property was denied by the Commission on April 4, 1966, but approved on appeal by the Board of Supervisors on May 26, 1966.
   b. The site and surrounding area was zoned M-2 at the time of use permit application. The M-2 zone allowed residences under use permit at the discretion of the Commission. The area was rezoned "M" in 1970. The "M" District does not allow permanent residences under any conditions.
   c. Since the Commission denied the use permit, there were no conditions of approval. The Board of Supervisors' minutes do not indicate any conditions of approval.
   d. Department files indicate problems with the Division of Environmental Quality Control in 1969 regarding methods of water supply and sewage disposal.
   e. Building division files show an application for building permit (#9653) and certificate of occupancy was issued to Robert Couch, Jr. on March 10, 1967, within one year of Board approval, for a garage. A plumbing permit (#5558) was also issued on March 10, 1967 for such fixtures as showers, lavatories, automatic washers, water closets, and water heater.

Building files also contain several electrical permits issued from March 10, 1967 to June 20, 1968.

2. Based on the submitted application, the applicant is:
   a. Living on the property in a garage.
   b. Requests permission to live in a trailer to be located adjacent to the garage until a permanent residence can be constructed on the property.
3. The garage is shown as being detached from a "future house". Construction of permanent residences is not allowed within "M" Districts.
4. An environmental assessment of this project is not required under adopted County guidelines.

CONCLUSION:
It appears that on approval by the Board of Supervisors in 1966, action was taken within one year to start construction of a residence on the property.

Based on the submitted information and further discussion with the applicant, it also appears sthat a temporary construction trailer permit would be more appropriate to this situation rather than the applicant's request for a temporary watchman trailer.

RECOMMENDATION: DENIAL

On the basis that:
1. The applicant be allowed to apply for a temporary construction trailer pending issuance of a building permit to finish construction of the residence started in 1967.
2. Fees paid for the temporary watchman trailer permit be applied to the temporary construction trailer permit.
3. Questions regarding the conversion of the garage to non-occupancy status be resolved with conditions to be attached to final approval of the building permit for completion of the residence.

Environmental

Cover Sheet

APN	059 - 030 - 066 - 000
Permit #	
Program	up
DocType	pmt
Street #	2
Street Name	Eucalyptis DR
Year	1994



approved 5-0

NAPA COUNTY
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

USE PERMITS

DEPARTMENT REPORT AND RECOMMENDATION
Meeting of May 18, 1994
Agenda Item: #11

APPLICATION DATA:

APPLICANT: **Dean Laing/Storm Paintball Park**
Use Permit Request #93388-UP Filed: 2/24/94

REQUEST FOR: Approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people.

LOCATION: On a 5 acre portion of a 165.5 acre parcel located north of Eucalyptus Drive approximately 4,200 feet west of its intersection with Donaldson Way in an AW (Agricultural Watershed) zoning District. (Assessor's Parcel #58-030-~~17~~ 066

FINDINGS:

SPECIAL INFORMATION:

1. Details of the proposal are contained in the attached supplemental information sheet.

2. Comments and recommendations from various County departments and other agencies are attached.

3. Two other parts of the site have been used as a paintball playing field since 1987. The requested use of the site is for twenty (20) or fewer players during weekend daylight hours. Air guns are used to propel gelatin covered balls filled with water-soluble paint in games of hide and seek over a marked playing field with temporary wood barricades. Included is a staging and parking area with a portable latrine and a temporary open sided plastic or fabric shelter. The two other paintball playing fields previously approved on the parcel by the Commission are the Vallejo Paint Ball Park (D'Elia applicant) for maximum of 20 users, and the Prime Time Paintball Club (Jarquin applicant) for maximum of 30 users.

4. The proposed access road is a rutted dirt road with a fairly hard base. It is passable for passenger cars except in wet weather. The first part of the access road from Eucalyptus Drive to a point approximately 1,000 feet north is used by customers of both the Vallejo Paint Ball and Primetime Paint Ball. The access road for Primetime continues approximately another 700 feet northerly and approximately 2,400 feet westerly. The Department of Public Works requires paving the road from Eucalyptus Drive to the parking lot. Ambulances and fire

AGENDA ITEM NO. 11

engines can not reach a majority of the property due to seasonal mud.

5. Airport compatibility with Zone E and implementation of airport overflight avigation easement is necessary.

ENVIRONMENTAL ANALYSIS:

6. The project proposal limits the number of participants to maximum of 20 per day on weekends and holidays between sunrise and sunset and includes in the instruction manual procedures for litter control and cleanup of the site as well as sanitary facilities minimizing any potential noise and litter problems.

7. Impacts associated with the establishment of a paintball playing field would not be environmentally significant, individually or cumulatively. The eucalyptus grove is not being harvested. There would be no significant impact on wildlife or water habitat resources, as defined in Section 711.2 of the Fish and Game Code. The Department of Fish & Game offers no comments on this proposal. A Negative Declaration is recommended. (see attached copy).

PLANNING AND ZONING ANALYSIS:

8. The following findings must be made in order to approve the use permit:

   A. The Commission has the power to issue a Use Permit under the Zoning Regulations in effect as applied to the property.

      Analysis: Pursuant to Section 12232 (a) of the County Zoning Ordinance, the establishment of a paintball playing field is permitted in the AW zoning district with a use permit.

   B. The procedural requirements for a Use Permit set forth in Title XII of the Napa County Code (zoning regulations) have been met.

      Analysis: All applicable procedural requirements have been met.

   C. The grant of the Use Permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.

      Analysis: The proposed use is compatible with the open space character of an area which includes agriculture, a sanitary landfill, a dirt quarry, residential development, industrial development and an incorporated city. Transitional land use of the site is important as an open space buffer strip between the following nearby uses:

      a) General Industrial District on Green Island Road northerly,
      b) Residential part of the City of American Canyon southeasterly,

c) Eventual reuse of the landfill southwesterly,
d) Port of Oakland marshland mitigation westerly, and
e) Cargill Salt Company land reuse northwesterly.

The proximity of the City of American Canyon and unincorporated industrial lands increases the possibility of this site and adjacent parcels being considered for more intensive land uses within the next few years. Therefore, the permit should be timed for future review.

D. The proposed use, as conditioned, complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan. The proposal is in conformance with the General Plan designation of Agriculture, Watershed and Open Space and the AW (Agriculture Watershed) zoning specified for the property.

Analysis:

- The activity proposed is a use which may be permitted within the AW zoning district. Outdoor parks and recreation facilities are compatible with agriculture.

- The proposed use is open space oriented and is consistent with Recreational Policy 2.2 of the Napa County General Plan, which encourages private recreational development that is beneficial to residents and visitors.

- The playing field is within the Airport Land Use Commission's referral area and Zone E of the Airport Land Use Compatibility Zones (see Exhibit "A"). Zone E is characterized as a zone of common flight paths and subject to limited risk and frequent noise intrusion. Overflight easements are required. A paintball playing field with a peak usage of 20 persons is an acceptable density in this zone.

RECOMMENDATION:

ENVIRONMENTAL:

1. Find that the Planning Commission has read and considered the Negative Declaration prior to taking action on said negative declaration and the proposed project.

2. Adopt the Negative Declaration.

PLANNING:

3. **APPROVAL** with Findings and subject to the attached Conditions of Approval.

JO:pjcB21\Laingpai.SR

CONDITIONS OF APPROVAL
Use Permit #93388-UP (Laing)

1. The permit be limited to conducting paintball games within the area shown on the attached plot plan. A maximum of 20 participants may utilize the site at any one time. Any expansion or changes in use to be by separate use permit submitted for Commission consideration. The hours of operation shall be limited to weekends and weekday holidays, sunrise to sunset.

2. The permit be limited to a three (3) year period. The applicant shall submit annual reports to the Department summarizing the activity of the past year. Such summary shall include the number of participants and hours of operation per month. The applicant may seek use permit approval at the end of the three (3) years.

3. No tournaments or special events shall be conducted on the property.

4. No overnight camping or overnight stay in vehicles shall be allowed.

5. Fires or outdoor cooking is prohibited.

6. No motorcycles, off-road trucks or similar type vehicles shall be allowed off of the access roads.

7. No alcoholic beverages shall be consumed on-site.

8. Provision for minimum of twenty (20) off-street parking spaces shall be maintained on a surface approved by Public works.

9. Plans for any outdoor signs shall be submitted to the Department for review and approval in regard to design, area, height and placement.

10. Prior to activation of the use permit the applicant shall provide proof of liability insurance acceptable to County Counsel.

11. The playing field boundary shall be clearly marked.

12. Access roads shall remain clear and gates unlocked during playing hours.

13. Security personnel shall be provided from among those in attendance.

14. At the end of each playing day, the site and surrounding area shall be left in a clean and orderly condition.

15. An overflight and noise easement, acceptable to the Director of Aviation, shall be dedicated to the County of Napa prior to conducting any paintball games.

16. Compliance with all applicable building codes, zoning standards and requirements of various County departments and other agencies as stated in the following:

    (a) Department of Environmental Management memo of March 3, 1994.
    (b) Department of Public Works letter of March 15, 1994.
    (c) American Canyon Fire Department comments of March 23, 1994.

H:\liang.cnd

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING COMMISSION
1195 Third Street, Room 210, Napa, California, 94559 · (707) 253-4416

RECEIVED
FEB 22 1994
NAPA COUNTY
PLANNING, BUILDING & ENVIRONMENTAL SERVICES

APPLICATION FOR USE PERMIT

Currently Approved For PaintBall Permit # 91435-UP

FOR OFFICE USE ONLY

ZONING DISTRICT: AW

FILE NO: 93388-UP

REQUEST: To operate Paintball playing Field on weekends. For Aprx 20 people on A 165Ac Portion of 165.5 Parcel # APN 058030017

Date Submitted: 2-14-94

Date Complete:

Date Published:

	ZA	CDPC	BS APPEAL
Hearing			
Action			

D.B.A STORM PAINTBALL PARK

TO BE COMPLETED BY APPLICANT (please print or type)

Applicant's Name: Dean J Laing Telephone #: (707) 446-7786

Address: 1989-7 Peabody Rd #268 Vacaville CA 95687
No Street City State ZIP

Status of Applicant's Interest in Property: STORM PAINTBALL FIELD

Property Owner's Name: Robert Court and Patricia Telephone #: (707) 642-2887

Address: 2 Eucalyptus dr American Canyon CA 94589
No Street City State ZIP

Site Address (if any): No # Eucalyptus DR American Canyon
No Street City

Assessor's Parcel #: 058-030-017-000 Existing Parcel Size: 165.5

I certify that all the information contained in this application, including but not limited to the information sheet, water supply/waste disposal information sheet, site plan, plot plan, floor plan, building elevations, water supply/waste disposal system plot plan and toxic materials list, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, including the right of access to the property involved.

D Laing 2/11/94
Signature of Applicant Date

Patricia M Court
Signature of Property Owner Date

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

$1081.00 Receipt # 54716 Received by: R. Nolan Date 2-24-94

CDPD(12-17-92)

7

INFORMATION SHEET

I. USE

A. Description of Proposed Use (including where appropriate product/service provided): Paint Ball Field for playing PAINT Ball

B. Project Phases: [X] one [ ] two [ ] more than two (please specify) _____

C. Estimated Completion Date for Each Phase: Phase 1: intact Phase 2: _____

D. Actual Construction Time Required for Each Phase: [X] less than 3 months
[ ] More than 3 months

E. Related Necessary On- And Off-Site Concurrent or Subsequent Projects: None

F. Additional Licenses/Approval Required:

District: N/A Regional: N/A
State: _____ Federal: _____

II. BUILDINGS

A. Floor Area of Project (in square ft): NONE proposed total floor area on site: None

new construction: N/A

existing structures or portions thereof to be utilized: none

existing structures or portions thereof to be removed: none

B. Floor Area Devoted to each separate use (in square ft):

living: N/A storage/warehouse: N/A offices: offsite
sales: N/A other (_____): _____

C. Maximum Building Height: existing structures: _____ new construction: _____

D. Type of New Construction (e.g., wood-frame): N/A

E. Type of Exterior Night Lighting Proposed: N/A

III. PARKING	Existing	Proposed
A. Total On-Site Parking Spaces:	50	20
B. Customer Parking Spaces:	—	—
C. Employee Parking Spaces:	—	—
D. Loading Areas:	—	—

RECEIVED
FEB 24 1994

IV.	TYPICAL OPERATION	Existing	Proposed
A.	Days of Operation:	~~Weekends~~ 2	SAT SUN
B.	Expected Hours of Operation:	[illegible]	9-4 Dawn to Dusk
C.	Anticipated Number of Shifts:	0	1
D.	Expected Number of Full-Time Employees/Shift:	0	0
E.	Expected Number of Part-Time Employees/Shift:	0	0
F.	Anticipated Number of Visitors •busiest day:	[illegible]0	20
	•average/week:	[illegible]0	30
G.	Anticipated Number of Deliveries/Pickups •busiest day:	N/A [illegible]	1 per month as needed
	•average/week:	N/A [illegible] month	2 per month

V. SUPPLEMENTAL INFORMATION FOR SELECTED USES

A. Commercial Meeting Facilities
Food Serving Facilities

- restaurant/deli seating capacity: N/A
- bar seating capacity: N/A
- public meeting room seating capacity: N/A
- assembly capacity: N/A

B. Residential Care Facilities (6 or more residents)
Day Care Centers

	Existing	Proposed
• type of care:	N/A	—
• total number of guests/children:	N/A	—
• total number of bedrooms:	N/A	—
• distance to nearest existing/approved facility/center:	N/A	—

WATER SUPPLY/WASTE DISPOSAL INFORMATION SHEET

I. WATER SUPPLY	Domestic	Emergency
A. Proposed source of Water (eg., spring, well, mutual water company, city, district, etc)	Bottled	—
B. Name of Proposed Water Supplier (if water company, city, district): annexation needed?	None Yes___ No ✓	— Yes___ No ✓
C. Current Water Use (in gallons/day): Current water source:	0 —	— —
D. Anticipated Future Water Demand (in gallons/day)	0	—
E. Water Availability (in gallons/minute):	0	—
F. Capacity of Water Storage System (in gallons):	0	—
G. Nature of Storage Facility (eg., tank, reservoir, swimming pool, etc.):	none	—

II. LIQUID WASTE	Domestic (sewage)	Other (please specify)
A. Disposal Method (e.g, on-site septic system on-site ponds, community system, district, etc):	Septic Tank	
B. Name of Disposal Agency (if sewage district, city, community system): annexation needed?	NBM Sanitary (Napa) Yes___ No ✓	 Yes___ No ✓
C. Current Waste Flows (peak flow in gallons/day):	0	—
D. Anticipated Future Waste Flows (peak flows in gallons/day):	0	—
E. Future Waste Disposal Capacity (in gallons/day):	0	—

III. SOLID WASTE DISPOSAL		
A. Disposal Method (eg., on-site, landfill, garbage company, etc.):	Private contract	Private contract

IV. HAZARDOUS/TOXIC MATERIALS		
A. Disposal Method (eg., on-site, landfill, garbage company, waste hauler, etc.):	None	NA
B. Name of Disposal Agency (if landfill, garbage company, private hauler, etc.):	none	NA

DRAFT
NEGATIVE DECLARATION

The Conservation, Development and Planning Director of Napa County has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Conservation, Development and Planning Department Office, 1195 Third St., Room 210, Napa California 94559. For further information call (707) 253-4416.

PROJECT NAME: **DEAN LAING/STORM PAINTBALL PARK**
FILE NO: **93388-up**

PROJECT DESCRIPTION: Request for use permit approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people on a 5 acre portion of a 165.5 acre parcel located on APN 58-030-17 north of Eucalyptus Drive approximately 4200 feet west of its intersection with Donaldson Way in an AW:AC (Agricultural Watershed:Airport Compatibility) Zoning District.

WRITTEN COMMENT PERIOD:
April 26, 1994 to May 17, 1994

DATE: April 21, 1994

BY THE ORDER OF

JEFFREY REDDING
Director
Napa County Conservation, Development and Planning Department

Agg.ND

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT
1195 Third Street, Rm. 210
Napa, California, 94559
(707) 253-4416

INITIAL STUDY

PROJECT NAME: Dean Laing\Storm Paintball Park
FILE NO: 93388-UP

PROJECT DESCRIPTION: Request for use permit approval to operate a paintball playing field within a eucalyptus grove on weekends for twenty (20) people on a 5 acre portion of a 165.5 acre parcel located north of Eucalyptus Drive approximately 4200 feet west of its intersection with Donaldson Way in an AW:AC (Agricultural Watershed:Airport Compatibility) zoning district (Assessor's parcel #58-030-17).

JURISDICTIONAL BACKGROUND:
Public Plans and Policies

Based on an initial review, the following findings have been made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

Is the project consistent with:	YES	NO	N/A
a) Regional and Subregional Plans and Policies?	X	—	—
b) LAFCOM Plans and Policies?	X	—	—
c) The County General Plan?	X	—	—
d) Appropriate City General Plans?	—	—	X
e) Adopted Environmental Plans and Goals of the Community?	X	—	—
f) Pertinent Zoning?	X	—	—

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Responsible (R) and Trustee (T) Agencies	Other Agencies Contacted
None	Napa County Airport-American Canyon Fire Protection Dist.-Environmental Management City of American Canyon-California Division of Forestry-Public Works-Sheriff

ENVIRONMENTAL SETTING:

A nearly level site west of Oat Hill within a grove of eucalyptus trees at an elevation of approximately 20 feet above sea level adjacent to North Slough and the City of American Canyon. Surrounding land uses on the same parcel are the Vallejo Paintball Park with Robert B. D'Elia applicant located on a 40 acre portion of the parcel app. 400 feet westerly and the Prime Time Paint Ball Park of applicant Gladis Jarquin located on a 36 acre portion of the parcel approx. 2,400 feet westerly of the Vallejo Paintball Park. Also on Parcel #58-030-17 are abandoned vehicles, an illegal mobile home, and several illegal accessory buildings.

Surrounding land uses include open space northerly, westerly and southerly, a quarry easterly, and residences southeasterly.

ENVIRONMENTAL EFFECTS:
Normally Significant Individual Impacts

YES	NO		
		(Geology)	
__	X	1.	Exposure of new site users to substantial life and/or property hazards from geologic processes (*e.g.*, severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
__	X	2.	Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
__	X	3.	Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		(Meteorology)	
__	X	4.	Substantial modification of climatic or microclimatic conditions (*e.g.*, temperature, rainfall, wind, shadow patterns, etc.).
		(Hydrology)	
__	X	5.	Exposure of new site users to substantial life and/or property hazards from flooding (*e.g.*, stream flooding, tsunamis, seiches, dam or levee failure, etc.).
__	X	6.	Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
__	X	7.	Substantial temporary construction period increase in erosion and/or sedimentation.
__	X	8.	Substantial permanent increase in erosion and/or sedimentation.
__	X	9.	Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		(Water Quality)	
__	X	10.	Substantial degradation of the quality of waters present in a stream, lake, or pond.
__	X	11.	Substantial degradation of the quality of groundwater supplies.
__	X	12.	Substantial contamination of a public or private water supply.
		(Air Quality)	
__	X	13.	Exposure of new site users to substantial health hazards from breathing polluted air.
__	X	14.	Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
__	X	15.	Substantial degradation of local or regional air quality.
__	X	16.	Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		(Noise)	
__	X	17.	Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	18.	Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	19.	Exposure of people to high construction noise levels for substantial periods of time.
__	X	20.	Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Ecosystem)	
__	X	21.	Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
__	X	22.	Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (*e.g.*, marshes, riparian galleries, vernal pools, etc.).
__	X	23.	Substantial reduction in habitat for plants, fish, and/or wildlife.
__	X	24.	Substantial modification in the number or diversity of plant or animal species present.
__	X	25.	Substantial interference with the movement of a resident or migratory fish or wildlife species.
		(Social)	
__	X	26.	Disruption or division of an established community.
__	X	27.	Displacement of a large number of people.
		(Aesthetic)	
__	X	28.	Blockage or substantial degradation of important public or private views.
__	X	29.	Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare.
__	X	30.	Creation of a litter problem.
		(Cultural)	
__	X	31.	Destruction of or substantial damage to a recognized archaeological site.
__	X	32.	Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
__	X	33.	Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
		(Traffic)	
__	X	34.	Exposure of new site users to substantial life and/or property hazards from traffic accidents.
__	X	35.	Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
__	X	36.	Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
__	X	37.	Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
__	X	38.	Creation of a substantial local parking problem.
		(Energy)	
__	X	39.	Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
__	X	40.	Creation of a facility or development which will use fuel or energy in a wasteful manner.
__	X	41.	Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
		(Public Health)	
__	X	42.	Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	43.	Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	44.	Exposure of new site users to substantial life and/or property hazards from fire.
__	X	45.	Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Public Health)	
__	X	46.	Exposure of new site users to substantial life and/or property hazards from air crashes.
__	X	47.	Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes.
__	X	48.	Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.
		(Community Services)	
__	X	49.	Increase in the demand for a community service (*e.g.*, sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.
		(Commercial Resources)	
__	X	50.	Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
__	X	51.	Removal of a substantial amount of agricultural or grazing land from current or potential production.
		(Fiscal)	
__	X	52.	Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.
		(Growth Inducement)	
__	X	53.	Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

		YES	NO
Does the project:			
a)	Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	__	X
b)	Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	__	X
c)	Have possible environmental effects which are individually limited but cumulatively considerable?	__	X
d)	Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	__	X

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Impact Discussion

[All items checked above "YES", "YES, mitigable", or "YES, cumulatively significant" must be discussed below.]

Noise

Limited hours of operation, small number of participants (20) and use of air guns utilizing gelatin - coated paintballs (about the size of a marble) will keep noise levels at an insignificant level. The hours of operation for this field and the other nearby fields is proposed to be limited to weekends and weekday holidays, sunrise to sunset.

Litter

The operations manual for the activity includes that at the end of each playing day the site will be left in a clean and orderly condition. This will keep the playing area from becoming unsightly and unsanitary over time. Those items generally not removed on a daily basis include: staging area tent, portable latrine, temporary wood barricades and playing area markers. Also left behind is the multi-colored effects of the paint on the trees and temporary structures. The paint is non-toxic and water-soluble but tends to remain in place during the dry months of the year.

Fire

The property is located within a general area identified as low fire risk. Access roads should be kept clear and locked gates should remain open during playing hours.

MITIGATION MEASURES:

- X None Required
- ___ Identified By This Study - Unadopted (see attached Draft Project Revision Statement)
- ___ Included By Applicant As Part of Project (see attached Project Revision Statement)
- ___ Recommended For Inclusion As Part of Public Project (see attached Recommended Mitigation Measure List)

BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information Form contained in the permanent file on this project.

Dean Laing/Storm Paintball Park
Initial Study

AGENCY STAFF PARTICIPATING IN THE INITIAL STUDY:

Resource Evaluation:	James O'Loughlin	Date: April 21, 1994
Site Review:	James O'Loughlin	Date: September 1, 1992
Planning/Zoning Review:	James O'Loughlin	Date: April 21, 1994

PRELIMINARY DETERMINATION:

X No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

___ A Negative Declaration cannot be prepared unless all identified impacts are reduced to a level of insignificance or avoided.

DATE: April 21, 1994

BY: James O'Loughlin

James O'Loughlin
Planner III

FINAL DETERMINATION:

On the basis of this preliminary evaluation:

X I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be approved.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION should therefore be approved.

___ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT would be required:

___ Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.

___ A previously-certified Environmental Impact Report will fully address the impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.

___ A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: _____ BY: _____

A:ds:AmCyn2\liangpb.is

NAPA COUNTY DEPARTMENT OF PUBLIC WORKS

1195 THIRD STREET • ROOM 201 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4351

WILLIAM E. BICKELL
Director of Public Works
County Surveyor—County Engineer
Road Commissioner

RECEIVED

MAR 15 1994

NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

March 15, 1994

Napa County Department of Conservation, Development, and Planning
1195 Third Street - Room 210
Napa, California 94559

RE: Storm Paintball Park
Use Permit #93388
APN: 58-030-17
Eucalyptus Dr.

Commissioners:

This permit will allow the applicant to establish a 15 acre paintball playing field on a portion of a 165 acre parcel off of Eucalyptus Drive in southern Napa County.

The following conditions have been provided by the Napa County Public Works Department in order to help the applicant meet applicable County ordinances and standards:

EXISTING:

1. The access road is a rutted dirt road and is 12 to 15 feet wide.

CONDITIONS:

1. The applicant shall construct a sixteen foot Low Density Common Drive from Eucalyptus Drive to the proposed parking area. The minimum structural section on the roadway will be a double seal coat on five inches of Class II aggregate base.

2. The proposed parking area will have a dust free all weather surface i.e. a double seal coat on five inches of Class II aggregate base.

3. All Public Works related improvements will conform to the latest adopted "Napa County Road and Street Standards."

4. Parking lot, grading, and drainage improvements shall be constructed according to plans prepared by a registered civil engineer which are reviewed and approved by this office.

5. An engineering and inspection fee shall be paid to Napa County Public Works prior to approval of the engineered plans. This fee will be three percent of the cost of public works improvements as estimated by the applicant's engineer and approved by this office.

6. Any work performed within the right-of-way of Eucalyptus drive will be performed in accordance with an encroachment permit issued by this office.

The above requirements will become conditions of this use permit upon County approval of this application. If there are any questions regarding the above conditions, please do not hesitate to contact our office.

Very truly yours,

WILLIAM E. BICKELL
Director of Public Works

by

DENNIS FONG
Associate Civil Engineer

cc: Dean J. Laing
1989-7 Peabody Road #268
Vacaville, CA 95687

NAPA COUNTY

DIVISION OF
ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471 • FAX 707/253-4545

RECEIVED
MAR 7 - 1994
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

MEMORANDUM

TO: Napa County Planning Dept. - Jeff Redding, Director

FROM: Dept. of Environmental Mgmt. - Christine M. Secheli, R.E.H.S.

SUBJECT: Use Permit Application for Dean J. Laing, D.B.A. Storm Paintball Park

DATE: March 3, 1994

APN 58-030-17 FILE # 93388-UP

Located at No. 2 Eucalyptus Drive

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. That adequate chemical toilet facilities be provided. The chemical toilet service company must have a valid health permit issued by the Napa County Department of Environmental Management. Any permanent toilets which will be available to the special event guests, can be subtracted from the total amount of toilets required.

2. That all solid waste be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

3. Adequate area must be provided for collection of recyclables. The applicant must contact the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site.

cc: Dean J. Laing, 1989-7 Peabody Road, #268, Vacaville, CA 95687
usr/pamela/planning/COUNTY/7959

NAPA COUNTY

CONSERVATION — DEVELOPMENT
AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092
AREA CODE 707/253-4416

JEFFREY R. REDDING
Director

RECEIVED
MAR 24 1994
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: American Canyon Fire Dept.

APPLICATION TITLE: Dean Laing / Storm Paintball FILE #: 93388-up

RESPONSE REQUEST DATE: 3-11-94 RESPONSE RETURN DATE: 3-24-94
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

This application (see enclosed project description and/or maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns, and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project ☐ Yes ☒ No
   If yes, indicate required permits: _____

2. Indicate areas of environmental concern and availability of appropriate technical data:
   None At This Time

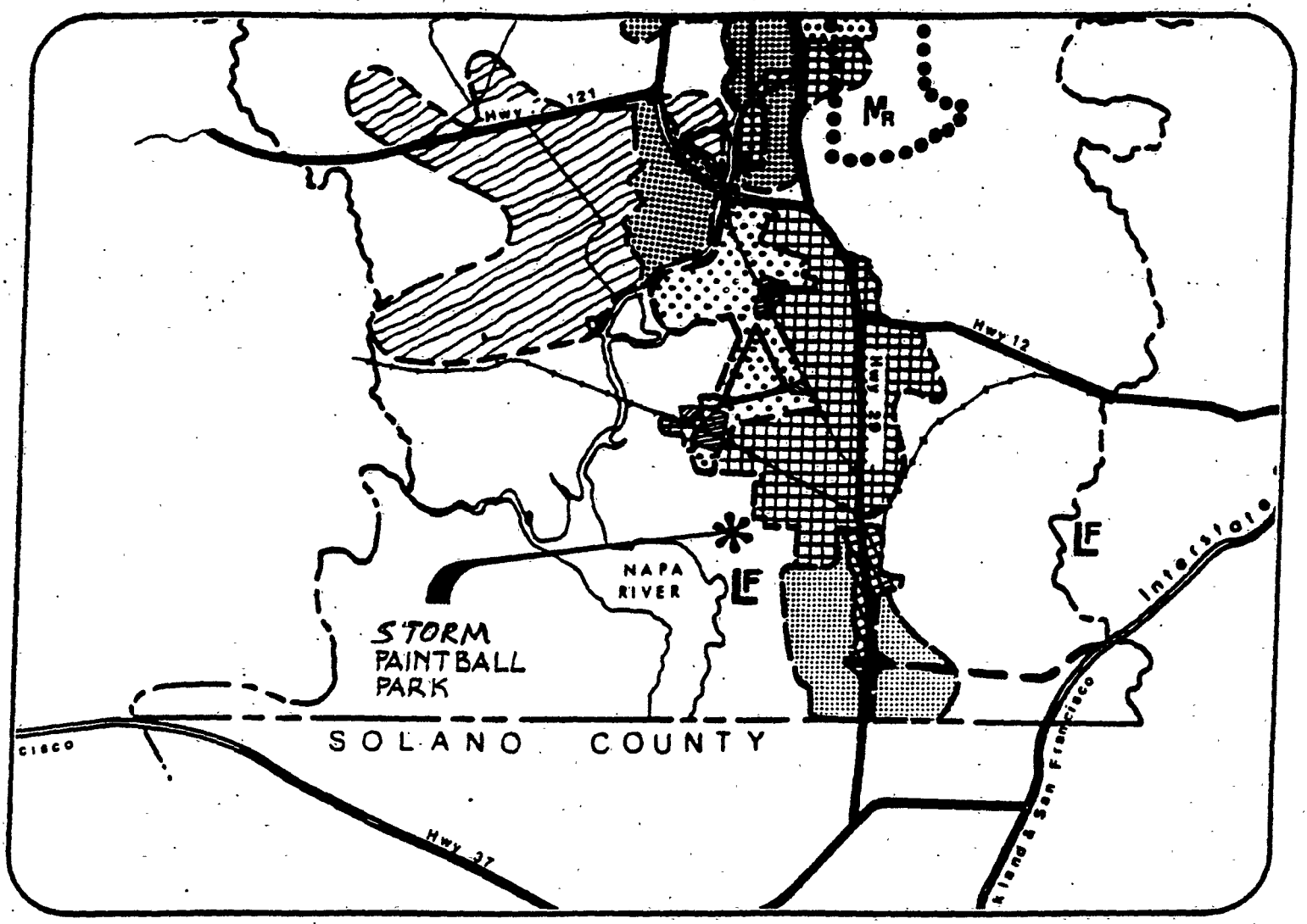
3. Do you recommend: ☒ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions-of-approval (use additional page if needed):
   Applicant should provide all-weather access roads and also provide public telephone for emergency notification. Parking area should be kept clear of combustible grasses and debri. Applicant to maintain fire breaks in and around proposed area.

5. Have you previously reviewed an application on any portion of this project?
   ☐ Yes ☒ No
6. Name of contact person: Keith Caldwell Telephone: (707) 642-2747
   Response Prepared by: Keith Caldwell
   Title: Fire Chief
   Date: 3/23/94

:jcmas2/comments2

2793

NAPA COUNTY LAND USE PLAN 1989-2000



LEGEND

TRANSPORTATION

- LIMITED ACCESS HIGHWAY
- MAJOR ROAD
- SECONDARY ROAD
- RAILROAD
- AIRPORT
- LF LANDFILL SITE

URBAN

- CITIES
- URBAN RESIDENTIAL
- RURAL RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC - INSTITUTIONAL

OPEN SPACE

- AGRICULTURE, WATERSHED & OPEN SPACE
- AGRICULTURAL RESOURCE

SCALE IN MILES
0 2

APN
58-030-17

33
2794

EXHIBIT "A"

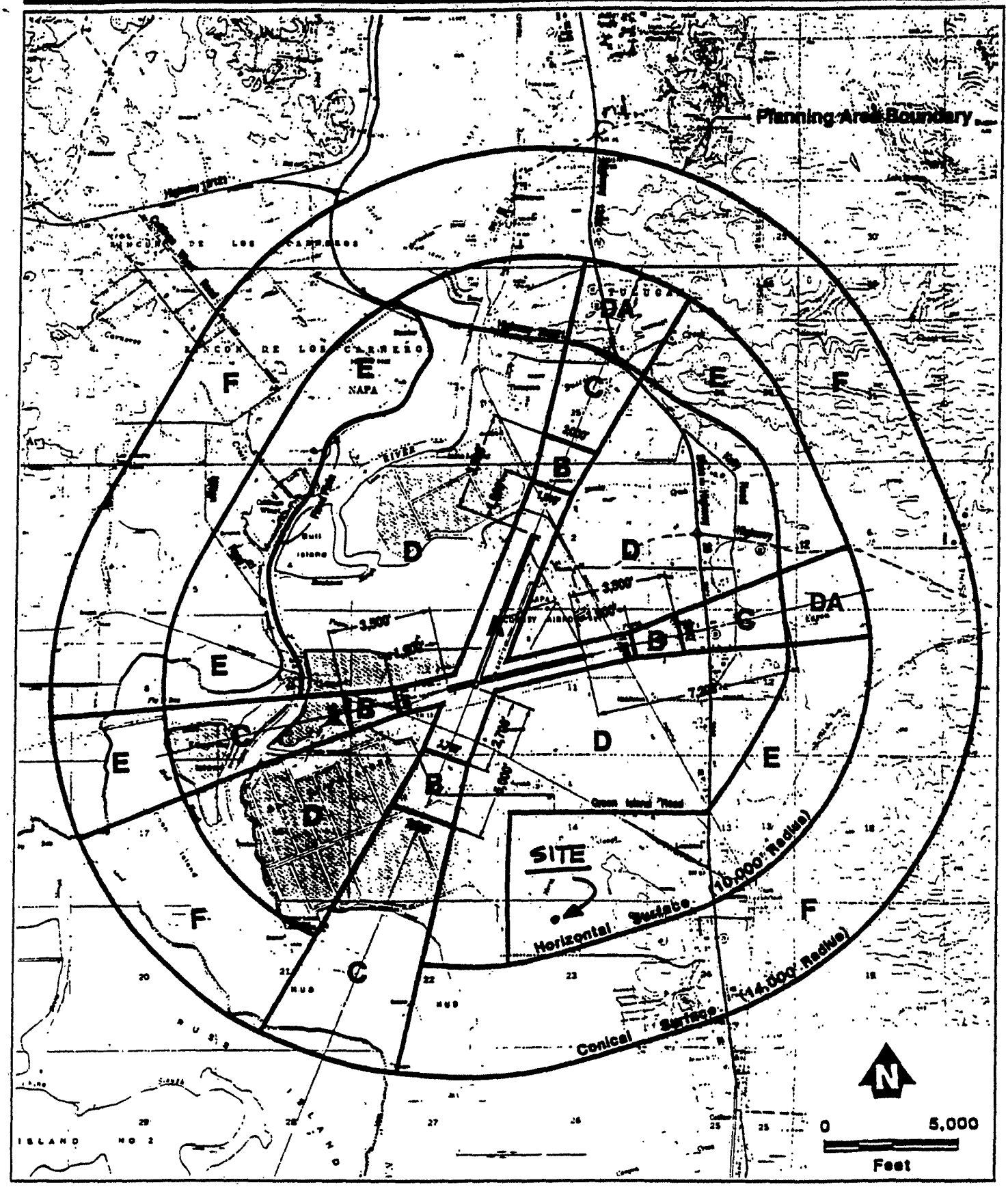
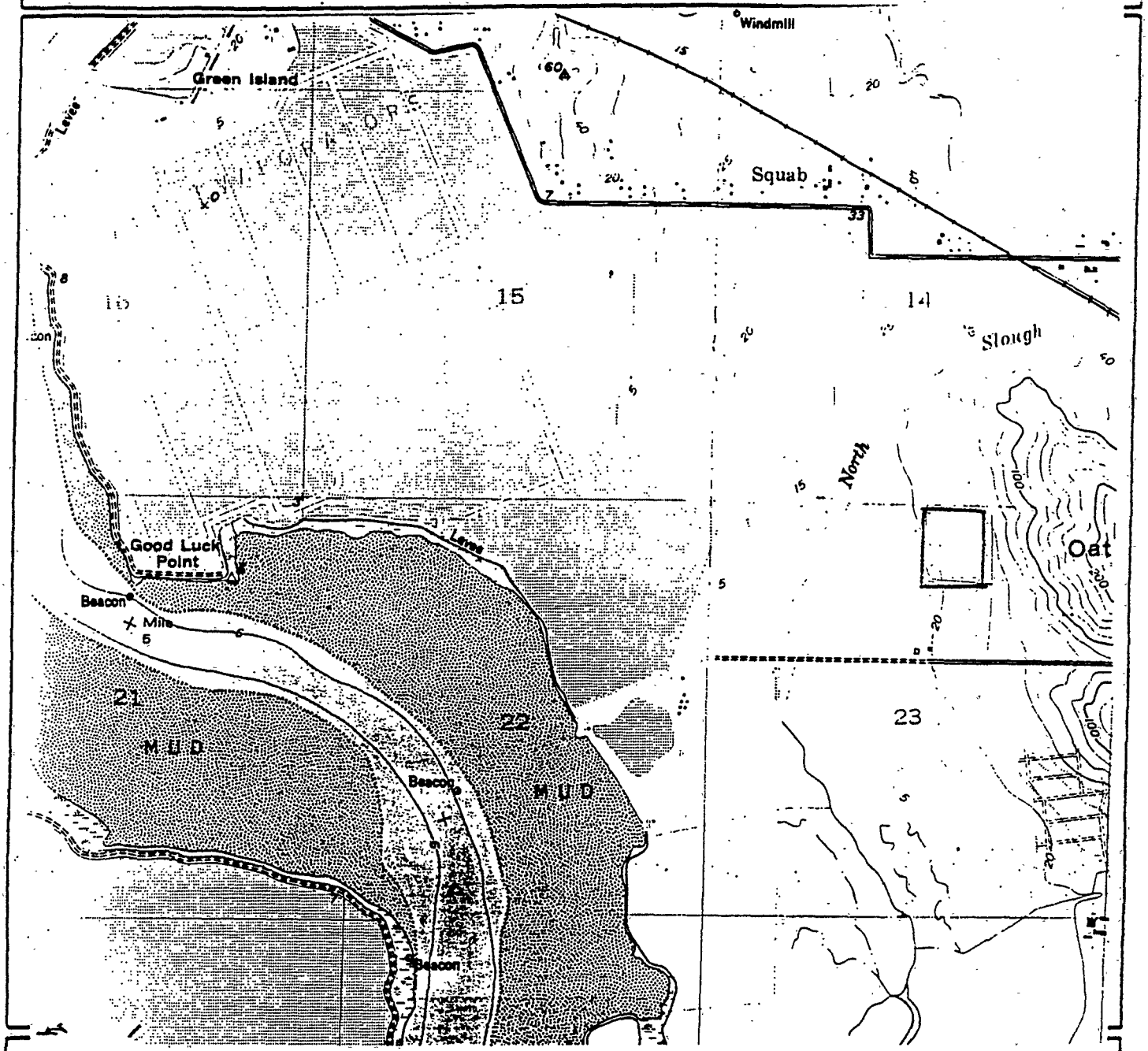


Figure 3A

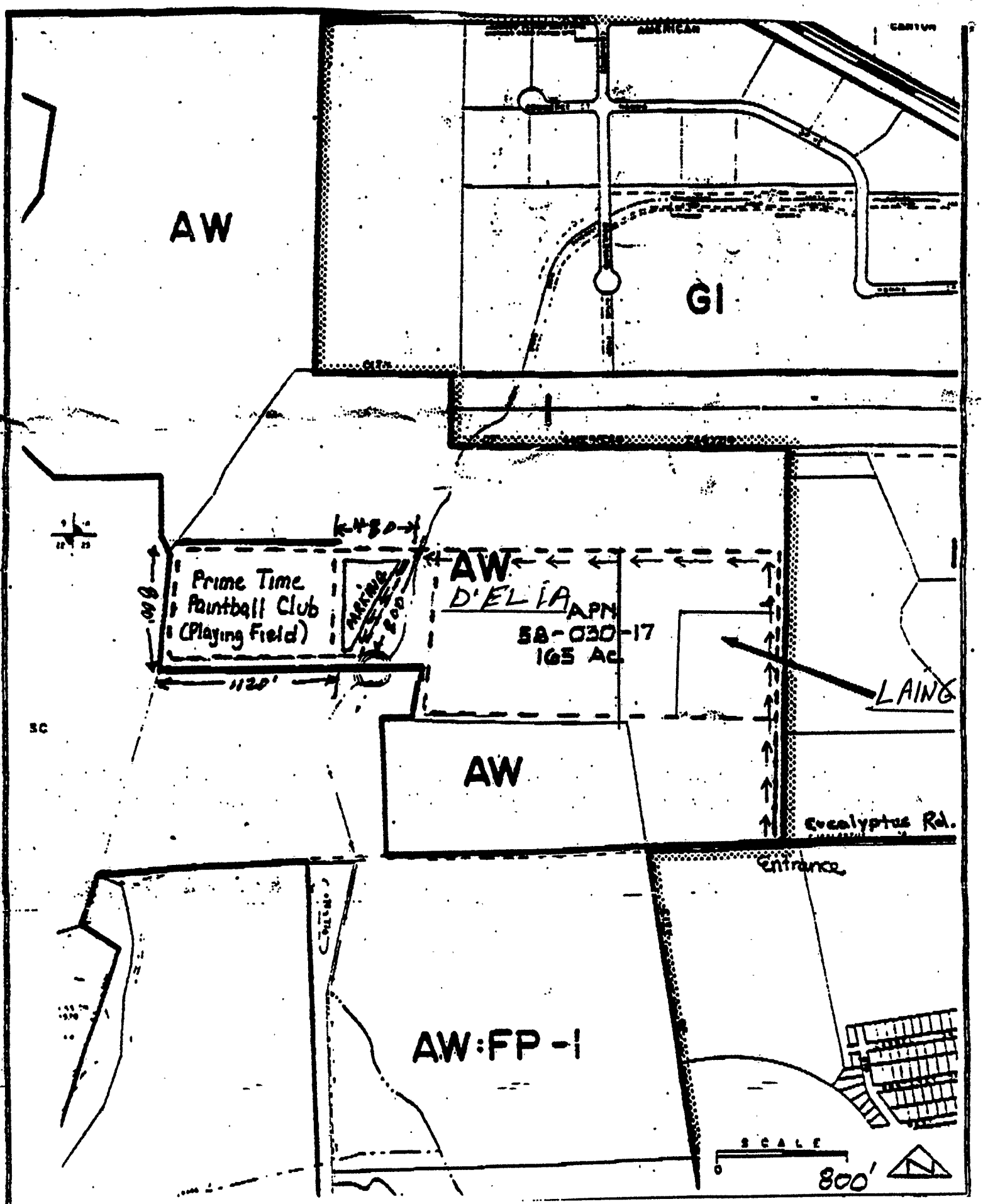
U.S. GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC SITE LOCATION MAP

GEOLOGICAL SURVEY QUADRANGLE TITLE: CUTTINGS WHARF FILE NO. 91541-UP

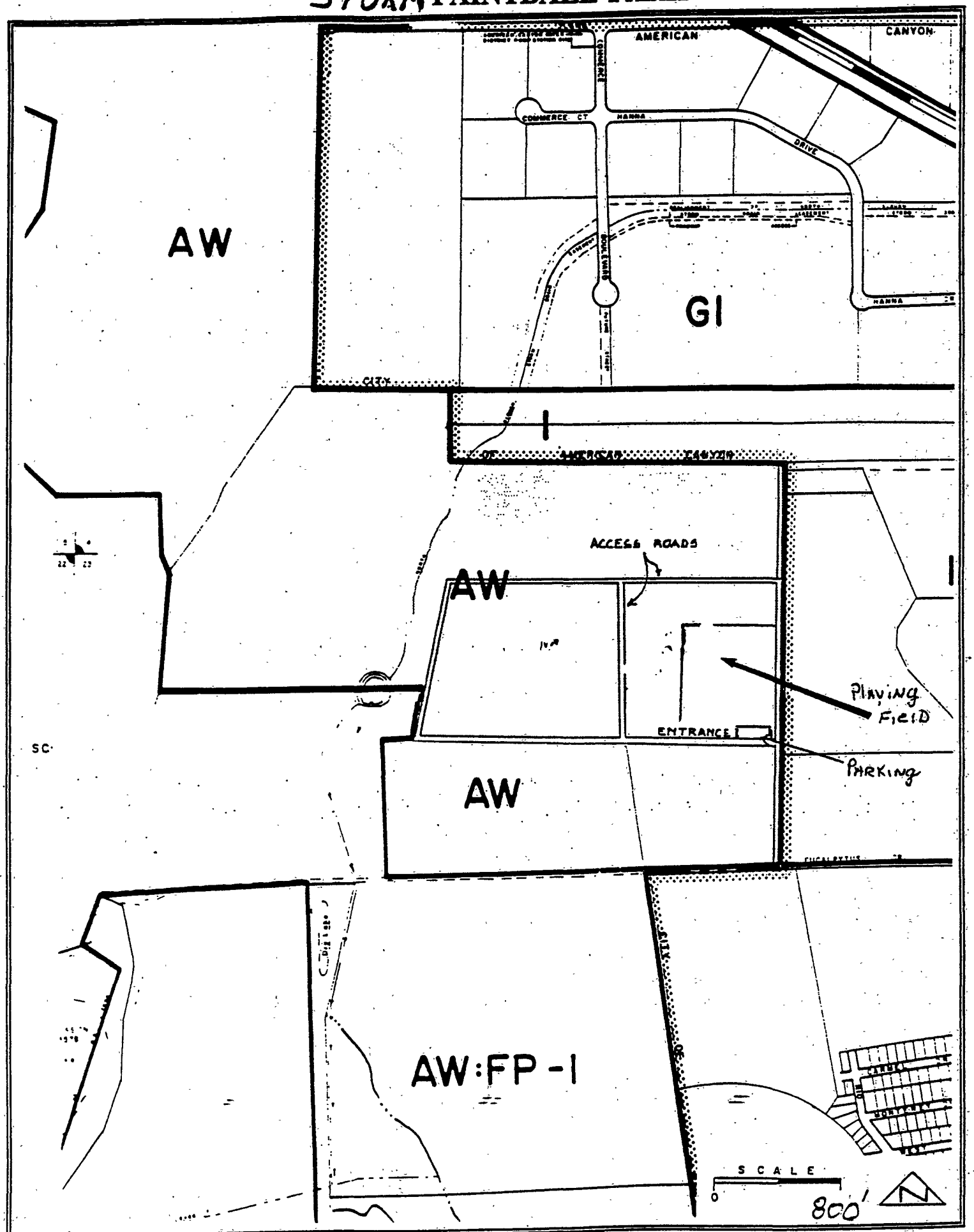


LEGEND

The following information shall be shown on the topographic map:	Existing	Proposed
Parcel Boundary		
Structure		
Septic System		
Well		
Spring		
Reservoir		
Road		
Parking Lot or Outdoor Storage Area		


AW
GI
AW
D'ELIA
APN
58-030-17
165 Ac.
Prime Time
Paintball Club
(Playing Field)
1120'
LAING
AW
Eucalyptus Rd.
Entrance
AW:FP-1
SCALE
800'

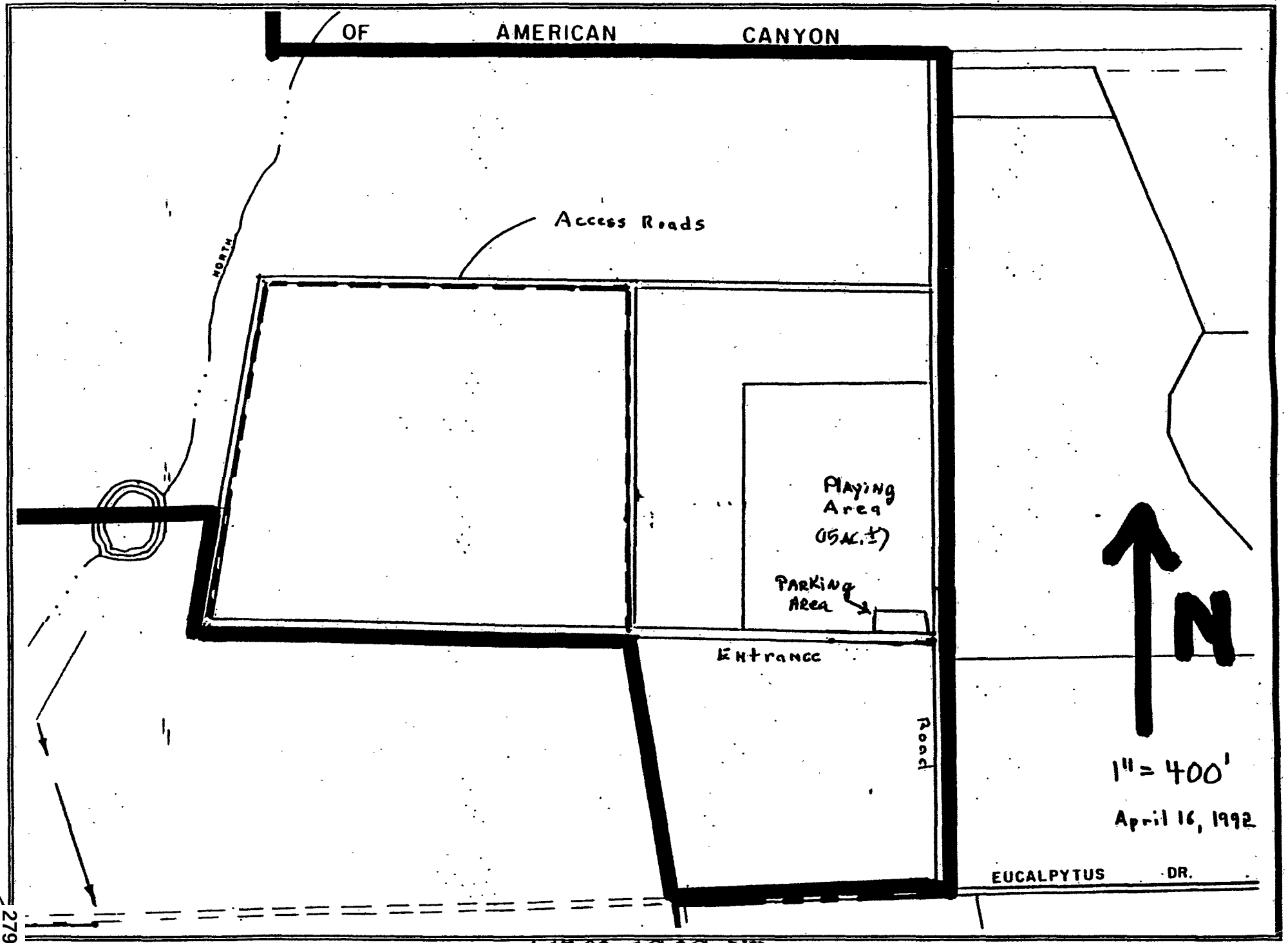
STORM PAINTBALL PARK



4-17-92 1C,2C UP

2798

STORM PAINTBALL PARK



2799

4-17-92 1C,2C UP

Environmental

Cover Sheet

APN	058 - 030 - 066 - 000
Permit #	
Program	Well
DocType	pmt
Street #	2
Street Name	Eucalyptis Rd
Year	



FEE 40.00 DATE 7-5-79
RECEIPT NO 6749 BY [illegible]

A.P. NO 58-030-17 066

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT A WATER WELL

NAME Robert Couch (Owner) ADDRESS 2 Eucalyptus Dr. Vallejo (Job Location)
NAME Dochier-Gregson Drilling Inc (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy DATE 7-5-79

TYPE OF WORK NEW WELL ✓ RECONDITIONING ____ DEEPENING ____
TYPE I PERMIT ✓ DESTROY ____ OTHER ____
TYPE II PERMIT ____

PROPOSED USE DOMESTIC ✓ IRRIGATION ____ INDUSTRIAL ____ MUNICIPAL ____
TEST WELL ____ OTHER ____

Sewage Disposal on site (existing or proposed) Public ____ Individual ✓ Private ____
Distance from well to any part of nearest sewage disposal system 100 + feet.
(Sketch of site to accompany application) County road setback ____ feet from centerline.

TYPE OF EQUIPMENT TO BE USED: Rotary ✓ Cable ____ Hand Dug ____ Other ____

WORKER'S COMPENSATION COVERAGE: (Check one of the following)

☑ A certificate of current Worker's Compensation Insurance coverage is presently on file with this office.

☐ A certificate of current Worker's Cpmpensation Insurance is being filed with this application.

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws in California.

Ronald M Oneal
Signature of Applicant

7-5-79
Date

FOR OFFICE USE ONLY

	Date	By	Remarks
Pre-Inspection			
Class II Approval			
Permit Issued	6 July 79	[illegible]	
Const. Inspection	6 July 79	[illegible]	20'sem
Final Inspection			
Final Approval			

Remarks:

EH 91
Revised 11/78

2801

HEALTH DEPT. USE ONLY
FEE: 12.00
DATE: 11-26-75
RECEIPT NO: 2111
BY: MG

066

A.P. # 58-030-17

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

NAME Robert Cornell (Owner) ADDRESS 2 Eucalyptus (Job Location) DATE 11-26-75

NAME Doshier-Gregson (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy

TYPE OF WORK
NEW WELL ✓ RECONDITIONING ___ DEEPENING ___
TEST HOLES ___ DESTROYING ___ OTHER ___
TYPE I PERMIT ✓ TYPE II PERMIT ___ FEE ___

PROPOSED USE
DOMESTIC ✓ IRRIGATION ___ INDUSTRIAL ___ MUNICIPAL ___
TEST WELL ___ OTHER ___

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual ✓ Private ___
Distance from well to any part of nearest sewage disposal system 1004 feet.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED
Rotary ✓ Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED
Diameter of casing 6" Material Plastic Annular Space: Size 2"
Sealed with: Concrete ___ Grout ___ Neat Cement ✓ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No ✓ Material ___
Chlorination By: Owner ✓ Pump Co ___ Driller ___

Ruby Gregson (SIGNATURE OF APPLICANT) 11-26-75 (DATE)

HEALTH DEPARTMENT USE ONLY

	Date	Initial	Remarks
Pre-Inspection			
Const. Inspection			
Final Inspection	11/28/75	AWO	OK. (241)

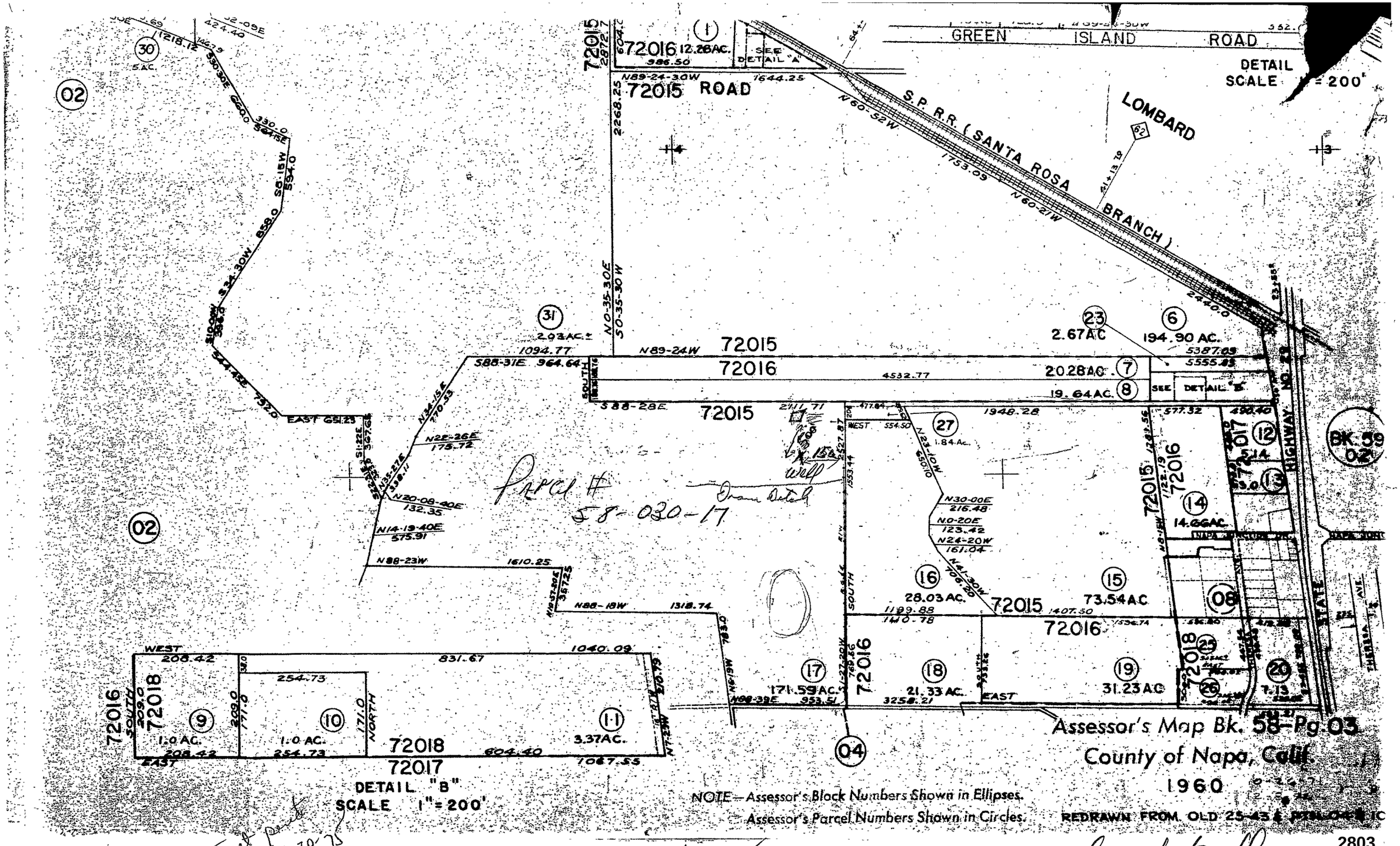
PUMP AND STORAGE

Type of Pump: Shallow ___ Jet ___ Turbine ___ Submersible ___
Type of Storage: Pressure ___ gallons; Gravity ___ gallons
DESCRIBE ___
Well Cover Satisfactory Yes ___ No ___

Pink - Health Dept. Copy
Blue - Well Driller
Yellow - Owner

Form WWD/10/20/70.

2802



Contract Price 11-20-73

642-4335 Robert L. Couch, Jr. 2 Eucalyptus Ln.

HEALTH DEPT. USE ONLY
FEE: 0341
DATE: 4-30-73
RECEIPT NO: 0341
BY: Sue Travis

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

A.P. # 58-030-17

Plot Plan in file on regular plot plan

NAME Couch, Robert L. (Owner) ADDRESS #2 Eucalyptus (Job Location) Vallejo DATE 4-30-73

NAME Vaca Drilling Co (Well Driller) ADDRESS Rt 1 Box 4452 Vacaville, Ca 95688

TYPE OF WORK

NEW WELL	X	RECONDITIONING		DEEPENING	
TEST HOLES		DESTROYING		OTHER	
TYPE I PERMIT	X	TYPE II PERMIT		FEE	

PROPOSED USE

DOMESTIC	X	IRRIGATION		INDUSTRIAL		MUNICIPAL	
TEST WELL		OTHER					

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual X Private ___
Distance from well to any part of nearest sewage disposal system 150 feet. approx.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED

Rotary X Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED

Diameter of casing 6" Material Plastic Annular Space: Size 2½"
Sealed with: Concrete X Grout ___ Neat Cement ___ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No X Material ___
Chlorination By: Owner X Pump Co ___ Driller ___

X Robert L. Couch Jr. (SIGNATURE OF APPLICANT) ___ (DATE)

HEALTH DEPARTMENT USE ONLY

	Date	Initial	Remarks
Pre-Inspection			
Const. Inspection	11/2/73	JCP	37' seal - seal w - neat cement
Final Inspection			

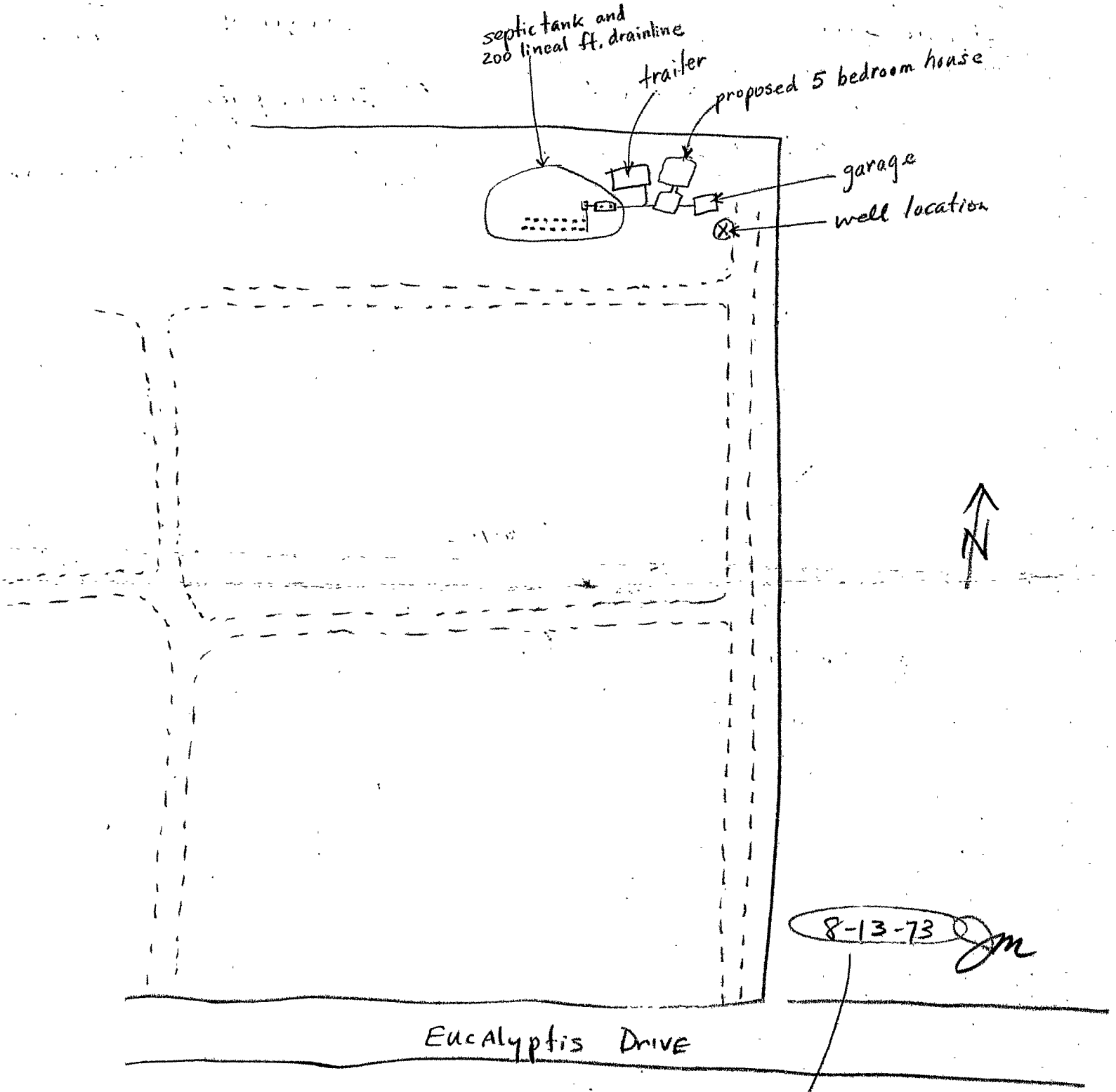
PUMP AND STORAGE

Type of Pump: Shallow ___ Jet ___ Turbine ___ Submersible ___
Type of Storage: Pressure ___ gallons; Gravity ___ gallons
DESCRIBE ___
Well Cover Satisfactory Yes ___ No ___

Pink - Health Dept. Copy
Blue - Well Driller
Yellow - Owner

Form WWD/10/20/70.

2804


septic tank and
200 lineal ft. drainline
trailer
proposed 5 bedroom house
garage
well location
N
8-13-73
JM
Eucalyptis Drive
information gathered upon inspection of property.

Environmental

Cover Sheet

APN	058 -030 -066 -000
Permit #	
Program	Well
DocType	WL
Street #	2
Street Name	Eucalyptis DR
Year	



FEE ____ DATE 7-5-79
RECEIPT NO. 1044 BY [illegible]

A.P. NO. 58-030-17

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT A WATER WELL

NAME [redacted] (Owner) ADDRESS [redacted] (Job Location)

NAME Dashiell-Gregson Drilling Inc (Well Driller) ADDRESS 5365 NAPA-VALLEJO DATE 7-5-79

TYPE OF WORK
NEW WELL ____ RECONDITIONING ____ DEEPENING ____
TYPE I PERMIT ✓ DESTROY ____ OTHER ____
TYPE II PERMIT ____

PROPOSED USE
DOMESTIC ✓ IRRIGATION ____ INDUSTRIAL ____ MUNICIPAL ____
TEST WELL ____ OTHER ____

Sewage Disposal on site (existing or proposed) Public ____ Individual ✓ Private ____
Distance from well to any part of nearest sewage disposal system 100 + feet.
(Sketch of site to accompany application) County road setback ____ feet from centerline.

TYPE OF EQUIPMENT TO BE USED: Rotary ✓ Cable ____ Hand Dug ____ Other ____

WORKER'S COMPENSATION COVERAGE: (Check one of the following)

☑ A certificate of current Worker's Compensation Insurance coverage is presently on file with this office.

☐ A certificate of current Worker's Cpmpensation Insurance is being filed with this application.

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws in California.

Signature of Applicant: [signature] Date: 7-5-79

CASING

CONSTRUCTION:

Total Depth ____ Ft. Depth of Casing ____
Surface Seal to ____ Ft.
Any Stratas Sealed: Yes ____ No ____
If yes, depth of stratas: ____
From ____ Ft. to ____ Ft./From ____ Ft. to ____ Ft.
Perforations:
From ____ Ft. to ____ Ft./From ____ Ft. to ____ Ft.
From ____ Ft. to ____ Ft.

WATER LEVELS

First Water at ____ Ft. Static level at ____ Ft.

WELL TESTS

How performed ____
Yield ____ GPM with ____ Ft. Drawdown after ____
Hrs. Annular space depth ____ Ft./Thickness ____
____ in. Diameter of casing ____ Material ____
Gravel Pack: Yes ____ No ____ Conductor Casing:
Yes ____ No ____ Sealed with: Concrete ____
Grout ____ Neat Cement ____ Pudd. Clay ____
Other ____ Chlorination by: Owner ____
Pump Co. ____ Driller ____

WELL LOG

(Formation; described by color, size of material, structure)

Ft.	to	Ft.

CONTRACTOR'S STATEMENT: I, ____, contractor for the above work, hereby certify that the above was installed according to all applicable rules and regulations covered by this permit, and that the information is true and correct to the best of my knowledge.

Contractor's Signature: [signature]

2807

66

HEALTH DEPT. USE ONLY
FEE: 12.00
DATE: 11-26-75
RECEIPT NO: 2111
BY: JL

A.P. # 58-030-TT
4-4-23
SP

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

NAME [redacted] (Owner) ADDRES [redacted] (Job Location) DATE 11-26-75

NAME Doshier-Gregson (Well Driller) ADDRESS 5365 Napa-Vallejo Hwy

TYPE OF WORK
NEW WELL ✓ RECONDITIONING ___ DEEPENING ___
TEST HOLES ___ DESTROYING ___ OTHER ___
TYPE I PERMIT ✓ TYPE II PERMIT ___ FEE ___

PROPOSED USE
DOMESTIC ✓ IRRIGATION ___ INDUSTRIAL ___ MUNICIPAL ___
TEST WELL ___ OTHER ___

Sewage Disposal On Site (Existing or Proposed) Public ___ Individual ✓ Private ___
Distance from well to any part of nearest sewage disposal system 100+ feet.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED
Rotary ✓ Cable ___ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED
Diameter of casing 6" Material Plastic Annular Space: Size 2"
Sealed with: Concrete ___ Grout ___ Neat Cement ✓ Puddled Clay ___ Other ___
Conductor Casing: Yes ___ No ✓ Material ___
Chlorination By: Owner ✓ Pump Co ___ Driller ___

Ruby Gregson (SIGNATURE OF APPLICANT) 11-26-75 (DATE)

NOTICE TO DRILLER: COMPLETE THIS PORTION AND PROVIDE OWNER WITH THIS COPY.

CASING

CONSTRUCTION

Total Depth 210 Ft.
Surface Seal to 20 Ft.
Any Stratas sealed: Yes ___ No X
If yes, depth of Stratas
From ___ Ft. to ___ Feet
From ___ Ft. to ___ Feet
Perforations
From 70 Ft. to 210 Feet
From ___ Ft. to ___ Feet
From ___ Ft. to ___ Feet

WATER LEVELS

First water at 155 Feet
Static level at 25 Feet

WELL TESTS

How performed by bailing
Yield ½ GPM with bailer Feet dry
Drawdown ___ Ft. after ___ Hrs.

WELL LOG

(Formation; describe by color, size of material, structure)

Ft.	to Ft/	
0	5	Soil
5	17	Brown shale
17	23	Brown clay
23	37	Ble shale
37	46	Brown shale
46	49	Sand stone
49	102	Blue shale & sand stone
102	105	Hard Sand stone
105	154	Blue shale (soft)
154	210	Blue shale & sand stone

Signed: J D Doshier
License # 294001 2808

TRS 4-4-14
Dry — 100

QUADRUPLICATE
Use to comply with local requirements

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in
No. 103372

Notice of Intent No.
Local Permit No. or Date
State Well No.
Other Well No.

(1) OWNER: Name [redacted]
Address [redacted] Dr.
City Vallejo Zip [redacted]

(2) LOCATION OF WELL (See instructions): 58-030-17 6b
County Napa Owner's Well Number
Well address if different from above Dump Rd
Township Range Section
Distance from cities, roads, railroads, fences, etc.

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well X ☐ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic X
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:
Rotary X ☐ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes X ☐ No ☐ Size pea gravel
Diameter of bore 12"
Packed from 20 to 100 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic X ☐ Concrete ☐

(8) PERFORATIONS: machine
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	25	6	160	25	100	1/8x3

(9) WELL SEAL:
Was surface sanitary seal provided? Yes X ☐ No ☐ If yes, to depth 20 ft.
Were strata sealed against pollution? Yes ☐ No X ☐ Interval ft.
Method of sealing grout

(10) WATER LEVELS:
Depth of first water, if known none ft.
Standing level after well completion -0- ft.

(11) WELL TESTS:
Was well test made? Yes X ☐ No ☐ If yes, by whom? Driller
Type of test Pump ☐ Bailer X ☐ Air lift ☐
Depth to water at start of test ft. At end of test ft
Discharge 9 gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No X ☐ If yes, by whom?
Was electric log made? Yes ☐ No X ☐ If yes, attach copy to this report

(12) WELL LOG: Total depth 100 ft. Depth of completed well 100 ft.
from ft. to ft. Formation (Describe by color, character, size or material)
0 - 100 Brown clay

Work started 7/5 19 79 Completed 7/5 19 79

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED (Well Driller)
NAME Doshier-Gregson Drilling, Inc (Person, firm, or corporation) (Typed or printed)
Address 5365 Napa-Vallejo Hwy
City Vallejo, Ca Zip 94590
License No. 294001 Date of this report 7/9/79

CONFIDENTIAL
NOT FOR PUBLIC USE
WATER CODE SEC 13752
RECEIVED
JUL 18 1979
ENVIRONMENTAL

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

DUPLICATE
Retain this copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do Not Fill In

№ 123282

State Well No. _____

Other Well No. _____

(1) OWNER:

Name [redacted] L. Gooch

Address [redacted]

(2) LOCATION OF WELL:

County Napa Owner's number, if any

Township, Range, and Section T.4N R.5W Sec. 23

Distance from cities, roads, railroads, etc.

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☒
Cable ☐
Other ☐

(6) CASING INSTALLED:

STEEL: OTHER: Plastic
SINGLE ☐ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore
0	193	6"	1/4"	8"

If gravel packed

From ft.	To ft.
0	191

Size of shoe or well ring: Plug
Size of gravel: 1/4 X 1/2"
Describe joint Collars - Glue

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen Slot

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
40	191	10	1	1/8 X 6"

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 39 ft.

Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing Cement Grout

(9) WATER LEVELS:

Depth at which water was first found, if known ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 200 ft. Depth of completed well 200 ft.

Formation: *Describe by color, character, size of material, and structure*

	ft. to	ft.
Soil	0	2
Clay	2	10
Sand Rock & Clay	10	32
Blue Shale with layers of Rock	32	200

RECEIVED
NOV 15 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

8" I.D. Steel Pipe cemented into 12½" hole from 0 to 39 ft.

Work started 11-2 19 73 , Completed 11-5 19 73

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME VACA DRILLING CO.
(Person, firm, or corporation) *(Typed or printed)*

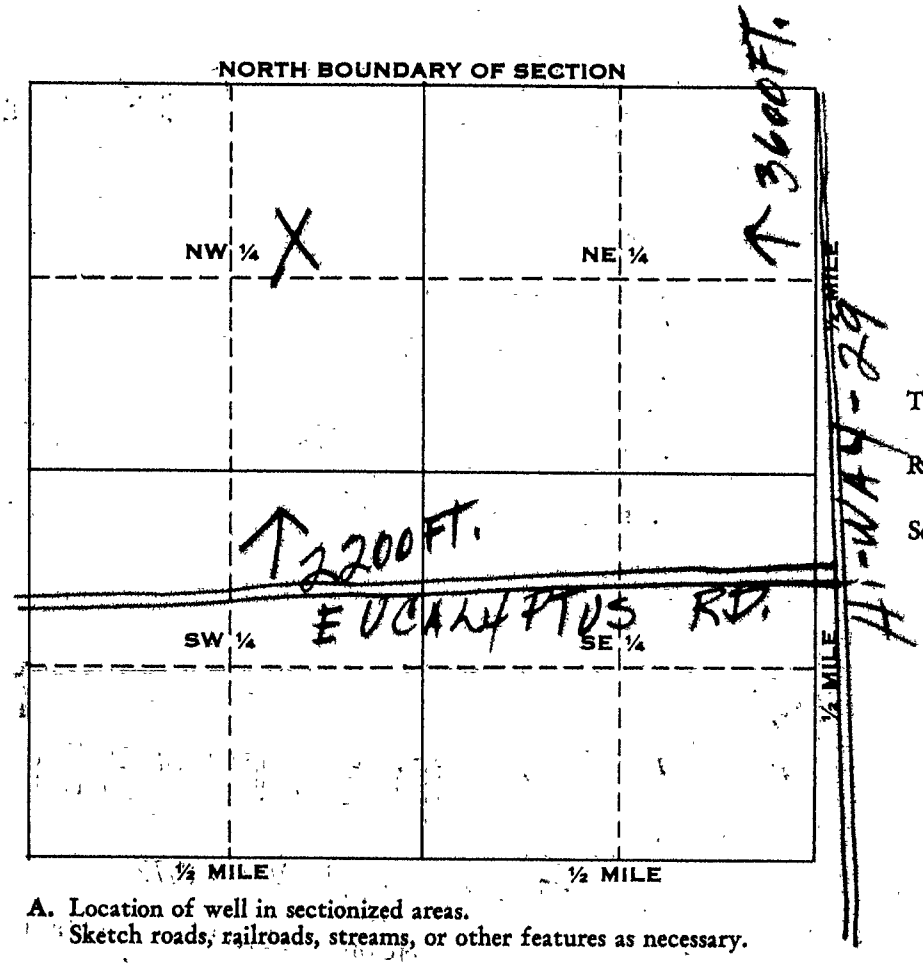
Address Rt. 1 Box 4452
Vacaville, Calif. 95688

[SIGNED] _____
(Well Driller)

License No. 98441 Dated 11-14, 1973

SKETCH LOCATION OF WELL ON REVERSE SIDE

WELL LOCATION SKETCH

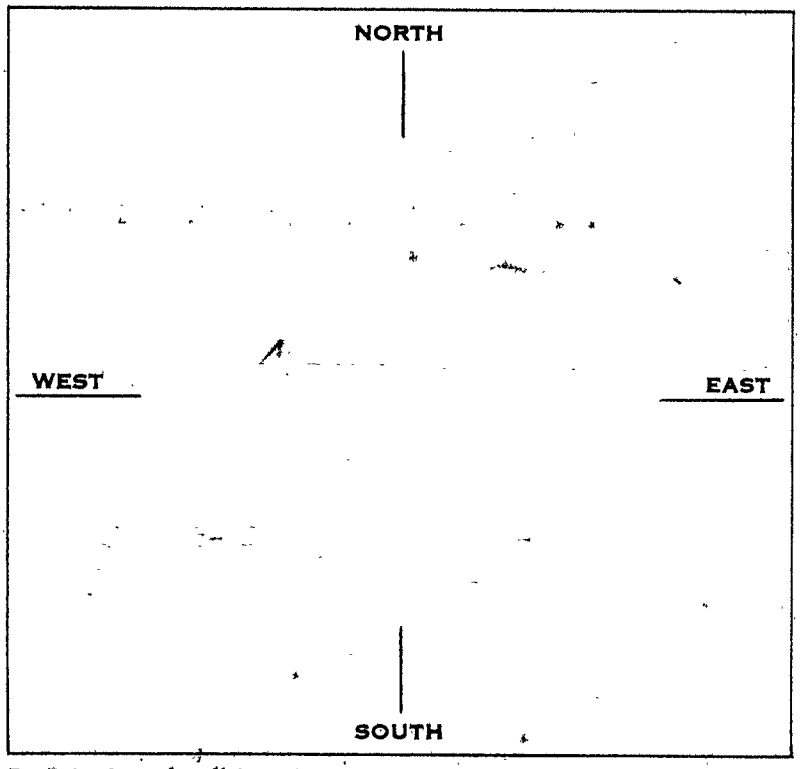


Township T. 4 N. N/S

Range R. 5 W E/W

Section No. - 23 -

A. Location of well in sectionized areas.
Sketch roads, railroads, streams, or other features as necessary.



B. Location of well in areas not sectionized.
Sketch roads, railroads, streams, or other features as necessary.
Indicate distances.

APPENDIX K

LABORATORY REPORTS

THIS SECTION NOT USED

APPENDIX L

OTHER SUPPORTING DOCUMENTATION



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE)
- With BFE or Depth
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Flood Risk due to Levee

OTHER AREAS
- Area of Minimal Flood Hazard
- Area of Undetermined Flood Hazard

GENERAL STRUCTURES
- Channel, Culvert or Storm Sewer
- Accredited or Previously Accredited Levee, Dike or Floodwall
- Non-accredited Levee, Dike or Floodwall

NOTES TO USERS

SCALE

1 inch = 500ft 1:6,000

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

NAPA COUNTY, CALIFORNIA

PANEL 617 OF 650

COMMUNITY	NUMBER	PANEL	SUFFIX
AMERICAN CANYON, CITY OF	060755	0617	E
NAPA COUNTY	060205	0617	E

NETRonline

PROPERTY DETAIL REPORT

Prepared Exclusively for Bryan Campbell

Created: 4/11/2018
Expires: 5/11/2018

TARGET PROPERTY

, CA -

Owner Information

Owner Name:	AMERICAN CANYON FLAT LAND CO I		
Mailing Address:	17674 N WOODSON AVE FRESNO CA 93711-		
Phone Number:		**Vesting Codes:**	
Owner Occupied Indicator:	UNKNOWN	**Pending Record Indicator:**	
Corporate Owner:			

Location Information

Legal Description:			
County:	NAPA	**APN:**	058-030-065-000
Census Tract / Block:	2010.05	**Alternate APN:**	
Township-Range-Sect:		**Subdivision:**	
Legal Book - Page:		**Map Reference:**	/
Legal Lot:		**Tract #:**	
Legal Block:		**School District:**	NAPA VLY
Market Area:		**Munic / Township:**	
Neighbor Code:			

Owner Transfer Information

Recording / Sale Date:	12/02/2016	**Sale Price:**	
Document #:		**Deed Type:**	QUIT CLAIM DEED
Instrument #:	000000032608	**1st Mtg Document #:**	
Book - Page:			

Last Market Sale Information

Recording / Sale Date:	/	**1st Mtg Amount / Type:**	/
Sale Price:		**1st Mtg Int. Rate / Type:**	/
Sale Type:		**1st Mtg Term:**	
Document #:		**1st Mtg Document #:**	
Instrument #:		**1st Mtg Instrument #:**	
Book - Page:		**1st Mtg Book - Page:**	
Deed Type:		**2nd Mtg Amount / Type:**	/
Transfer Document #:		**2nd Mtg Int. Rate / Type:**	/
New Construction:		**2nd Mtg Term:**	
Multi / Split Sale:		**Price per SqFt:**	
Cash Down Payment:		**Stamps Amount:**	
Title Company:			
Lender:			
Seller Name:			

Prior Sale Information

Prior Rec / Sale Date:	/	**Prior Deed Type:**	
Prior Sale Price:		**Prior Lender:**	
Prior Sale Type:		**Prior 1stMtg Amount/Type:**	/
Prior Doc #:		**Prior 1stMtg Int. Rate/Type:**	/
Prior Instrument #:		**Prior Stamps Amount:**	
Prior Book - Page:			

Site Information

Land Use:	AGRICULTURAL LAND	**Acres:**	35.85	**County Use:**	VACANT LAND-RURAL

Flood Zone:		**Lot Area:**	1561626	**State Use:**	
Flood Zone Map:		**Lot Width / Depth:**	/	**Site Influence:**	
Flood Panel Date:		**Usable Lot:**		**Sewer Type:**	
Res / Comm Units:		**Lot Shape:**		**Topography:**	
# of Buildings:		**Bldg Width / Depth:**	/	**Water Type:**	
Zoning:		**Building Class:**		**Water District:**	

Tax Information

Total Value:	$1,657,150.00	**Assessed Year:**	2017	**Property Tax:**	$18,792.12
Land Value:	$1,657,150.00	**Improve %:**		**Tax Area:**	005029
Improvement Value:		**Dist:**		**Tax Year:**	2017
Total Taxable Value:	$1,657,150.00	**Fire Dist:**	AMERICAN CANYON	**Tax Exemption:**	
Market Value:		**Garbage Dist:**		**Equal Rate:**	
		Delinquent Date:		**Equal Year:**	

Property Characteristics

Gross Area:		**Parking Type:**		**Construction:**	
Living Area:		**Garage Area:**		**Heat Type:**	
Tot Adj Area:		**Garage 2 Area:**		**Heat Fuel:**	
Above Grade:		**Garage Capacity:**		**Parcel Fuel:**	
Ground Floor Area:		**Parking Spaces:**		**Exterior Wall:**	
Base / Main Area:	/	**Carport:**		**Interior Wall:**	
Upper Area:		**Basement Area:**		**Foundation:**	
2nd Floor Area:		**Finish Bsmnt Area:**		**Air Cond:**	
3rd Floor Area:		**Basement Type:**		**Roof Type:**	
Rentable Area:		**Attic Type:**		**Roof Shape:**	
Additional Area:		**Porch Type:**		**Roof Frame:**	
Total Rooms:		**Porch 1 Area:**		**Roof Material:**	
Bedrooms:		**Porch 2 Area:**		**Floor Type:**	
Bath (F/H):	/	**Patio Type:**		**Floor Cover:**	
Total Baths / Fixtures:	/	**Patio 1 Area:**		**Style:**	
Year Built / Eff:	/	**Pool:**		**Quality:**	
Fireplace:		**Pool Area:**		**Condition:**	
Fireplace Description:				**# of Stories:**	
Basement Description:				**Other Rooms:**	
Other Improvements:					
Bldg Comments:					
Parcel Comments:					

Extra Features

Description:	Unit:	Size / Qty:	Width:	Depth:	Year Built:	Improvement Value:

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Copyright 2007 Nationwide Environmental Title Research, LLC

Search

Map Unit Legend

Napa County, California (CA055)

Napa County, California (CA055)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
116	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 14	0.4	1.0%
148	Haire clay loam, 2 to 9 percent slopes	37.7	99.0%
Totals for Area of Interest		**38.0**	**100.0%**

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Map done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The de and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapp of soil line placement. The maps do not show the small areas of contrasting soils that could have bee detailed scale.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands



April 11, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

SDG Commerce 217 Project
Mitigation Monitoring and Reporting Program

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
BIOLOGICAL RESOURCES				
Mitigation Measure BIO-1: A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary. 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions: • From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.	1. A qualified biologist shall conduct a preconstruction burrowing owl survey per mitigation measure specifications and contact CDFG as necessary.	No more than 30 days prior to grading or land clearing operations	Community Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites. • No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.				
2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.	2. If the site has burrowing owls, applicant shall follow restricted activity dates and setback distances from burrows as specified in the mitigation.	No more than 14 days prior to grading or land clearing operations	Community Development Department	
3) If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys,	3. Applicant shall submit copies of preconstruction surveys and outcomes of any consultation with CDFG If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB. 3a. If burrowing owls are found on the site during preconstruction	Prior to grading or land clearing operations Prior to grading or land clearing		

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
notification shall also be submitted to the CNDDB.	surveys, passive relocation may occur as specified in the mitigation, upon CDFW approval. 3b. If the survey determines that the project site is actively being used by burrowing owls, then compensatory habitat mitigation shall be provided in accordance with the mitigation measure. The habitat mitigation/ compensation plan would be subject to approval of the CDFW. 3c. City mitigation monitor or designee shall perform site inspections.	operations Prior to grading Prior to grading or tree removal and ongoing during construction	 Community Development Department, CDFW Community Development Department	
Mitigation Measure BIO-2: If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the	1. A qualified biologist shall conduct preconstruction nesting Swainson's hawk surveys and contact CDFG as necessary. 2. If Swainson's hawks are found to be nesting on the project site or within a 1/4-mile of the project site, buffers shall be established by the qualified biologist who conducted the surveys. 3. Applicant shall submit	As specified in CDFW guidance document Between January 1st and August 1st, as specified in CDFW guidance document Prior to grading	Community Development Department Community Development Department Community	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.	copies of preconstruction surveys and outcomes of any consultation with CDFG. If Swainson's hawks are observed during surveys, notification shall also be submitted to the CNDDB. 4. City mitigation monitor or designee shall perform site inspections.	or land clearing operations Prior to grading or tree removal and ongoing during construction	Development Department, CDFG Community Development Department	
Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented: 1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site. 2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all	1. A qualified biologist shall conduct a preconstruction nesting bird survey. 2. If the site has trees with nesting birds a qualified biologist shall demarcate	No more than 14 days prior to grading or land clearing operations Between February 1st and August 31st Prior to grading or land clearing operations	Community Development Department Community Development Department Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.	setback areas around the trees.			
3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the	3. City mitigation monitor or designee shall perform site inspections.	Prior to grading or tree removal and ongoing during construction	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.				
Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified	1. A qualified biologist shall conduct a preconstruction nesting bird survey. 2. If the site has trees with nesting birds a qualified biologist shall demarcate setback areas around the trees. 3. City mitigation monitor or designee shall perform site inspections.	No more than 14 days prior to grading or land clearing operations Between February 1 and September 1 Prior to grading or land clearing operations Prior to grading or tree removal	Community Development Department Community Development Department Community Development Department Community Development	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.		and ongoing during construction	Department	
Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable	Preconstruction fencing plan to be prepared by qualified biologist and submitted to CDFW. Fencing to be installed by project contractor.	Fencing shall be installed prior to ground disturbance	Community Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities, and the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.				
CULTURAL RESOURCES				
Mitigation Measure CUL-1: Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be	1. Applicant shall incorporate cultural resources mitigation measures into site plan specifications and construction contract.	Prior to issuance of grading permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.				
***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if	2. A qualified cultural resources professional shall demarcate the no-construction area. 2a. The contractor or applicant shall provide written notification upon finding remains.	During construction During construction	Community Development Department Community Development Department;	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
there is accidental discovery of human remains, the following steps shall be taken: • There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.			County coroner; Native American Heritage Commission	
GEOLOGY & SOILS				
Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract. Applicant's geotechnical consultant shall review construction and	Prior to the issuance of grading, encroachment, and building permits Prior to the issuance of	Public Works Department Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.	grading plans and provide a written summary.	grading, encroachment, and building permits		
Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/ developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to: • Hydroseeding and/or establishment of appropriate plant materials/landscaping • Placement of straw wattles along slope contours and drainages • Lining of drop inlets with filter fabric/geotextile • Establishment of a single destination "wash-out" for construction subcontractors • Use of siltation fences • Use of sediment basins	Applicant shall submit erosion control plan to City Public Works department.	Prior to issuance of building or grading permits	Public Works Department	
Mitigation Measure GEO-3: The applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract.	Prior to the issuance of grading, encroachment,	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).	Applicant's geotechnical consultant shall review construction and grading plans and provide a written summary.	and building permits Prior to the issuance of grading, encroachment, and building permits	Public Works Department	
HYDROLOGY AND WATER QUALITY				
Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces shall be left without	1. Applicant shall provide copies of the NOP and SWPPP to the Public Works Department for review and approval.	Prior to excavation or grading	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation. • Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile. • Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.				
***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.	2. Applicant shall submit a storm drainage plan, which includes: • calculations of storm-water peak flows and facilities to handle the flow; • water quality/erosion control mitigations; • detailed plans for construction and maintenance of the seasonal detention basin.	Prior to excavation or grading	Public Works Department/City Engineer	
Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.	3. City mitigation monitor or designee shall perform site inspections to ensure that storm drainage plans are followed.	During construction of storm drainage facilities	Public Works Department	
Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the	4. Applicant (or successors-in-interest) shall maintain the detention and sediment basin(s)	Prior to issuance of building permit for the first year;	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.	and traps, and provide a bond for this maintenance.	thereafter, annually for the life of the project		
Mitigation Measure HYD-5: The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.	5. Applicant (or successors-in-interest) shall maintain the detention basin and pass annual inspections of the City Public Works Department.	Prior to issuance of building permit for the first year; thereafter, annually for the life of the project	Public Works Department	
NOISE				
Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite	The SDG Commerce 217 Project shall include all noise mitigation components and be reviewed and approved by Community	Prior to issuance of building permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
that would comply with the City of American Canyon's Noise limits for construction activities. All property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City also shall be pre-notified of nighttime construction. ***Mitigation Measure NOISE-2:*** All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	Development Department. Construction contracts shall specify use of noise-reduction features in equipment.	 Prior to construction	 Community Development Department	
TRANSPORTATION/TRAFFIC				
Mitigation Measure TRA-1: Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.	Applicant shall provide mitigation fee.	Prior to issuance of building permit	Public Works Department	
Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the approximately 300-foot gap in bike infrastructure between the cul-de-sac at the terminus of	Applicant shall construct the bikeway.	Prior to issuance of occupancy permit for building	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Commerce Court and the northern school driveway of the under-construction elementary school at the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.				
UTILITIES & SERVICE SYSTEMS				
Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water: • Reducing existing potable water demands onsite • Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area • Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or • Purchase new water supplies from other water providers. The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.	1. Applicant shall incorporate recycled water pipelines and hook-ups into construction plan specifications and make reference in construction contract.	Prior to building permits	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.	2. City mitigation monitor or designee shall verify that recycled water is provided to the site and that all storm-water is retained on-site.	Prior to building permits	Public Works Department	
Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.	3. Applicant shall provide funding for the City's water conservation program.	Prior to occupancy	Public Works Department	
Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.	4. Applicant shall comply with City regulations regarding changes in project use.	Prior to obtaining Use Permit for new use	Public Works Department	
Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape	5. Applicant's landscaping plan shall be submitted to the City for review/approval prior to issuance of building permits.	Prior to issuance of Building Permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to: • Drought-resistant vegetation • Irrigation systems employing the following features: o Drip irrigation o Low-precipitation-rate sprinklers o Bubbler/soaker systems o Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller) o Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system o Conservative sprinkler spacings that minimize overspray onto paved surfaces o Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.				

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PC RESOLUTION 2021-03

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVING A CONDITIONAL USE PERMIT FOR A NEW 217,294 SQUARE FOOT SINGLE STORY 35-FOOT TALL WINE WAREHOUSE ON A 10.39-ACRE SITE AT 1075 COMMERCE COURT, APN 058-030-065 (FILE NO. PL20-0008)

WHEREAS, a Conditional Use Permit application (PL20-0008) was filed by Stravinski Development Group, LLC for a new 217,294 square-foot single story 35-foot tall wine warehouse on a 10.39-acre site with parking, truck and trailer loading spaces, drive aisles, landscaping, and a stormwater detention pond at 1075 Commerce Court, APN 058-030-065; and

WHEREAS, the Planning Commission adopted Resolution 2021-XX approving a Mitigated Negative Declaration and approval of the Mitigation Monitoring and Reporting Program for the project; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on January 28, 2021 and February 25, 2021, on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission approves a Conditional Use Permit for a wine warehouse (PL20-0008) based on the findings contained in Sections 1, and the conditions of approval contained in Section 2.

SECTION 1: CONDITIONAL USE PERMIT FINDINGS

A. Approval of the SDG Commerce 217 Wine Warehouse Conditional Use Permit requires that all of the following findings be made, pursuant to American Canyon Municipal Code Section 19.42.020:

1. The proposed use is consistent with the policies and programs of the general plan and any applicable master or specific plan.

The proposed use is consistent with the Recreation Designation in the General Plan because wine-related uses are permitted uses in this designation through implementation of the Commercial Recreation zoning district. The wine warehouse use is consistent with Policies 1.22.4 and 1.22.7 of the General Plan related to the design of industrial buildings as found in Section B.1 below.

The project will contribute to the provision of necessary transportation improvements called for in the 2013 Circulation Element update because it will pay the Traffic Impact fees adopted by City Council in January 2015. Additionally, the project will develop a segment of the bike lane connection from Eucalyptus Drive, see Mitigation Measures.

2. The proposed use is consistent with the purpose(s) and standards of the applicable zoning district(s).

A wine warehouse is an allowed use in the Commercial Recreation zoning district with issuance of a conditional use permit. The project complies with all applicable design standards.

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3. The proposed use complies with applicable policies of the Napa County Airport land use compatibility plan.

The project is consistent with Zones D and E of the Napa County Airport Land Use Compatibility Plan. Warehouses are acceptable with recordation of an Avigation and Hazard Easement Deed. The property-owner completed the recordation in on July 26, 2019.

4. The project site is physically suitable for the type and intensity of land use being proposed.

The site is flat with few physical constraints. The site is physically suitable for a warehouse.

5. The proposed use will not be a nuisance or materially detrimental to the general health, safety, and welfare of the public or to property and residents in the vicinity.

The wine warehouse will not be a nuisance to detrimental to property and residents in the vicinity. No residential parcels are near the site.

6. The site for the proposed use has adequate access, and meets parking and circulation standards and criteria.

The wine warehouse use has adequate access and meets all parking and circulation standards.

7. There are adequate provisions for water and sanitary services, and other public utilities to ensure that the proposed use would not be detrimental to public health and safety.

Water, sewer and utilities will be extended to the wine warehouse.

B. The SDG Commerce 217 project requires the following additional findings related to design:

1. The project and its design complies with any applicable design guidelines.

Although this project is located in the Recreation designation in the General Plan, the project complies with the design and development principles set out in the General Plan as Policy 1.22.4 and 1.22.7 regarding industrial projects, in that the large scale of the building is broken up through the use of changes in color, variety in the parapet heights, and architectural detailing. Extensive landscaped is provided along the street frontage and in the parking lot. Truck access is safe and efficient.

2. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.

The project is compatible with the quality and character of the surrounding area because it maintains sufficient setbacks, and has landscaped parking areas and perimeters. The building is detailed with a varied roofline with a parapet to screen roof level installations.

3. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.

The building will be designed with earth-tone colors with a style consistent with other recently approved warehouses. The site entry will be fully landscaped along with the north and east setback areas. The building will be screened with Western Redbuds, Crape Myrtles, and London Plane trees.

4. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.

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The building offers articulation and visual interest through use of recessed panels and canopies around offices and corners of the building. The parapet wall varies in height with wall revels, wall caps and lintels to provide architectural relief. Defined entries are provided at the northeast and northwest corners, and at the mid-point of the north elevation. The site also has many landscaped areas which create separation and interest in the design.

5. The proposed design promotes a harmonious transition in terms of scale and character between areas of different general plan land use designations and zoning districts.

Surrounding properties to the west, south and east on in the same General Plan Recreation designation and Commercial Recreation zoning district. The properties to the west, south and east contain existing or proposed recreation uses, and extensive landscaping and substantial setbacks are provided along those property lines to help buffer and screen the building from recreation uses.

6. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

The warehouse site has a continuous driveway around the site providing emergency access to all portions of the site. Access to the warehouse is from Commerce Blvd that continues southward into Commerce Court. Pedestrian walkways are provided within the primary parking areas in the northern portion of the site.

SECTION 2. CONDITIONS OF APPROVAL

Planning Division
Approval, Exhibits, and Indemnification

1. The Conditional Use Permit approval is granted for a new 35-foot tall, single-story 217,294-square foot Wine Warehouse on a 10.39-acre site with parking, truck and trailer loading spaces, drive aisles, landscaping, and stormwater detention features at 1075 Commerce Circle, APN 058-030-065 (file no. PL20-0008), which shall be substantially as shown on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit A includes the following:
    1) Architectural Plans prepared by Ward Architects, consisting of 12 sheets showing the proposed site plans, building elevations, roof plans, and landscaping plans, submitted on 10-2-2020.
    2) Civil plans prepared by RSA+, consisting of 6 sheets showing the grading, utilities, and site layout plans submitted on 10-2-2020.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

    The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any

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environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project.

The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. Appeal. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $703. This approval is also subject to return of the "Applicant Confirmation of Conditions of Approval" form signed by the property owner. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on March 8, 2021.

4. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

5. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

6. Expiration of this Approval. If no construction permits have been issued and construction commenced within one year of the date upon which this approval is final, the approval shall become null and void and of no effect. An extension of time may be granted by the Community Development Director upon the written request by a responsible party before the expiration of the one-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval being made.

7. All plans submitted for review and approval and all development shall be in substantial conformance with the approved exhibits, except where modified by a condition of approval. The Community Development Director or designee may approve minor changes to the project as approved by the Planning Commission on the plans submitted for the construction permits with a determination that

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the changes are in substantial compliance with the representation of the project as reviewed by the Planning Commission and City Council, that the proposed change will be in compliance with the required development standards, and the change will not materially affect adjacent private or public property.

8. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Conditional Use Permit, under the title "Conditional Use Permit Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

9. All new roof top equipment is required to be screened. The parapet shall be opaque and equal in height of the top of the rooftop mechanical equipment.

10. Plans submitted for building permits shall include all exterior site lighting including building mounted lighting, lighting within the parking areas and along walkways that provide a minimum of 1-foot candle illumination of these areas. Lighting shall be shielded as appropriate and avoid light spillage or glare from the project site. Exterior light fixtures on buildings shall be oriented downward and shall be shielded to return potential light and glare impacts.

Landscape and Irrigation Plans

11. The applicant shall agree to a licensing agreement that requires them to maintain the landscaping within the right-of-way along the project frontage. Prior to final inspection of the building permit, the applicant shall amend their facilities operation and maintenance plan (O&M plan) to include this activity.

12. The landscape plan shall comply with the requirements of the California Government Code 65591 et. seq. known as the Water Conservation in Landscaping Act as set out in the model water efficient landscape ordinance adopted by the California Department of Water Resources and amended in 2015. All plant material shall be served by a city-approved automatic irrigation system.

13. Prior to the issuance of a certificate of occupancy, all landscaping shall be completed and the project's landscape architect shall provide a written certification that all plant materials have been installed in accordance with the approved landscape plan.

14. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

15. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

16. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site's vision triangles.

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Signs

17. Signs for the project shall require a sign permit approval from the Community Development Department. This requirement does not apply to traffic signs, building addressing or directional signs for wayfinding.

Building and Safety

18. At plan submittal for building permit, provide a complete code study with occupancy, square feet, firewalls, and fire sprinklers.

19. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

20. All construction plans and buildings onsite shall conform to the California Code of Regulations, Title 24. All building plans shall include all necessary recommendations from the Geotechnical Report for the site, to be superseded only by the California Code if any conflicts arise.

21. Prior to the issuance of a certificate of occupancy, the applicant shall submit a letter of certification to the Building Official from the project architect and civil engineer certifying that all improvements have been constructed in accordance with the approved building plans. Determination of consistency shall be subject to the review and approval of the Building Official.

22. Site Improvement plans shall show slopes of all sidewalks and walkways and paths of travel to use site facilities including trash/recycling facilities. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

23. Recycling of Construction and Demolition Debris: Prior to issuance of a building permit the applicant shall submit a plan for the diversion of at least 70 percent of the debris from the building demolition and construction. The plan shall include the qualified recycler that will be used, the methods of managing diversion of construction materials on site, and the proposed documentation that will be submitted to confirm that the diversion goal has been met.

Fire Protection

24. In accordance with the standard mitigation measures and conditions of approval set forth by the American Canyon Fire Protection District, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

25. Fire District plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

26. Prior to building permit issuance, provide a fire department circulation plan using the City's ladder truck and demonstrate clear turning movements into and out of the project. The final design of fire

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department access components shall be reviewed and approved by the Fire Marshal prior to installation.

27. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the American Canyon Fire Protection District and the applicable Public Works Standard.

28. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13' 6". They shall have an all-weather paved surface capable of supporting a GVW of 75,000 pounds.

29. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction.

30. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

31. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the American Canyon Fire Protection District and the applicable National Fire Protection Association Standard.

32. There shall be no deferred submittals for fire protection equipment. Plans and calculations for all fire protection systems and features shall be submitted and approved prior to the issuance of a building permit.

33. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code.

34. There shall be no more than 300 feet between public fire hydrants located along the public street frontage. (ACFPD ordinance)

35. The fire protection equipment shall be located within an interior room having an exterior access door or in an exterior enclosure attached to the building, specifically for the purpose of housing such equipment.

36. When fire sprinkler systems are required in buildings of undetermined use, they shall be designed and installed to have a sprinkler density of not less than that required for an Extra Hazard Group II use with a minimum design area of 2,500 square feet.

37. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, Fire District standards and Nationally Recognized Standards.

Public Works General Conditions of Approval

38. The Applicant shall be responsible for all City map check, plan check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

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39. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

40. All existing overhead utilities, both on-site and along project frontages, and all new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

41. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

42. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

43. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall address existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

44. A detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the *Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual* and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ).

45. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved, the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

46. The Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

47. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the

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City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity.

48. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval by the City. The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

49. All public water service laterals or services (domestic, recycled and fire water) shall include approved backflow prevention devices.

50. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

51. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

52. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire Department, Napa County Department of Environmental Services or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

53. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines, shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

54. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

55. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

56. Prior to placing the final lift of asphalt, all public storm drain and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

57. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

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58. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

59. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the *State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended)*, the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

60. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water sources. The Applicant shall provide verification that an outside source of construction water, e.g., recycled water, has been established and will be available for the duration of the project construction.

61. The development shall comply with the City's Zero Water Footprint policy.

62. All landscaping shall be designed to use recycled water for irrigation. Recycled water landscaping shall be designed to comply with California Code of Regulations Title 22 and shall include design details to prevent runoff of recycled water. The irrigation system shall include an ET/SMART controller.

Public Works Special Conditions of Approval

63. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary civil plans titled "SDG Commerce 217 Distribution Center Design Review & Conditional Use Permit Plans, prepared by RSA+, December 16, 2019 and last revised September 22, 2020 (Preliminary Plans), except as modified by these conditions.

64. Improvement Plans shall be tied to the State of California coordinate system.

65. As required by Mitigation Measure TRA-2 of the Initial Study for the SDG Commerce 217 Distribution Center Project, the Applicant shall construct all of the **Public Improvements** generally shown on the Preliminary Plans and more specifically described below.

    a. Class 1 Bicycle Path:
    A Portland cement concrete Class 1 bicycle path shall be constructed to fill in the approximately 800-foot gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northwest corner of Eucalyptus Drive and Wetlands Edge Road. The concrete Class 1 bicycle path shall be 10 feet wide with a 2-foot wide unobstructed gravel shoulders on both sides and shall include associated signage, (3) street lights and irrigation sleeves for future irrigation and landscaping. The geotechnical report shall be updated to include design recommendations for this multi-use path.

66. The Applicant shall construct all of the on-site private water, recycled water, sewer storm drainage and storm quality **"Private Improvements"** generally shown on the Plans and more specifically described below. All private water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.
    1) Sanitary Sewer Collection Facilities:

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Sanitary sewer manholes shall be installed on both sewer laterals just upstream of the private sewer pump station. A sanitary sewer manhole shall be installed near the property line at the discharge point of the private 6" sanitary sewer force main.

2) Storm Drain Facilities:
Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The storm drains and detention facilities shall be substantially consistent with the Preliminary Plans. However, the sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.
The private storm drain system shall disperse the discharge in such a manner as to simulate the existing sheet flow conveyance. Calculations shall be provided for all spreaders to determine peak discharge velocities and depths for the 10-, 25- and 100-year events.
Stormwater Quality Facilities:
Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. It is understood that minor revisions to the layout of the bio-retention facilities from what is shown on the Plans may be proposed during design and included in the final SWCP.

3) Recycled Water Services:
Separate recycled water services shall be provided for domestic non-potable uses and irrigation uses.

67. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:
    1) Submit the City's "Improvement Plan Checklist".
    2) Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.
    3) Provide the following:
        (1) Public Street Repair Plan
        (2) Utility Plan and Joint Trench Plan
        (3) Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
        (4) Drainage Report
        (5) Post-Construction Stormwater Control Plan (SWCP)
        (6) Geotechnical Report
        (7) Construction Traffic Control Plan.
    4) Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed area of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

68. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:
    1) Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

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2) Subject to the terms of Condition 10, furnish proof of the acquisition of all rights of entry and/or temporary and permanent easements necessary to construct the project and the location of all such rights on the Plans.
3) Furnish proof that all permits that may be required by the California Department of Fish & Game, State and Regional Water Quality Control Board, US Army Corps of Engineers and any other regulatory agencies with jurisdiction over the proposed construction have been obtained.
4) Complete and submit the City's Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.
5) Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

69. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:
    1) Pay off all current account balances with the City of American Canyon.
    2) Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.
    3) Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), and/or the Contractor provides the following:
        (1) Six (6) full-size bond copies of the approved Improvement Plans for the City's use.
        (2) One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
        (3) One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
        (4) Electronic copies of Improvement Plans and SWPPP

70. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:
    1) Pay all account balances and current City and American Canyon Fire District fees (Mitigation & Capacity) based on the rates in effect at the time of permit issuance. These fees include, but may not be limited to the following: Traffic Mitigation, General Plan Update, Civic Facilities, Fire District, Water Capacity, Zero Water Footprint Mitigation and Wastewater Capacity.

71. Prior to acceptance of improvements, the Applicant shall:
    1) Restore all adjacent off-site road surfaces to pre-project conditions.
    2) Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.
    3) Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital Portable Document Format (.pdf) and AutoCAD (.dwg), compatible with the City's current Autocad version, and tied to the NAD83 (California Zone 2, feet) coordinate system.
    4) Provide a letter stating that all of the Developer's Conditions of Approval have been met.
    5) Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

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6) Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

Mitigation Measures

The following are the applicable mitigation measures from the certified Mitigated Negative Declaration report. The following mitigation measures shall be complied with in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP) by the Planning Commission.

Biological Resources

72. ***Mitigation Measure BIO-1:*** A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

    1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:
        i. From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
        ii. From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.
        iii. No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.
    2) If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.
    3) If the survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded before project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

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73. ***Mitigation Measure BIO-2:*** If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

    If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

74. ***Mitigation Measure BIO-3:*** To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented:

    1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site.

    2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.

    3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a

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late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

75. ***Mitigation Measure BIO-4:*** To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.

76. ***Mitigation Measure BIO-5:*** A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities, and the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

Cultural Resources

77. ***Mitigation Measure CUL-1*:** Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that my be intact and/or retain qualities that satisfy

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criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

78. ***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

    In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

    - There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MDL) of the deceased Native American. The MDL may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98

Geology, Soils, And Seismicity

79. ***Mitigation Measure GEO-1:*** The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

80. ***Mitigation Measure GEO-2:*** Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan

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utilizing Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile
- Establishment of a single destination "wash-out" for construction subcontractors
- Use of siltation fences
- Use of sediment basins

81. ***Mitigation Measure GEO-3:*** The applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of the supporting slab areas can consist of lime-treated clay soils (Krazan 2019).

Hydrology and Water Quality

82. ***Mitigation Measure HYD-1:*** Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area;

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designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.

- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.

    - In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

83. ***Mitigation Measure HYD-2:*** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

84. ***Mitigation Measure HYD-3:*** Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

85. ***Mitigation Measure HYD-4:*** The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan and agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

86. ***Mitigation Measure HYD-5:*** The detention basins shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basins shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

Noise

87. ***Mitigation Measure NOISE-1:*** Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during the construction of the SDG Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City shall be pre-notified of nighttime construction.

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88. ***Mitigation Measure NOISE-2:*** All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Traffic and Transportation

89. ***Mitigation Measure TRA-1:*** Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.

90. ***Mitigation Measure TRA-2:*** The project shall construct a Class I bike path to fill in the gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.

Utilities and Service Systems

91. ***Mitigation Measure UTIL-1:*** The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

    - Reducing existing potable water demands onsite
    - Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
    - Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
    - Purchase new water supplies from other water providers

    The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.

92. ***Mitigation Measure UTIL-2:*** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

93. ***Mitigation Measure UTIL-3:*** Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This will allow for the City to exercise additional options for potable water capacity and will also provide for maintenance of the recycled water system.

94. ***Mitigation Measure UTIL-4:*** Should additional project water used be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional

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water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

95. ***Mitigation Measure UTIL-5:*** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping will comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

    - Drought-resistant vegetation
    - Irrigation systems employing the following features:
        - Drip irrigation
        - Low-precipitation-rate sprinklers
        - Bubbler/soaker systems
        - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
        - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
        - Conservative sprinkler spacings that minimize overspray onto paved surfaces
        - Hydrozones that keep plants with similar water needs in the same irrigation zone
    - Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
    - Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of February, 2021, by the following vote:

AYES: Commissioners Altman, Goff, Wong, Vice Chair Mallare, Chair Navarro
NOES: None
ABSTAIN: None
ABSENT: None

DocuSigned by:
Tyrone Navarro 2/26/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 3/1/2021
C302EF87A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
Bill Ross 2/26/2021
285D50133D93421...
William D. Ross, City Attorney

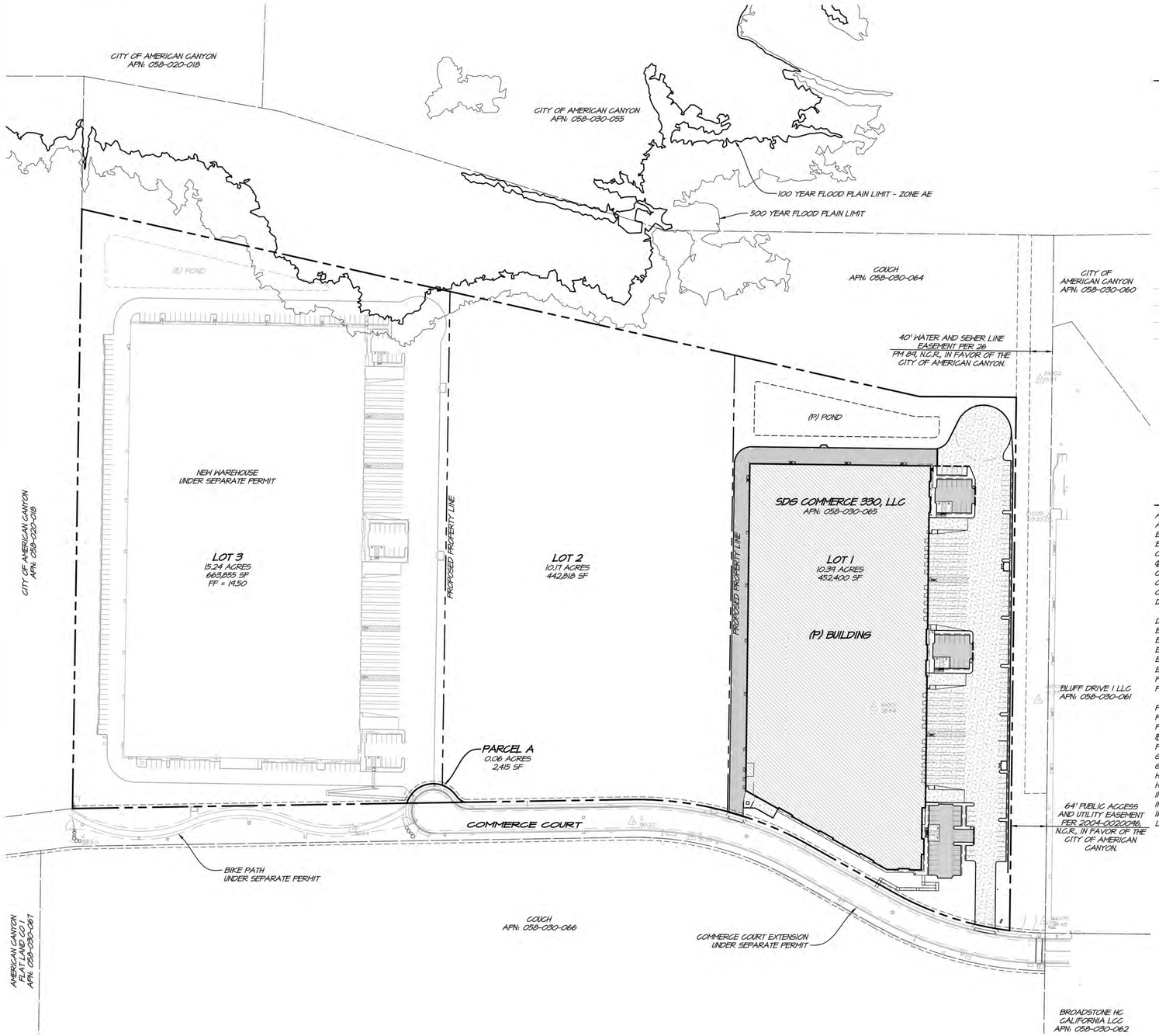
EXHIBITS
A. Project Plans

Attachment 2, Exhibit B:
Preliinary Civil

SDG COMMERCE 217 DISTRIBUTION CENTER

DESIGN REVIEW & CONDITIONAL USE PERMIT PLANS

GRAPHIC SCALE
100 0 100 200
(IN FEET)
1 inch = 100 FT



SYMBOL LEGEND

EXISTING		PROPOSED	
	SURVEY CONTROL STATION	SD	STORM DRAIN PIPE
	FOUND		DRAIN INLET
	BRASS PIN	DS	DOWNSPOUT
FLOW	FLOW LINE		LEVEL SPREADER
	FENCE		TOP / TOE DAYLIGHT
	TREE (AS NOTED)		RETAINING WALL
W	WELL		CONSTRUCTION FENCE
S	SSMH		SILT FENCE
FH	(E) FIRE HYDRANT		FLUSH CURB
	(E) GATE VALVE		VERTICAL CURB
SSFM	(E) SSFM		CURB & GUTTER
SS	(E) SANITARY SEWER		CURB INLET
RW	(E) RECYCLED WATER	SS	SANITARY SEWER
W	(E) WATER	SSFM	SANITARY SEWER FORCED MAIN
		CO	CLEANOUT
		DW	DOMESTIC WATER
		FW	FIRE WATER
		RW	RECYCLED WATER
		FH	FIRE HYDRANT
			GATE VALVE
			PIV & FDC

ABBREVIATIONS

AB	AGGREGATE BASE ROCK	LLA	LOT LINE ADJUSTMENT
AC	ASPHALTIC CONCRETE	LP	LOW POINT
BGL	BOTTOM OF GRAVEL LAYER	MH	MANHOLE
BOT	BOTTOM	OC	ON CENTER
CB	CATCH BASIN	OR	OFFICIAL RECORD
℄	CENTERLINE	PL	PROPERTY LINE
CI	CURB INLET	(P)	PROPOSED NEW WORK
CO	CLEANOUT	PCC	PORTLAND CEMENT CONCRETE
CONF	CONFORM	PIV	PRESSURE INDICATOR VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE	PUE	PUBLIC UTILITY EASEMENT
DW	DOMESTIC WATER	PW	PROCESS WATER
ELEV	ELEVATION	PWW	PROCESS WASTE WATER
EP	EDGE OF PAVEMENT	R	RADIUS
EV	ELECTRIC VEHICLE	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
EW	EACH WAY	ROW	RIGHT OF WAY
EX / (E)	EXISTING	RW	RECYCLED WATER
FD	FOUND	S	SLOPE (FEET/FOOT)
FDC	FIRE DEPARTMENT CONNECTION	S.A.D.	SEE ARCHITECTS DRAWINGS
FF	FINISH FLOOR	SD	STORM DRAIN
FG	FINISH GRADE	SDCO	STORM DRAIN CLEANOUT
FH	FIRE HYDRANT	SF	SQUARE FOOT
FL	FLOW LINE	S.L.A.D.	SEE LANDSCAPE ARCHITECTS DRAWINGS
FW	FIRE WATER	SS	SANITARY SEWER
GB	GRADE BREAK	SSCO	SANITARY SEWER CLEANOUT
GV	GATE VALVE	SSFM	SANITARY SEWER FORCED MAIN
HP	HIGH POINT	STA	STATION
HWL	HIGH WATER LEVEL	TC	TOP OF CURB
INV	INVERT	TGL	TOP OF GRAVEL LAYER
IP	IRON PIPE	TSL	TOP OF SOIL LAYER
IW	IRRIGATION WATER	TYP	TYPICAL
LF	LINEAL FEET/FOOT	WM	WATER METER



VICINITY MAP
SCALE: 1" = 3000'

PROJECT INFORMATION

CLIENT:	SDG COMMERCE 217, LLC 413 W. YOSEMITE AVENUE, STE. 105 MADERA, CA 93637
CONTACT:	BRIAN DOSWALD
SITE ADDRESS:	1075 COMMERCE COURT AMERICAN CANYON, CA 94503
CIVIL ENGINEER:	RSA+ 1515 FOURTH STREET NAPA, CA 94559
APN & AREA:	058-030-065 (35.85 ACRES)

SURVEY NOTES

1. TOPOGRAPHY BASED ON A FIELD SURVEY PERFORMED BY RSA+ IN MARCH, 2018. CONTOURS ARE SHOWN EVERY ONE FOOT (1'), HIGHLIGHTED EVERY FIVE FEET (5').
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83) 2011 EPOCH BASED UPON G.P.S. OBSERVATIONS ON NETWORK UTILIZING CONTINUALLY OPERATING REFERENCE STATION (C.O.R.S.) INFORMATION FROM THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.).
   VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3. BOUNDARY SHOWN IS RECORD INFORMATION PER BOOK 26 OR PARCEL MAPS AT PAGE 89, NAPA COUNTY RECORDS. PROPOSED INTERIOR LOT LINES ARE PER APPROVED TPM, PL18-0011.

FLOOD NOTES

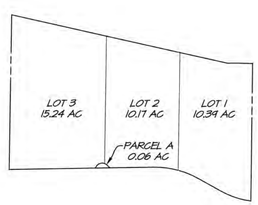
SPECIAL FLOOD HAZARD AREA "ZONE AE" IS SHOWN AS DESIGNATED ON THE FLOOD INSURANCE RATED MAP (FIRM) 06055C0061F DATED AUGUST 3, 2016.

SHEET INDEX

UP1.0	COVER SHEET
UP2.0	PAVING AND LAYOUT PLAN
UP3.0	GRADING PLAN
UP3.1	SITE SECTIONS
UP4.0	UTILITY PLAN
UP5.0	EROSION & SEDIMENT CONTROL PLAN



EXISTING PARCEL CONFIGURATION
SCALE: 1" = 500'



PROPOSED PARCEL CONFIGURATION
SCALE: 1" = 500'

NO.	DATE	REVISIONS	BY	APPD
1.	08/05/20	RESPONSE TO COMMENTS - PRICUP PLANS	LMM	PSW
2.	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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SDG COMMERCE 217 DISTRIBUTION CENTER
COVER SHEET
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
ROBERT SARGENT WARNER
No. 62758
Exp. 9-30-22
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119037.0
SHEET NO.	UP1.0
	1 OF 6 SHEETS

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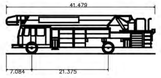
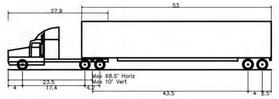
PRELIMINARY - NOT FOR CONSTRUCTION



Ladder Truck	
Overall Length	41.479ft
Overall Width	8.750ft
Overall Body Height	10.635ft
Min Body Ground Clearance	1.522ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	36.583ft

LADDER TRUCK



WB-67 – Interstate Semi-Trailer	
Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

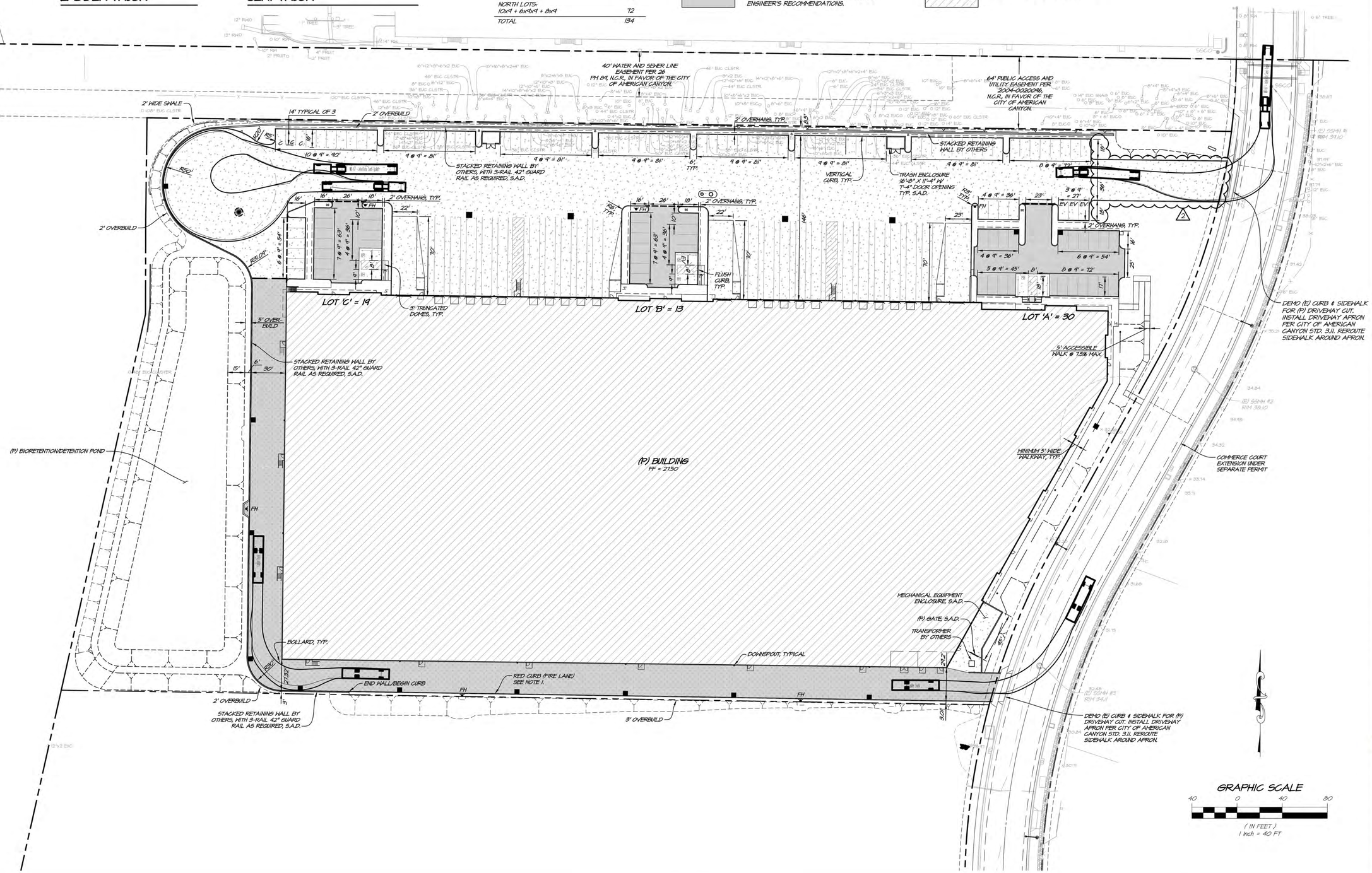
SEMI-TRUCK

PARKING SUMMARY	
STANDARD	126
COMPACT (C)	3
ACCESSIBLE	5
TOTAL	134
LOT 'A'	30
LOT 'B'	13
LOT 'C'	19
NORTH LOTS: 10x9 + 6x8x9 + 8x9	72
TOTAL	134

HATCH LEGEND

- CONCRETE WALKWAY: 4" PCC CLASS A OVER 4" CLASS II AB OVER NATIVE SOIL COMPACTED TO MINIMUM 90% RELATIVE COMPACTION.
- CONCRETE PAVEMENT: T.I. = 7, 6.5 PCC WITH 4 REBAR @ 24" O.C.E.W. OVER 15" CLASS II AB OVER 12" LIME TREATED SELECT MATERIAL OR PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- VEHICLE PARKING: T.I. = 5.5, 3" TYPE B AC OVER 4" CLASS II AB OVER 12" LIME TREATED SELECT MATERIAL OR PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- TRUCK AC: T.I. = 6.5, 3.5" TYPE B AC OVER 5" CLASS II AB OVER 12" LIME TREATED SELECT MATERIAL OR PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- BIORETENTION AREA
- PROPOSED BUILDING FOOTPRINT

NOTES:
1. FIRE LANE - RED CURB REQUIRED AT ALL ACCESS ROADS THAT ARE LESS THAN 28' IN WIDTH AND AT ALL CURBS IN FRONT OF HYDRANTS AND DRIVEWAY ENTRANCES.



GRAPHIC SCALE
40 0 40 80
(IN FEET)
1 inch = 40 FT

NO.	DATE	REVISIONS	BY	APP'D
1.	08/03/20	RESPONSE TO COMMENTS - GRADING PLANS	LMM	PSW
2.	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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SDG COMMERCE 217 DISTRIBUTION CENTER
PAVING & LAYOUT PLAN
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
LUKE MARGENT WARNOCK
No. 92758
Exp. 9-30-22
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119031.0

SHEET NO.
UP2.0
2 OF 6 SHEETS

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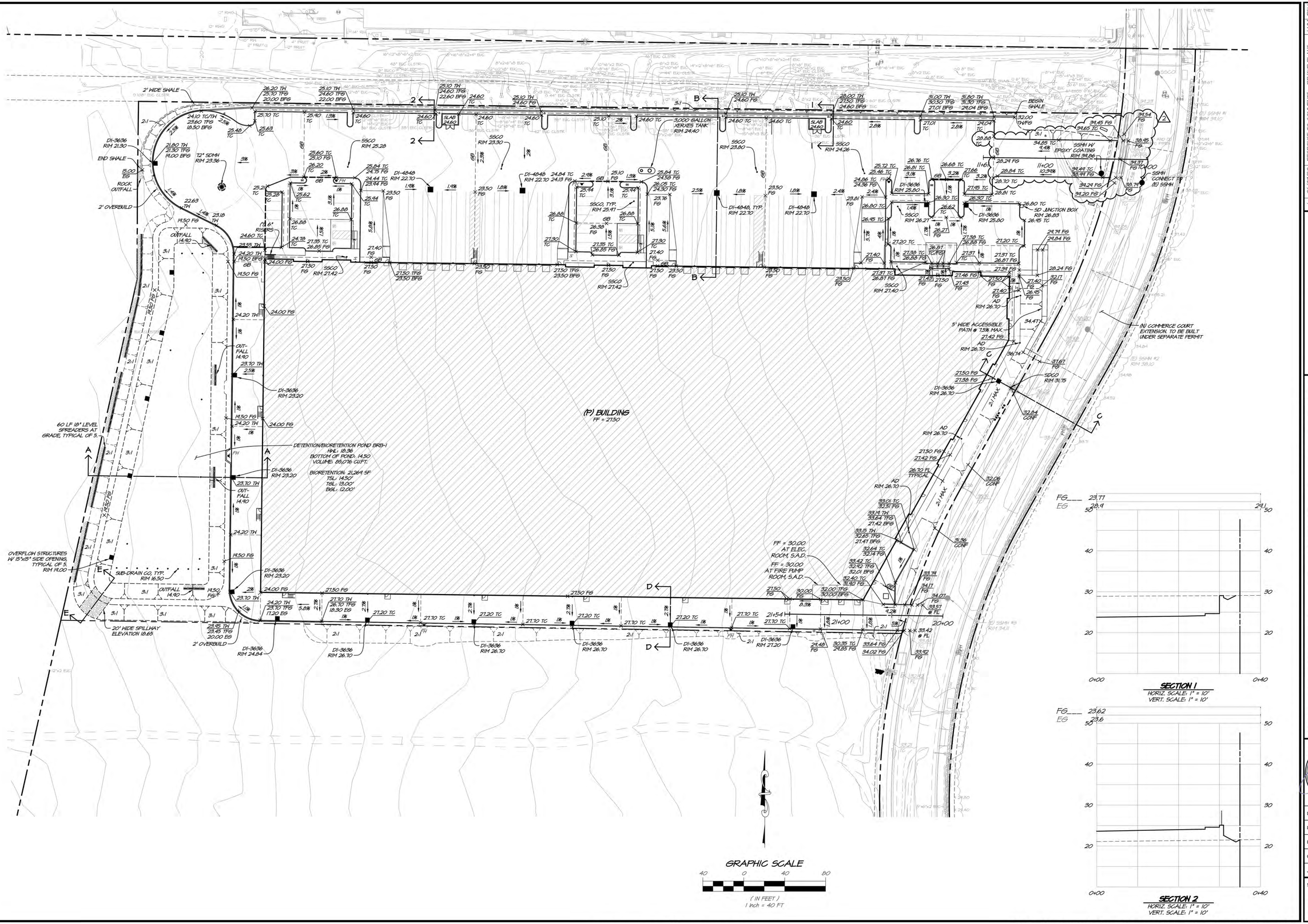

SECTION 1
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

SECTION 2
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

NO.	DATE	REVISIONS	BY	APPD
1	06/09/20	RESPONSE TO COMMENTS - DRICUP PLANS	LMM	PSW
2	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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AMERICAN CANYON
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REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNOCK
No. 82758
Exp. 9-30-22
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119037.0

SHEET NO.
UP3.0
3 OF 6 SHEETS

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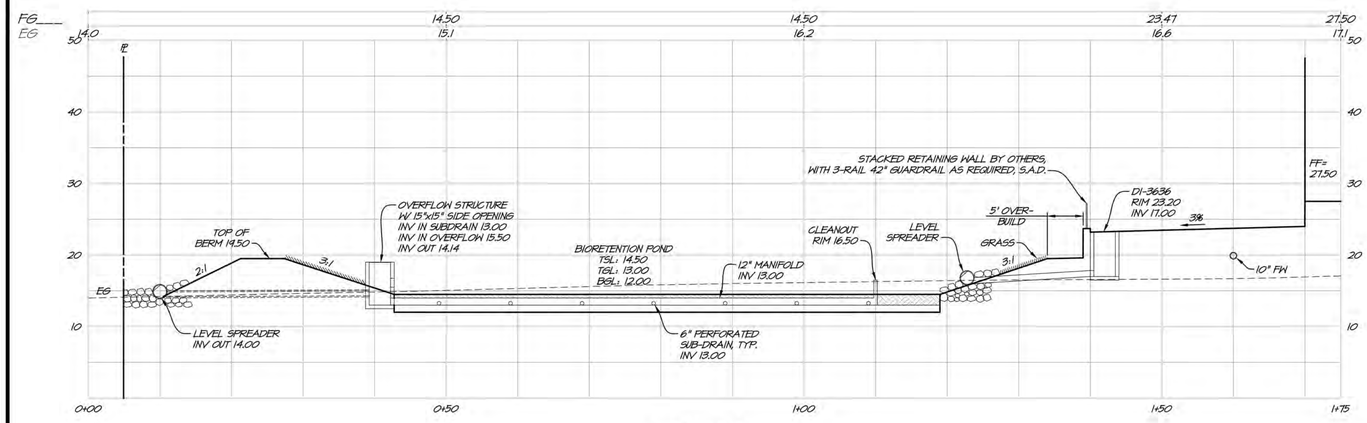

SECTION A-A
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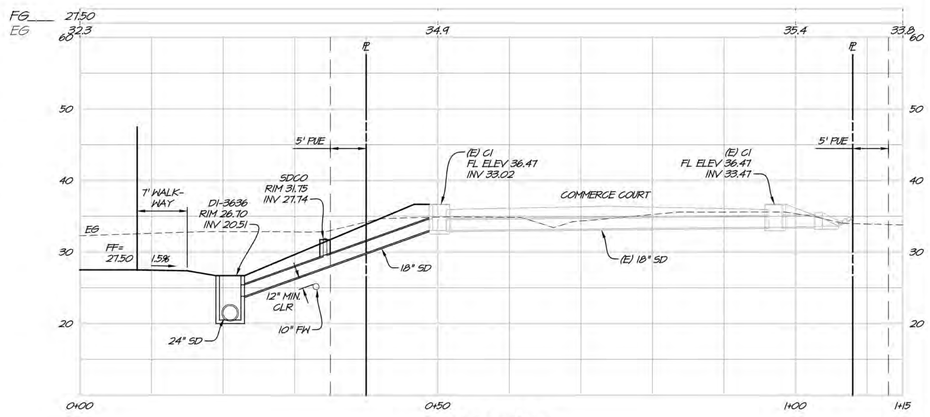
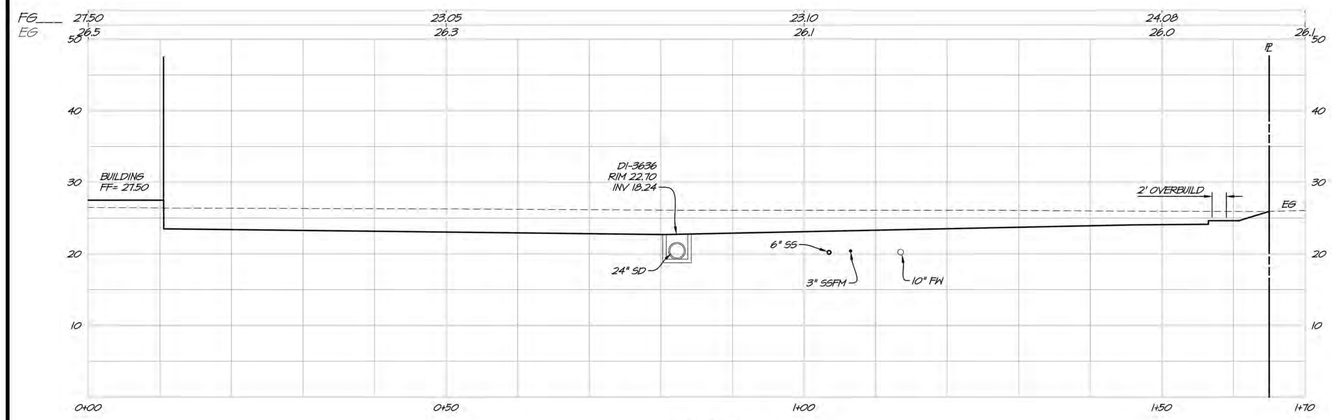
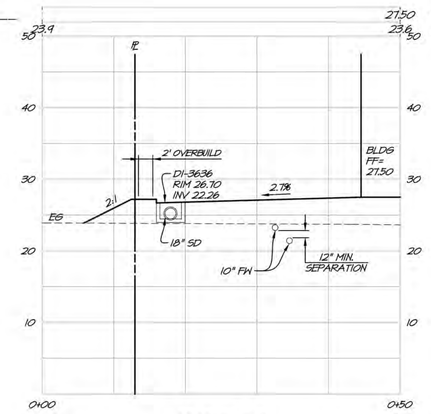
VERT. SCALE: 1" = 10'



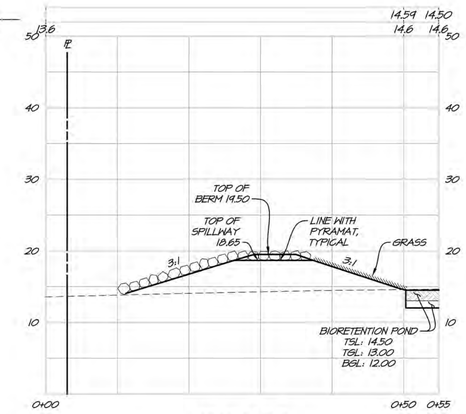
SECTION C-C
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



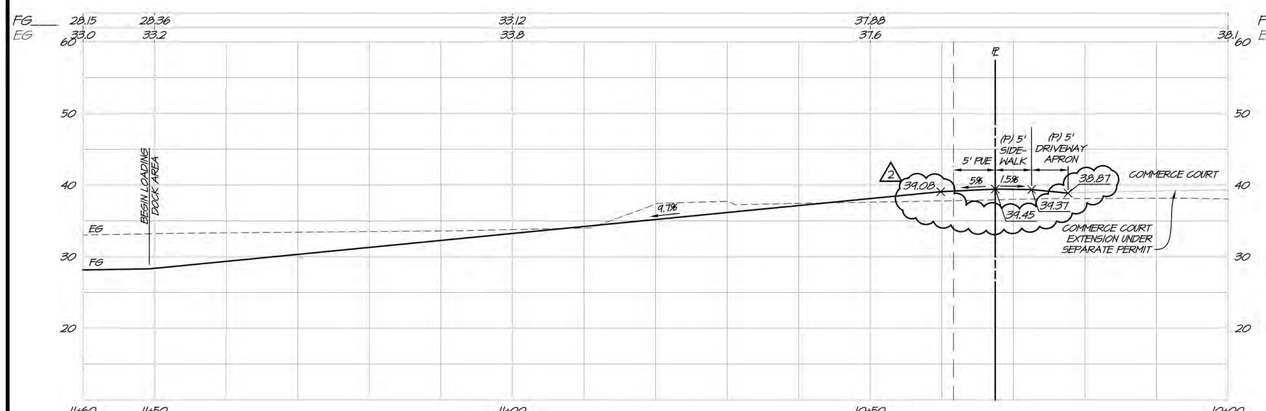
SECTION B-B
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



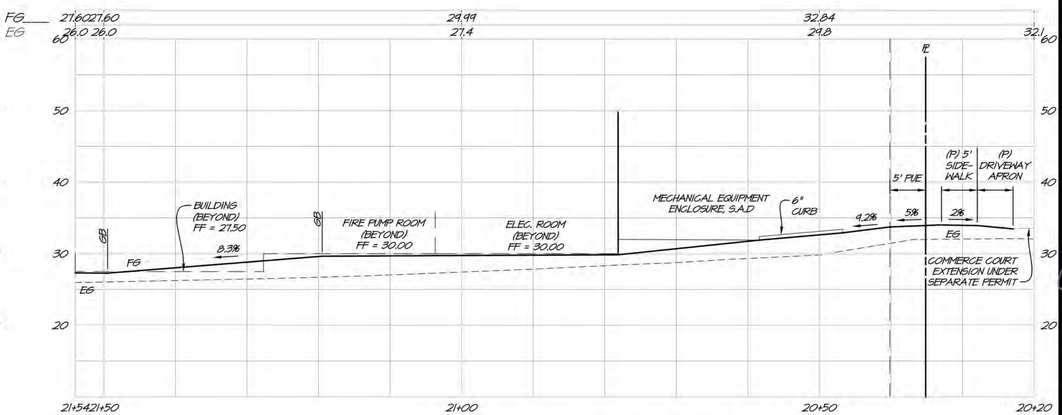
SECTION D-D
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



SECTION E-E
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



NORTH DRIVEWAY PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



SOUTH DRIVEWAY PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

NO.	DATE	REVISIONS	BY	APPD
1	08/03/20	RESPONSE TO COMMENTS - PRECIP. PLANS	LMM	PSW
2	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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SITE SECTIONS
AMERICAN CANYON
CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — PAUL SARGEN MANNICK — No. 62758 Exp. 9-30-22 — CIVIL ENGINEER — STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119037.0

SHEET NO.
UP3.1
4 OF 6 SHEETS

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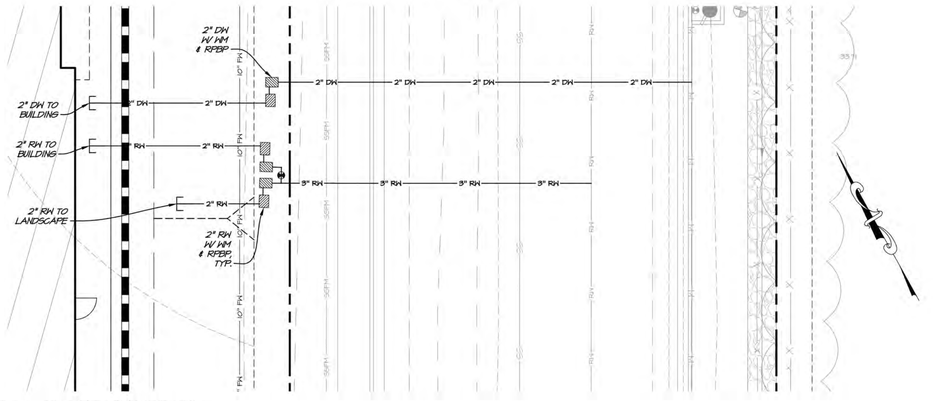
(P) BUILDING
FF = 27.50

BUILDING FIRE FLOW REQUIREMENT - CFC TABLE B105.2 & B105.1(2)

TABLE B105.1(2) - BUILDING SIZE = 217,294 SF
CONSTRUCTION TYPE = TYPE III-B
FF = 8,000 GPM AT 20 PSI
DURATION = 4 HOURS

TABLE B105.2 - FIRE SPRINKLER ALLOWANCE = -25%
8,000 - 2,000 = 6,000 GPM
FF = 6,000 GPM AT 20 PSI
DURATION = 4 HOURS

TABLE C105.1 - APPROXIMATE NUMBER OF HYDRANTS = 6
AVERAGE SPACING = 250 FEET + 50% ALLOWABLE INCREASE = 375 FEET
MAXIMUM DISTANCE FROM STREET OR FRONTAGE = 150 FEET + 50% ALLOWABLE INCREASE = 225 FEET



1 WATER LINE DETAIL
SCALE: 1" = 10'

GRAPHIC SCALE
40 0 40 80
(IN FEET)
1 inch = 40 FT

NO.	DATE	REVISIONS	BY	APPD
1.	08/03/20	RESPONSE TO COMMENTS - GRADING PLANS	LMM	PSW
2.	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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UTILITY PLAN
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER PAUL SARGENT No. 82758 Exp. 9-30-22 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119031.0

SHEET NO.
UP4.0
5 OF 6 SHEETS

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EQUIPMENT & MATERIAL STORAGE AND STAGING AREA, CONCRETE WASHOUT, (CASQA WM-8), REFUELING AREA AND PORTABLE SANITARY FACILITIES (TIE DOWNS WITH SECONDARY CONTAINMENTS).

FIBER ROLL CHECK DAMS, TYP. @ 50' INTERVALS IN ALL SWALES

GRAVEL BAG INLET PROTECTION, TYP.

2 STABILIZED CONSTRUCTION ENTRANCE, PER CASQA TC-1

FIBER ROLL INLET PROTECTION, TYP. AT ALL INLETS IN UNPAVED AREAS

(P) BUILDING
FF = 2130

COMMERCE COURT EXTENSION UNDER SEPARATE PERMIT

GRAVEL BAG CHECK DAMS IN CURB FL, TYP.

GRAPHIC SCALE
40 0 40 80
(IN FEET)
1 Inch = 40 FT.

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NO.	DATE	REVISIONS	BY	APPD
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2.	09/22/20	RESPONSE TO COMMENTS	LMM	PSW

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EROSION & SEDIMENT CONTROL PLAN
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS SARGENT WARNER
No. 82758
Exp. 9-30-22
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	SEPT. 22, 2020
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4119037.0

SHEET NO.
UP5.0
6 OF 6 SHEETS

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Attachment 2, Exhibit B:
Architecture and
Landscaping

Preliminary Drawing Submission for:

SDG Commerce 217 Distribution Center

1075 Commerce Court
American Canyon, CA 94503
APN 058-030-065

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
AC	ACOUSTICAL
AC	ASPHALT CONCRETE
A/C	AIR CONDITIONING
ADH	ADHESIVE
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FIN FLR
AGGR	AGGREGATE
AL	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
@	AT
BBD	BACKERBOARD
BD	BOARD
BEL	BELOW
BTWN	BETWEEN
BL	BUILDING LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM, BENCH MARK
BO	BOTTOM OF
BOTT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BRZ	BRONZE
BS	BACKSPLASH
BUR	BUILT-UP ROOF
BVL	BEVEL
BW	BOTH WAYS
C	COURSE
CABT	CABINET
CB	CATCH BASIN
CEM	CEMENT
CHAM	CHAMFER
CBD	CHALK BOARD
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CM	CONST MANAGER
CMU	CONC MASONRY BLOCK
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CPT	CARPET
CNSK	COUNTERSINK
CT	CERAMIC TILE
CY	CUBIC YARD
DTL	DETAIL
DF	DRINKING FOUNTAIN
DI	DRAIN INLET
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVIDER
DL	DEAD LOAD
DN	DOWN
DP	DEEP
DS	DOWNSPOUT
DWG	DRAWING
DWR	DRAWER
ENCL	ENCLOSURE
(E)	EXISTING
E	EAST
EA	EACH
EB	EXPANSION BOLT
EDF	ELEC DRINK FOUNTAIN
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR, ELEVATION

EQ	EQUAL
EQUIP	EQUIPMENT
ESMT	EASEMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION, EXPOSURE
EXT	EXTERIOR
EN	EDGE NAIL
FA	FIRE ALARM
FB	FACE BRICK
FBD	FIBERBOARD
FBGL	FIBERGLASS
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	F.E. CABINET
FF	FINISH FLOOR
FG	FIXED GLASS
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FL'G	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FACE OF
FOB	FACE OF BRICK, BLOCK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FPRF	FIREPROOF
FRP	FBGL REINF PANEL
FRTD	FIRETREATED
FS	FULL SCALE
FT	FOOT, FEET
FTG	FOOTING
FUR	FURRING
FURN	FURNISH(ING)
FUT	FUTURE
FN	FIELD NAIL
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GENERAL CONTRACTOR
GCMU	GLAZED CMU
GD	GRADE
GL	GLASS
GOVT	GOVERNMENT
GS	GALVANIZED STEEL
GYP	GYPSUM
H	HORIZONTAL
(H)	HANDICAP
HB	HOSE BIBB
HC	HOLLOWCORE
HDBD	HARDBOARD
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HR	HOUR
HFS	HALF FULL SCALE
HRU	HEAT RECOVERY UNIT
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDED
INST	INSTALL
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IP	IRON PIPE
JST	JOIST
JT	JOINT
KD	KNOCKDOWN
L	LENGTH
LAM	LAMINATE
LAV	LAVATORY
LB	LAG BOLT

LF	LINEAL FOOT
LKR	LOCKER
LL	LIVELOAD
LVR	LOUVER
LTWT	LIGHTWEIGHT
MACH	MACHINE
MAT	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
ML	METAL LATH
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MT	METAL THRESHOLD
MTD	MOUNTED
MUL	MULLION
(N)	NEW
N	NORTH
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O/	OVER
OBS	OBSCURE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHANG
OPNG	OPENING
OPP	OPPOSITE
PBD	PARTICLEBOARD
PCC	PRECAST CONCRETE
PCPL	PORTLAND CEM PLAS
/	PER
PERF	PERFORATED
PF	PREFABRICATED
PFIN	PREFINISHED
PJF	PREFORMED JOINT FILLER
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PM	PRESSED METAL
PNL	PANEL
PNT	PAINT
POL	POLISH
PSI	POUNDS / SQUARE INCH
PRF	PREFORMED
PROP	PROPERTY
PT	POINT
PT	PRESSURE TREATED
PTN	PARTITION
PVC	POLY VINYL CHLORIDE
PVMT	PAVEMENT
PWD	PLYWOOD
QT	QUARRY TILE
R	RISER
RA	RETURN AIR GRILL
RB	RESILIENT BASE
RCP	REINFORCED CONC PIPE
RD	ROOF DRAIN
REF	REFRIGERATER
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RF	RESILIENT FLOOR
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY

RT	RESILIENT TILE
RWD	REDWOOD
RWL	RAINWATER LEADER
S	SOUTH
SA	SUPPLY AIR GRILL
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT
SH	SHELVE
SHT	SHEET
SIM	SIMILAR
SJ	STEEL JOIST
SK	SINK
SLNT	SEALANT
SMS	SHEET METAL SCREW
SP	STRUCTURAL PLYWOOD
SPEC	SPECIFICATION
SQ	SQUARE
S&R	SHELF & ROD(OR POLE)
SS	SERVICE SK, STNLESS STL
STD	STANDARD
STL	STEEL
STN	STAIN
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
T & TR	TREAD
TA	TOILET ACCESSORY
T&B	TOP & BOTTOM
TBD	TACKBOARD
TEL	TELEPHONE
TEMP	TEMPERATURE
TG	TEMPERED GLASS
THOLD	THRESHOLD
T&G	TONGUE & GROOVE
TH	THICK(NESS)
TLT	TOILET
TO	TOP OF
TOC	TOP OF CURB OR CONC
TOD	TOP OF DECK
TOJ	TOP OF JOIST
TOP	TOP OF PAVEMENT
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRTD	TREATED
TRZO	TERRAZZO
TTB	TEL TERMINAL BD
TYP	TYPICAL
UC	UNDERCUT
UL	UNDERWRITERS LAB
UR	URINAL
UON	UNLESS OTHERWISE NOTED
V	VERTICAL
VAR	VARIABLE
VAT	VINYL ASBESTOS TILE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VG	VERTICAL GRAIN
VWC	VINYL WALL COVERING
W	WEST
W/	WITH
WB	WOOD BASE
WD	WOOD
WDW	WINDOW
WG	WIRE GLASS
WH	WATER HEATER
WM	WOOD MOULDING
W/O	WITHOUT
WP	WEATHERPROOF
WPT	WORK POINT
WR	WATER RESISTANT
WS	WOOD SCREW
WNST	WAINSCOT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SYMBOLS

GRID LINE

MATCH LINE

DATUM POINT

REVISION

WINDOW TYPE

DOOR NUMBER

SECTION CUT

DETAIL CUT

SHEET INDEX

ARCHITECTURAL:

T1 TITLE SHEET
A1 SITE PLAN
A1.1 ENLARGED PARKING LOT PLANS
A1.2 TRASH ENCLOSURE & MONUMENT SIGN
A2 BUILDING FLOOR PLAN
A2.1 ROOF PLAN
A3 BUILDING ELEVATIONS
A3.1 PARTIAL BUILDING ELEVATIONS
A4 BUILDING SECTIONS

LANDSCAPE:

L1 LANDSCAPE SITE PLAN
L2 PLANT LEGEND
L3 WATER USAGE HYDROZONE PLAN

CIVIL:

UP1.0 COVER SHEET
UP2.0 PAVING AND LAYOUT PLAN
UP3.0 GRADING PLAN
UP3.1 SITE SECTIONS
UP4.0 UTILITY PLAN

ELECTRICAL:

E1.1 PHOTOMETRIC SITE PLAN

VICINITY MAP



PROJECT CONTACTS

OWNER
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Contact: Brian Doswald

STRUCTURAL ENGINEER:
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1515 Fourth Street
Napa, CA 94559
707 252 3301

ELECTRICAL CONTRACTOR:
Bosley Electric Company
935 Arden Way
Sacramento, CA 95815
916 568 5180

GEOTECHNICAL ENGINEER:
Krazan & Associates, Inc.
4320 Orange Grove Avenue St E-F
Sacramento, CA 95841
916 564 2200

SCOPE OF WORK:

CONSTRUCT A NEW WINE STORAGE DISTRIBUTION CENTER ON AN APPROXIMATE 10.39 ACRE PARCEL ON COMMERCE COURT. THE DEVELOPMENT INCLUDES 21 LOADING DOCKS, 3 GRADE LEVEL OVERHEAD DOORS, AND PROVISIONS FOR FUTURE OFFICES SPACES. INTERIOR WILL INCLUDE WAREHOUSE LIGHTING AND REFRIGERATION.

THIS DEVELOPMENT INCLUDES WAIVER FOR A 60' YARD, CALIFORNIA BUILDING CODE SECTION 507, AT THE SOUTHERN PROPERTY LINE.

NOTES

1. CONTRACTOR SHALL UTILIZE A CONSTRUCTION WASTE MANAGEMENT PLAN (CWM) IN ACCORDANCE WITH CALGREEN SECTION 5.408, OF RECYCLING OR REUSE OF 65% OF NON HAZARDOUS DEMOLITION WASTE.
2. CONTRACTOR SHALL CONTROL POLLUTANTS DURING CONSTRUCTION IN ACCORDANCE WITH CALGREEN SECTION 5.504. PROVIDE PROTECTION TO DUCT OPENINGS AND MECHANICAL EQUIPMENT, COMPLY WITH AIR POLLUTION CONTROL MEASURES AND VOC LIMIT FOR ALL FINISH MATERIALS, ADHESIVES, SEALANTS AND CAULKS.
3. THE BUILDING SHALL BE EQUIPPED WITH AN ESFR FIRE SPRINKLER SYSTEM.
4. MONUMENT SIGN REQUIRES SEPARATE PERMIT.
5. RETAINING WALLS OVER 4 FEET IN HEIGHT REQUIRE A PERMIT.

PROJECT DATA

ADDRESS:	1075 Commerce Court
A.P.N.	058-030-065
ZONING:	REC
MAXIMUM HEIGHT PER ZONING:	35'
GROSS BUILDING AREA	217,294 SF
BUILDING CODE SUMMARY:	
BUILDING OCCUPANCY:	FUTURE B/F1/S1
BUILDING TYPE:	TYPE III-B, SPRINKLERED
STORIES: OCC: F1 GOVERNS	MAX STORIES 3, CBC TABLE 504.4
HEIGHT:	MAX HEIGHT 75', CBC TABLE 504.3
SPRINKLERED:	NEW ESFR TYPE
BUILDING CODES:	2019 CALIFORNIA BUILDING CODE 2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA MECHANICAL CODE 2019 CALIFORNIA ELECTRICAL CODE 2019 CAL GREEN BUILDING STANDARDS 2019 CAL ENERGY CODE

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400 SF	100 %
BUILDING AREA	217,294 SF	48 %
NON PERMEABLE	151,768 SF	33.6 %
LANDSCAPE	62,401 SF	13.8 %
NATIVE/UNDISTURBED	20,937 SF	4.6 %

BUILDING BREAKDOWN:

GROSS BUILDING	217,294	SF
DISTRIBUTION CENTER	216,563	SF
ELECTRICAL ROOM	406	SF
FIRE PUMP ROOM	325	SF

SETBACKS: ACMC, TABLE 19.15.030

	BUILDING	LANDSCAPE
STREET	15'	15'
SIDE YARD	35'	N/A
REAR YARD	35'	N/A

PARKING ANALYSIS:

OFFICE at 2% (ESTIMATE) = 4,500 / 300 =	15
WAREHOUSE @ FIRST 20,000 SF at 1/1000 =	20
WAREHOUSE @ 192,794 SF at 1/2000 =	96
TOTAL PARKING REQUIRED:	131
TOTAL PARKING PROVIDED =	134

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2948 Devita Drive
Napa, California 94558
Phone 707 320 4030

Owner:

SDG Commerce 217, LLC
413 W. Yosemite, Suite 105
Madera, CA 93637
559 674 0906

Project:

SDG Commerce 217
Distribution Center
1075 Commerce Court
American Canyon, CA 94503

APN 058 030 065 000

Contractor:

Industrial and Commercial Contractors, LP
413 W. Yosemite, Suite 105
Madera, CA 93637

Sheet:

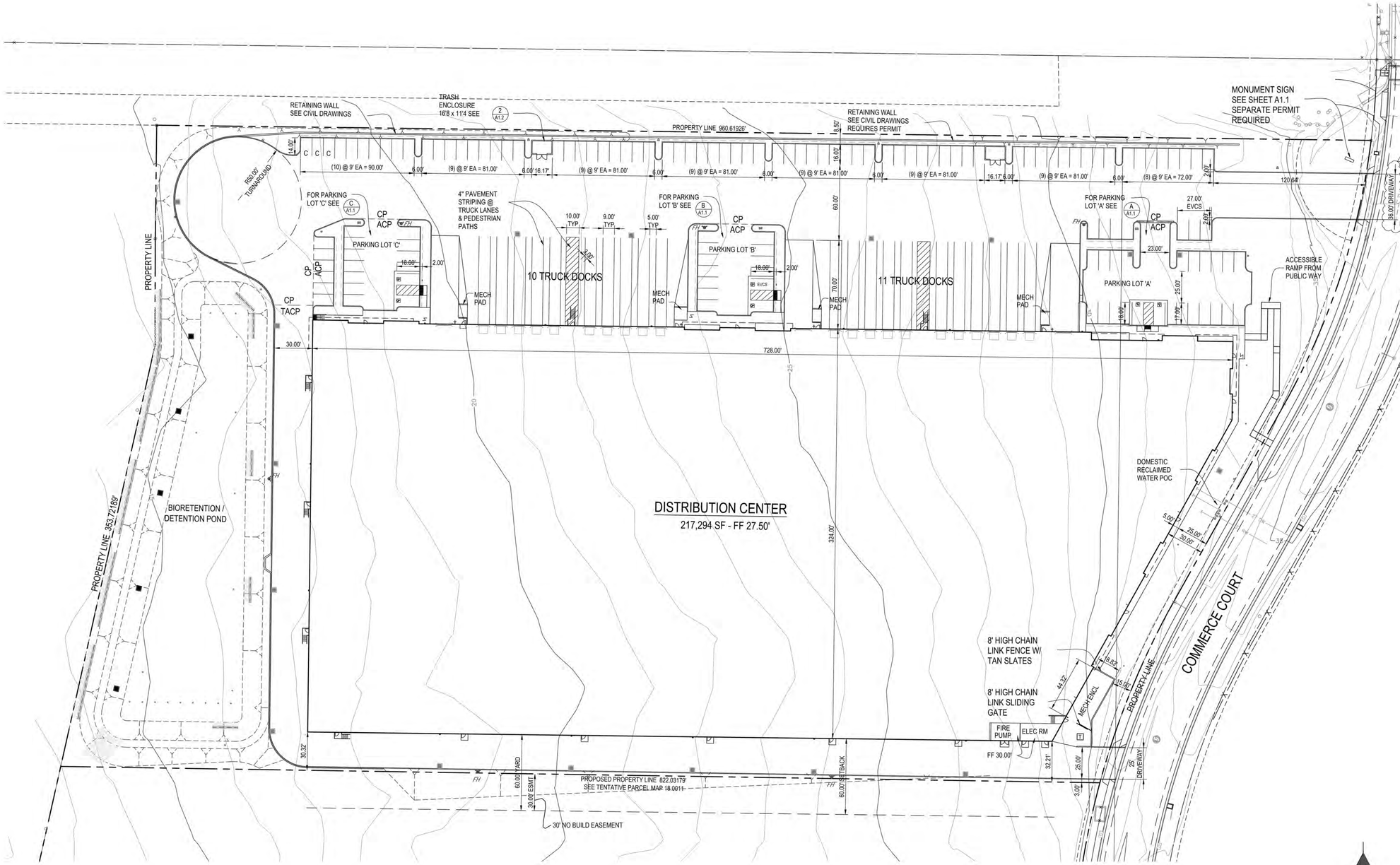
TITLE SHEET

DATE: January 20, 2020

REVISION:
June 9, 2020

ARCHITECTS STAMP: SHEET:

T1



PRELIMINARY SITE PLAN

SCALE: 1" = 40'

LEGEND:

- LIGHT STANDARD 30' HIGH SEE ELECTRICAL
- FIRE HYDRANT SEE CIVIL
- CONCRETE
- ACP — AUTO ASPHALT PAVING SEE CIVIL
- TACP — TRUCK ASPHALT PAVING SEE CIVIL
- CP — CONCRETE PAVING SEE CIVIL
- 4" YELLOW PAINTED LINES @ 3' O.C.
- C — DENOTES COMPACT PARKING STALL SEE ALSO SHEET A1.1

PARKING COUNT:

6	ACCESSIBLE STALLS (5) REQ'D
125	REGULAR STALLS
3	COMPACT STALLS = 0%
134	TOTAL PARKING

ELECTRIC VEHICLE CHARGING STATIONS: (EVCS)

1	VAN ACCESSIBLE - PARKING LOT 'B'
3	STANDARD - PARKING LOT 'A'

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400	SF	100 %
BUILDING AREA	217,294	SF	48 %
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PRELIMINARY SITE PLAN

DATE: January 20, 2020

REVISION:
- 1 June 9, 2020
- 2 September 21, 2020

ARCHITECTS STAMP: SHEET:

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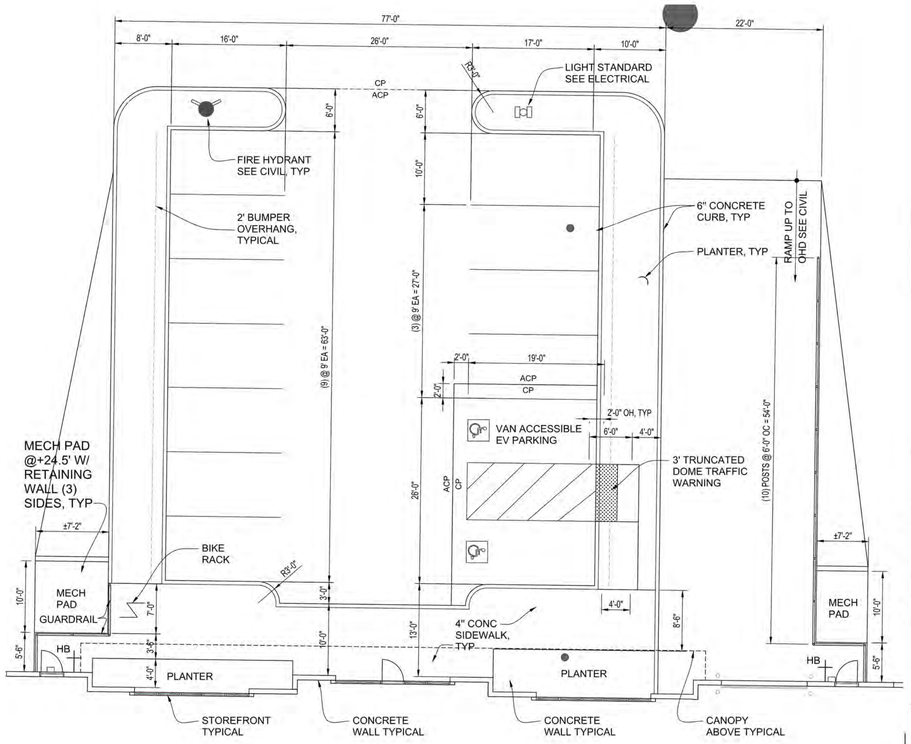
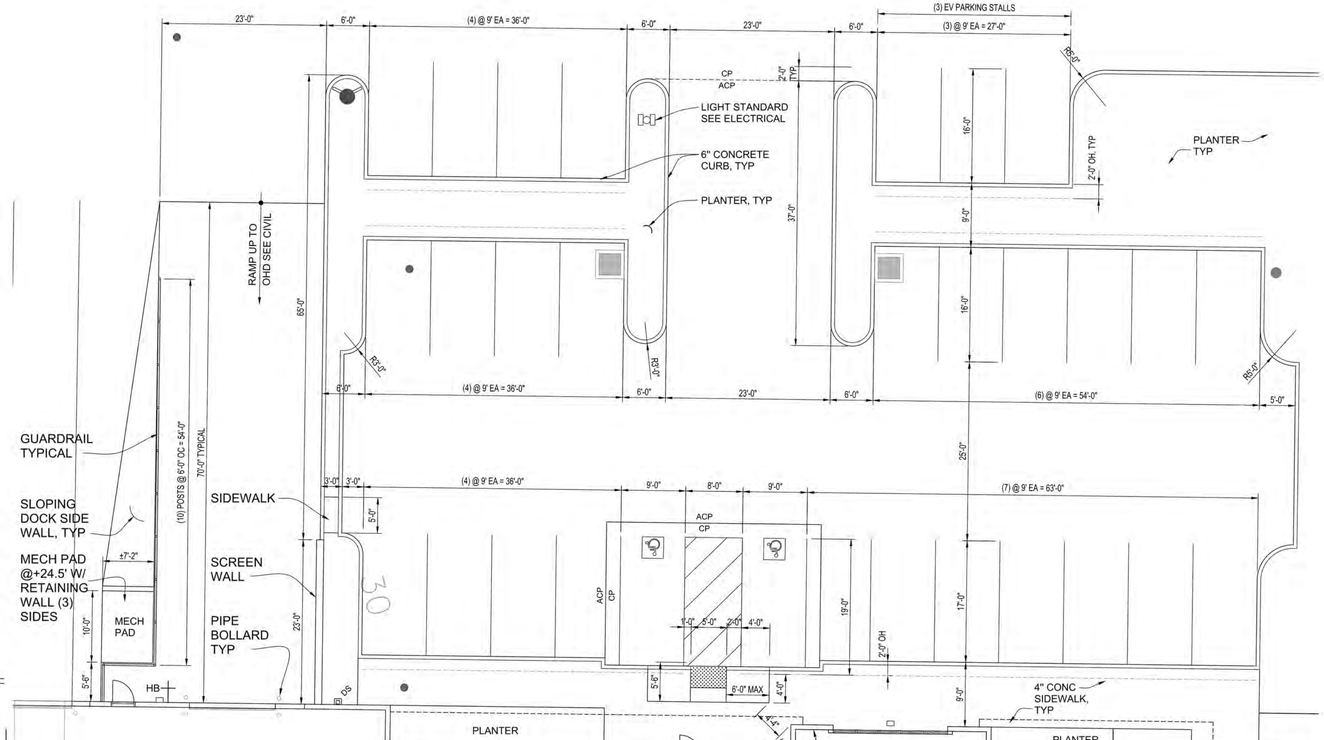
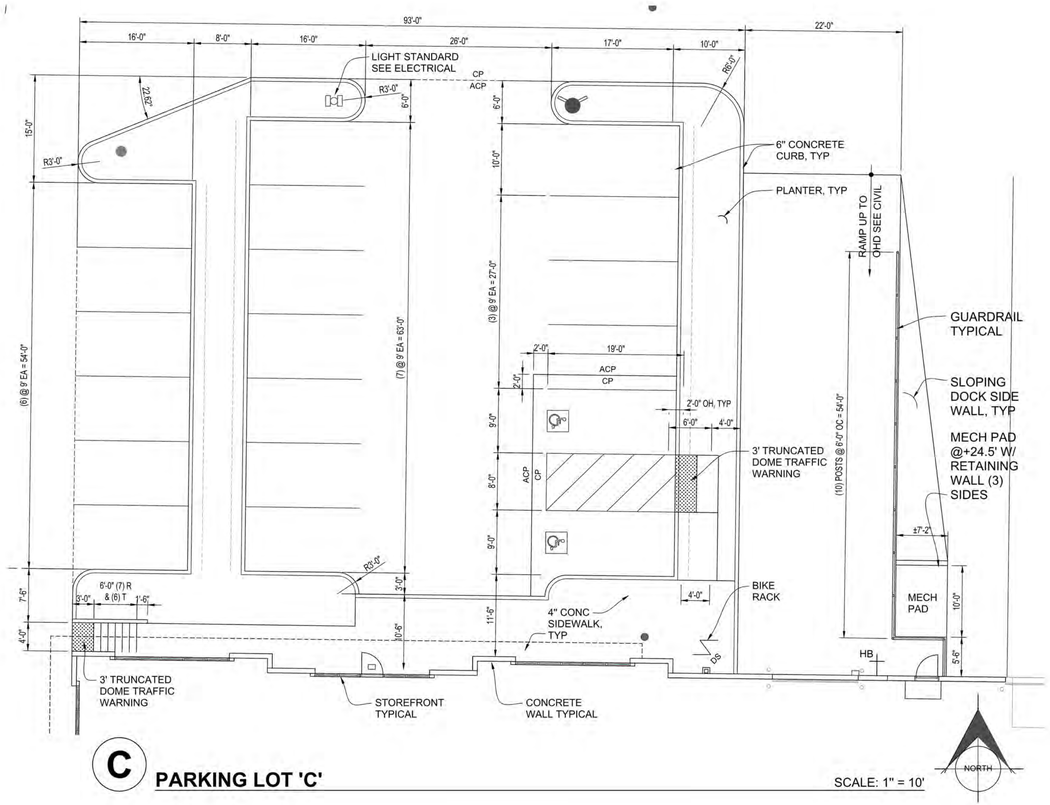


B **PARKING LOT 'B'** SCALE: 1" = 10'



A **PARKING LOT 'A'** SCALE: 1" = 10'



C **PARKING LOT 'C'** SCALE: 1" = 10'

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PARKING LOT PLANS

DATE: January 20, 2020

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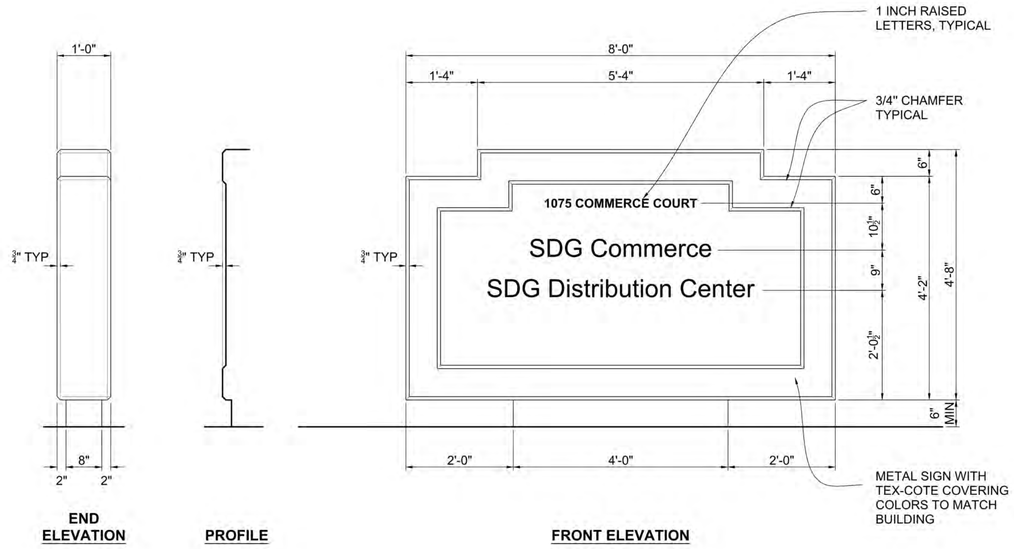
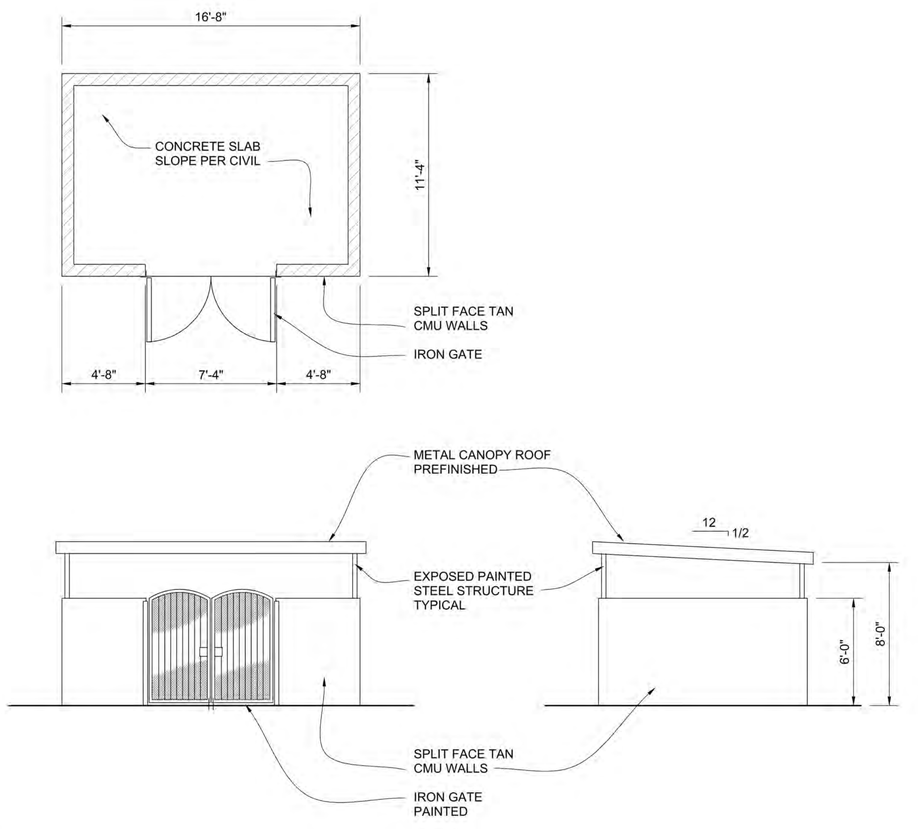


1 MONUMENT SIGN SEPARATE PERMIT REQUIRED

3/4" = 1'-0"



2 TRASH ENCLOSURE

SCALE: 1/4" = 1'-0"

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SITE DETAILS

DATE: January 20, 2020

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A1.2

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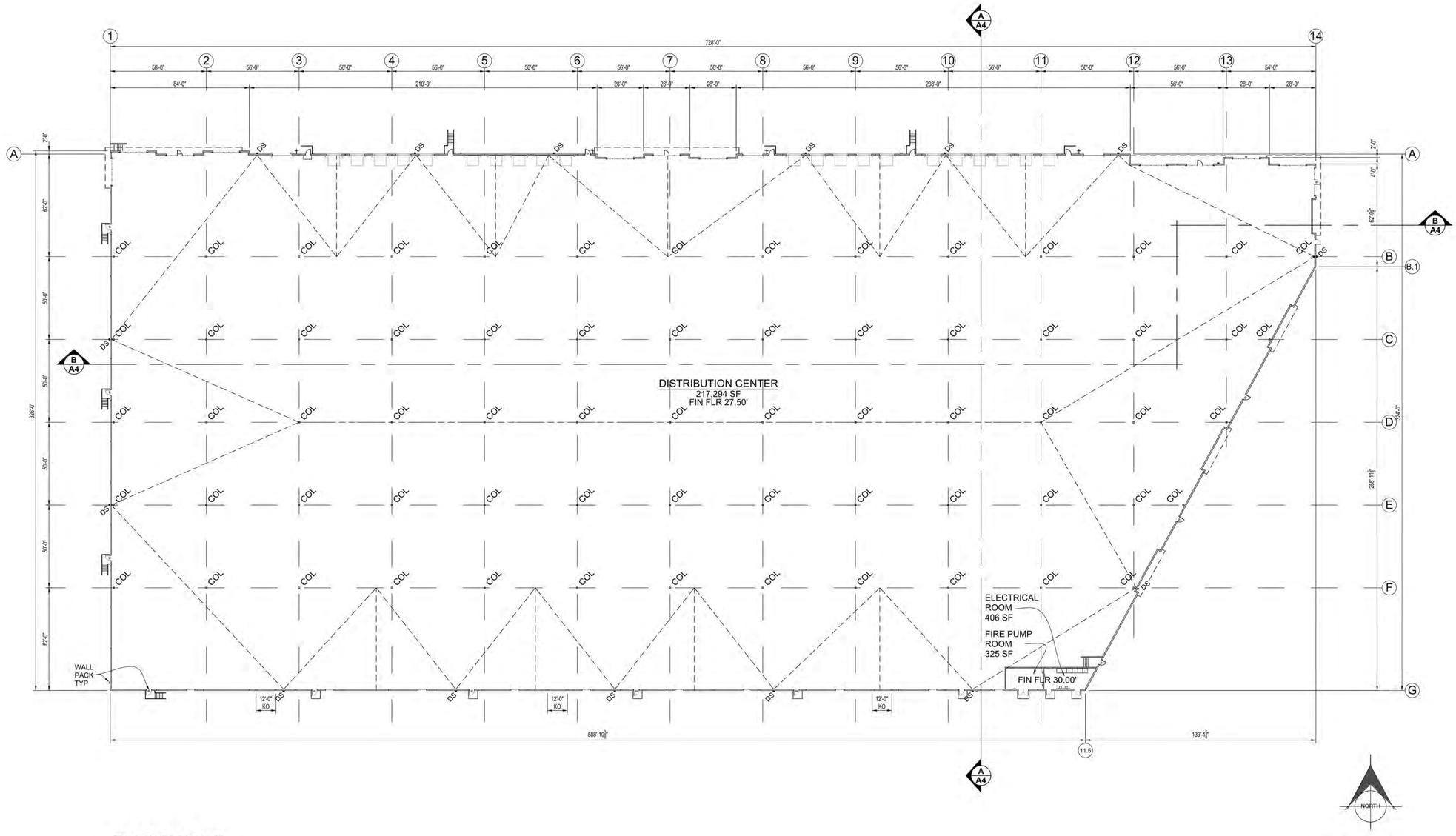

FLOOR PLAN

SCALE: 1/32"' = 1'-0"

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Sheet:

FLOOR PLAN

DATE: January 20, 2020

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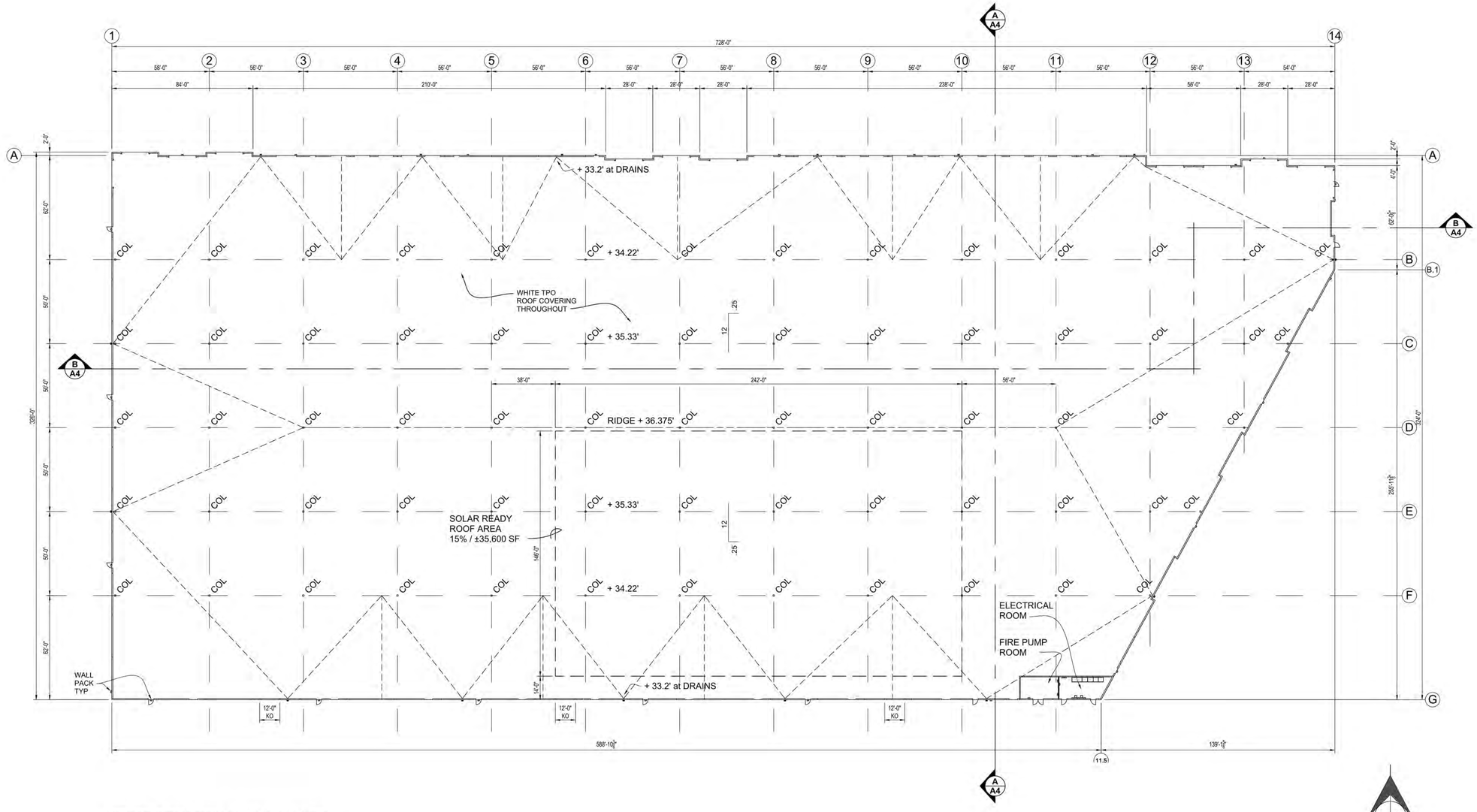
A2



NOTE: TOP OF ROOF ELEVATIONS ARE TO DRAINAGE POINTS.
DRAINAGE POINTS ARE AT TOP OF 5" RIGID INSULATION.

ROOF PLAN

SCALE: 1/32"' = 1'-0"

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ROOF PLAN

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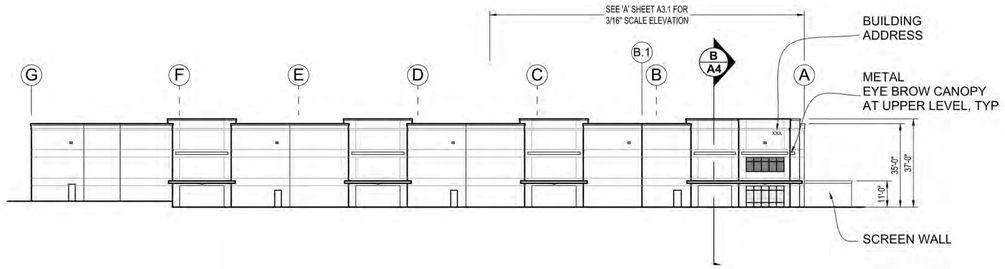
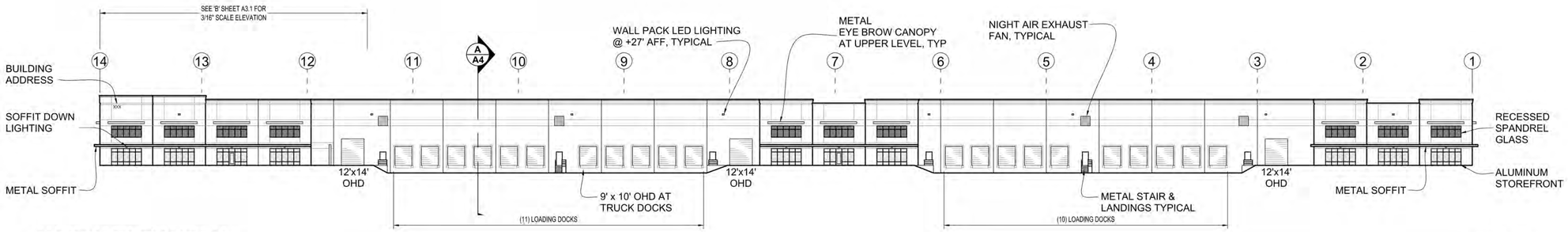
A2.1

2870



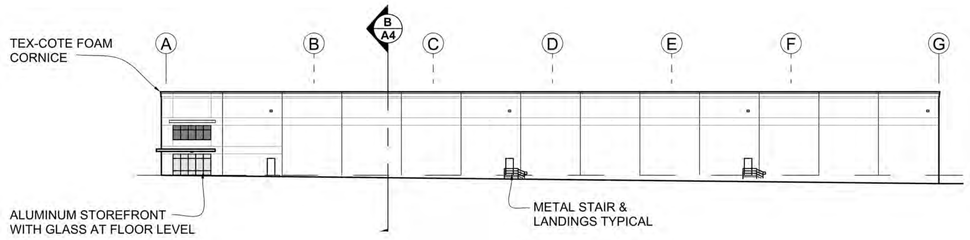
EAST ELEVATION

SCALE: 1" = 30'



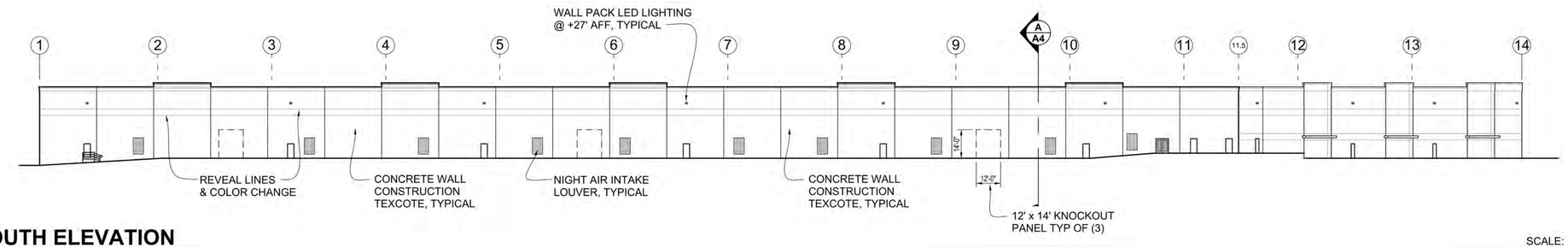
NORTH ELEVATION

SCALE: 1" = 30'



WEST ELEVATION

SCALE: 1" = 30'



SOUTH ELEVATION

SCALE: 1" = 30'

TEXCOTE / PAINT COLOR SCHEDULE:
Colors are Kelley Moore Paint Company

1. ACCENT COLOR #1
   Blue Damask
   KM4995
2. ACCENT COLOR #2
   Sacred Vortext
   KM4573
3. BODY COLOR #1
   Cobblestone Street
   KM4571
4. BODY COLOR #2
   Dry Dock
   KM4574

BUILDING HEIGHT
RIDGE + 36.375'
EAVE + 32.2'
AVERAGE ROOF HEIGHT +34.28'

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BUILDING ELEVATIONS

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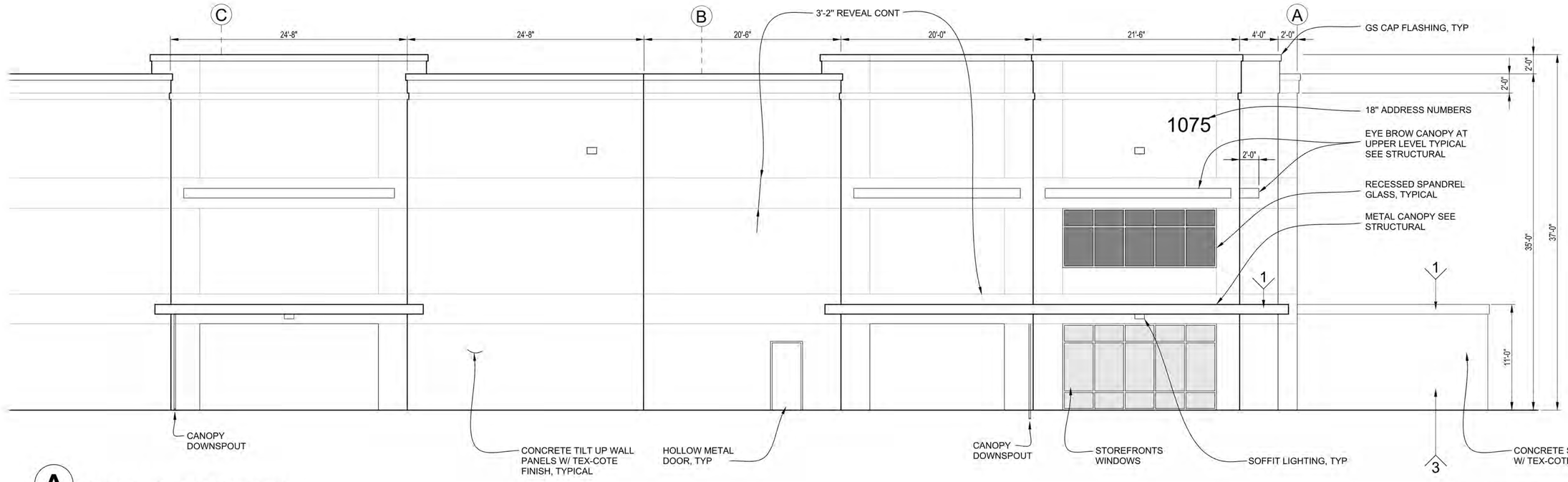
A3

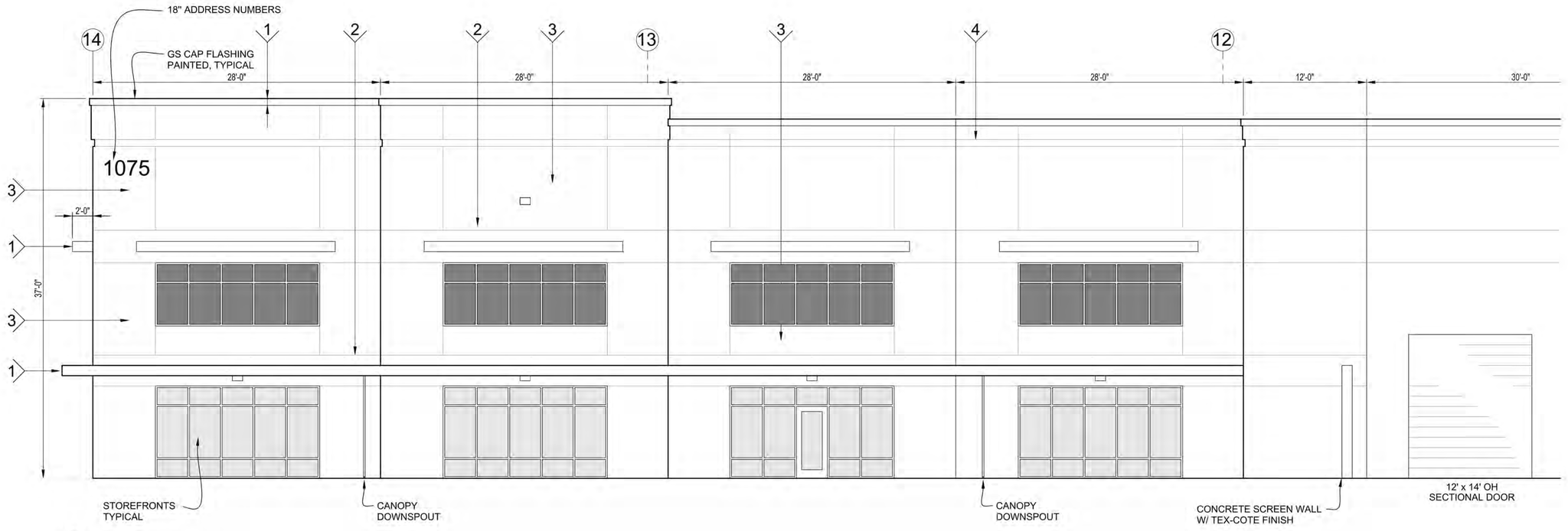


A **LINE '14' PANEL ELEVATIONS**

SCALE: 3/16" = 1'-0"

TEXCOTE / PAINT COLOR SCHEDULE:
Colors are Kelley Moore Paint Company

1. ACCENT COLOR #1 Blue Damask KMA4995
2. ACCENT COLOR #2 Sacred Vortex KM4573
3. BODY COLOR #1 Cobblestone Street KM4571
4. BODY COLOR #2 Dry Dock KM4574



B **LINE 'A' PANEL ELEVATIONS**

SCALE: 3/16" = 1'-0"

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BUILDING ELEVATIONS

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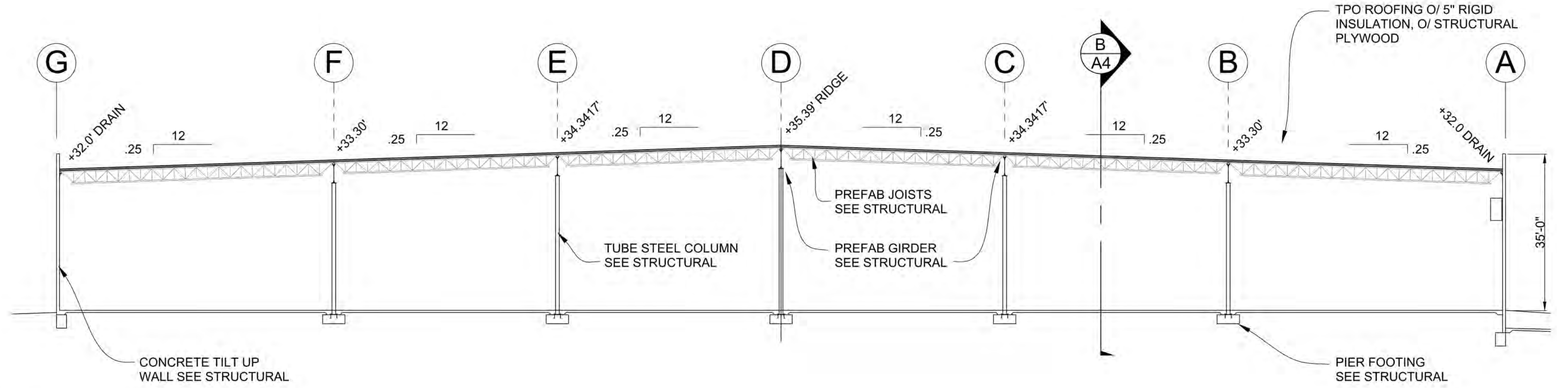
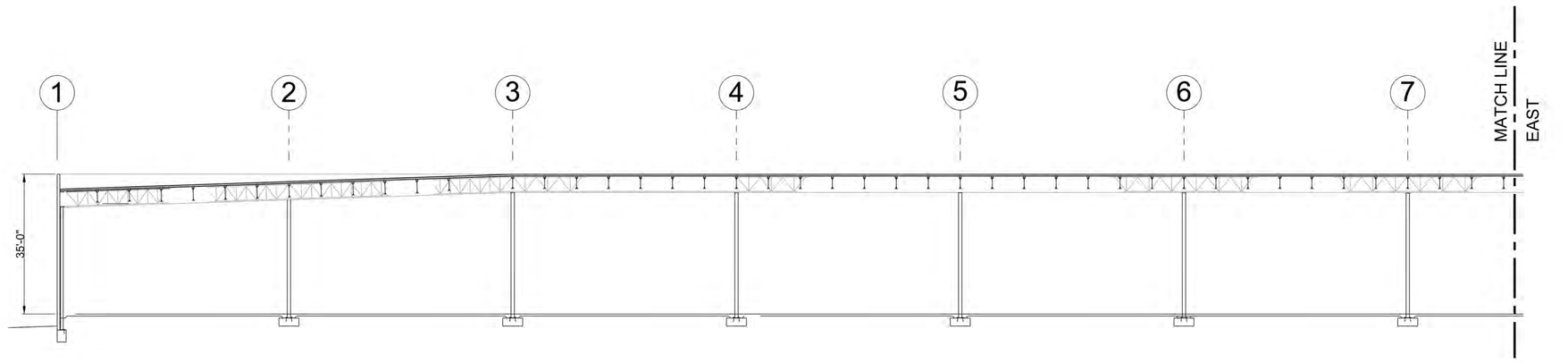
A3.1



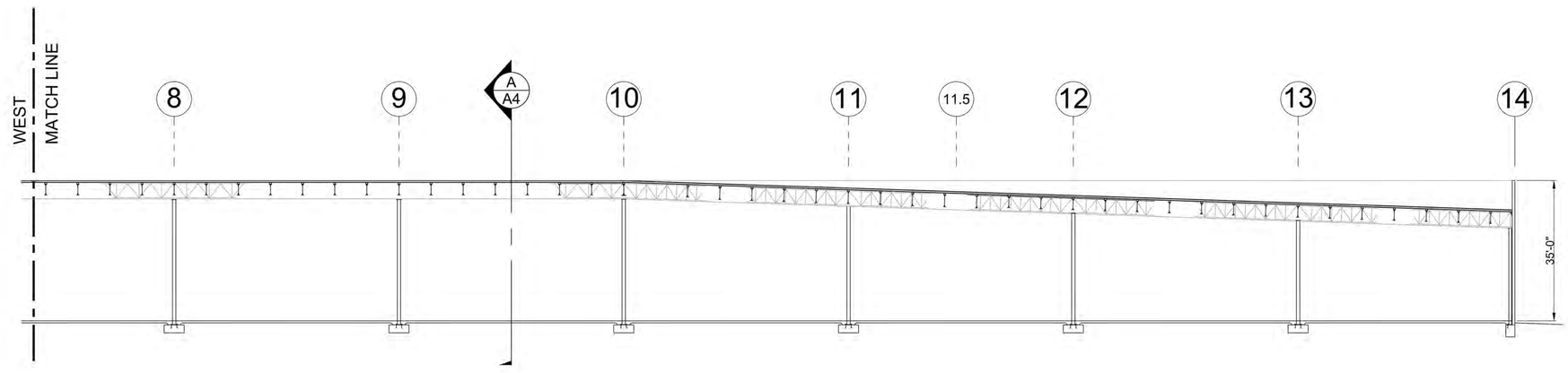
SECTION 'A'

SCALE: 1/16" = 1'-0"



SECTION 'B' - WEST

SCALE: 1/16" = 1'-0"



SECTION 'B' - EAST

SCALE: 1/16" = 1'-0"

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BUILDING SECTIONS

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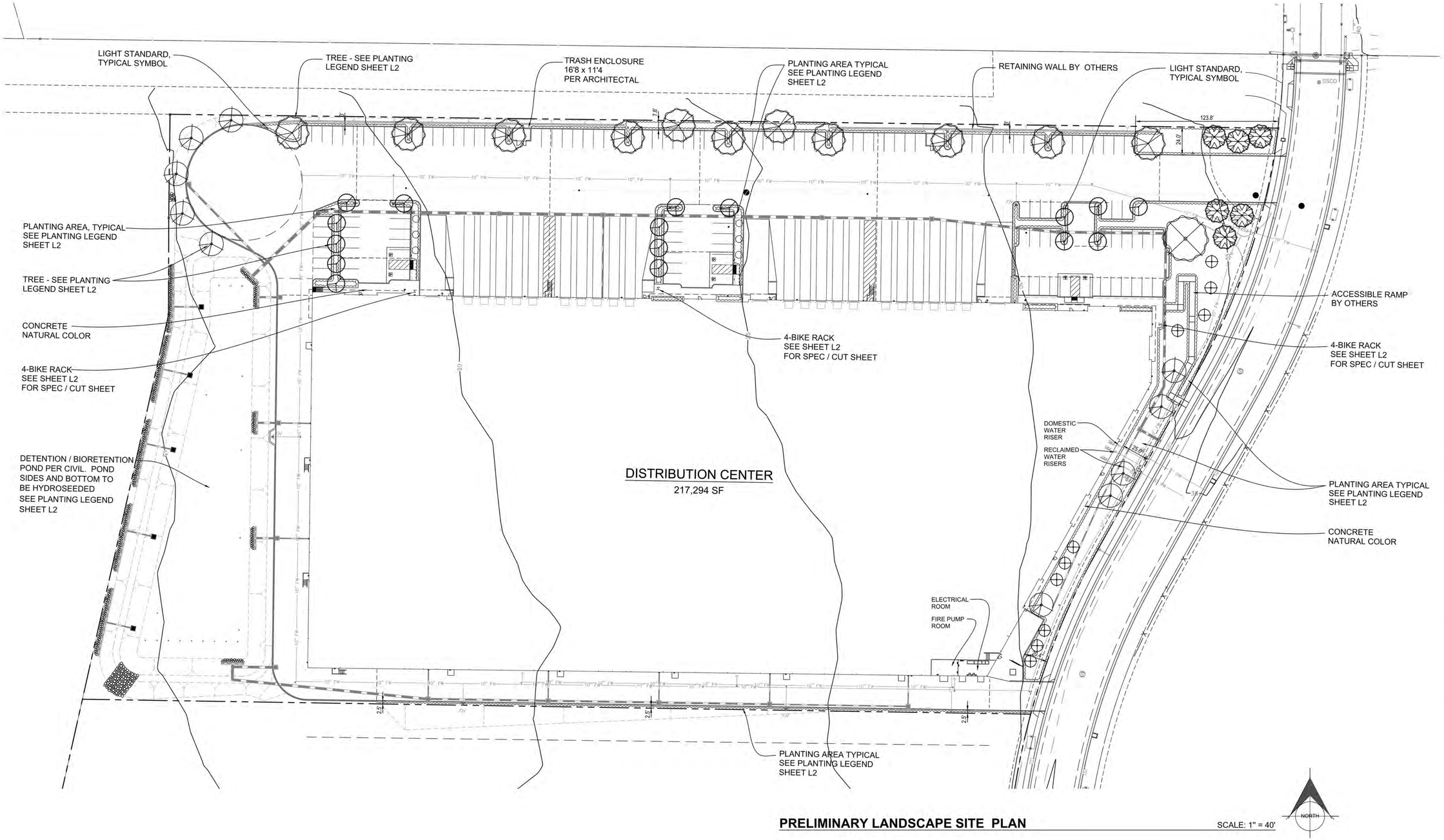

PRELIMINARY LANDSCAPE SITE PLAN

SCALE: 1" = 40'

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400 SF	100	%
BUILDING AREA	217,294 SF	48	%
NON PERMEABLE	151,768 SF	33.6	%
LANDSCAPE	62,401 SF	13.8	%
NATIVE/UNDISTURBED	20,937 SF	4.6	%

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PRELIMINARY LANDSCAPE SITE PLAN

DATE: January 20, 2020

REVISION: June 9, 2020

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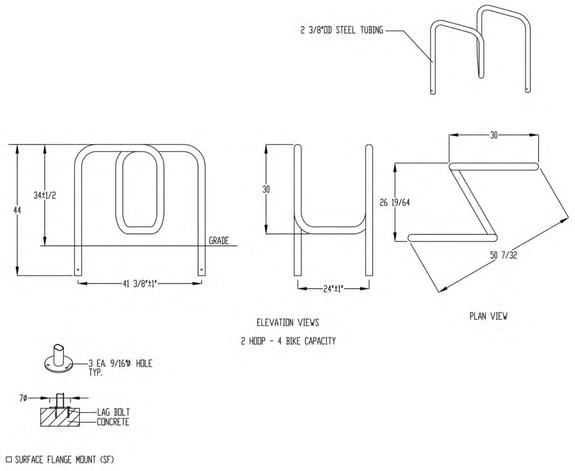



GENESIS BIKE RACK - GNS-4-SF
4 BIKE, SURFACE MOUNT
POWDER COAT FINISH - CUSTOM COLOR TBS
RAL COLOR TO MATCH BLDG ACCENT COLOR
MANUF. MADRAX 1-800-448-7931

FOUR BIKE - BIKE RACK BY MADRAX N.T.S.

Hydroseed Mix (non irrigated) by Pacific Coast Seed
Tracy, CA 925-373-4417 www.pcseed.com

POND **Streambank Retention Basin Mix – Robust**

Lbs./Acre	Species / Common Name – 38.25 lbs per acre
13	Carex barbarea, Santa Barbara Sedge
16	Leymus triticoides, Yolo Creeping Wildrye
4.5	Festuca rubra, Molate Fescue
1.5	Juncus effusus, Pacific Rush
1	Juncus patens, Blue Rush
.25	Artemisia douglasiana, Mugwort
2	Carex divulsa, Berkeley Sedge

PLANT LEGEND

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
	ARBUTUS 'MARINA'- MULTI & STD.	NCN	15 GAL	6
	CERCIS OCCIDENTALIS - MULTI	WESTERN RED BUD	15 GAL	10
	LAGERSTROEMIA I. 'MUSKOGEE' STD.	CRAPE MYRTLE	15 GAL	16
	LAURUS N. 'SARATOGA'	SWEET BAY	15 GAL	10
	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	15 GAL	11
	QUERCUS AGRIFOLIA- STD.	COAST LIVE OAK	15 GAL	1

SHRUBS/PERENNIALS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	ABELIA X GRANDIFLORA' CONFETTI'	VARIEGATED GLOSSY ABELIA	1 GAL	4' O.C.
	ABELIA X GRANDIFLORA' KALEIDOSCOPE'	VARIEGATED GLOSSY ABELIA	1 GAL	4' O.C.
	ARCTOSTAPHYLOS D. 'HOWARD MCMINN'	VINE HILL MANZANITA	5 GAL	7' O.C.
	CARPENTERIA C. 'ELIZABETH'	BUSH ANEMONE	5 GAL	4' O.C.
	CEANOTHUS 'CONCHA'	CALIFORNIA WILD LILAC	5 GAL	6' O.C.
	CEANOTHUS T. 'EL DORADO'	CALIFORNIA WILD LILAC	5 GAL	8' O.C.
	COLEONEMA P. 'SUNSET GOLD'	PINK BREATH OF HEAVEN	1 GAL	5' O.C.
	COPROSMA 'PINA COLADA'	PINA COLADA MIRROR PLANT	1 GAL	4' O.C.
	COPROSMA 'PLUM HUSSEY'	PLUM HUSSEY MIRROR PLANT	1 GAL	4' O.C.
	COPROSMA 'TEQUILA SUNRISE'	TEQUILA SUNRISE MIRROR PLANT	5 GAL	4' O.C.
	CORREA P. 'PINK FLAMINGO'	AUSTRALIAN FUCHSIA	1 GAL	3' O.C.
	CORREA 'WYN'S WONDER'	AUSTRALIAN FUCHSIA	1 GAL	5' O.C.
	DENDROMECON HARFORDII	CHANNEL ISLAND BUSH POPPY	5 GAL	8' O.C.
	EUONYMUS J. 'GREEN SPIRE'	GREEN SPIRE EUONYMUS	5 GAL	2' O.C.
	GREVILLEA L. 'MT. TAMBORITHA'	WOOLLY GREVILLEA	1 GAL	4' O.C.
	HETEROMELES A. 'DAVIS GOLD'	DAVIS GOLD TOYON	5 GAL	8' O.C.
	HEUCHERA 'SILVER SCROLLS'	CORAL BELLS	1 GAL	18" O.C.
	JUNIPERUS S. 'BLUE ARROW'	BLUE ARROW JUNIPER	15 GAL	2' O.C.
	LAVATERA THURINGIACA 'BARNSLEY'	TREE MALLOW	1 GAL	6' O.C.
	LAVATERA THURINGIACA 'RED RUM'	TREE MALLOW	1 GAL	4' O.C.
	PHLOMIS FRUTICOSA	JERUSALEM SAGE	5 GAL	5' O.C.
	PHORMIUM 'CAROUSEL'	PHORMIUM HYBRID	1 GAL	3' O.C.
	PHORMIUM C. 'CREAM DELIGHT'	MOUNTAIN FLAX	5 GAL	6' O.C.
	PHORMIUM 'FIREBIRD'	NEW ZEALAND FLAX	5 GAL	4' O.C.
	PHORMIUM 'MAORI CHIEF'	PHORMIUM HYBRID	5 GAL	6' O.C.
	PITT. T. 'TURNER'S VARIEGATED DWARF'	DWARF TOBIRA	1 GAL	3' O.C.
	PITTOSPORUM T. 'WHEELER'S DWARF'	DWARF TOBIRA	1 GAL	5' O.C.
	RHAMNUS A. 'VARIEGATA'	VARIEGATED ITALIAN BUCKTHORN	5 GAL	8' O.C.
	RHAMNUS C. 'EVE CASE'	EVE CASE COFFEEBERRY	5 GAL	6' O.C.
	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	30" O.C.
	TEUCRIUM F. 'AZUREUM'	AZURE BUSH GERMANDER	5 GAL	5' O.C.
	TEUCRIUM F. 'COMPACTUM'	COMPACT BUSH GERMANDER	1 GAL	3' O.C.

GROUND COVERS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	CEANOTHUS G. H. 'YANKEE POINT'	CALIFORNIA WILD LILAC	1 GAL	10' O.C.
	COPROSMA X KIRKII 'VARIEGATA'	NCN	1 GAL	6' O.C.
	MYOPORUM PARVIFOLIUM RED LEAF FORM	NCN	1 GAL	10'O.C.

GRASSES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	CALAMAGROTIS A. 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL	3' O.C.
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	30" O.C.
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL	3' O.C.
	FESTUCA G. 'SISKIYOU BLUE'	BLUE FESCUE	1 GAL	3' O.C.
	LOMANDRA L. 'PLATINUM BEAUTY'	VARIEGATED DWARF MAT RUSH	1 GAL	3' O.C.
	LOMANDRA L. 'BREEZE'	DWARF MAT RUSH	1 GAL	3' O.C.
	MISCANTHUS S. 'MORNING LIGHT'	EULALIA	1 GAL	4' O.C.
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	5' O.C.
	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	1 GAL	2' O.C.
	SPOROBOLUS AIROIDES	ALKALI SACATON	1 GAL	3' O.C.

OTHER

NCN - NO COMMON NAME
O.C. - ON CENTER
NOTES:
ALL LANDSCAPE AREAS TO HAVE 2" DEPTH MEDIUM FIR BARK MULCH.

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Napa, California 94558
Phone 707 320 4030

Owner:

SDG Commerce 217, LLC
413 W. Yosemite, Suite 105
Madera, CA 93637
559 674 0906

Project:

SDG Commerce 217
Distribution Center
1075 Commerce Court
American Canyon, CA

APN 058 030 065 000

Contractor:

Industrial and Commercial Contractors, LP
413 W. Yosemite, Suite 105
Madera, CA 93637

Sheet:

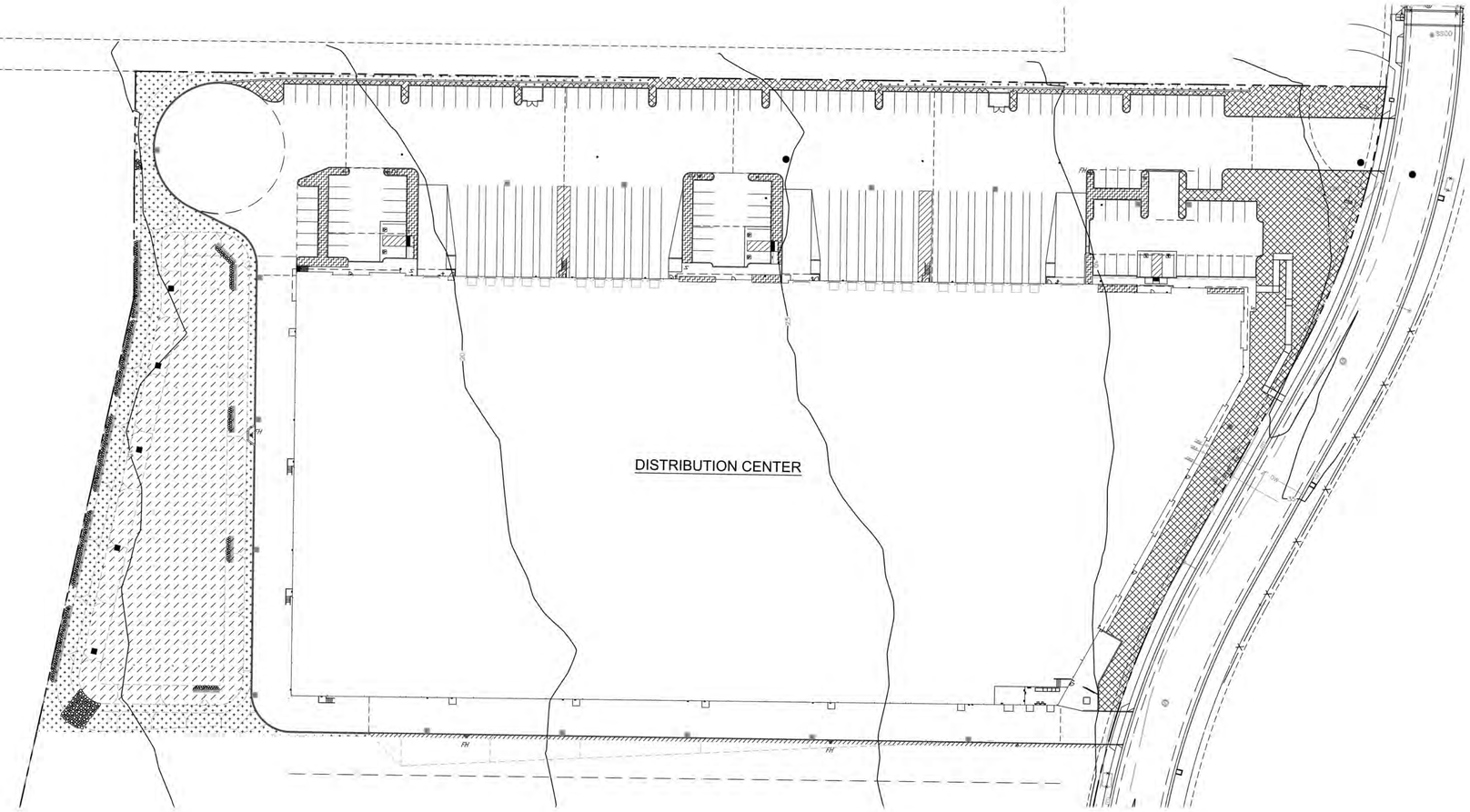
PLANT LEGEND

DATE: January 20, 2020

REVISION:
June 9, 2020

ARCHITECTS STAMP: SHEET:

L2



HYDROZONE KEY PLAN SCALE: 1" = 50'

LEGEND

SYMBOL	HYDROZONE	LANDSCAPE TYPE	IRRIGATION	PLANT FACTOR	WATER USAGE	AREA
	ZONE 1	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	6,587 SF
	ZONE 2	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	3,990 SF
	ZONE 3	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	1,418 SF
	ZONE 4	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	16,640 SF
	NON HYDROZONE					
	ZONE 5	NONE	NON IRRIGATED	NONE	NONE	20,937 SF
	ZONE 6	HYDROSEED AT POND	NON IRRIGATED	NONE	NONE	33,766 SF
	SEE ZONES 1 THRU 4	TREES	AUTOMATIC DRIP	N/A	N/A	N/A

WATER USAGE CALCULATION

MAXIMUM APPLIED WATER ALLOWANCE (MAWA):
45.8 x 0.62 x [(0.7 x 28,635 SF) + (0.3 x 28,635 SF)] = 813,119.5 GAL/YEAR

ESTIMATED TOTAL WATER USAGE (ETWU):
45.8 x 0.62 x [(10,922.25/.71)+10,022.25] = 685,425.5 GAL/YEAR

ETWU 685,425.5 GPY LESS THAN MAWA 813,119.5 GPY - IRRIGATION COMPLIES

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,588 SF	100 %
BUILDING AREA	217,294 SF	48 %
NON PERMEABLE	151,768 SF	33.6 %
LANDSCAPE	62,401 SF	13.8 %
NATIVE/UNDISTURBED	20,937 SF	4.6 %

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Sheet:

HYDROZONE PLAN
HYDROZONE LEGEND

DATE: January 20, 2020

REVISION:
June 9, 2020

ARCHITECTS STAMP: SHEET:

L3

Attachment 2, Exhibit B: Architecture and Landscaping

2877

Preliminary Drawing Submission for:

SDG Commerce 217 Distribution Center

1075 Commerce Court
American Canyon, CA 94503
APN 058-030-065

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
AC	ACOUSTICAL
AC	ASPHALT CONCRETE
A/C	AIR CONDITIONING
ADH	ADHESIVE
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FIN FLR
AGGR	AGGREGATE
AL	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
@	AT
BBD	BACKERBOARD
BD	BOARD
BEL	BELOW
BTWN	BETWEEN
BL	BUILDING LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM, BENCH MARK
BO	BOTTOM OF
BOTT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BRZ	BRONZE
BS	BACKSPLASH
BUR	BUILT-UP ROOF
BVL	BEVEL
BW	BOTH WAYS
C	COURSE
CABT	CABINET
CB	CATCH BASIN
CEM	CEMENT
CHAM	CHAMFER
CBD	CHALK BOARD
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CM	CONST MANAGER
CMU	CONC MASONRY BLOCK
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CPT	CARPET
CNSK	COUNTERSINK
CT	CERAMIC TILE
CY	CUBIC YARD
DTL	DETAIL
DF	DRINKING FOUNTAIN
DI	DRAIN INLET
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVIDER
DL	DEAD LOAD
DN	DOWN
DP	DEEP
DS	DOWNSPOUT
DWG	DRAWING
DWR	DRAWER
ENCL	ENCLOSURE
(E)	EXISTING
E	EAST
EA	EACH
EB	EXPANSION BOLT
EDF	ELEC DRINK FOUNTAIN
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR, ELEVATION

EQ	EQUAL
EQUIP	EQUIPMENT
ESMT	EASEMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION, EXPOSURE
EXT	EXTERIOR
EN	EDGE NAIL
FA	FIRE ALARM
FB	FACE BRICK
FBD	FIBERBOARD
FBGL	FIBERGLASS
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	F.E. CABINET
FF	FINISH FLOOR
FG	FIXED GLASS
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FL'G	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FACE OF
FOB	FACE OF BRICK, BLOCK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FPRF	FIREPROOF
FRP	FBGL REINF PANEL
FRTD	FIRETREATED
FS	FULL SCALE
FT	FOOT, FEET
FTG	FOOTING
FUR	FURRING
FURN	FURNISH(ING)
FUT	FUTURE
FN	FIELD NAIL
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GENERAL CONTRACTOR
GCMU	GLAZED CMU
GD	GRADE
GL	GLASS
GOVT	GOVERNMENT
GS	GALVANIZED STEEL
GYP	GYPSUM
H	HORIZONTAL
(H)	HANDICAP
HB	HOSE BIBB
HC	HOLLOWCORE
HDBD	HARDBOARD
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HR	HOUR
HFS	HALF FULL SCALE
HRU	HEAT RECOVERY UNIT
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDED
INST	INSTALL
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IP	IRON PIPE
JST	JOIST
JT	JOINT
KD	KNOCKDOWN
L	LENGTH
LAM	LAMINATE
LAV	LAVATORY
LB	LAG BOLT

LF	LINEAL FOOT
LKR	LOCKER
LL	LIVELOAD
LVR	LOUVER
LTWT	LIGHTWEIGHT
MACH	MACHINE
MAT	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
ML	METAL LATH
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MT	METAL THRESHOLD
MTD	MOUNTED
MUL	MULLION
(N)	NEW
N	NORTH
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O/	OVER
OBS	OBSCURE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHANG
OPNG	OPENING
OPP	OPPOSITE
PBD	PARTICLEBOARD
PCC	PRECAST CONCRETE
PCPL	PORTLAND CEM PLAS
/	PER
PERF	PERFORATED
PF	PREFABRICATED
PFIN	PREFINISHED
PJF	PREFORMED JOINT FILLER
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PM	PRESSED METAL
PNL	PANEL
PNT	PAINT
POL	POLISH
PSI	POUNDS / SQUARE INCH
PRF	PREFORMED
PROP	PROPERTY
PT	POINT
PT	PRESSURE TREATED
PTN	PARTITION
PVC	POLY VINYL CHLORIDE
PVMT	PAVEMENT
PWD	PLYWOOD
QT	QUARRY TILE
R	RISER
RA	RETURN AIR GRILL
RB	RESILIENT BASE
RCP	REINFORCED CONC PIPE
RD	ROOF DRAIN
REF	REFRIGERATER
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RF	RESILIENT FLOOR
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY

RT	RESILIENT TILE
RWD	REDWOOD
RWL	RAINWATER LEADER
S	SOUTH
SA	SUPPLY AIR GRILL
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT
SH	SHELVE
SHT	SHEET
SIM	SIMILAR
SJ	STEEL JOIST
SK	SINK
SLNT	SEALANT
SMS	SHEET METAL SCREW
SP	STRUCTURAL PLYWOOD
SPEC	SPECIFICATION
SQ	SQUARE
S&R	SHELF & ROD(OR POLE)
SS	SERVICE SK, STNLESS STL
STD	STANDARD
STL	STEEL
STN	STAIN
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
T & TR	TREAD
TA	TOILET ACCESSORY
T&B	TOP & BOTTOM
TBD	TACKBOARD
TEL	TELEPHONE
TEMP	TEMPERATURE
TG	TEMPERED GLASS
THOLD	THRESHOLD
T&G	TONGUE & GROOVE
TH	THICK(NESS)
TLT	TOILET
TO	TOP OF
TOC	TOP OF CURB OR CONC
TOD	TOP OF DECK
TOJ	TOP OF JOIST
TOP	TOP OF PAVEMENT
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRTD	TREATED
TRZO	TERRAZZO
TTB	TEL TERMINAL BD
TYP	TYPICAL
UC	UNDERCUT
UL	UNDERWRITERS LAB
UR	URINAL
UON	UNLESS OTHERWISE NOTED
V	VERTICAL
VAR	VARIABLE
VAT	VINYL ASBESTOS TILE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VG	VERTICAL GRAIN
VWC	VINYL WALL COVERING
W	WEST
W/	WITH
WB	WOOD BASE
WD	WOOD
WDW	WINDOW
WG	WIRE GLASS
WH	WATER HEATER
WM	WOOD MOULDING
W/O	WITHOUT
WP	WEATHERPROOF
WPT	WORK POINT
WR	WATER RESISTANT
WS	WOOD SCREW
WNST	WAINSCOT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SYMBOLS

GRID LINE

MATCH LINE

DATUM POINT

REVISION

WINDOW TYPE

DOOR NUMBER

SECTION CUT

DETAIL CUT

SHEET INDEX

ARCHITECTURAL:

T1 TITLE SHEET
A1 SITE PLAN
A1.1 ENLARGED PARKING LOT PLANS
A1.2 TRASH ENCLOSURE & MONUMENT SIGN
A2 BUILDING FLOOR PLAN
A2.1 ROOF PLAN
A3 BUILDING ELEVATIONS
A3.1 PARTIAL BUILDING ELEVATIONS
A4 BUILDING SECTIONS

LANDSCAPE:

L1 LANDSCAPE SITE PLAN
L2 PLANT LEGEND
L3 WATER USAGE HYDROZONE PLAN

CIVIL:

UP1.0 COVER SHEET
UP2.0 PAVING AND LAYOUT PLAN
UP3.0 GRADING PLAN
UP3.1 SITE SECTIONS
UP4.0 UTILITY PLAN

ELECTRICAL:

E1.1 PHOTOMETRIC SITE PLAN

VICINITY MAP



PROJECT CONTACTS

OWNER
SDG COMMERCE 217, LLC
413 W. Yosemite, Suite 105
Madera, CA 93637
559 674 0906
Contact: Brian Doswald

GENERAL CONTRACTOR:
Industrial & Commercial Contractors, LP
413 W. Yosemite, Suite 105
Madera, CA 93637
559 674 0906
Contact: Brian Doswald

STRUCTURAL ENGINEER:
Vaziri Structural Engineering
905 4th Street
San Rafael, CA 94901
415 453 0733

CIVIL ENGINEER:
RSA+ Civil Engineers
1515 Fourth Street
Napa, CA 94559
707 252 3301

ELECTRICAL CONTRACTOR:
Bosley Electric Company
935 Arden Way
Sacramento, CA 95815
916 568 5180

GEOTECHNICAL ENGINEER:
Krazan & Associates, Inc.
4320 Orange Grove Avenue St E-F
Sacramento, CA 95841
916 564 2200

SCOPE OF WORK:

CONSTRUCT A NEW WINE STORAGE DISTRIBUTION CENTER ON AN APPROXIMATE 10.39 ACRE PARCEL ON COMMERCE COURT. THE DEVELOPMENT INCLUDES 21 LOADING DOCKS, 3 GRADE LEVEL OVERHEAD DOORS, AND PROVISIONS FOR FUTURE OFFICES SPACES. INTERIOR WILL INCLUDE WAREHOUSE LIGHTING AND REFRIGERATION.

THIS DEVELOPMENT INCLUDES WAIVER FOR A 60' YARD, CALIFORNIA BUILDING CODE SECTION 507, AT THE SOUTHERN PROPERTY LINE.

NOTES

1. CONTRACTOR SHALL UTILIZE A CONSTRUCTION WASTE MANAGEMENT PLAN (CWM) IN ACCORDANCE WITH CALGREEN SECTION 5.408, OF RECYCLING OR REUSE OF 65% OF NON HAZARDOUS DEMOLITION WASTE.
2. CONTRACTOR SHALL CONTROL POLLUTANTS DURING CONSTRUCTION IN ACCORDANCE WITH CALGREEN SECTION 5.504. PROVIDE PROTECTION TO DUCT OPENINGS AND MECHANICAL EQUIPMENT, COMPLY WITH AIR POLLUTION CONTROL MEASURES AND VOC LIMIT FOR ALL FINISH MATERIALS, ADHESIVES, SEALANTS AND CAULKS.
3. THE BUILDING SHALL BE EQUIPPED WITH AN ESFR FIRE SPRINKLER SYSTEM.
4. MONUMENT SIGN REQUIRES SEPARATE PERMIT.
5. RETAINING WALLS OVER 4 FEET IN HEIGHT REQUIRE A PERMIT.

PROJECT DATA

ADDRESS:	1075 Commerce Court
A.P.N.	058-030-065
ZONING:	REC
MAXIMUM HEIGHT PER ZONING:	35'
GROSS BUILDING AREA	217,294 SF
BUILDING CODE SUMMARY:	
BUILDING OCCUPANCY:	FUTURE B/F1/S1
BUILDING TYPE:	TYPE III-B, SPRINKLERED
STORIES: OCC: F1 GOVERNS	MAX STORIES 3, CBC TABLE 504.4
HEIGHT:	MAX HEIGHT 75', CBC TABLE 504.3
SPRINKLERED:	NEW ESFR TYPE
BUILDING CODES:	2019 CALIFORNIA BUILDING CODE 2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA MECHANICAL CODE 2019 CALIFORNIA ELECTRICAL CODE 2019 CAL GREEN BUILDING STANDARDS 2019 CAL ENERGY CODE

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400	SF	100 %
BUILDING AREA	217,294	SF	48 %
NON PERMEABLE	151,768	SF	33.6 %
LANDSCAPE	62,401	SF	13.8 %
NATIVE/UNDISTURBED	20,937	SF	4.6 %

BUILDING BREAKDOWN:

GROSS BUILDING	217,294	SF
DISTRIBUTION CENTER	216,563	SF
ELECTRICAL ROOM	406	SF
FIRE PUMP ROOM	325	SF

SETBACKS: ACMC, TABLE 19.15.030

	BUILDING	LANDSCAPE
STREET	15'	15'
SIDE YARD	35'	N/A
REAR YARD	35'	N/A

PARKING ANALYSIS:

OFFICE at 2% (ESTIMATE) = 4,500 / 300 =	15
WAREHOUSE @ FIRST 20,000 SF at 1/1000 =	20
WAREHOUSE @ 192,794 SF at 1/2000 =	96
TOTAL PARKING REQUIRED:	131
TOTAL PARKING PROVIDED =	134

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559 674 0906

Project:

SDG Commerce 217 Distribution Center
1075 Commerce Court
American Canyon, CA 94503

APN 058 030 065 000

Contractor:

Industrial and Commercial Contractors, LP
413 W. Yosemite, Suite 105
Madera, CA 93637

Sheet:

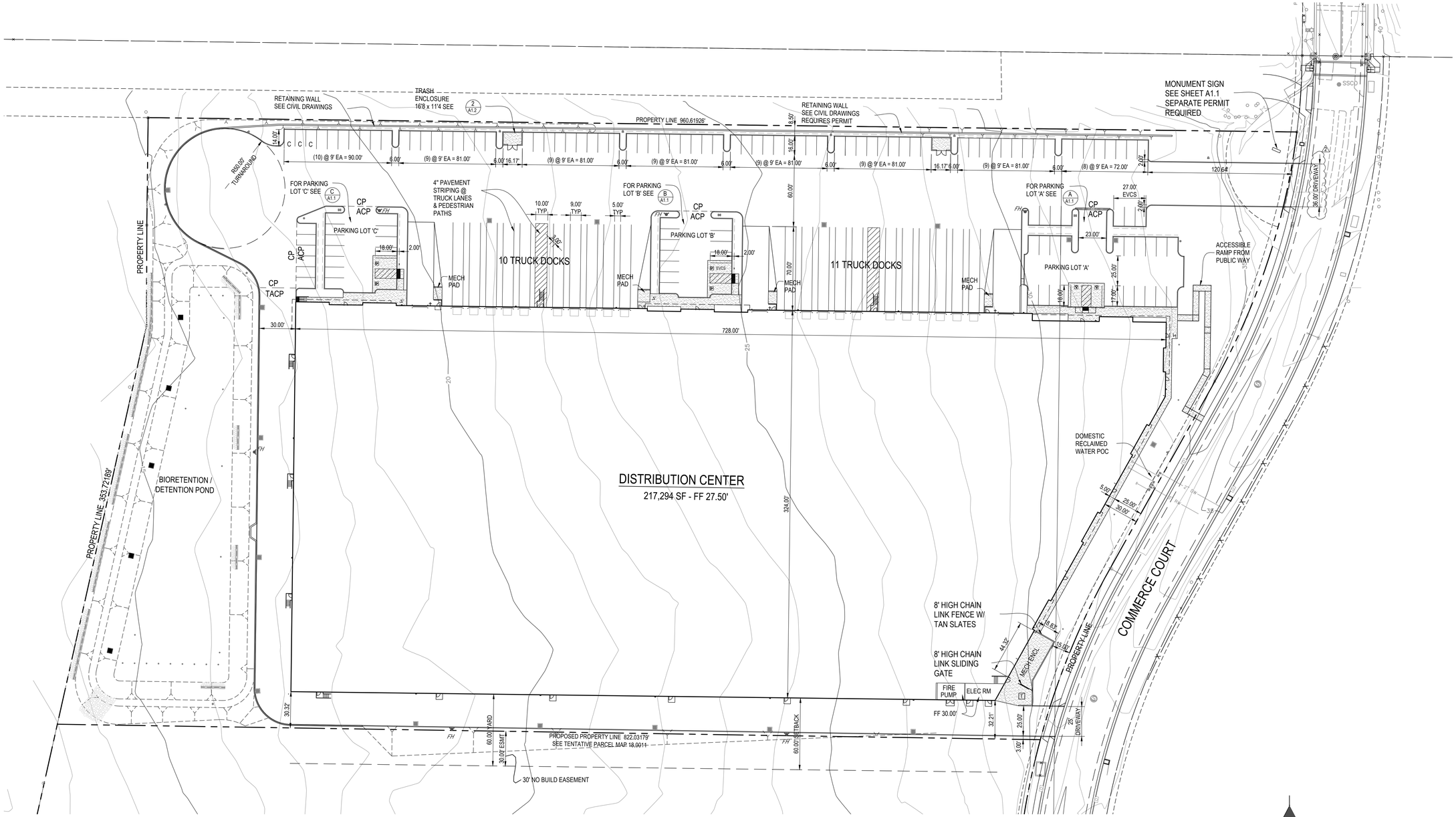
TITLE SHEET

DATE: January 20, 2020

REVISION:
June 9, 2020

ARCHITECTS STAMP: SHEET:

T1



PRELIMINARY SITE PLAN

SCALE: 1" = 40'

LEGEND:

- LIGHT STANDARD 30' HIGH SEE ELECTRICAL
- FIRE HYDRANT SEE CIVIL
- CONCRETE
- ACP — AUTO ASPHALT PAVING SEE CIVIL
- TACP — TRUCK ASPHALT PAVING SEE CIVIL
- CP — CONCRETE PAVING SEE CIVIL
- 4" YELLOW PAINTED LINES @ 3' O.C.
- C — DENOTES COMPACT PARKING STALL SEE ALSO SHEET A1.1

PARKING COUNT:

6	ACCESSIBLE STALLS (5) REQ'D
125	REGULAR STALLS
3	COMPACT STALLS = 0%
134	TOTAL PARKING

ELECTRIC VEHICLE CHARGING STATIONS: (EVCS)

1	VAN ACCESSIBLE - PARKING LOT 'B'
3	STANDARD - PARKING LOT 'A'

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400 SF	100	%
BUILDING AREA	217,294 SF	48	%
NON PERMEABLE	151,768 SF	33.6	%
LANDSCAPE	62,401 SF	13.8	%
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Sheet:

PRELIMINARY SITE PLAN

DATE: January 20, 2020

REVISION:
- 1 June 9, 2020
- 2 September 21, 2020

ARCHITECTS STAMP: SHEET:

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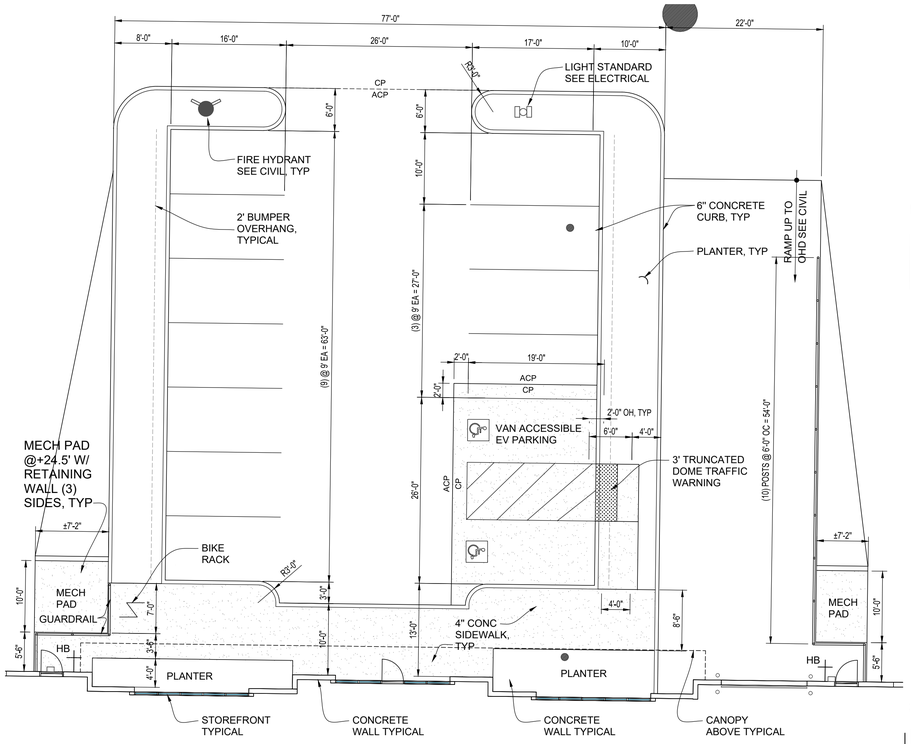
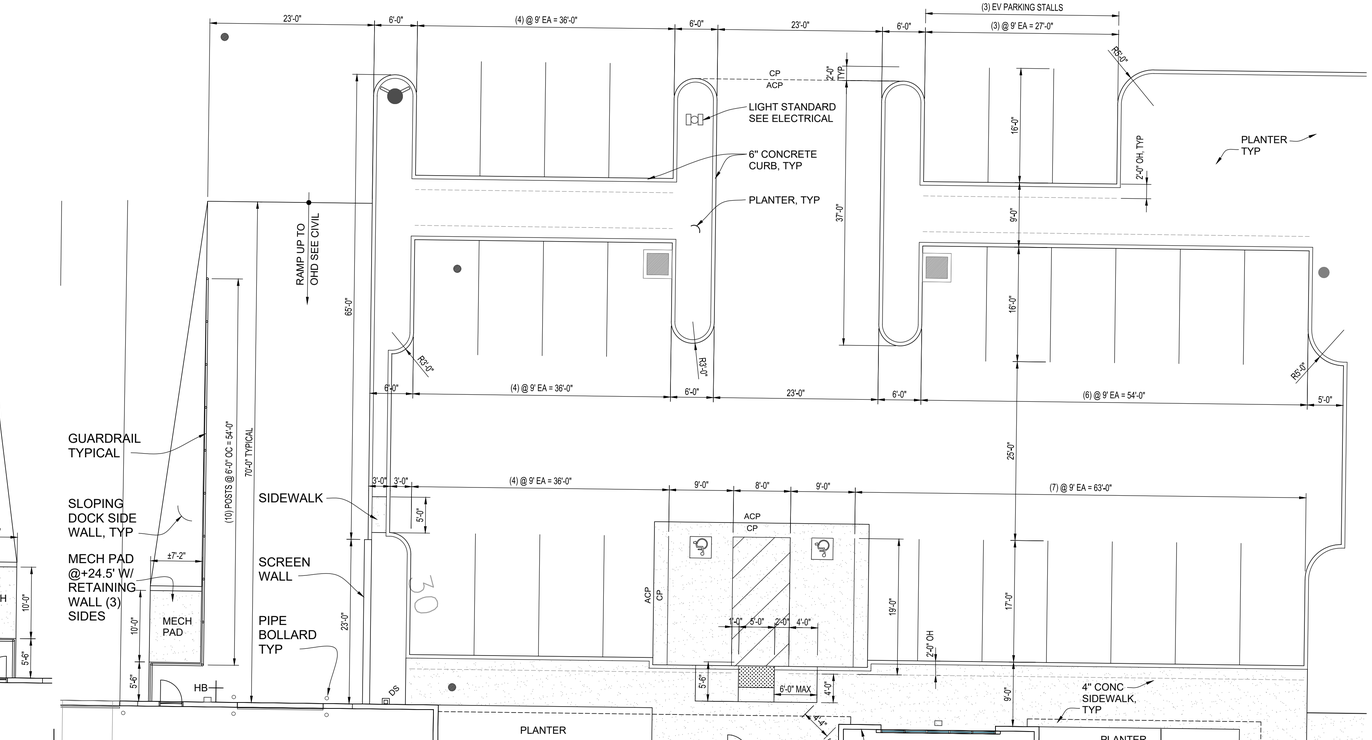
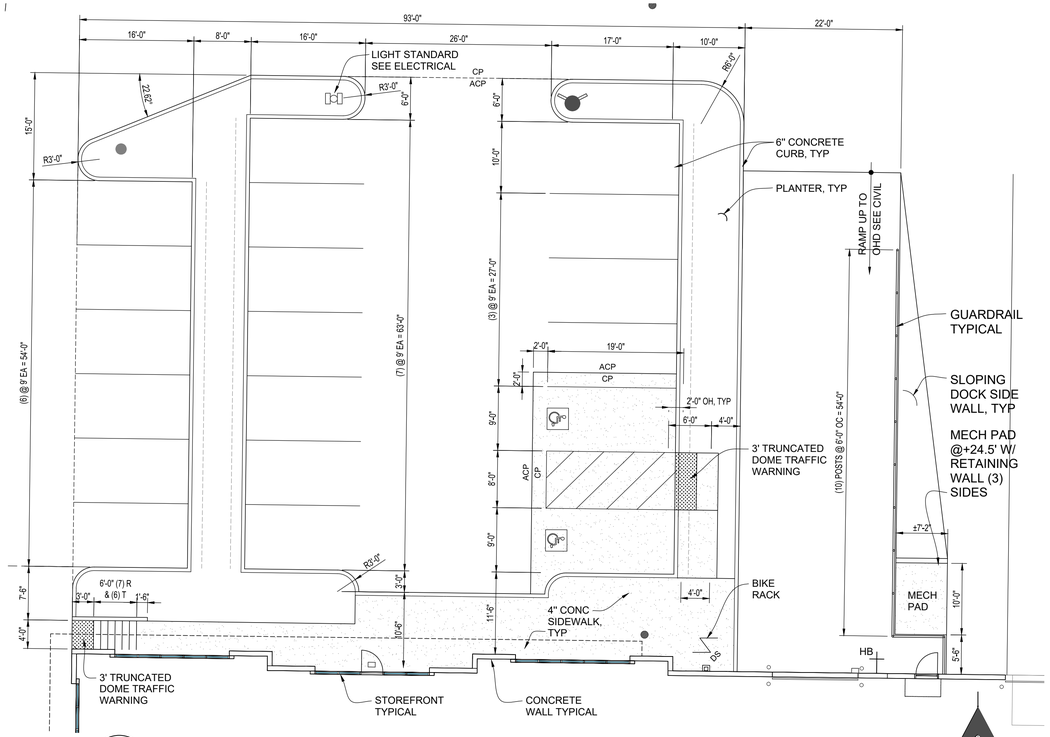


B **PARKING LOT 'B'** SCALE: 1" = 10'



A **PARKING LOT 'A'** SCALE: 1" = 10'



C **PARKING LOT 'C'** SCALE: 1" = 10'

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Sheet:

PARKING LOT PLANS

DATE: January 20, 2020

REVISION: June 9, 2020

ARCHITECTS STAMP: SHEET:

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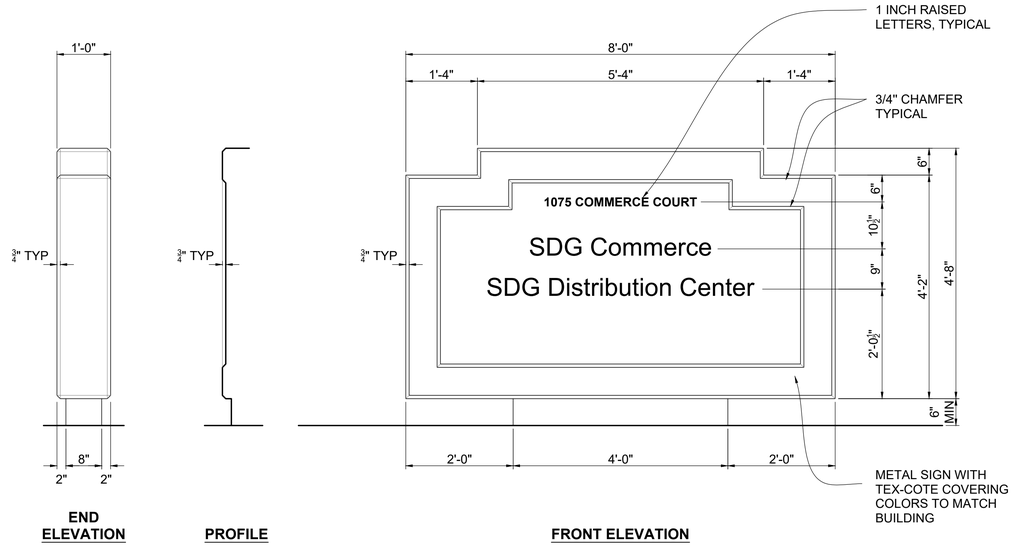
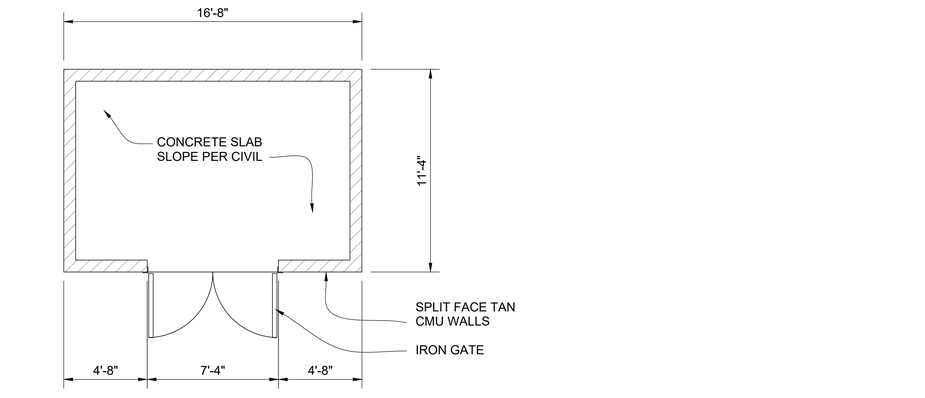


1 MONUMENT SIGN SEPARATE PERMIT REQUIRED

3/4" = 1'-0"



2 TRASH ENCLOSURE

SCALE: 1/4" = 1'-0"

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Phone 707 320 4030

Owner:

SDG Commerce 217, LLC
413 W. Yosemite, Suite 105
Madera, CA 93637
559 674 0906

Project:

SDG Commerce 217
Distribution Center
1075 Commerce Court
American Canyon, CA 94503

APN 058 030 065 000

Contractor:

Industrial and Commercial Contractors, LP
413 W. Yosemite, Suite 105
Madera, CA 93637

Sheet:

SITE DETAILS

DATE: January 20, 2020

REVISION:
June 9, 2020

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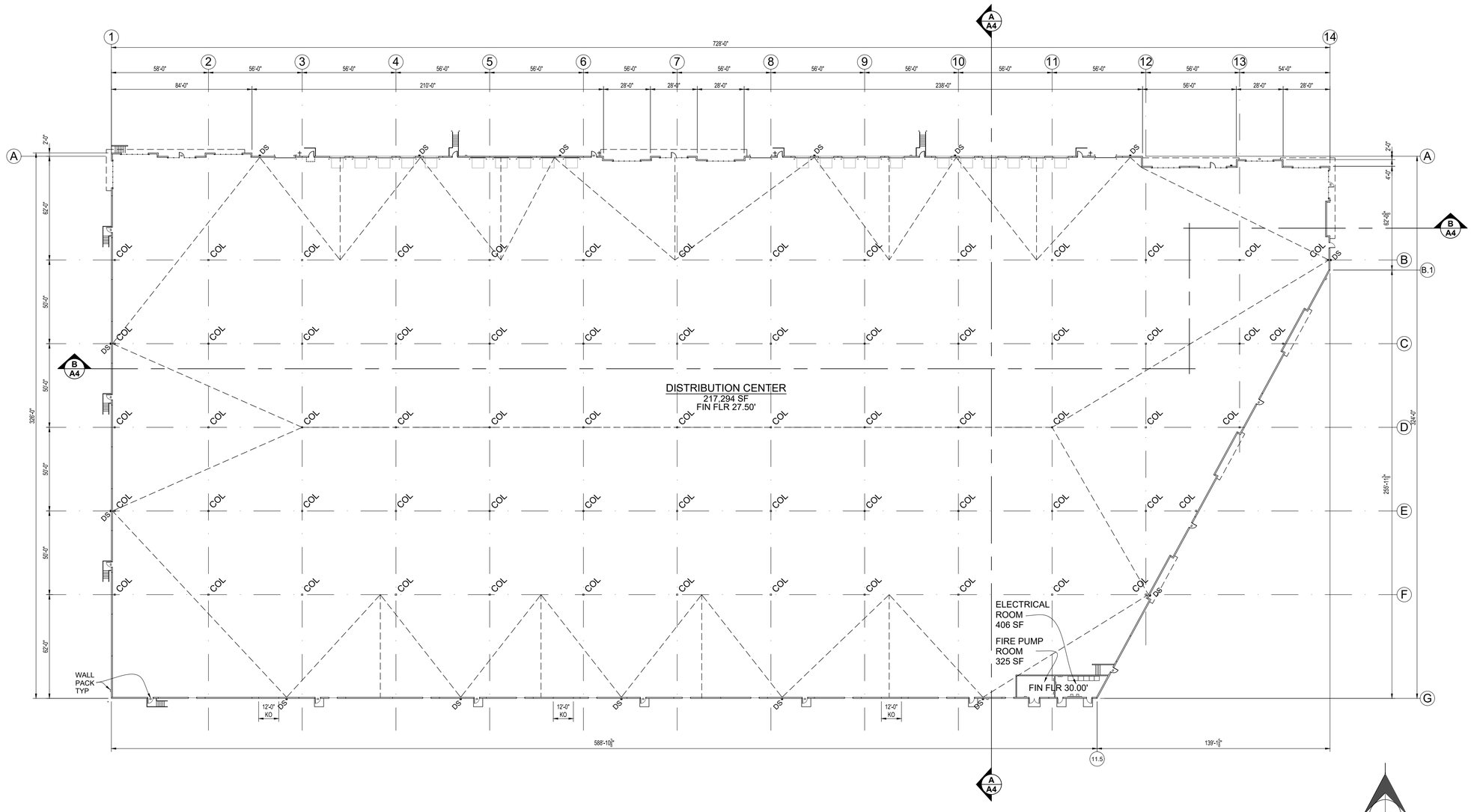

FLOOR PLAN

SCALE: 1/32"" = 1'-0"

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Sheet:

FLOOR PLAN

DATE: January 20, 2020

REVISION: June 9, 2020

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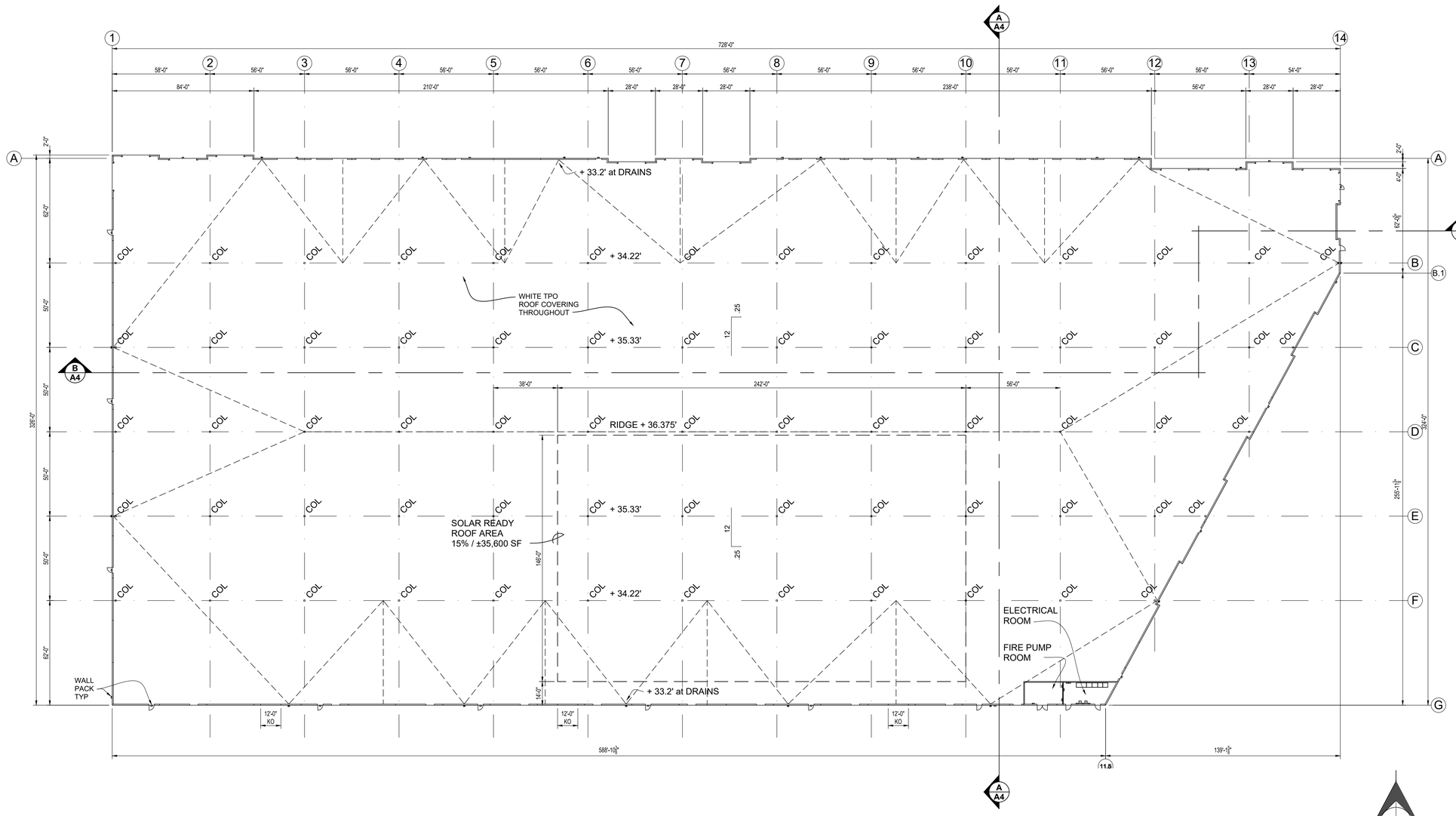

NOTE: TOP OF ROOF ELEVATIONS ARE TO DRAINAGE POINTS.
DRAINAGE POINTS ARE AT TOP OF 5" RIGID INSULATION.

ROOF PLAN

SCALE: 1/32"" = 1'-0"

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ROOF PLAN

DATE: January 20, 2020

REVISION:
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ARCHITECTS STAMP: SHEET:

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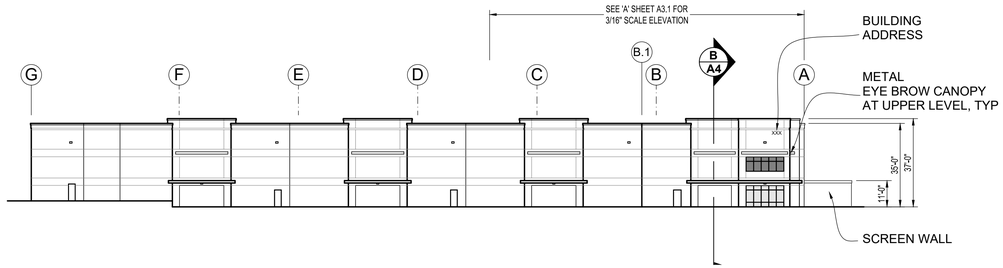
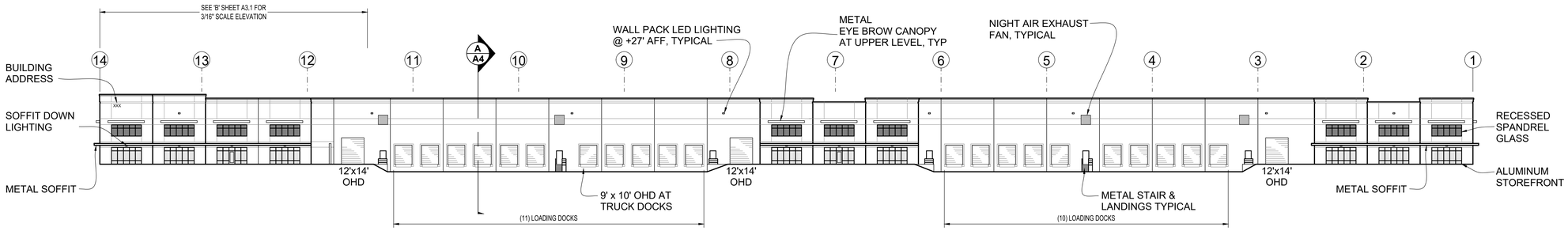


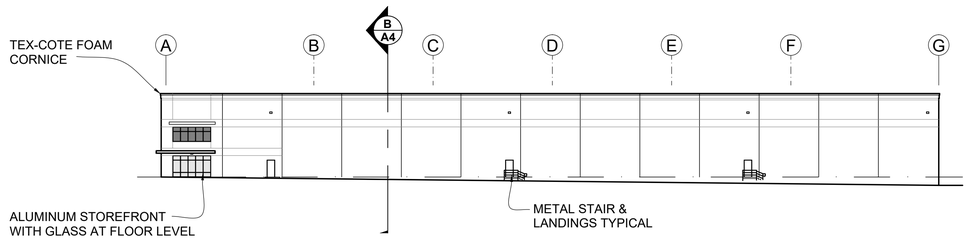
EAST ELEVATION

SCALE: 1" = 30'



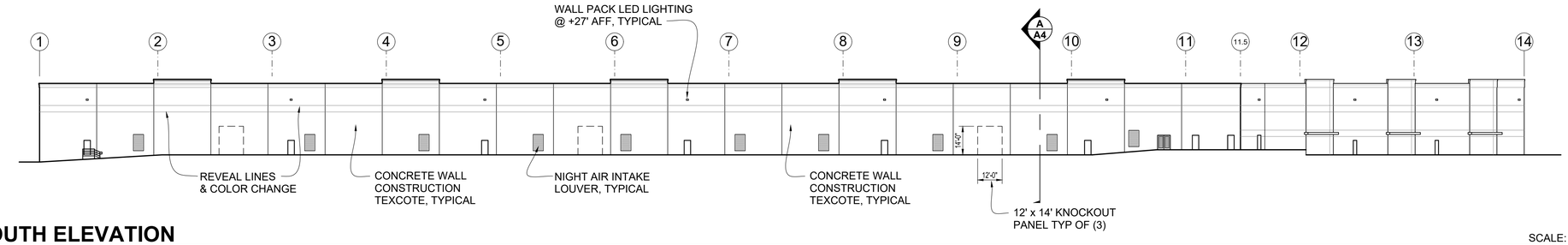
NORTH ELEVATION

SCALE: 1" = 30'



WEST ELEVATION

SCALE: 1" = 30'



SOUTH ELEVATION

SCALE: 1" = 30'

TEXCOTE / PAINT COLOR SCHEDULE:
Colors are Kelley Moore Paint Company

1. ACCENT COLOR #1
   Blue Damask
   KM4995
2. ACCENT COLOR #2
   Sacred Vortext
   KM4573
3. BODY COLOR #1
   Cobblestone Street
   KM4571
4. BODY COLOR #2
   Dry Dock
   KM4574

BUILDING HEIGHT
RIDGE + 36.375'
EAVE + 32.2'
AVERAGE ROOF HEIGHT +34.28'

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BUILDING ELEVATIONS

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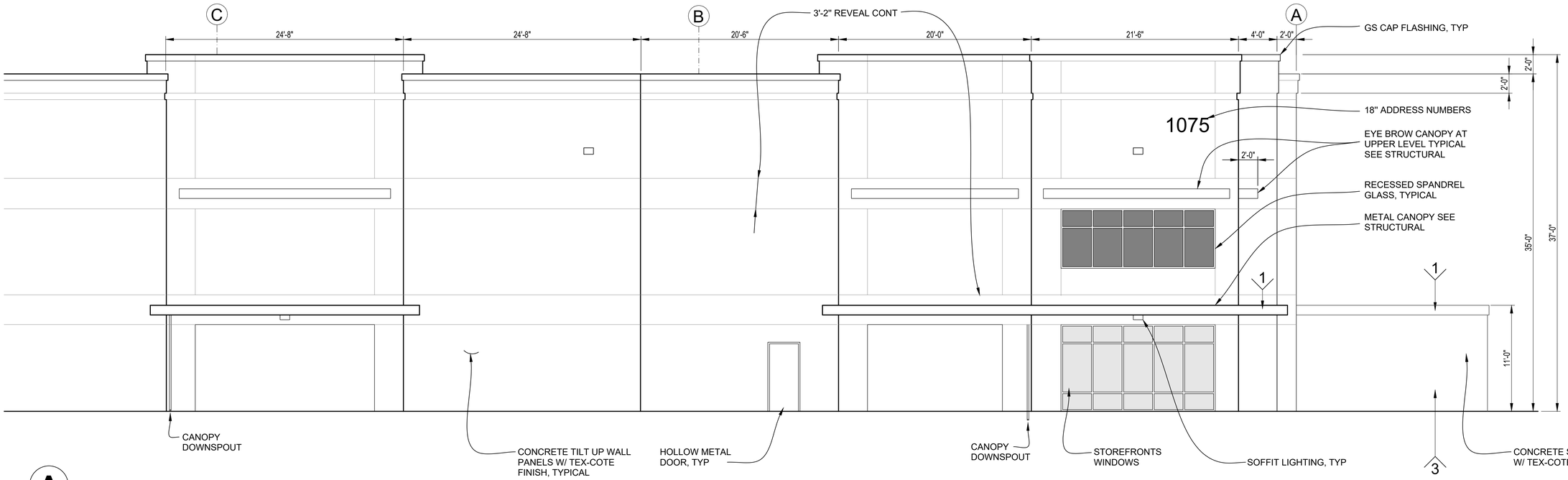
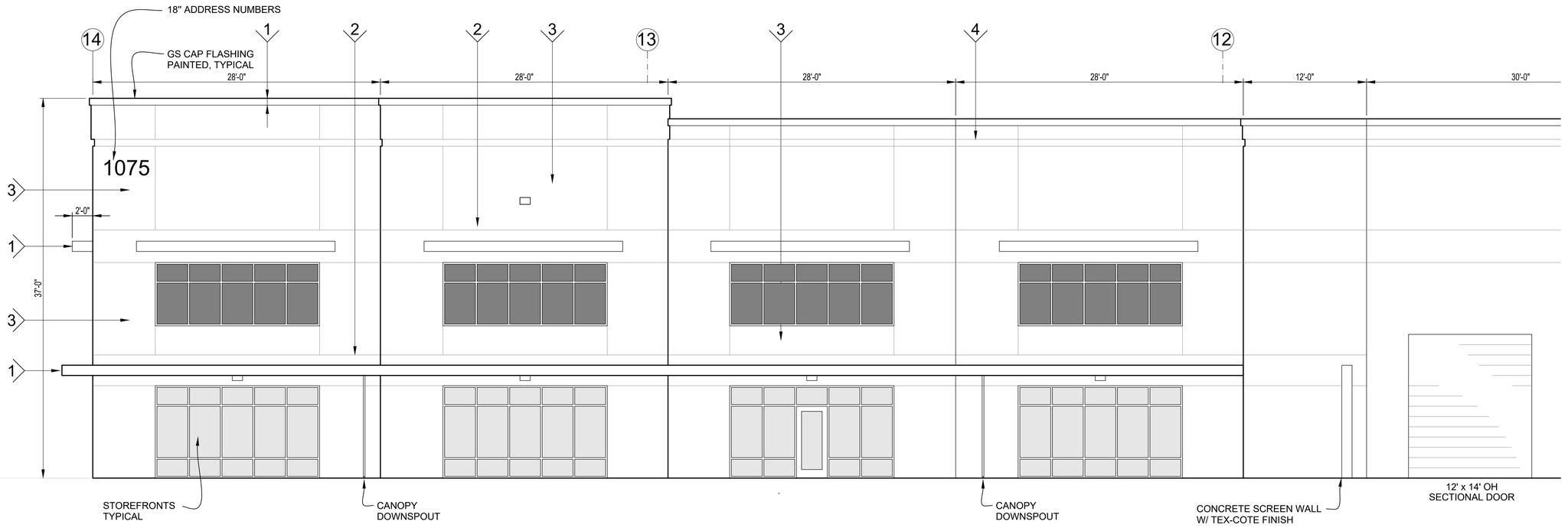


TEXCOTE / PAINT COLOR SCHEDULE:
Colors are Kelley Moore Paint Company

1. ACCENT COLOR #1
   Blue Damask
   KMA4995
2. ACCENT COLOR #2
   Sacred Vortex
   KM4573
3. BODY COLOR #1
   Cobblestone Street
   KM4571
4. BODY COLOR #2
   Dry Dock
   KM4574

A LINE '14' PANEL ELEVATIONS

SCALE: 3/16" = 1'-0"



B LINE 'A' PANEL ELEVATIONS

SCALE: 3/16" = 1'-0"

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Sheet:

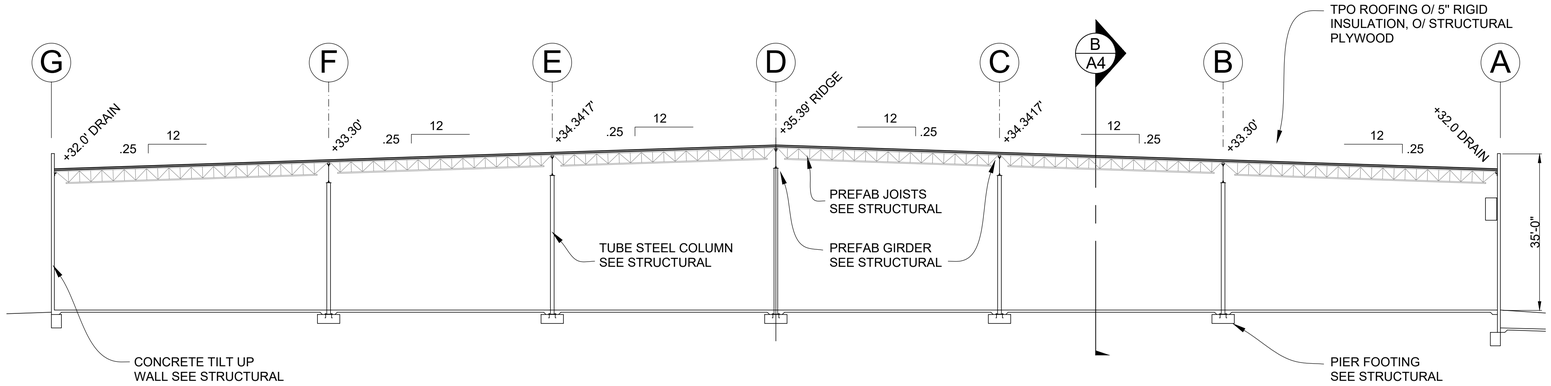
BUILDING ELEVATIONS

DATE: January 20, 2020

REVISION: June 9, 2020

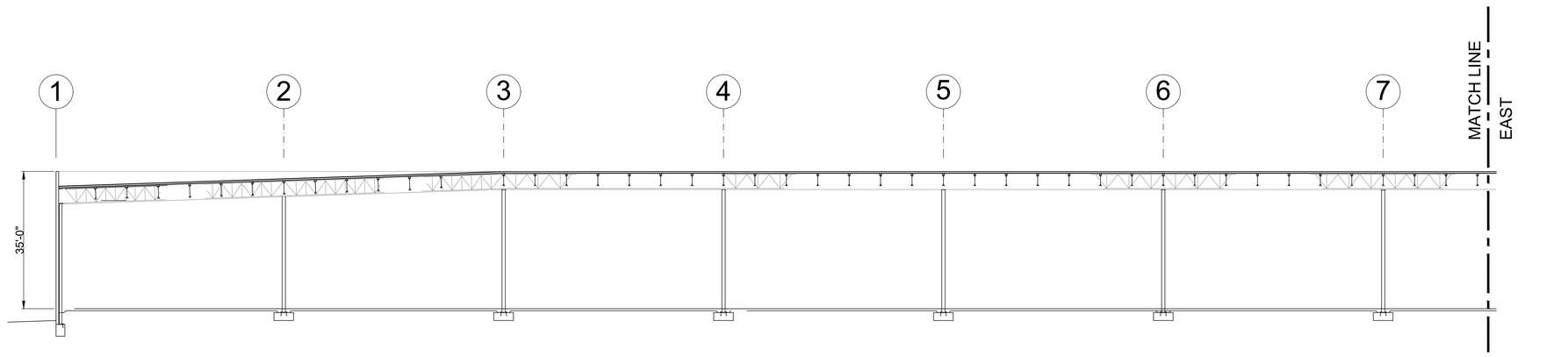
ARCHITECTS STAMP: SHEET:

A3.1



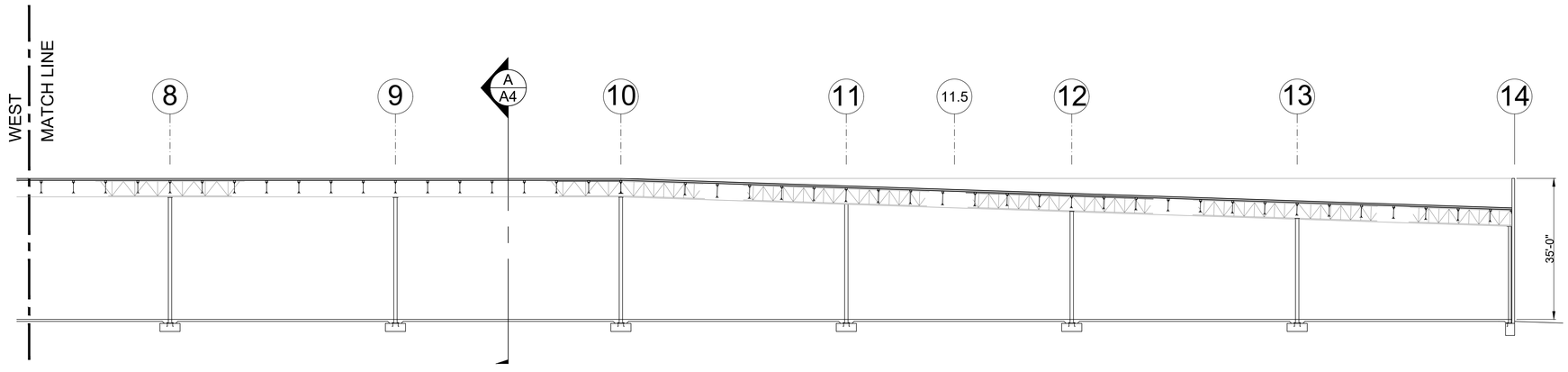
SECTION 'A'

SCALE: 1/16" = 1'-0"



SECTION 'B' - WEST

SCALE: 1/16" = 1'-0"



SECTION 'B' - EAST

SCALE: 1/16" = 1'-0"

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BUILDING SECTIONS

DATE: January 20, 2020

REVISION: June 9, 2020

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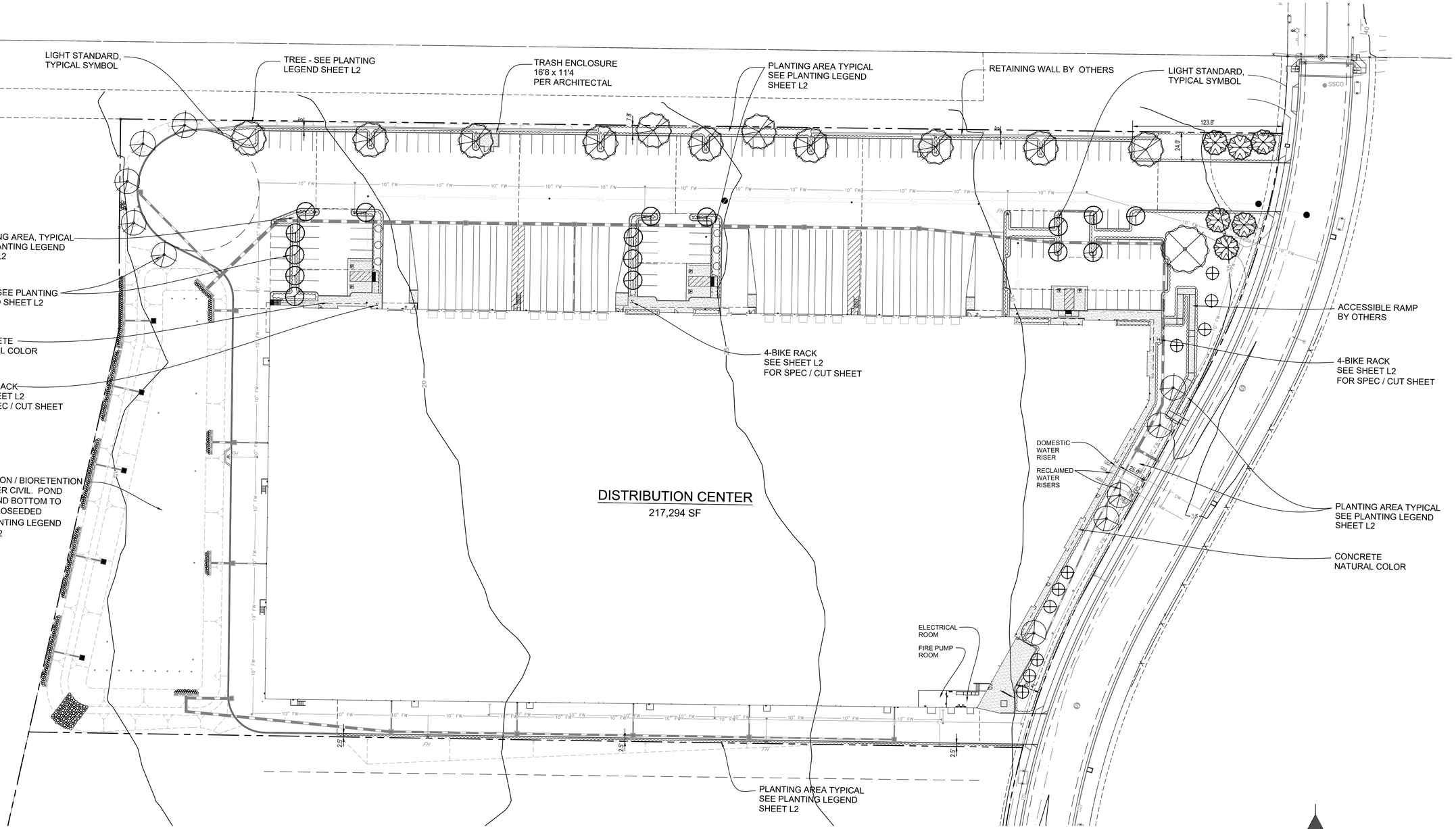
A4



PRELIMINARY LANDSCAPE SITE PLAN

SCALE: 1" = 40'

NORTH

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,400 SF	100	%
BUILDING AREA	217,294 SF	48	%
NON PERMEABLE	151,768 SF	33.6	%
LANDSCAPE	62,401 SF	13.8	%
NATIVE/UNDISTURBED	20,937 SF	4.6	%

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PRELIMINARY LANDSCAPE SITE PLAN

DATE: January 20, 2020

REVISION: June 9, 2020

ARCHITECTS STAMP: SHEET:

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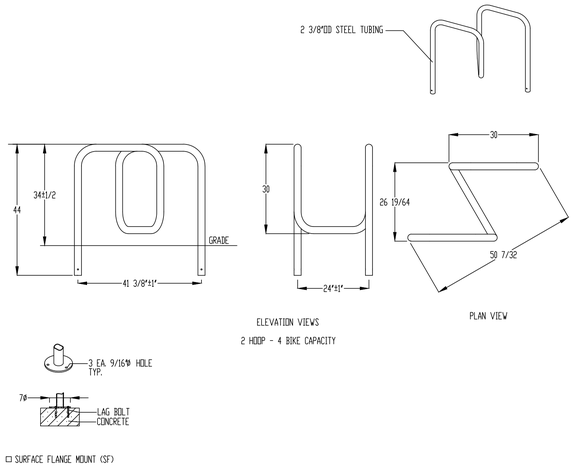



GENESIS BIKE RACK - GNS-4-SF
4 BIKE, SURFACE MOUNT
POWDER COAT FINISH - CUSTOM COLOR TBS
RAL COLOR TO MATCH BLDG ACCENT COLOR
MANUF. MADRAX 1-800-448-7931

FOUR BIKE - BIKE RACK BY MADRAX N.T.S.

Hydroseed Mix (non irrigated) by Pacific Coast Seed
Tracy, CA 925-373-4417 www.pcseed.com

POND **Streambank Retention Basin Mix – Robust**

Lbs./Acre	Species / Common Name – 38.25 lbs per acre
13	Carex barbarea, Santa Barbara Sedge
16	Leymus triticoides, Yolo Creeping Wildrye
4.5	Festuca rubra, Molate Fescue
1.5	Juncus effusus, Pacific Rush
1	Juncus patens, Blue Rush
.25	Artemisia douglasiana, Mugwort
2	Carex divulsa, Berkeley Sedge

PLANT LEGEND

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
	ARBUTUS 'MARINA'- MULTI & STD.	NCN	15 GAL	6
	CERCIS OCCIDENTALIS - MULTI	WESTERN RED BUD	15 GAL	10
	LAGERSTROEMIA I. 'MUSKOGEE' STD.	CRAPE MYRTLE	15 GAL	16
	LAURUS N. 'SARATOGA'	SWEET BAY	15 GAL	10
	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	15 GAL	11
	QUERCUS AGRIFOLIA- STD.	COAST LIVE OAK	15 GAL	1

SHRUBS/PERENNIALS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	ABELIA X GRANDIFLORA' CONFETTI'	VARIEGATED GLOSSY ABELIA	1 GAL	4' O.C.
	ABELIA X GRANDIFLORA' KALEIDOSCOPE'	VARIEGATED GLOSSY ABELIA	1 GAL	4' O.C.
	ARCTOSTAPHYLOS D. 'HOWARD MCMINN'	VINE HILL MANZANITA	5 GAL	7' O.C.
	CARPENTERIA C. 'ELIZABETH'	BUSH ANEMONE	5 GAL	4' O.C.
	CEANOTHUS 'CONCHA'	CALIFORNIA WILD LILAC	5 GAL	6' O.C.
	CEANOTHUS T. 'EL DORADO'	CALIFORNIA WILD LILAC	5 GAL	8' O.C.
	COLEONEMA P. 'SUNSET GOLD'	PINK BREATH OF HEAVEN	1 GAL	5' O.C.
	COPROSMA 'PINA COLADA'	PINA COLADA MIRROR PLANT	1 GAL	4' O.C.
	COPROSMA 'PLUM HUSSEY'	PLUM HUSSEY MIRROR PLANT	1 GAL	4' O.C.
	COPROSMA 'TEQUILA SUNRISE'	TEQUILA SUNRISE MIRROR PLANT	5 GAL	4' O.C.
	CORREA P. 'PINK FLAMINGO'	AUSTRALIAN FUCHSIA	1 GAL	3' O.C.
	CORREA 'WYN'S WONDER'	AUSTRALIAN FUCHSIA	1 GAL	5' O.C.
	DENDROMECON HARFORDII	CHANNEL ISLAND BUSH POPPY	5 GAL	8' O.C.
	EUONYMUS J. 'GREEN SPIRE'	GREEN SPIRE EUONYMUS	5 GAL	2' O.C.
	GREVILLEA L. 'MT. TAMBORITHA'	WOOLLY GREVILLEA	1 GAL	4' O.C.
	HETEROMELES A. 'DAVIS GOLD'	DAVIS GOLD TOYON	5 GAL	8' O.C.
	HEUCHERA 'SILVER SCROLLS'	CORAL BELLS	1 GAL	18" O.C.
	JUNIPERUS S. 'BLUE ARROW'	BLUE ARROW JUNIPER	15 GAL	2' O.C.
	LAVATERA THURINGIACA 'BARNSLEY'	TREE MALLOW	1 GAL	6' O.C.
	LAVATERA THURINGIACA 'RED RUM'	TREE MALLOW	1 GAL	4' O.C.
	PHLOMIS FRUTICOSA	JERUSALEM SAGE	5 GAL	5' O.C.
	PHORMIUM 'CAROUSEL'	PHORMIUM HYBRID	1 GAL	3' O.C.
	PHORMIUM C. 'CREAM DELIGHT'	MOUNTAIN FLAX	5 GAL	6' O.C.
	PHORMIUM 'FIREBIRD'	NEW ZEALAND FLAX	5 GAL	4' O.C.
	PHORMIUM 'MAORI CHIEF'	PHORMIUM HYBRID	5 GAL	6' O.C.
	PITT. T. 'TURNER'S VARIEGATED DWARF'	DWARF TOBIRA	1 GAL	3' O.C.
	PITTOSPORUM T. 'WHEELER'S DWARF'	DWARF TOBIRA	1 GAL	5' O.C.
	RHAMNUS A. 'VARIEGATA'	VARIEGATED ITALIAN BUCKTHORN	5 GAL	8' O.C.
	RHAMNUS C. 'EVE CASE'	EVE CASE COFFEEBERRY	5 GAL	6' O.C.
	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	30" O.C.
	TEUCRIUM F. 'AZUREUM'	AZURE BUSH GERMANDER	5 GAL	5' O.C.
	TEUCRIUM F. 'COMPACTUM'	COMPACT BUSH GERMANDER	1 GAL	3' O.C.

GROUND COVERS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	CEANOTHUS G. H. 'YANKEE POINT'	CALIFORNIA WILD LILAC	1 GAL	10' O.C.
	COPROSMA X KIRKII 'VARIEGATA'	NCN	1 GAL	6' O.C.
	MYOPORUM PARVIFOLIUM RED LEAF FORM	NCN	1 GAL	10'O.C.

GRASSES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	CALAMAGROTIS A. 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL	3' O.C.
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	30" O.C.
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL	3' O.C.
	FESTUCA G. 'SISKIYOU BLUE'	BLUE FESCUE	1 GAL	3' O.C.
	LOMANDRA L. 'PLATINUM BEAUTY'	VARIEGATED DWARF MAT RUSH	1 GAL	3' O.C.
	LOMANDRA L. 'BREEZE'	DWARF MAT RUSH	1 GAL	3' O.C.
	MISCANTHUS S. 'MORNING LIGHT'	EULALIA	1 GAL	4' O.C.
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	5' O.C.
	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	1 GAL	2' O.C.
	SPOROBOLUS AIROIDES	ALKALI SACATON	1 GAL	3' O.C.

OTHER

NCN - NO COMMON NAME
O.C. - ON CENTER
NOTES:
ALL LANDSCAPE AREAS TO HAVE 2" DEPTH MEDIUM FIR BARK MULCH.

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Sheet:
PLANT LEGEND

DATE: January 20, 2020
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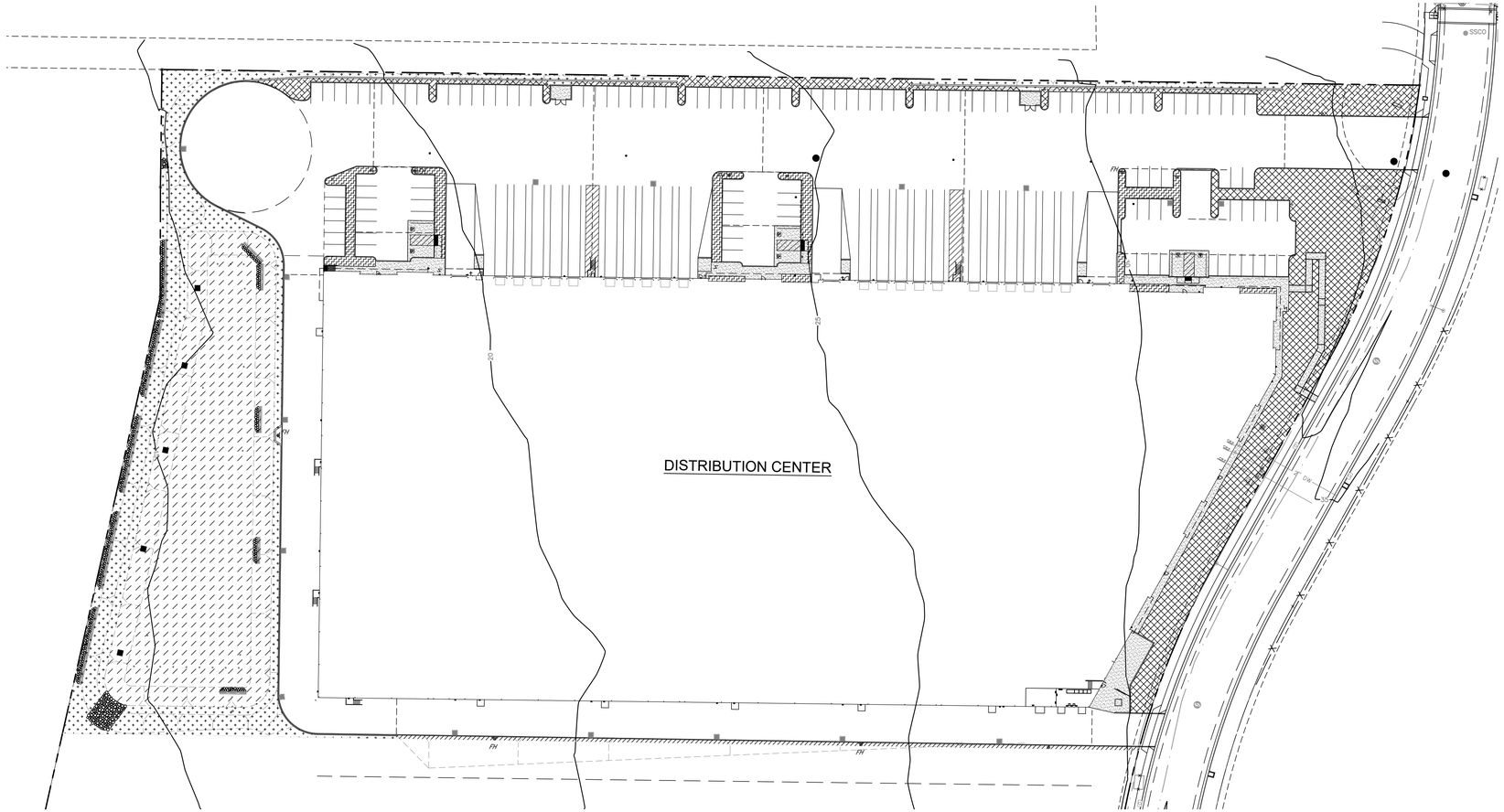

HYDROZONE KEY PLAN

SCALE: 1" = 50'

NORTH

LEGEND

SYMBOL	HYDROZONE	LANDSCAPE TYPE	IRRIGATION	PLANT FACTOR	WATER USAGE	AREA
	ZONE 1	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	6,587 SF
	ZONE 2	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	3,990 SF
	ZONE 3	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	1,418 SF
	ZONE 4	SHRUB GROUNDCOVER	AUTOMATIC DRIP	.35	MIXED	16,640 SF
	NON HYDROZONE					
	ZONE 5	NONE	NON IRRIGATED	NONE	NONE	20,937 SF
	ZONE 6	HYDROSEED AT POND	NON IRRIGATED	NONE	NONE	33,766 SF
	SEE ZONES 1 THRU 4	TREES	AUTOMATIC DRIP	N/A	N/A	N/A

WATER USAGE CALCULATION

MAXIMUM APPLIED WATER ALLOWANCE (MAWA):
45.8 x 0.62 x [(0.7 x 28,635 SF) + (0.3 x 28,635 SF)] = 813,119.5 GAL/YEAR

ESTIMATED TOTAL WATER USAGE (ETWU):
45.8 x 0.62 x [(10,922.25/.71)+10,022.25] = 685,425.5 GAL/YEAR

ETWU 685,425.5 GPY LESS THAN MAWA 813,119.5 GPY - IRRIGATION COMPLIES

SITE AREA BREAKDOWN:

GROSS SITE AREA	452,588 SF	100 %
BUILDING AREA	217,294 SF	48 %
NON PERMEABLE	151,768 SF	33.6 %
LANDSCAPE	62,401 SF	13.8 %
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APN 058 030 065 000

Contractor:

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Madera, CA 93637

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HYDROZONE PLAN
HYDROZONE LEGEND

DATE: January 20, 2020

REVISION:
June 9, 2020

ARCHITECTS STAMP: SHEET:

L3

ATTACHMENT 11

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Appeal
City of American Canyon
Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

For Office Use Only:
Date Received: _____ By: _____
Case Numbers: _____
_____
Approved: _____

Appeal Form *please print or type*

Project or application name: SDG Commerce 217 Distribution Center (PL20-0008)

Project or application address or APN(s): 1075 Commerce Court (Assessor Parcel Number 058-030-065)

Appellant name: LIUNA Local No. 324 Appellant address: 611 Berrellesa St

City, state, zip: Martinez, CA 94553 Phone no.: 510-836-4200 x. 1 Fax no.: _____

Bus License #: _____

Appellant representative: Michael Lozeau, Lozeau Drury LLP Representative address: 1939 Harrison Street, Suite 150

City, state, zip: Oakland, CA 94612 Phone no.: 510-836-4200 Fax no.: _____

Bus License #: _____

Type of appeal:

☐ Appeal of Staff administrative decision Date of decision: _____

☑ Appeal of Planning Commission decision Date of decision: February 25, 2021

Description of matter appealed:

☑ Approval of project or application

☐ Denial of project or application

☐ Conditions of project approval – number(s) _____

☐ Other _____

The grounds upon which this appeal is filed are (list all grounds relied upon in making this appeal; please attach additional sheets if more space is needed):

There is substantial evidence of fair arguments that the Project may have significant impacts from increases in vehicle miles travelled, significant wildlife impacts, air quality, GHG, and health risk impacts requiring the preparation of an EIR for the project. The MND also is not supported by substantial evidence. Each of these issues were raised in the comments submitted to the Planning Commission and attached hereto.

The specific action which the appellant wants the City Manager, Planning Commission or City Council to take is:

LIUNA requests the City Council rescind the approval of the project and its associated MND and require the preparation of a new MND that fully mitigates the Project's potential impacts or preparation of an EIR.

Appellant's Signature [redacted] Date: March 5, 2021

Representative's Signature [redacted] Date: March 5, 2021

Rev 05/17

ATTACHMENTS

LOZEAU DRURY LLP

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F 510.836.4205

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Oakland, CA 94612

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michael@lozeaudrury.com

Via Email

February 25, 2021

Tyrone Navarro, Chair
Crystal Mallare, Vice Chair
Eric Altman
Andrew Goff
Tammy Wong
City of American Canyon Planning Commission
Publiccomment@cityofamericancanyon.org

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration (February 25, 2021 Planning Commission Meeting, Agenda Item No. 5.2

Dear Commissioners and Mr. He:

Please accept this brief comment on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). Thank you for the responses prepared to our earlier comments submitted to the Commission on January 17, 2021.

We appreciate the acknowledgement in the responses that the original VMT analysis was incorrect and employed bike trip lengths that could not be substantiated in fact or based on any effort to gather information on bike commuting in general or in the American Canyon area. It appears, however, that the City's consultant, in responding to those obvious shortcomings, has now embellished its VMT mitigation analysis with numerous other unsubstantiated claims and speculation. Rather than an objective analysis of the actual incremental VMT reductions that will

result from an 800-foot stretch of bike lane connecting two existing bike lanes, the effort seeks, without evidentiary basis, to achieve a desired outcome. The notion that an 800-foot connecting bike lane will, by itself, induce 96 new bike commuters to commute to jobs to the north of the Project and reduce VMTs by 1004 is farfetched. The only way the consultant generates such a number is by ignoring the terms of the federal guidance it claims to be applying, blatantly attempting to assign benefits of other parties' bike lane construction efforts to the applicant, and making believe that, without the connector bike lane, bike commuters from the neighborhood south of the Project heading north must ride on the shoulder of State Route 29. All of these efforts to invent a justification for not requiring sufficient VMT reductions to mitigate the Project's increases in VMT are not supported by the cited guidance or facts. These supplemental comments highlight this continued concern and the remaining fair argument that the Project may have significant environmental impacts from its unmitigated increase in VMTs.

1. GHD's analysis is inconsistent with the NCHRP guidelines it cites.

GHD claims to base its analysis of VMT reductions attributable to the bike lane connector on National Cooperative Highway Research Program Report 552, "Guidelines for Analysis of Investment in Bicycle Facilities." ("NCHRP Report"). The method set forth in the NCHRP Report for estimating induced bike commutes from a new bike facility relies on bike commuters from three buffer distances from a bike facility who would most likely use the facility. (NCHRP Report, p. 38.) These three buffers are less than 400 meters, 400 to 799 meters and 800 to 1599 meters. (*Id*., pp. 38, Appendix B, B-6.) As the NCHRP Report explains:

> Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

(*Id*.) The analysis identifies the population within each of those buffer areas and estimates the number of bike commuters in each buffer using the project region's "bicycle commute share." (*Id*.) The analysis also provides a method to calculate the total adult cyclists in the buffer areas. (*Id*.) The NCHRP Report developed "likelihood multipliers" for each of the three buffer zones to account for the fact that "people who live near a facility are more likely to bike than those that do not…." *Id*., pp. 38-39. A different likelihood multiplier is provided for each of the three NCHRP buffer zones.

Rather than abide by the NCHRP Report's methodology, GHD took the liberty of adding a buffer zone beyond 1600 meters – from 1600 to 2400 meters from the proposed bike lane. (Agenda Packet ("AP"), pp. 302-303.) Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and ***expert opinion supported by facts***." (CEQA Guidelines, § 15384(b) (emphasis added).) Because there is no justification based on the NCHRP Report to inflate induced bike commuter use by randomly expanding the buffers to include people living 1600 to 2400 meters away from a proposed bike lane, GHD's analysis is not based on substantial evidence.

The inconsistencies of GHD's analysis with the NCHRP Report do not however end there. In its analysis, GHD does not include the closest buffer zone identified in the NCHRP Report – 0 – 400 meters. Instead, it uses a 0 – 799 meter buffer, an 800 to 1599 meter buffer and its third made-up buffer from 1600 meters to 2400 meters. However, in calculating how many of the residents in each of these areas are induced to use the new bike lane, GHD then applies the NCHRP's "likelihood multipliers" for the original NCHRP buffer distances. GHD references the likelihood multipliers "[e]stablished by NCHRP 552 research; see Appendix B." AP, p. 304. However, the NCHRP Report and its Appendix B do not establish a likelihood multiplier for GHD's newly minted buffer zone from 1600 to 2400 meters from a facility. So, GHD could not have been applying a number from the NCHRP Report to that area. GHD does not explain which likelihood multipliers it applied to the three zones it selected. If GHD applied the three multipliers calculated by NCHRP for the 400, 800 and 1600 buffer zones to GHD's 800, 1600, and 2400 buffer zones, there would be no evidentiary basis for GHD's new, induced bike commuter computation. In any event, GHD provides no evidence supporting its application of a multiplier factor for the fictitious buffer it seeks to add surreptitiously to the NCHRP Report's methodology. GHD also does not provide evidence of which likelihood multipliers it applied to the 800 meter and 1600 meter zones in its analysis. Without this evidence, the analysis is not substantial evidence.

2. GHD's effort to credit the Project with mitigation for the already completed Bay Trail bike facility adjacent to Wetlands Edge Road is entirely arbitrary and is not supported by evidence that the bike lane gap along 800-feet of Commerce Court is "non-traversable."

GHD further attempts to inflate the VMTs attributable to the proposed 800 feet bike lane by claiming the VMT analysis should include all bike commuters induced by the 1.7 miles of Bay Trail bike access that was constructed along the western side of Wetlands Edge Road many years ago. (AP, pp. 290, 302.) According to GHD, the 800-feet stretch of Commerce Boulevard where it proposes to add bike lanes currently blocks or limits would-be bike commuters heading north from using the Bay Trail bike lanes to the west of Wetlands Edge Road.

First, there is no evidence that the 800-feet stretch of Commerce Boulevard currently blocks or will block any bike commuters from heading north towards the businesses clustered at the north end of Commerce Boulevard or even further north. The MND does not describe in any way the current condition of that road or, more importantly, the condition that will exist upon the completion of the Napa Junction Elementary School project at the corner of Commerce Boulevard and Eucalyptus. The elementary school is scheduled for occupancy this fall. (AP, p. 101.) Construction of the SDG Warehouse project is expected to be ongoing after the school is completed and open. (*Id*., p. 124.)

The school project includes reconstructing Commerce Boulevard alongside the school property. (*See* Napa Junction Elementary School Replacement Project Draft Environmental Impact Report, p. 10-28 [available at https://drive.google.com/open?id=13Ny2i9F6u2R6NFJBqlifGoNeUqaUoqTk]; *see also id*., p.

10-29 ("the proposed project would improve the roadway with asphalt concrete pavement and sidewalk"); Figures 3-5, 3-15 and 3-16 (plans showing bike lanes on Commerce Blvd.) Despite this brand new roadway running from Eucalyptus Avenue north to the existing SDG Commerce 330, GHD contends that this stretch of Commerce Boulevard is a "'non -traversable' gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices." (AP, p. 287.) Only from this premise does GHD then claim that bike commuters cannot get through this stretch of Commerce Boulevard and must instead head to State Route 29 "since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders." (AP, p. 302.) Contrary to GHD's assertions, a newly constructed stretch of Commerce Boulevard adjacent to the elementary school does not pose any barrier to bike commuters to travel between Eucalyptus Avenue and the bike path across from SDG Commerce 330. As a result, GHD's and the final MND's assertions that the proposed new bike lanes will unlock additional potential from the 1.7 miles of existing bikeway along Wetlands Edge Road is not supported by any substantial evidence. Well before the Project is completed, any commuting biker will be able to peddle unobstructed along the brand-new stretch of Commerce Boulevard whether the new bikeway is constructed or not.

Even if the stretch of Commerce Boulevard adjacent to the new elementary school did pose some limited impediment to bikers that required them to slow down for 800 feet does not justify GHD's random proposal to attribute half of the VMT reductions of an already completed 1.7 mile bikeway to the Project. This blatant effort to inflate the VMT benefits of the Project's proposed 800-foot bike lane has no basis in fact and is not a mitigation measure attributable to the Project.

Applying the NCHRP buffer zones that are actually included in that methodology (800 and 1600 meters) and the actual length of the bike facility proposed by the Project (800 feet), and assuming the rest of GHD's calculations are correct, the number of new bike commuters induced by the 800-foot bike lane is at most 22 cyclists. Assuming GHD's estimate of bike commute distance is reasonable, that amounts to, at most, a VMT reduction of 229 VMTs. As a result, substantial evidence of a fair argument exists that the Project's VMT increases may have a significant environmental impact.

3. GHD's estimate of commuter bike trip lengths does not eliminate the substantial evidence of a fair argument that average bike commute lengths in California are 1.5 miles as published by the California Air Resources Board.

GHD relies on a study of Portland, Oregon to borrow an estimated bike commute length for American Canyon. (AP, p. 290, citing "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC -RR -08 -03, December 2008.) GHD provides no rationale in its report why Portland bicycle commute lengths would be representative of American Canyon bicycle commute lengths. This is despite a CARB approved distance of 1.5 miles for bike trips used to calculate VMT reductions from bikeways. (AP, p. 684.) There is no substantial evidence to support the use of bike commute distances from a highly urbanized area like Portland versus a

more rural/suburban setting such as American Canyon. Using 1.5 miles as the lower end of a bike commute distance estimates yields a mere 33 VMT reduction form the 800-feet bike lane.

4. The inclusion of the new VMT calculations and efforts to justify the limited bike lane mitigation require the City to recirculate the MND for public review and comment.

The law is well-established that even if an EIR is not required, a revised negative declaration must be circulated for full public review if it adds new mitigation measures or identifies new impacts. *Gentry v. Murrieta*, 36 Cal.App.4th 1359, 1392, 1411, 1417. The MND's substantial 'changes to its VMT analysis and new mitigation proposals based on the so-called non-traversability of Commerce Boulevard are significant changes to the MND that should be recirculated to the public for review and comment.

Despite the responses to our earlier comments, substantial evidence of a fair argument still exists in the record that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comment, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to these supplemental comments.

Sincerely,



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January 19, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration

Dear Mr. He:

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After reviewing the MND prepared for the Project along with our experts, we believe there is a fair argument that the Project may have significant adverse environmental impacts and that an environmental impact report ("EIR") should therefore be prepared pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000, et seq.

LIUNA submits herewith the expert comments of wildlife ecologist Dr. Shawn Smallwood. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit A. LIUNA also submits herewith comments on the Project's air and greenhouse gas emissions from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comments and the resumes of their consultants are attached hereto as Exhibit B.

PROJECT DESCRIPTION

The Project proposes to issue a conditional use permit to construct and operate a 217,294 square foot wine distribution center on a 10.39-acre parcel in close proximity to the Napa River and an area identified by the Audubon Society as an "Important Bird Area." In addition to the 10.39 acre building site, the Project also involves excavation and operation of a borrow area

covering most of the adjacent 10.17 acre parcel immediately to the south of the building site. The proposed building would be bordered by 134 parking stalls on the north edge of the building parcel and 21 truck docking bays on the north side of the proposed building. The building would be heavily insulated and refrigerated. Grading and filling will occur throughout the Project site as well as most of the adjacent borrow area parcel. During construction, about 17,000 cubic yards of stockpiled soil will be transported and another 21,000 cubic yards of soil will be excavated from the adjacent site. Construction of the project would be done in a single phase lasting approximately 9.5 months. Types of heavy diesel equipment to be used to construct the facility will include a self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. Operation of the Project is estimated to generate a total of 367 daily project trips and, prior to mitigation, increase the daily vehicle miles travelled ("VMT") in the area by 2,355 VMT. The closest residence is about 500 feet from the Project's borrow area.

LEGAL STANDARDS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["*CBE v. SCAQMD*"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens,* 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors,* 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (Pub. Resources Code, § 21080(d); see also *Pocket Protectors,* 124 Cal.App.4th at 927.) In limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs., § 15371 ["CEQA Guidelines"]), only if there is not even a "fair

argument" that the project will have a significant environmental effect. (Pub. Resources Code, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Public Resources Code §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a *reasonable possibility* of a significant effect on the environment. (Pub. Resources Code, §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors,* 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors, supra,* 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, *Practice Under CEQA,* §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors,* 124 Cal.App.4th at 928 [emphasis in

original].)

As a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; see also CEQA Guidelines, § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.*, 13 Cal.3d at 83.) In *Pocket Protectors*, the court explained how expert opinion is considered. The Court limited agencies and courts to weighing the admissibility of the evidence. (*Pocket Protectors*, 124 Cal.App.4th at 935.) In the context of reviewing a negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." (*Id*.) Where a disagreement arises regarding the validity of a negative declaration, the courts require an EIR. As the Court explained, "[i]t is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." (*Id*.)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines, § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ["*Save Our Peninsula*"].)

A threshold of significance may be useful to determine whether an environmental impact normally should be considered significant. (CEQA Guidelines, § 15064.7(a).) "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (*CBE v. California Resources* Agency, 103 Cal.App.4th at 111.)

"A threshold of significance is not conclusive, however, and does not relieve a public agency of the duty to consider the evidence under the fair argument standard." (*Mejia v. City of*

Los Angeles (2005) 130 Cal.App.4th 322, 342; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109; *CBE v. California Resources Agency*, 103 Cal.App.4th at 110-114; CEQA Guidelines, § 15064(b).) A public agency cannot, as the City does here, apply a threshold of significance or regulatory standard "in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect." (*CBE v. California Resources Agency*, 103 Cal.App.4th at 114.)

ANALYSIS

I. There is a Fair Argument That the Project May Have Significant Traffic and GHG Impacts Because the Purported Mitigation Measure for VMT is Not Supported by Substantial Evidence and Defies Common Sense.

The MND's analysis of the Project's VMT impacts is not based on substantial evidence because it relies upon entirely unrealistic assumptions about the distance a bike commuter would ride to and from work. The MND would have one believe that by constructing a 300 feet long Tier 1 bike lane down the street from the Project, 32 commuters would no longer drive an average of 34.6 miles to and from work, but would instead ***bike 34.6 miles*** to and from work. (MND, Appendix, GHD Draft Technical Memorandum, p. 6 (Nov. 19, 2020) ("VMT Memo").

The MND identifies a threshold of significance for assessing a Project's VMT-related impacts of requiring a 15 percent reduction in VMT for the Project "compared with current regional VMT generation for similar uses." (MND, p. 91.) Relying on an analysis conducted by GHD, the MND identifies that the "[c]ountywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT." (*Id*.) Based on these numbers, the MND states that the "average daily project trip length has been calculated to be 17.3 miles, with a total daily 2,355 VMT." (*Id*.) The MND identifies a baseline threshold of 1,354 VMT as the VMT level that is 15 percent less than the County's average VMT. (VMT Memo, p. 4.). Thus, in order to be consistent with the 15 percent reduction from the average VMT threshold, the MND states that the Project must reduce its estimated VMT of 2,355 by 1,001 VMT. (*Id*.)

GHD then recommends a single measure purporting to achieve this dramatic reduction in the Project's estimated VMT. GHD and the MND state that extending by a mere 300 feet the Class I bike path on Commerce Court, which currently runs past the existing SDG Commerce 330 warehouse, to connect to the northern driveway of the elementary school under construction would reduce the Project's VMT by 1,119 VMT. (*Id*., p. 6.) GHD's rationale for this assertion is based, in part, on an estimate of the number of new bike commuters that would be added to the City's bike network by the addition of the 300-foot connector lane. GHD estimates the new lane would entice 32 new bike commuters. (*Id*., p. 18.) GHD then claims that these 32 new bike commuters would take the place of 32 car commuters who otherwise would each have driven 34.6 miles to and from work. (*Id*.)

Assuming GHD's estimate of 32 new commuters biking to work as a result of constructing the 300-feet bike lane is correct, the car trip lengths that GHD claims those users' bike trips would replace are preposterous. There is no evidence that the new bike commuters

who would be enticed onto their bikes by the new 300-feet of bike lane would include any car commuter who currently travels 17.3 miles to and from their work. The 17.3 mile figure applied by GHD has nothing to do with the average length of bike commuter trips. Instead, that number is the average trip length for commuters traveling by ***automobile*** calculated for the project area. (*Id*., p. 4.)

The average length of a bike commuter trip is much lower than the average length of a commute by car. The California Air Resources Board ("CARB") has published a quantification methodology to estimate VMT reductions associated with bike facilities. (CARB, Quantification Methodology (Nov. 1, 2019) (attached as Exhibit C).) Equation 22 of that guidance provides a formula for estimating "VMT Reductions for Bicycle Facility or Walkway." (Id., p. 18.) GHD completely ignores this guidance in its analysis. Putting that aside, CARB's factors include its expert determination of the average bike trip length to be used in a VMT reduction calculation. CARB pins the "[a]verage length of auto trip replaced" at "1.5 miles for cycling." (*Id*. *See also* ITS Report, p. 5. *See id.*, p. 7 ("The trip length factor, L, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data") (attached as Exhibit D).)

Even assuming GHD's overly simplistic equation is otherwise correct, applying CARB's 1.5 mile average of auto trip replaced by a bike trip dramatically reduces the MND's inflated VMT reduction claim. Based on a realistic trip length for bicycles that would use the 300-feet lane, and according to GHD's truncated equation, the new 300-feet bike lane would only reduce VMT by 97.5 VMT (65 daily commute trips by new bike commuters x 1.5 bicycle trip length). Thus, GHD's claim that the 300-foot length of bike lane would miraculously remove 1,119 VMTs from Commerce Court is entirely without basis in evidence or common sense. Instead, that modest bike facility would only remove about 97.5 VMT, leaving the Project over 900 VMT short of the 15 percent reduction from the County average necessary to eliminate the Project's significant transportation impacts. As a result, the MND is inconsistent with the CEQA Guidelines, 14 Cal.Admin Code § 15064.3 which requires that "[a]ny assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project." Moreover, there is a fair argument that the Project may have significant transportation impacts requiring the preparation of a full EIR.

II. An EIR is Required because the Project will have Significant Impacts on Biological Resources.

A. THE MND Fails to Adequately Analyze Impacts to Biological Resources Because It Relies Upon an Incomplete Baseline and the Project May Have Adverse Impacts on Numerous Sensitive Species Currently Using the Site or Adjacent Areas.

On January 23, 2019 and January 5, 2021, Dr. Shawn Smallwood visited the site. (Smallwood Comments, p. 1.) His first-hand observations of wildlife at the site as well as his review of reliable bird sightings reported on eBird demonstrate that the MND relies upon a

truncated list of species present at the site and fails to address impacts on numerous sensitive species that currently use the site. Dr. Smallwood's observations and expert comments are substantial evidence that the Project may have significant biological impacts, including adverse impacts on bald eagles, northern harriers, peregrine falcons, Cooper's hawks, red-tailed hawks, great horned owls, Swainson's hawks, burrowing owls, Nuttall's woodpecker, and other bird species. (*Id*., p. 2.)

During his brief visit on January 23, 2019, Dr. Smallwood observed a bald eagle flying over and hunting the site and identified a northern harrier and Cooper's hawk foraging on the project site. (Smallwood Comments, pp. 2, 5.) He also observed numerous other bird species. (*Id*., pp. 2-9.) Many species were not just passing by the site but actively engaged in using the habitat available there. (*Id*., p. 2.) For example, Dr. Smallwood observed many species spending considerable time at the site and displaying courtship or territorial behaviors indicative of breeding. (*Id*.) Such species included red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. (*Id*.) He also observed a great-horned owl perched immediately adjacent to the site. (*Id*.)

Dr. Smallwood also has gathered information regarding numerous bird sightings in and around the site that are posted on a web-based service called eBird. (Smallwood Comments, pp. 13-16.) Dr. Smallwood's experience with this service indicates that it is reliable source of bird sighting information, being based on the observations of reputable birders. (*See id*., p. 16.) He also points out the limitations of the MND only relying upon the California Natural Diversity Data Base ("CNDDB") to document the potential presence of wildlife species at and around the Project site. (*Id*., pp. 11, 16.) Numerous additional sensitive species are identified near the site that are not addressed in the biological report or the MND, including the endangered Willow flycatcher and species of concern including the Oak titmouse, Loggerhead shrike, tricolored blackbirds and many others. (*Id*., pp. 13-15.)

As a result of the omission of numerous sensitive species using the site and evidence of even more additional species in the immediate vicinity of the site, the MND's evaluation of the project's biological impacts is not supported by substantial evidence. Dr. Smallwood's observations and expert comment is substantial evidence of a fair argument that the project may have an adverse impact on bald eagles, various hawks, and other species currently utilizing the site for courtship, foraging habitat and for movement.

The MND does mention a number of species, including Swainson's hawks and burrowing owls. However, the biological report fails to disclose information that these species have been observed much closer to the project site than is indicated in the MND or the biological report. (Smallwood Comments, p. 16.) For example, the MND indicates that Swainson's hawks and burrowing owls are, respectively, 2.5 and 2.6 miles away from the project site. However, Dr. Smallwood identifies sightings of these two species within 0.2 miles of the site. As he states, this indicates a high likelihood that these species are using this open foraging area as well.

The MND is particularly unreliable regarding its treatment of another species of special concern, the Northern harrier. As Dr. Smallwood explains:

> Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

(Smallwood Comments, p. 16.)

Regarding impacts to burrowing owls, the MND improperly downplays potential impacts by claiming that, although the site contains many ground squirrel burrows that are frequently relied upon by burrowing owls, their significance is downplayed because Monk & Associates claims they are of "recent origin." (Smallwood Comments, p. 12.) Dr. Smallwood, relying on his own studies of burrowing owls, refutes the relevance of the age of ground squirrel burrows to their likely use by burrowing owls. (*Id*.)

Likewise, the MND relies on a claim that because the site was cleared of eucalyptus trees in 2012, that somehow that activity over eight years ago continues to affect the site's use by wildlife. The MND asserts that "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat." (MND, p. 33.) Dr. Smallwood discusses the scientific problems with this assertion, concluding that "[t]he [MND] misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today." (Smallwood Comments, p. 12.)

Dr. Smallwood notes the likely presence of bats utilizing the site for foraging and movement. (Smallwood Comments, p. 16.) The MND claims that the Project will not impact bats because the Project site "contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." (MND. p. 34.) However, as Dr. Smallwood points out, "Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground." (Smallwood Comments, p. 16.)

Dr. Smallwood notes that the MND and accompanying biological report fail to provide the information necessary to corroborate the level of effort and adequacy of the reconnaissance level survey done by the City's consultant. As Dr. Smallwood explains:

> Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

(Smallwood Comments, p. 10.) This exacerbates the absence of substantial evidence to justify the MND's wildlife baseline.

Dr. Smallwood also debunks the MND's effort to bolster the cursory biological

assessment with a so-called peer review. As Dr. Smallwood notes, no description of the peer-review nor any responses to review comments is provided in the MND and the date of the peer review appears inconsistent with the date of Monk & Associates site visit. (Smallwood Comments, p. 10.)

The evidence of nearby sightings of numerous sensitive species and the flaws in the MND and accompanying biological report identified by Dr. Smallwood support a fair argument that the Project may have adverse impacts on their foraging and movement. For this reason and those discussed above, an EIR must be prepared to address impacts to these many sensitive bird and bat species.

B. The Project will have a Significant Impact on Wildlife Movement and Habitat Fragmentation.

The MND fails to adequately analyze the Project's impact on wildlife movement. Instead, the MND improperly dismisses the Project's potential to impact wildlife movement by claiming there needs to be a "corridor" on the site to effect wildlife movement, that other nearby areas are better movement areas, or otherwise asserting without evidence that this particular large warehouse would not disrupt wildlife movement. As Dr. Smallwood states:

> The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others.

(Smallwood Comments, p. 20.) Dr. Smallwood's direct observations and expert opinion are substantial evidence of a fair argument that the Project may have adverse impacts on wildlife movement at the site and in the vicinity.

C. The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders. (Smallwood Comments, p. 20-21.) Regardless of whether these species live on site, these and other special status species must cross roadways that will experience increased traffic volume as a result of the Project. (*Id*.)

As Dr. Smallwood explains, "[i]ncreased use of existing roads will increase wildlife

fatalities…." (*Id.*, p. 20.)

> The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23January 2019I saw two road-killed striped skunks on American Canyon Drive, and on 15 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road–a road likely to be used by trucks and cars servicing the project. California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the [MND] is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (Ambystoma californiense), and American badgers (Taxidea taxus) that, regardless of whether they live on the site, mustcross roadways that will experience increased traffic volume caused by this project.

(*Id*.) Given the fair argument of a threat to wildlife posed by existing traffic and additional traffic from the Project, as discussed by Dr. Smallwood, an EIR is necessary to evaluate the direct and cumulative impacts of the Project's vehicle collisions with wildlife.

D. The MND Fails to Analyze the Project's Impacts from the use of Pest Control Measures.

The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse. As a wine storage distribution facility, there will likely be steps taken to abate pests. There are many businesses that provide services for controlling stored products pests, perching birds, and rodents and other mammal pests within and around distribution warehouses. (Smallwood, p. 21.) These businesses advertise exclusion strategies and fumigation for stored products pests, glue boards for rodents, and other measures including anticoagulant poisons and acute toxicants. "[T]he use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging." (*Id*.) "[P]est control involving toxicants can result in the spread of toxicants beyond the project site." (*Id*.)

An EIR is needed to analyze the potential impacts of animal damage control associated with the proposed Project. Anticipated animal control strategies at the Project should be detailed, and impacts mitigated.

E. The Project will have Cumulative Impacts on Biological Resources.

Dr. Smallwood concludes that the Project will have a significant cumulative impact on biological resources. (Smallwood Comments, p. 22.) An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well.

III. The IS Utilized Unsubstantiated Input and Output Parameters to Estimate Project Emissions.

A. The MND fails to explain how the City Calculated the Project's Average Daily Construction Emissions of ROGs and NOx.

The MND and Appendix B fail to provide sufficient information for a reviewer to understand and corroborate how the average daily emissions during construction were derived. As SWAPE explains, it is entirely unclear where the emissions estimates reported in the MND come from, because the estimates do not match those provided in any of the CalEEMod output files. (SWAPE Comments, pp. 2-3.) The MND provides the Project's emissions estimates in pounds per day. (MND, p. 22.) This indicates that the estimates should have come from either the winter or summer output file. (SWAPE Comments, pp. 2-3.) However, reviewing both the summer and winter output files and the emissions estimates, SWAPE's review could not match either. Insufficient details are provided in the MND either to inform the reader of the full extent of the air pollution and impacts that will result from the Project or how the insignificant determination was calculated and derived. The MND does not disclose a valid average daily emission calculation. For this reason, there is a fair argument that the Project may have significant air quality impacts.

B. The MND Used Improper Modeling Inputs, Including for Water Use for Parking and Solid Waste Generation.

Review of the Project's CalEEMod output files also demonstrates that the Project Applicant fails to adequately support substantial reductions in several air quality modelling inputs. In particular, the input for water use rate is decreased by almost 100 percent from the default value of 50,248,312.50 gallons per year ("gpy") to a mere 768 gpy. (SWAPE Comments, p. 8.) However, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gpd or 249,295 gpy. Thus, the model underestimates the Project's total yearly water demand by approximately 239,186 gpy.

SWAPE also points out the lack of justification for the reduction in modeling inputs for solid waste generation by the Project. It is not explained how the Project would have dramatically lower solid waste rates than other typical projects. (SWAPE Comments, pp. 7-8.) Likewise, further corroboration that there would not be any weekend trips occurring at the facility or the lack of any potential for natural gas use by the Project should be further corroborated and explained in the MND. (*Id.*, pp. 5-7.) Lastly, the modelling relies on surface watering and limited vehicle speeds among other BMPs identified by BAAQMD. However, nothing in the MND sets forth these measures as mandatory BMPs or conditions of the Project. (*Id.*, pp. 9-11; MND, p. 23.) Because of the uncertainty resulting from inadequate justifications or miscalculation of annual water use, the MND's reliance on the CalEEMod analysis is not supported by substantial evidence that eliminates a fair argument that the Project may have significant air quality impacts.

IV. SWAPE's CalEEMod Modeling Run Indicates a Fair Argument That the Project May Have a Significant Air Quality Impact.

SWAPE reran the CalEEMod run for the Project adjusting for the deficiencies in the inputs that it identified. (SWAPE Comments, p. 11.) The resulting model result indicates that the Project may exceed the BAAQGM daily emission threshold of 54 lbs/day. This is substantial evidence of a fair argument that the Project may have a significant air quality impact.

V. The IS Inadequately Evaluates Emissions of Diesel Particulate Matter.

Diesel particulate matter ("DPM") is a known human carcinogen. The MND attempts to piggy-back on a health risk assessment performed for the nearby SDG Commerce 330 warehouse. (MND, p. 26.) This effort to borrow the HRA performed for that other project is problematic for a number of reasons.

A. The HRA Fails to Account for the Fact That the Nearest Sensitive Receptor to the Project's Emissions is Located Only 500 Feet From the Soil Borrow Site.

Although the MND notes that there is "one residence about 1,000 feet east of the site (on the Couch property)," this is referring to the site of the proposed warehouse building. (MND, p. 74.) In fact, the closest receptor is only 500-feet from the borrow pit portion of the Project. (*Id*., p. 77 (Table Noise-4).) For the SDG Commerce 330 project, the sensitive receptor distance was about 900 feet. Because the closest receptor to the Project's affected area is only 500 feet, a new health risk assessment specific to the Project must be prepared. (SWAPE Comments, pp. 12-14.) Based on the current MND, there remains a fair argument that the Project may have a significant health risk impact on the nearest sensitive receptor.

B. SWAPE's Analysis Provides Substantial Evidence of a Fair Argument that the Project may have Significant Health Risk Impacts from its Emissions of Toxic Air Contaminants.

Based on the limited information provided by the MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to adults, infants, children and nearby residents over the course of a 30-year residential lifetime of, respectively, 11 in one million, 86 in one million, 73 in one million, and 180 in one million, all in excess of BAAQMD's threshold. (SWAPE Comment, pp. 14-18.) Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

VI. There is a Fair Argument That the Project May Have Significant GHG Impacts.

SWAPE also reviewed the MND's discussion of the Project's potential GHG impacts. In addition to the deficiencies in the air modelling discussed above, a number of glaring problems with the analysis demonstrates that a fair argument remains that the Project may have significant GHG impacts.

A. The MND's Reliance on the 1,100 MT CO2e Per Year Threshold is Only Designed to Achieve the GHG Reductions Required by 2020 and is Insufficient to Align the Project With the State's 2030 GHG Reduction Targets.

As the BAAQMD states in its 2017 CEQA guidelines, BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. (BAAQMD CEQA Guidelines, p. D-16 (available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.) The threshold referenced in the MND is a bright-line threshold of 1,100 MT CO2e. (*Id.*, p. D-21. *See* SWAPE Comments, pp. 19-20.) That threshold was only intended to ensure compliance with AB 32's reduction goals required by 2020. (*Id.*) The 2020 GHG reduction goals sought to reduce business as usual GHG emissions to 1990 levels. In 2018, the Air Resources Board established the subsequent GHG reduction goal to reduce 1990 levels by another 40 percent by 2030. (California's 2017 Climate Change Scoping Plan, Executive Summary (Nov. 2017) (available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017_es.pdf).) That is the current goal with which the Project must ensure consistency order to claim no fair argument of a potential GHG impact.

As SWAPE points out, the Association of Environmental Professionals ("AEP") has derived a threshold of significance that is consistent with achieving the 2030 GHG reduction goals for projects coming online after 2020. AEP and SWAPE identify a "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO2 equivalents per service population per year ("MT CO2e/SP/year") as a threshold of significance necessary for any specific project to be consistent with the 2030 reduction goals. As AEP states:

> Once the state has a full plan for 2030 (which is expected in 2017), and then a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target. A more conservative approach would be to apply a 2030 threshold based on SB 32 for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update.

(*Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016, p. 40 (available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf).)

Applying the Project's estimate that it will create 50 new jobs, SWAPE calculates the

2030 Land Use Efficiency Threshold for the project to be 11.80 MT CO2e/SP/year - well in excess of the calculated significance threshold of 2.6 MT CO2e/SP/year. (SWAPE Comments, pp. 20-21.) Based on this substantial evidence, there is a fair argument that the Project may have significant GHG impacts.

B. The Project's Failure to Reduce its Expected VMT and Its Levels of VMT Per Capita are Evidence of a Fair Argument That the Project May Have Significant GHG Emission Impacts.

In addition to failing to reduce its VMT by fifteen percent of the Project area average, as discussed above, the MND also is inconsistent with CARB's 2017 Scoping Plan's guidance on evaluating GHG impacts using a Project's VMT per capita calculations. CARB has provided County- and State-based VMT per capita baseline calculations and the necessary per capita reductions necessary to be consistent with the Scoping Plan's GHG reduction targets. (SWAPE Comments, p. 22, n. 44.) SWAPE has applied that guideline to calculate the Project's VMT per capita. (*Id.,* p. 22 & Attachment C.) Using the tables provided by CARB, SWAPE calculates that VMT per capita within Napa County must be reduced to 19.37 in order to be consistent with the 2030 GHG reduction target. (*Id*., p. 22.) SWAPE calculates the Project's daily VMT per capita to be 33.21, well in excess of the VMT per capita levels necessary to meet the State reduction goals for 2030. (*id*., p. 22.) As a result, the MND is incorrect in asserting that the Project is consistent with the 2017 Scoping Plan and AB 32. SWAPE's analysis is substantial evidence of a fair argument that the Project may have significant GHG emission impacts.

CONCLUSION

For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. LIUNA reserves the right to supplement these comments in advance of and during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). Thank you for your attention to these comments.

Sincerely,

[redacted]

Michael Lozeau
Lozeau | Drury LLP

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

30 DAY NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration for recirculation for the following described project in accordance with the California Environmental Quality Act (CEQA). The 30-day public comment period begins April 1, 2021 and ends May 3, 2021.

NOTICE IS FURTHER HEREBY GIVEN that the City Council will hold a public hearing on **Tuesday, May 18, 2021** at **6:30 p.m.,** at **4381 Broadway, Suite 201, American Canyon, CA 94503** (in the Council Chambers of the American Canyon City Hall), to consider the recirculated Initial Study Checklist and Mitigated Negative Declaration and the following applications:

Project Title:	SDG Commerce 217 Distribution Center
Project Number:	PL20-0008
Project Applicant:	SDG Commerce 217, LLC
Project Location:	1075 Commerce Court, American Canyon, Napa County, CA 94503.
Assessor Parcel(s):	058-030-065
Project Description:	Conditional Use Permit for a new 217,294 square foot wine warehouse distribution center with parking and landscaping. The site is located in the Recreation (REC) zoning district.

The basis for proposing a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

Copies of all documents that relate to the above-described project and proposed MND and Initial Study Checklist may be examined on the City's website at: https://bit.ly/3gAjtEs.

Comments on the MND, sent in writing, must be received by 5:00 p.m. on May 3, 2021, at whe@cityofamericancanyon.org or the following address:

William He, AICP, Associate Planner
City of American Canyon Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Oral or written comments may be provided to the City Councilmembers at their meeting. All interested persons are invited to attend the meeting and be heard on this matter.

Public meetings/events sponsored or conducted by the City of American Canyon are held in accessible sites. Requests for accommodations may be made by calling (707) 647-4577 (voice) or 711 for the California Relay Service or by e-mailing the ADA Coordinator, Cherri Walton, at cwalton@cityofamericancanyon.org at least 72 hours in advance of the event. Copies of documents distributed at the meeting are available in alternative formats upon request.

_____

Cherri Walton, CMC, Interim City Clerk

Mailed Date: April 1, 2021
Publication Date: April 1, 2021

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**Not admitted in California. Licensed in Colorado.*

April 26, 2021

Via Email and U.S. Mail

William He, Associate Planner
Brent Cooper, AICP, Community Development Director
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Cherri Walton
City Clerk
City of American Canyon
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RE: Request for Extension of Comment Period for MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008), Follow Up Request for Access to MND Reference Documents, and Access to Responsive Documents Under the California Public Records Act

Dear Mr. He, Mr. Cooper, and Ms. Walton:

We are writing on behalf of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail, and Transportation Workers Local Union 104, and the District Council of Ironworkers to request that the City extend the public comment period for the SDG Commerce 217 Distribution Center Project (Application PL20-0008) ("Project") by SDG Commerce 330 LLC ("Applicant") by at least thirty days from today's date (April 26, 2021) due to the failure of the City to provide timely access to all documents referenced, incorporated

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by reference, and relied upon in the Mitigated Negative Declaration ("MND") for the Project, as required under CEQA, and as requested on April 15, 2021.[1]

The extension request is made pursuant to CEQA, which requires that all documents referenced in an environmental review document be made available to the public for the entire comment period.[2] This request is also made pursuant to the CPRA,[3] which requires public records to be "open to inspection at all times during the office hours of the state or local agency" and provides that "every person has a right to inspect any public record."[4] As the City is aware, public records related to the Project include all documents in actual or constructive possession of the City, which includes the City's consultants' files.[5]

On April 15, 2021, our office submitted two letters to the City, the first seeking immediate access to all MND reference documents pursuant to CEQA, and the second seeking immediate access to all public records referring or related to the Project pursuant to the California Public Record Act ("CPRA").[6] We did not receive any response to the letters. On April 20, 2021, we followed up these letters with an email directed to Mr. He asking for an update on these document requests. We have still received no response from the City regarding either of the record requests or the email.

Without this critical information, our clients and other members of the public are unable meaningfully review and comment on the MND, and are deprived the opportunity to review the supporting information for the MND. Therefore, we renew our request that the City provide us with immediate access to all MND reference documents, as well as to all documents responsive to our CPRA request.

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[1] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Documents Referenced in the MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008) (Apr. 15, 2021.)

[2] Pub. Res. Code § 21092(b)(1); 14 Cal. Code Regs. § 15072(g)(4).

[3] Gov. Code §§ 6250, et seq.

[4] *Id*. § 6253(a).

[5] *Consolidated Irrigation District v. Superior Court* (2012), 205 Cal.App.4th 697, 710.

[6] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Public Records – SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008) (Apr. 15, 2021.); Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Documents Referenced in the MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008) (Apr. 15, 2021.)

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The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the CEQA review period invalidates the entire CEQA process and that such a failure must be remedied by permitting additional public comment.[7] It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.[8] By failing to make all documents and underlying data referenced in the MND "readily available" during the current comment period, the City is violating the procedural mandates of CEQA.[9]

Therefore, we respectfully request that the District extend the public review and comment period on the MND for an additional 30 days from the date on which the MND releases all reference documents for public review.

In sum, we request the City:

1) Extend the public review and comment period on the MND **for at least 30 days from the date on which the MND releases *all* reference documents** for public review.

2) Immediately provide access to the reference documents, as described in our April 15, 2021 letter.

3) Immediately provide access to responsive documents pursuant to our CPRA request, as described in our April 15, 2021 letter.

Given the short time before the current comment deadline ends, please contact me as soon as possible with your response to this request, but no later than close of business on **Wednesday, April 28, 2021**.

[7] *Ultramar v. South Coast Air Quality Man. Dist*. (1993) 17 Cal.App.4th 689, 699.
[8] *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 ("Whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.").
[9] Pub. Resources Code § 21092(b)(1); 14 C.C.R. § 15072(g)(4).
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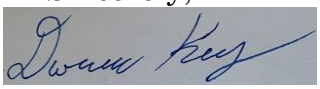
Thank you for your prompt attention and response to this matter.

Sincerely,



Darien K. Key
Associate

DKK:acp

Attachments

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ATTACHMENTS

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April 15, 2021

Via Email and U.S. Mail

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Community Development Director
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Cherri Walton
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Re: Request for Immediate Access to Public Records – *SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008)*

Dear Mr. He, Mr. Cooper, and Ms. Walton:

We are writing on behalf of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail and Transportation Workers Local Union 104, and the District Council of Ironworkers to request ***immediate access*** to any and all public records referring or related to the SDG Commerce 217 Distribution Center Project (Application PL20-0008) ("Project"), proposed by SDG Commerce 330 LLC ("Applicant"). This request includes, but is not limited to, any and all materials, applications, correspondence, resolutions, memos, notes, analyses, electronic mail messages, files, maps, charts, and/or any other documents related to the Project. This request *does not include* the MND or documents referenced or relied upon in the MND, which we have requested in a separate letter pursuant to the California Environmental Quality Act.

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The Applicant proposes to develop a 217,294 sq. ft. wine distribution center on the 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR), at 1075 Commerce Court, in the Recreation zoning district. The Project also includes parking spaces, trucking docks, landscaping, and a 21,000 square-foot bio retention pond. The assumed 4,350 square feet of office space is an estimate as exact office build-outs would be determined in the future and reviewed by the City during the tenant-improvement phase of the project.

This request is made pursuant to the California Public Records Act, Government Code §§ 6250, et seq. This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

We request ***immediate access*** to review the above documents pursuant to section 6253(a) of the Public Records Act, which requires public records to be "open to inspection at all times during the office hours of the state or local agency" and provides that "every person has a right to inspect any public record." Gov. Code § 6253(a). Therefore, the 10-day response period applicable to a "request for a copy of records" under Section 6253(c) does not apply to this request.

My contact information is:

U.S. Mail
Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email dkey@adamsbroadwell.com

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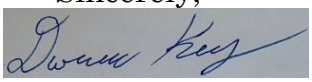
I will be contacting you to arrange for duplication/transmission of the documents. If you have any questions, please call our South San Francisco office at (650) 589-1660 or by cell phone at (661) 203-1582. Thank you for your assistance with this matter.

Sincerely,



Darien Key
Attorney

DKK:acp

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KYLE C. JONES
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RACHAEL E. KOSS
AIDAN P. MARSHALL
WILLIAM C. MUMBY

MARC D. JOSEPH
Of Counsel

*Not admitted in California.
Licensed in Colorado.*

April 15, 2021

VIA EMAIL & U.S. MAIL

William He, Associate Planner
Brent Cooper, AICP,
Community Development Director
City of American Canyon
4381 Broadway, Ste. 201
American Canyon, CA 94503
Email: whe@cityofamericancanyon.org; bcooper@cityofamericancanyon.org

Cherri Walton
City Clerk
City of American Canyon
4381 Broadway, Ste. 201
American Canyon, CA 94503

Email: cwalton@cityofamericancanyon.org

Re: Request for *Immediate Access* to Documents Referenced in the MND for *SDG Commerce 217 Distribution Center Project (Application PL20-0008)*

Dear Mr. He, Mr. Cooper, and Ms. Walton:

We are writing on behalf of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail and Transportation Workers Local Union 104, and the District Council of Ironworkers to request ***immediate access*** to any and all documents referenced, incorporated by reference, and relied upon in the Initial Study Checklist and Mitigated Negative Declaration ("MND") prepared for the SDG Commerce 217 Distribution Center Project (Application PL20-0008) ("Project") by SDG Commerce 330 LLC ("Applicant"). This request excludes any documents that are otherwise available on the City of American Canyon website.

The Applicant proposes to develop a 217,294 sq. ft. wine distribution center on the 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR), at 1075 Commerce Court, in the Recreation zoning district. The Project also includes parking spaces, trucking docks, landscaping, and a 21,000 square-foot bio retention

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pond. The assumed 4,350 square feet of office space is an estimate as exact office build-outs would be determined in the future and reviewed by the City during the tenant-improvement phase of the project.

Our request for immediate access to all documents referenced in the MND is made pursuant to the California Environmental Quality Act ("CEQA"), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.[1]

We request ***immediate access*** to review the above documents pursuant to CEQA. If the requested documents are in electronic format and are 10 MB or less (or can be easily broken into sections of 10 MB or less), please email them to me as attachments. We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (650) 589-1660 with a cost estimate before copying/scanning the materials.

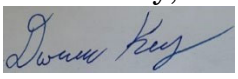
Please send the above requested items to our South San Francisco Office as follows:

U.S. Mail
Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email
dkey@adamsbroadwell.com

Please call me at (650) 589-1660 or (661) 203-1582 if you have any questions. Thank you for your assistance with this matter.

Sincerely,



Darien Key
Attorney

DKK:acp

[1] *See* Pub. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Regs. § 15072(g)(4).

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ATTACHMENT 14

From: Brent Cooper
Sent: Monday, May 3, 2021 4:37 PM
To: 'Alisha C. Pember' <apember@adamsbroadwell.com>
Cc: Darien K. Key <dkey@adamsbroadwell.com>; Cherri Walton <cwalton@cityofamericancanyon.org>; William He <whe@cityofamericancanyon.org>; Bill Ross - External <wross@lawross.com>; Jason Holley <jholley@cityofamericancanyon.org>; Neil S. Thompson <nsthompson@stravinski.com>; Nicolle Jones <njones@cityofamericancanyon.org>; Shirley Concolino <sconcolino@cityofamericancanyon.org>; gecons@aol.com
Subject: RE: [External] Request for Extension of Comment Period for MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008), Follow Up Request for Access to MND Reference Documents, and Access to Responsive Documents Under the California Public…

Hello Alisha,

We have considered Adams Broadwell's request to extend the recirculated SDG 217 MND public review period an additional 30 days. The current public comment period is scheduled to end today **(May 3, 2021)**.

Please consider this email the City's agreement to extending the public comment period by 30 days. With a 30-day extension, the new public comment period will end **June 3, 2021**.

Sincerely,
Brent Cooper, AICP
Community Development Director
City of American Canyon | Broadway Street, Suite 201 | American Canyon, CA 94503
(707) 647-4335

COMMENTS AND RESPONSES ADDENDUM: FINAL RECIRCULATED DRAFT INITIAL STUDY FOR THE 217 COMMERCE DISTRIBUTION CENTER BUILDING PROJECT

Introduction

The following comments were received on the Recirculated Draft Initial Study:

A. Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021
B. Lozeau Drury Comment Letter, May 3, 2021
C. Lozeau Drury Comment Letter, June 3, 2021

These comments are attached and numbered, followed by corresponding numbered responses, below.

A. Responses to Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Adams Broadwell Joseph & Cardoza comment letter. The comment letter is included as Attachment A to this appendix.

General Comments

Comment A.1. *There is a fair argument that the Project will result in potentially significant impacts relating to air quality, public health, biological resources, energy, GHG, land use, noise, and transportation.*

Response: Please see responses to specific comments below. The IS found that, while a number of potentially significant impacts would occur from the proposed project, all can clearly be mitigated to a less-than-significant level.

Comment A.2. *The MND fails to adequately disclose, investigate, and analyze the project's potentially significant impacts, and fails to provide substantial evidence that impacts will be reduced to a less-than-significant level.*

Response: As described in the responses to comments below, the project, with mitigation identified in the IS, as modified in the Final IS, would not have any potentially significant impacts that cannot be mitigated to a less-than-significant level. Additionally, the revisions to the Draft IS included in this Final IS do not alter any of its significance determinations.

Comment A.3. *The City violated CEQA and improperly truncated the MND's public comment period by failing to make all documents referenced, incorporated by reference, and relied on in the MND available for public review during the public comment period.*

Response: At the request of the applicant, the City decided to re-circulate a revised Initial Study after receipt of the commenter's April 15 comment letters. The recirculated document included several substantive revisions made in response to the comments received on that original Draft IS. Therefore responses to comments on that prior IS are no longer required. The City originally proposed a 30-day comment period on the re-circulated Draft IS. However, in response to requests from concerned parties, that period was extended to 62 days, extending from April 1, 2021 to June 3, 2021, which provided the commenter with well over the required 30 days to review all of the requested documents referenced in the comment. The Ballentine email, while referenced in the IS, is not important in determining of impact significance or any potential land use conflict. Zoning compatibility is discussed on pp. 7 and 77 (PDF page) of the Draft IS, and was determined by the City Council in its approval of the Commerce 330 project.

Comment A.4. The MND fails to provide an accurate and complete project description by piecemealing its review of the project and related projects.

Response: The current document is not required to address the overall impacts of subdivision and full buildout of the larger subdivided property. The project has independent utility and does not cause any other projects to be built. Therefore, any such project would not be a part the currently proposed project (or vice versa), but rather part of potential future cumulative development. Cumulative impacts of the original subdivision were generally discussed in the Cumulative Impacts section of the Commerce 330 IS/MND, which stated on p. 98.

> "It is possible that the two additional parcels to be created by the proposed tentative map would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, and air quality impacts of the proposed project. No projects are currently proposed for those sites, therefore assessment of those impacts would be speculative at this time."

Similarly, this IS addressed the potential cumulative impacts of development of the remaining subdivided parcel in the Cumulative Impacts discussion:

> "It is possible that the remaining parcel between the project site and the Commerce 330 site would be developed with project similar to that proposed for the project site. Development of [that site] could add to cumulative traffic, noise, biological resources, and air quality impacts of the proposed project, as with the project impacts. No projects are currently proposed for that site, therefore assessment of those impacts would be speculative at this time. Environmental review of that project would be required to also consider the proposed project, if approved.

Cumulative traffic conditions also were considered in the Commerce 330 Project IS.

The SDG 258 warehouse project is not adjacent to this site and was not a part of the original subdivision, wherefore is not in any way a part of a larger project including this project. It is

another project with similar uses proposed by the same applicant in the Green Island Road area. It is neither dependent on or causative of any element of the proposed project.

The fact that the CaLEEMoD model was modified from another project for use on this project is not relevant to whether or not the project description was piecemealed.

Air Quality Comments

Comment A.5. The City failed to update the MND's air quality baseline data and relevant analyses when it revised and recirculated the MND.

Response: The Comment is misinterpreting CEQA Guidelines Section 15125(a). As stated in CEQA Guidelines Section 15125(a)(1), "Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective." Nevertheless, the CalEEMod was reran to update the construction schedule since the Project has been delayed (raw model outputs are on file for review at the City Community Development Department office).

Construction activities were originally planned to commence March 1, 2021. Construction activities are now planned to commence March 1, 2022. Construction phases would take place in the same seasons as originally assumed in the IS/MND. However, since the Project has been delayed one year, construction emissions would be decreased compared to the emissions described in the MND since emission factors decrease annually due to cleaner engines and fuels. Table RTC-1 displays the updated average daily construction emissions vs the average daily construction emissions displayed in the IS/MND and compares them to BAAQMD's average daily construction emissions thresholds of significance.

Table RTC-1
Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
MND Emissions (Year 2021)	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
Updated Emissions (Year 2022)	**12.0**	**22.0**	**0.8**	**0.8**	**18.8**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

As shown in Table RTC-1, updated average daily construction emissions for year 2022 would be well below BAAQMD's average daily construction thresholds of significance and less than the average daily construction emissions displayed in the IS/MND for year 2021 Project construction

activities. Operational air emissions were calculated for summer, winter and annual scenarios and the delay in Project development would not change the operational emissions (other than a slight decrease due to cleaner engines and fuels since Project operation has been delayed one year), thus operational emissions would be well below the BAAQMD's operational thresholds of significance. Therefore, no significant impacts related to air quality would occur and an EIR is not required.

Comment A.6. The City failed to perform a project-specific Traffic Impact Analysis (TIA) for the project and is relying on a TIA for another project.

Response: This comment is incorrect. As referenced in the first paragraph of the Draft IS transportation section, GHD prepared a traditional level-of-service TIA for the SDG Commerce 217 Distribution Center (May 2020) in addition to an SB 743-compliant VMT impact analysis (March 2021). Both were discussed in the IS and included in full as Appendix F in the Draft IS.

Comment A.7. The City has not accurately reported the project's estimated daily construction emissions and failed to disclose significant air quality impacts during the construction phase.

Response: As stated in Table 2-1 on page 2-2 of the BAAQMD *CEQA Air Quality Guidelines* (May 2017)[1], BAAQMD's CEQA threshold of significance for construction-related activities are in the units of "Average Daily Emissions (lbs/day)." Per BAAQMD Guidance, the total emissions from the Project were divided by the total number of construction days to calculate the average daily emissions in order to compare them to the BAAQMD thresholds of significance. The results and emissions estimate for each phase were provided in the IS/MND's Air Quality Appendix, but were not included in the IS/MND's air quality section because they are not applicable for comparison to BAAQMD's significance thresholds. As described in Response to Comment A.5., above, updated average daily construction emissions for year 2022 would be well below BAAQMD's average daily construction thresholds of significance and less than the average daily construction emissions displayed in the IS/MND for year 2021 Project construction activities. Therefore, no significant impacts related to air quality would occur.

Comment A.8. The City fails to quantify the impact that transportation refrigeration units (TRUS) will have on air quality impacts from the proposed project**.**

Response: The proposed Project entry/exit and Commerce Blvd. is approximately 1,000 feet from the nearest sensitive receptor (mobile home on the Couch Property to the east). Napa Junction Elementary School is approximately 1,750 feet from the Project exit and approximately 2,150 feet from the Project entry. The residential neighborhood south of Napa Junction Elementary

[1] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May 2017. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde&hash=A8ECB7754057DCC18AF1CFF77E17F50C

School is approximately 2,100 feet from the Project exit and approximately 2,500 feet from the Project entry.

A Health Risk Assessment (HRA) has been prepared for the project and provided in Attachment D to this Responses to Comments document. The HRA analyzes health impacts on existing residences and school receptors from toxic air contaminants (TACs) such as diesel particulate matter (DPM) from diesel construction equipment and diesel truck activities (including TRUs) at loading docks and along roadways. The HRA concluded that the Project would have a less-than-significant impact on existing residential and school receptors, as the Project would be below BAAQMD's cancer risk significance threshold of 10 in one million, as well as thresholds for noncancerous risk (acute or chronic) and PM2.5.

GHG emissions were quantified for the Project with CalEEMod, which included mobile sources such as heavy trucks and heavy trucks with TRUs. CalEEMod calculates idling GHG emissions from mobile sources. GHG emissions from the Project would be less than significant. See also Response to Comment **A.29**.

Comment A.9. The City failed to quantify the health impacts from emissions from the project and incorrectly relies on a non-quantitative analysis performed for the SDG 330 Warehouse Project.

Response: See the Health Risk Assessment provided in Attachment D. See Response to Comment **A.8**, above.

Comment A.10. The use of Tier 2 equipment as mitigation would not enhance exhaust emission reductions and would increase the potential emissions from sources on site, resulting in increased health risk.

Response: Construction equipment greater than 25 horsepower having engines that meet or exceed USEPA or CARB Tier 2 off-road emission standards, AND engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy was not a mitigation measure for the Project in the IS/MND. This was a mitigation measure for the previous SDG 330 Warehouse Project. The SDG 330 Warehouse Project HRA (February 2019) found that Project construction emissions would be less than significant with the implementation of the mitigation measure. Construction equipment for the proposed Project would be required to comply with the California Air Resource Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation and would be much cleaner than a Tier 2 construction fleet.

See Response to Comment A.8. See the Health Risk Assessment in Attachment D. While the HRA concluded that the Project would result in less than significant health impacts without mitigation, the applicant would include the following requirements into its construction contracts to further reduce emissions from construction equipment and to ensure no Tier 2 equipment is used for Project construction:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall have engines that meet or exceed either USEPA or CARB Tier 3 (or better) off-road emission standards and Level 3 Diesel Particulate Filters.

Comment A.11. The logic used by the City to justify not producing a dispersion model of the Project's toxic air emissions and a quantitative health risk analysis for the either this Project or the SDG Commerce 330 Warehouse project is flawed and fails to comply with CEQA.

Response: See Response to Comment **A.8**. An HRA was performed for the SDG 330 Warehouse Project in February 2019 as part of the Final IS/MND. The HRA analyzed health impacts from Project construction and operation on existing residential sensitive receptors and future school receptors with the planned Napa Junction Elementary School. The HRA found that Project construction and operational emissions would be less than significant. Since the SDG 330 Warehouse Project is much closer to the existing sensitive receptors and future school receptors, the City found it was logical to conclude that the proposed Project's impacts would also be less than significant. Nevertheless, a new HRA was prepared for the proposed Project and found that all impacts would be below BAAQMD's thresholds of significance and thus less than significant (See Attachment D).

Comment A. 12. The City failed to assess the public health impacts from TACs that will be released during the construction and operational phases of the Project on the Napa Unified School District's new Napa Junction School.

Response: See the Health Risk Assessment in Attachment D. See Response to Comment A.8. The HRA analyzed health impacts on school receptors from toxic air contaminants (TACs) such as diesel particulate matter (DPM) from diesel construction equipment and diesel truck activities (including TRUs) at loading docks and along roadways (Project construction and operations). The HRA concluded that the Project would have a less-than-significant impact on school receptors, as the Project would be below BAAQMD's cancer risk significance threshold of 10 in one million, as well as thresholds for noncancerous risk (acute or chronic) and PM2.5.

Comment A. 13. The SDG 330 Project's Mitigation Measure AQ- 4 is insufficient to reduce the project's significant health risk to less than significant.

Response: See Response to Comments **A.8., A.9., A.10., A.11., and A.12**. The proposed Project would not include stationary sources, such as stationary diesel generators. Furthermore, any stationary source would require a permit from the BAAQMD where an HRA would be required prior to issuance of the permit.

Comment A.14. The IS must include a cumulative emissions analysis of the impacts from the project and surrounding projects.

Response: See Response to Comments **A.8., A.9., A.10., A.11., and A.12**. An HRA was performed for the proposed Project (See Attachment D). Since proposed Project construction and operational health risks are below the BAAQMD's project-level thresholds of significance, the proposed Project would have a less than cumulatively considerable contribution to cumulative health risk.

Furthermore, there are no stationary sources within 2,000 feet of the nearest sensitive receptor (mobile home on Couch Property) or within 3,000 feet of the new Napa Junction Elementary School. The nearest high-volume roadway, Highway 29, is approximately 4,000 feet away from the nearest sensitive receptor and the new Napa Junction Elementary School and the nearest rail line is approximately 3,000 feet from the nearest sensitive receptor and approximately 4,000 feet from the new Napa Junction Elementary School.

The zone of influence for BAAQMD's project-level and cumulative health risk thresholds of significance is a 1,000-foot radius from the property line of a sensitive receptor. Since there are no stationary sources or major roadways/rail lines within 1,000 feet of sensitive receptors in the Project vicinity, cumulative risk for nearby sensitive receptors would be well below BAAQMD's cumulative health risk thresholds of significance and would be less than significant.

Comment A.15. The MND relies on non-binding Best Management Practices (BMPs) to reduce emissions of dust and particulates.

Response: The City considers the BAAQMD's Basic Construction Mitigation Measures Recommended for ALL Proposed Projects to be required (Page 8-4 of the BAAQMD *CEQA Air Quality Guidelines,* May 2017)[2], as stated in the IS/MND as follows:

> *"The BAAQMD's CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:*
>
> - *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
> - *All haul trucks transporting soil, sand, or other loose material off site shall be covered.*

[2] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May 2017. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde&hash=A8ECB7754057DCC18AF1CFF77E17F50C

- *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- *All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.*
- *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
- *A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.*

The following measures also are required by regulation:

- *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.*
- *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation."*

These measures would be included in the City's Conditions of Approval for the Project.

Biological Resources Comments

Comment A.16.: The MND fails to establish a baseline setting.

Response: As noted in M&A's March 2020 *Biological Resources Analysis* report, M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel of which the approximately 10-acre project site is a part. GECo retained Vollmar Natural Lands Consulting (VNLC) to conduct a peer review of M&A's reports, which included a site visit by Jake Schweitzer, VNLC biologist.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel of which the approximately 10-acre project site is a part. M&A biologists conducted site surveys on the entire 35-acre parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. During the site surveys and wetland delineation, M&A biologists recorded

biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species.

California Environmental Quality Act (CEQA) Guidelines, Section 15125(a), requires that the IS discuss the "baseline" environmental conditions at and in the vicinity of the project site. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the baseline condition:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project...

Therefore, the "baseline" is the combined circumstances existing at the time the CEQA document is published, which in the case of M&A's Biological Resources Analysis is March 2020, supplemented by M&A's September 3, 2020 study of the borrow site on the adjacent parcel.

Prior to preparing the biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of effect. Therefore, in analyzing "baseline" conditions for biological resources, M&A considered past sightings and studies on the project site to the extent that they were still relevant.

Note that the proposed project site is only 10 acres of the original 35-acre parcel that M&A surveyed in 2006, 2011, and 2012, 2017, 2018, and 2019. M&A's Biological Resources Analysis report described wildlife habitats and species observed onsite during the 2020 baseline survey conducted as part of M&A's Biological Resources Analysis report for the project site.

Comment A.16.B: The MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle. The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.

The comment continues with:

"The California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys. Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.

…..

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards."

Response: M&A's principal and senior associate biologists have been conducting biological field surveys for over 30 years and have never heard CDFW refer to "detection" surveys versus "take avoidance" surveys when commenting on CEQA documents. The comment does not provide a citation in reference to these two types of surveys; therefore, M&A is unable to refer to that specific CDFW publication referenced in the comment.

CEQA biology reports typically include a general assessment of the plant communities and wildlife habitats on a project site, and an evaluation of the likelihood of those communities/ habitats to support specific special-status species (i.e., threatened, endangered, rare species). The reports then determine if the proposed project could directly or indirectly impact such species. M&A's baseline surveys followed this approach, which is the standard of care for the industry for preparation of CEQA biological resources reports.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel in which the approximately 10-acre project site is a part. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. On April 22, 2021, M&A also conducted a specific survey for nesting birds including raptors such as the Western Burrowing Owl, Northern Harrier, White-tailed Kite, and Swainson's Hawk. During all surveys M&A biologists also noted all plant species onsite, kept lists of plants observed and were able to conclusively state that no special-status plants were observed on the project site. Nine of the 11 surveys mentioned above were appropriately timed to identify rare plants, had they been present on the project site. Finally, no special-status raptors or other special-status animal species were observed onsite or nearby during M&A's numerous surveys. Nine of the 11 surveys mentioned above were conducted during the nesting season; thus, had raptors or special-status birds nested on or near the project site, they would have been readily detected during these surveys by M&A's trained biologists. Regardless, since M&A recognizes that birds

are mobile and change nesting locations from year to year, preconstruction surveys would be necessary to ensure that the proposed project did not result in "take" of nesting birds, their eggs or young, as prescribed in the MND.

Comment A.17: The MND Fails to Adequately Analyze and Mitigate Impacts to the Swainson's Hawk. The comment states that the City relied on the California Natural Community Database (CNDDB) for its knowledge of Swainson's Hawk records in the Napa County area and as such has no basis for its assumption that the nearest Swainson's hawk nesting record is 2.6 miles to the north of the project site. Further, the commenter states that the applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the project site.

Response: Impacts to Swainson's hawk were adequately analyzed in the MND and mitigation prescribed for the project's potential impact to this species. M&A and the City did not rely on the CNDDB for knowledge of Swainson's hawk records. The CNDDB is only a part of the background research that goes into determining special-status species presence in an area. Thus, the fact that the MND states that the closest known occurrence of nesting Swainson's hawks is 2.6 miles to the north, as cited in the CNDDB and shown in Exhibit A, is not indicative of M&A solely relying on the CNDDB for special-status species data. M&A has conducted numerous studies in the City of American Canyon and southern Napa County, and has years of Swainson's hawk-specific local data from surveys that were conducted during the prescribed survey windows as specified by and in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 1994). In fact, in 2019, surveys for nesting Swainson's hawks were conducted in two separate periods on the 35-acre parcel that encompasses this 10-acre project site. In total, six surveys were conducted on the 35 acres over the two survey periods; no nesting Swainson's hawks were found onsite or within a half-mile radius. Additionally, in March and April of 2021, M&A biologists conducted Swainson's hawk surveys for other projects in the City of American Canyon and the 0.5-mile survey radius for those studies included the 217 Commerce Center project site. No nesting Swainson's hawks were observed onsite or nearby during the March and April 2021 surveys (Sarah Lynch, Senior Biologist, Monk and Associates, pers. com.).

Comment A.17.B: the MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk population. Based on Mr. Cashen's review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.

Response: M&A biologists have conducted numerous Swainson's hawk surveys of the undeveloped lands of American Canyon and southern Napa County over several decades, and, based on those studies, consider the comment's conclusion that the lands around the project site

and within 2.6 miles is comprised of "vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks" to be in error. Most of the undeveloped land east of the project site between Hess Road and Eucalyptus Drive (the Oat Hill area) is open grassland that provides suitable foraging habitat. Similarly, north of the project site, between Green Island Road and Devlin Road is the Giovannoni property which is approximately 208 acres of undeveloped grassland and seasonal wetland habitat. This land is perfect for foraging raptors such as the Swainson's hawk. Finally, the American Canyon wetlands south of the project site has plenty of upland habitat to support foraging Swainson's hawks, as demonstrated in the eBird sightings in this area. It is important to note that there is currently 2,092 acres of high-quality permanently preserved open space, comprised primarily of grassland with interspersed oak woodland, that is within 5.2 miles of the project site. These open space areas include Canyon Estates Preserve Area (67 acres), Lynch Canyon Preserve (1,039 acres), Napa Logistics Park Wetland Preserve (37.08 acres), Newell Preserve (640 acres), Newell Open Space Preserve (639 acres), and the CDFW California Red-Legged frog Preserve (309-acres) as shown on **Exhibit A,** below. Impacts to the 10-acre project site represents an insignificant loss of foraging habitat (0.48% of the preserved foraging habitat within 5.2 miles). More importantly, the Napa Logistics Park Wetland Preserve (37 acres) and the proposed Giovannoni Preserve (47 acres) (Exhibit A) are located 1 mile to 1.3 miles southwest of the aforementioned nesting occurrence (CNDDB Occurrence No. 2744) which is even closer than the project site. This should be more than adequate to support any nesting pairs within this area of southern Napa County.

Regardless, the Swainson's hawk has not been observed nesting onsite during appropriately timed, protocol-level surveys conducted in 2021, 2019, and 2018. Impacts to Swainson's hawks are unlikely to occur from the proposed project, and, in addition, mitigation measures are in place to ensure that any potential impacts to this species are reduced to a less-than-significant level.

Comment A.18: The MND Fails to Adequately Analyze and Mitigate Impacts to the Northern Harrier. The comment explains that one of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat. Although the MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers). The comment further states: Mr. Cashen explains that Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. He concludes that, because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.

Response: The northern harrier is a California "species of special concern." This raptor is not protected pursuant to either the State or Federal Endangered Species Acts. As such, loss of foraging habitat for this raptor (bird of prey) is not protected under any state or federal regulation. Protection of the northern harrier is limited to California Fish and Game Code sections that protect this bird, its active nests, its eggs and young. As such, the MND proposes mitigation to ensure that the project does not result in loss of nesting birds, eggs, or young. The mitigation

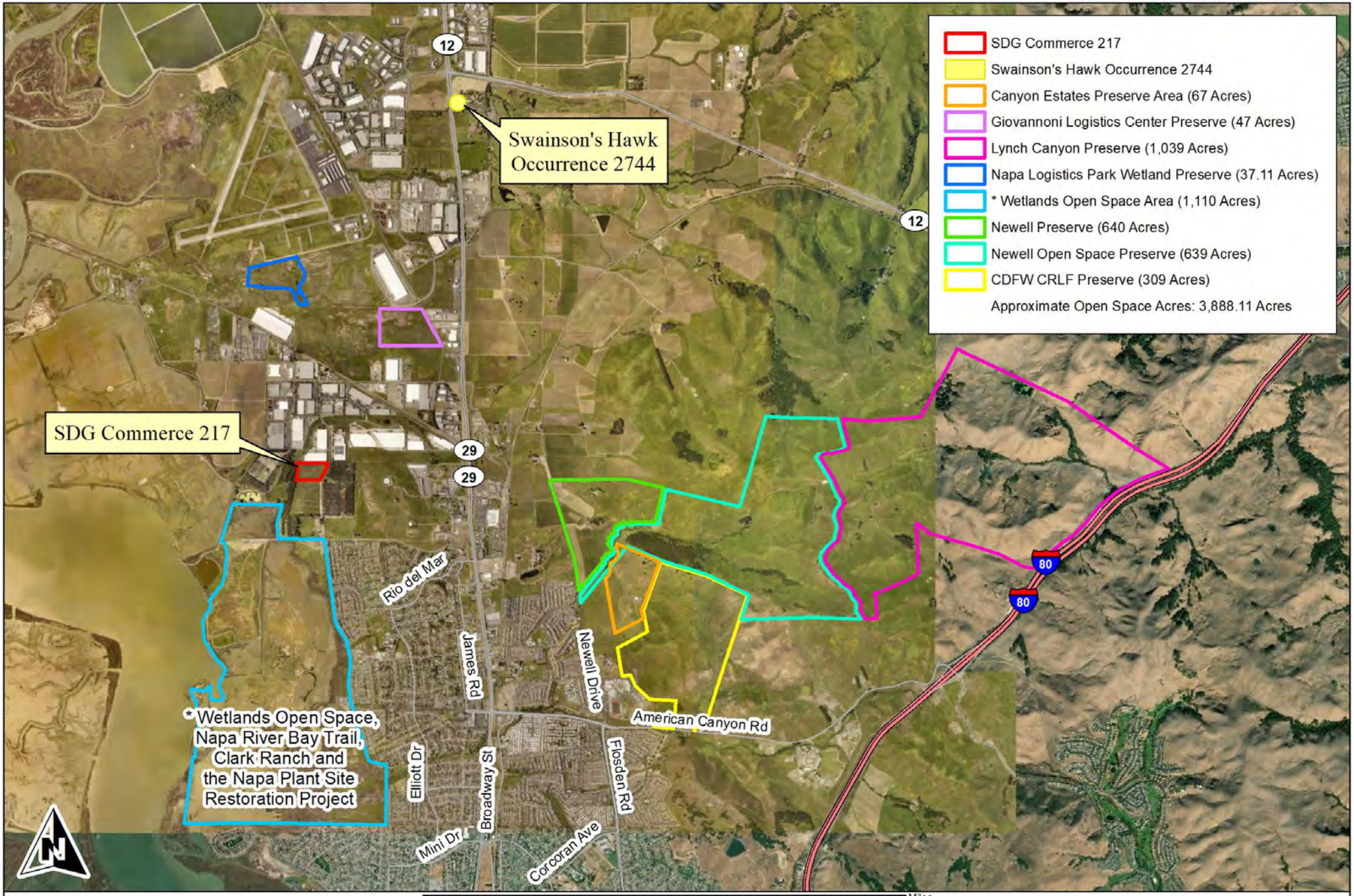

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Exhibit A. Preserved Open Space
Within the Vicinity of the
SDG Commerce 217 Project

Aerial Photograph Source: ESRI
Map Preparation Date: June 1

measure prescribed for the northern harrier is sufficient given this raptor's legal status (a California species of special concern). Finally, though it is not a requirement pursuant to CEQA or the Fish and Game Code that protects this bird, suitable foraging habitat for this bird remains in the project vicinity as discussed above for Swainson's hawk, and as shown on Exhibit A.

Comment A.19.: The MND Fails to Adequately Analyze and Mitigate Impacts to the White-tailed Kite. Mr. Cashen explains that the City's white-tailed kite analysis suffers the same flaws as the analysis for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges and seldom hunt more than 0.5 mile from their nests when breeding. Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles, which are known to occur at the Project site. Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree. Therefore, if white-tailed kites nest on or near the Project site, they would be significantly impacted by the loss of foraging habitat (from the Project site).

Response: The white-tailed kite is a "fully protected" species under California Fish and Game Code. Fully protected species may not be taken or kept in possession at any time (Fish and Game Code Section 3511). Thus, it is illegal to "take" white-tailed kites. "Take" is defined in Fish and Game Code Section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill." Any proposed activity that could kill or otherwise take a white-tailed kite would be a significant adverse impact pursuant to CEQA. However, loss of white-tailed kite foraging habitat would not be considered a significant adverse impact pursuant to CEQA and it is not a CEQA requirement to set aside foraging habitat for this species. Additionally, the white-tailed kite has no special federal legal status. The MND has been correctly written to ensure the protection of individual and nesting white-tailed kites and their eggs and young. Finally, though it is not a requirement pursuant to CEQA or the Fish and Game Code, suitable foraging habitat for this bird remains in the project vicinity (as discussed above for Swainson's hawk), and as shown on Exhibit A.

Comment A.20: The MND Fails to Adequately Analyze and Mitigate Impacts to Burrowing Owl Habitat. According to the comment: "Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat (CDFW 2012 Staff Report). Contrary to CDFW's guidance, the MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the MND is limited to the following: the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level. As Mr. Cashen explains, there are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated

from Napa County. Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have been extirpated. In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.

Response: While CEQA requires an analysis of the project baseline at the time the CEQA report is initiated, the project site's history is relevant to this project's biological resources analysis. The project site and surrounding parcels were 100 percent choked with Eucalyptus trees between the 1950s (perhaps earlier) and January 2012 (UC Santa Barbara Aerial Photograph Library). During that 60-plus year period, no California ground squirrels would have been on the project site as this species is typically not found in dense Eucalyptus. The removal of the Eucalyptus "grove" did not result in attracting California ground squirrels to the area; biological surveys conducted by M&A onsite in 2018, 2019, and 2021 did not detect California ground squirrels onsite. In April 2021, two M&A biologists conducted a burrowing owl nesting survey on the project site walking systematic transects over the entire site. No California ground squirrels and no suitable donor burrows were observed onsite.

It is logical to assume that burrowing owls would not nest on the project site, or winter there, for many reasons. One, the fact that the site was covered with Eucalyptus trees for decades precluded use by ground squirrels and ground nesting birds. Two, the project site is still surrounded by Eucalyptus on two sides and buildings on two sides which offers ground nesting birds such as the burrowing owl a very narrow aerial view which makes scanning the sky for predators difficult and which also means that predators such as larger owls and eagles have readily accessible perches to observe the project site's open field for prey. Three, burrowing owls are not known to have historically nested in southern Napa County.[3] The commenter states that burrowing owls are extirpated from Napa County, but it is speculative to presume that they bred/nested/resided in the county initially. The only conclusion that may be drawn from the data at hand is that they are a transient bird of the open grassland/wetland habitats of southern Napa County/American Canyon. It is important to note that eBird records in the county for this species are spotty and do not date back earlier than 2013 which does not speak to the history of this species in the County. Based on M&A's numerous surveys on the project site and in the vicinity (M&A biologists have conducted site surveys on the overall 35-acre parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, March 30, 2018, December 19 and December 27, 2019, and April 21, 2021), M&A is confident that this ground-nesting owl would not nest onsite or winter for more than a day or two, at most, due to an absence of secure refugia (burrows). Thus, the mitigation measure prescribed for this owl would reduce the project's proposed impact to this species to a less than significant level.

[3] Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a. California's wildlife, volume II, birds. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Comment A.20: Second, CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided." Thus, CDFW recommends compensatory mitigation if the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.

Response: The western burrowing owl is a California species of special concern. It is not protected under the California Endangered Species Act nor is it protected under the Federal Endangered Species Act, which is the Act that can extend coverage to endangered species' *habitat* (unlike the CESA which only protects the listed species itself and not the habitat). Regardless, the project site does not provide habitat for the western burrowing owl as there are no burrows onsite or other suitable refugia (M&A April 2021 survey results). This ground- nesting owl has not been observed onsite during multiple surveys days conducted over multiple years in both the winter and the nesting season as described in other responses above. Thus, after many years of surveys there are no expected impacts to this owl, either wintering or breeding, from the proposed project. However, in an abundance of caution a mitigation measure for potential impacts to nesting burrowing owls was included in the MND in the remote possibility that this owl may occur onsite in the future. Keeping with our cautious approach, we have added to this mitigation measure the necessity of mitigating for impacts to wintering burrowing owls. This revised mitigation measure is provided below with red-line track changes showing where text was added to the measure.

> ***Mitigation Measure BIO-1:*** A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.
>
> 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:

• From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.

• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.

• No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.

3) If a nesting season survey or wintering season survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

Comment A.21. b) The MND Fails to Adequately Analyze and Mitigate Impacts from Passive Relocation. The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat. The MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.

Response: M&A biologists have received permission from the CDFW on multiple projects to exclude wintering burrowing owls from properties in order to prevent these owls from nesting onsite in the near future when construction is eminent and it would be more impactful to the owls to have them nesting onsite when construction commences. Excluding wintering burrowing owls from properties proposed for construction is an impact minimization measure that is recognized by conservation organizations and is prescribed in the San Joaquin Multi-Species Conservation Plan (SJMSCP) and in the East Contra Costa County HCP/NCCP as a recognized take avoidance/impact minimization measure. Also, please note that MND Mitigation Measure BIO-1 has been rewritten to provide compensatory mitigation for *wintering* western burrowing owls, although based on past surveys conducted onsite over multiple years, we believe it is highly unlikely that western burrowing owl will be observed onsite.

Comment A.22. The MND Fails to Adequately Analyze and Mitigate Cumulative Impacts. The MND indicates there are only four projects that are proposed or under construction in the City of American Canyon. This does not comport with the "Active Project List" (dated March 2021) available on the City's website. According to the Active Project List, there are several additional projects that would contribute to cumulative impacts on biological resources. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.

Response: The project site provides approximately 10 acres of ruderal herbaceous habitat that, for decades, was a eucalyptus forest (source: historic aerial photograph images, UC Santa Barbara). Eucalyptus trees have allelopathic chemicals in their leaves, bark and roots which prevents other plants from growing under them. Dense groves of eucalyptus also blot out sunlight from reaching the ground. Dense groves of eucalyptus typically thwart burrowing animals' attempts at establishing underground tunnels due to the dense root network of the closely planted trees. Removal of the trees allows the ground to recover and herbaceous vegetation to re-establish in the area but the recovery process of the soil is slow and continual management for fire control hinders a speedy ecological recovery. In summary, development of this approximately 10-acre property that abuts eucalyptus groves and warehouses does not constitute a cumulatively considerable contribution to overall cumulative impacts to biological resources in American Canyon. The habitat preserves that have been established on the eastern City limits and in the surrounding portions of Napa County, as discussed in the MND and as shown in attached Exhibit A, provide far greater habitat value to biological resources using or possibly using the project site. The mitigation measures prescribed in the MND appropriately address potential impacts to western burrowing owl, Swainson's hawk, nesting raptors and nesting passerine birds, and reduce those impacts to a less-than-significant level in both the project and cumulative contexts. Therefore, no additional cumulative impacts assessment is required in the MND.

Comment A.23. The MND Provides Inadequate Compensatory Mitigation for Potentially Significant Impacts to Biological Resources. a) Mitigation Measure BIO-1 (Burrowing Owl). The commenter continues the comment saying that the mitigation measure BIO-1 is vague in its mitigation details and that success criteria and other mitigation plan details are not provided in the mitigation measure.

Response: The details of the Relocation Plan and Exclusion Plan would be developed at the point such a plan is necessary, and would be submitted to the CDFW for their review, comment and ultimately, approval. Typically, success criteria and other details are not discussed in the CEQA review document but rather in the mitigation plan or permit application submitted to the agency with jurisdiction over the resource in question. Should mitigation for burrowing owl be necessary, the CDFW would review the proposed mitigation plan(s)(e.g., exclusion plan, etc.) and provide

comment at that time. Any such plan would undergo robust vetting by the CDFW prior to their approval.

Comment A.24. Mitigation Measure BIO-2 (Swainson's Hawk). CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree. For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio. Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.

Response: In 1979, a report prepared by Dr. Peter Bloom estimated 375 (+ or -50) breeding pairs of Swainson's hawks remaining in California. Bloom's report noted that nesting numbers were greatest in the Central Valley and in the Great Basin area of northeastern California, with a few Swainson's hawk territories located in Shasta Valley, the Owens Valley, and the Mohave Desert. In 1988, a CDFW led survey effort revealed no change in Swainson's hawk distribution from the 1979 report. The 1988 effort led to an estimate of 430 pairs in the Central Valley and a state-wide estimate of 550 breeding pairs. In 2005, a state-wide survey was conducted in the known range. The results showed a state-wide estimate for the number breeding pairs at 2,081.

Circa 2005, Dr. Bloom noted that the Swainson's hawk population in California and indeed throughout its historic range in North America was suffering from acute poisoning from grasshopper insecticides that were being applied directly on their gregarious migration roosts in Argentina (pers. comm. with G. Monk). This practice has largely been stopped in Argentina within the last 15 years and the Swainson's hawk nesting population in California seems to be responding remarkably. The Swainson's hawk nesting distribution now occurs in many areas where the Swainson's hawk has not been known to nest for decades, if ever. Napa County, while considered within the historic distribution of the Swainson's hawk, was not known to support nesting sites for this hawk in the 1970s or 1980s. Similarly, the nesting population now extends into east Contra Costa County where nesting has not been recorded for many decades. Other nesting population recovery that Mr. Monk knows of includes areas of Southern California in the Antelope Valley and in Kern County. This widespread nesting recovery that is documented in the CNDDB and by the personal observations of many other biologists in California is yet to be incorporated into CDFW policy. Accordingly, the 1994 Staff report regarding *Mitigation for Impacts to Swainson's hawks (Buteo swainsonii) in the Central Valley of California* besides being geographically inappropriate for the proposed project in Napa County, is also not relevant to current nest territory expansion of the Swainson's hawk population into Napa County and elsewhere in the state. Thus, this document is not appropriately used as a basis for determining mitigation ratios for impacts to annual grassland (and in the case of the project site, ruderal herbaceous habitat) in Napa County. That *Staff Report* requires mitigation for projects that impact foraging habitat within 10 miles of an "active" Swainson's hawk nest (as defined by the

CDFW *Staff Report*). For the reasons provided above this mitigation requirement is not reflective of the current population expansion of the Swainson's hawk in California, and its use is geographically limited to the Central Valley.

It is noteworthy that other raptors that were state and federally listed when the Swainson's hawk was state listed in 1983 such as the Bald Eagle (*Haliaeetus leucocephalus*) and the peregrine falcon (*Falco peregrinus*) have been delisted (i.e., removed from protections provided by both the CESA and the FESA). The federal government conducted routine census surveys for these species and determined that the nesting populations of these species had fully recovered and thus that protection pursuant to the FESA was no longer warranted. The CDFW followed these delisting efforts. In contrast, the Swainson's hawk was never federally listed, and as the State of California does not have a recovery plan for the Swainson's hawk there is no guideline for what constitutes recovery. In addition, the Swainson's' hawk certainly has not a full "boots on the ground" nesting census to the extent that federally listed raptor species did. Thus, mitigation prescriptions developed 21 years ago are outdated today.

While the decline of the Swainson's hawk population may still be an issue in the Central Valley, the Napa County population may be overemphasized by the CDFW. While the CDFW published a 5-Year Status Review for the Swainson's hawk, the census data supporting this raptor's continued listed status was focused only on the known distribution of this species as detailed in Bloom 1980, which this document claims is consistent with the distribution and numbers outlined in the original status review that led to the listing of this species by CDFW. As referenced above, these data do not take into account the range expansions into areas where the Swainson's hawk had historically nested and the species was presumed extirpated, specifically Sonoma and Napa counties (page 14 of the 2016 CDFW Status Review) and from which may be difficult to prognosticate population trends. The CNDDB lists many new records within the geographic area of the project site that are not taken into account in the status review. These CNDDB records attest to the health and well-being of the Swainson's hawk within this area of Napa County where it is clear the Swainson's hawk population is expanding. Finally, there are well over 2,000 acres of open space preserves in the immediate area for Swainson's hawks to forage/nest in. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity. As such, mitigation for the project's impact to potential foraging habitat are not warranted as this impact would be less than significant.

Comment A.25. Mitigation Measure BIO-3 (Nesting Raptors). The MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.

Response: The MND does not spell out all the variables that the biological monitor would watch for to determine if nesting adults are in distress from earth-moving/construction activities nearby; however, as required by the MND's mitigation measure, the biological monitor would be a trained and qualified raptor biologist, with a minimum of two years of experience conducting raptor nesting surveys with detections. He or she would know what behaviors to watch for that would indicate that an adult may be in distress (for example, in some raptor species this could be agitated behavior in adult birds with one adult circling overhead and calling repeatedly. In some raptor species it is a silent departure from the nest). These distress signals will be known to the experienced raptor biologist who would be monitoring the nest.

It also should be noted that some raptors are more acclimated to disturbance than others. For example, a raptor pair that nests next to a busy road or a noisy factory would be acclimated to noise, and adjacent construction would likely not phase the nesting pair. By having a qualified raptor biologist monitor the nest/nesting attempt from the start of the construction activity daily for a week to observe the nesting raptors' behavior during the ongoing work, the biologist can see how the raptors respond to the activity and what an appropriate non-disturbance buffer would be. Once this buffer is established, the nest would continue to be observed to see how the raptors are responding. Presuming that the raptors are undisturbed by the established buffer distance, the daily monitoring can be reduced to checks once a week to ensure there has been no change in the birds' behavior. Of course, if a new and potentially more disruptive type of machinery or construction method is introduced to the work area, biological monitoring could resume daily to check that this new activity does not adversely affect the birds. Biological monitoring is an adaptive process and the biologist would modify the frequency of the monitoring activity as necessary to ensure the success of the nesting attempt. Thus, the mitigation measure as written in the MND reduces the project impact to nesting raptors to a less-than-significant level pursuant to CEQA.

Comment A.26. Mitigation Measure BIO-4 (Nesting Passerines) Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.

Response: This response is similar to the response to comment A.24. The biological monitor who would be assigned to this task would be a well-trained and experienced biologist. He or she would know what distress signs to look for in the nesting passerines. Of course, if a new and potentially more disruptive type of machinery or construction method is introduced to the work area, biological monitoring could resume daily to check that this new activity does not adversely affect the birds. Biological monitoring is an adaptive process and the biologist will modify the frequency of the monitoring activity as necessary to ensure the success of the nesting attempt. Thus, the mitigation measure as written in the MND reduces the project impact to nesting passerines to a less than significant level pursuant to CEQA.

Comment A.27. Mitigation Measure BIO-5 (Pond Turtle) Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." Mr. Cashen explains that the proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, he explains that it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.

Response: In response to the comment, the mitigation measure for western pond turtle has been modified to include a no-disturbance corridor between the nest site(s) (if one is found) and North Slough. New text is underlined in the modified mitigation measure below.

Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle with detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities. The nest site plus a 50-foot buffer around the nest site and a <u>no-disturbance corridor between</u> <u>the nest site and North Slough</u> shall be fenced with orange construction fence until eggs hatch and young turtles disperse <u>along the protected no-disturbance corridor</u> to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area <u>and no-disturbance corridor</u> shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

Implementation of this mitigation measure reduces the project's impact to western pond turtle to a less than significant level because it meets or exceeds all standard resource agency requirements for this species, and is consistent with professionally accepted approaches to mitigating impacts to this species.

Energy Impacts

Comment A.28. Substantial evidence supports a fair argument that the project may result in potentially significant energy impacts

Response: The IS/MND described and quantified the proposed Project's energy use. Construction energy use was quantified in the IS/MND as follows:

> *"Construction of the proposed project would require consumption of gasoline and diesel fuel by construction worker vehicles travelling to and from the site, by haul trucks delivering construction materials and supplies to the site, and by onsite construction equipment. Once the construction is completed and the proposed project is occupied, gasoline and diesel fuel would continue to be consumed by motor vehicles from employees, deliveries and visitors. Electricity would be consumed for lighting, space and water heating, and landscape maintenance (i.e., electricity to control irrigation equipment), as well as the operation of typical office and warehouse equipment such as computers and electric forklifts.*
>
> *The air quality modeling (CalEEMod) described in detail in the air quality section of this Initial Study, utilized standard fuel consumption estimates to determine that project construction activities would require approximately 42,500 gallons of diesel fuel.3 For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. Natural gas would not be used during construction."*

Operational energy use was quantified in the IS/MND as follows:

> *"The proposed project's electricity consumption was based upon actual electricity usage from two nearby and almost identical warehouse buildings and was estimated to be approximately 652,000 kilowatt-hours (kWh) of electricity per year (See Appendix B for details). The proposed project would not require the use of natural gas. The daily weekday vehicle trip rate of 1.69 weekday trips per 1,000 square feet was used to estimate mobile vehicle emissions (367 weekday vehicle trips). Based on air quality modeling (CalEEMod), the estimated annual vehicle miles traveled for the proposed project would be approximately 765,788 miles, requiring approximately 35,000 gallons of gasoline per year. Additional information regarding the energy calculation details are found in Appendix B."*

Energy use was estimated with through the use of the CalEEMod performed for the air quality analysis. The default energy use settings were adjusted in CalEEMod and were based on actual electricity usage for other wine warehouses nearby the proposed Project site. This provided far more accurate energy use estimates for the proposed Project because CalEEMod uses an average energy use derived from refrigerated warehouses throughout California. The proposed Project's

energy use is specific to the Project type (wine storage), location/climate (City of American Canyon), and also takes into account specific Project design (i.e., night air cooling system to capture cold air from outside during night, motion sensor lighting). As concluded in the IS/MND, energy impacts would be less than significant.

GHG Impacts

Comment A.29. The GHG analysis relies on inapplicable thresholds in violation of CEQA

Response: As stated in the IS/MND,

> *"The GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a* ***less-than significant*** *impact."*

On September 8, 2016, Governor Brown signed Senate Bill (SB) 32 into law, amending the California Global Warming Solution Act. SB 32 requires the California Air Resources Board (CARB) to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030, and CARB adopted an updated Climate Change Scoping Plan in December 2017 to provide a framework for achieving this more stringent 2030 target. BAAQMD has yet to publish a threshold for 2030 in response to SB 32 and the CARB Scoping Plan. So, in the interim, the City has decided to use a threshold of significance that is 40 percent below the 2020 BAAQMD targets, which is what many other lead agencies under BAAQMD jurisdiction have chosen to do until the BAAQMD updates its CEQA Guidelines. Consequently, for the purposes of the proposed Project, a bright-line threshold of 660 metric tons of CO2e per year is utilized based on the GHG reduction goals of SB 32 (40% below the 1,100 metric tons of CO2e per year threshold).

As stated in the IS/MND and shown above, the GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO2e per year, which is below the 660 metric tons of CO2e per year threshold based on the GHG reduction goals of SB 32. Therefore, the Project would not conflict with the GHG reduction goals of SB 32 and GHG emissions impacts would be less than significant.

Land Use Impacts

Comment A.30. The project may result in significant land use impacts due to zoning designation non-compliance.

Response: The American Canyon City Council considered the appropriateness of the zoning for wine warehouse uses in its approval of the Commerce 330 project in 2019, and considered the proposed use compatible with that zoning. As described in the IS, this is consistent with the City Attorney's conclusions. It should be noted that whether or not a project conforms with the site's zoning is a planning issue and does not constitute a physical environmental issue under the

purview of CEQA. Therefore zoning non-conformance is not, in itself, a potentially significant environmental impact.

Noise Impacts

Comment A.31. The Project may have significant noise impacts because it will create a canyon noise effect on the north side since there will be two concrete walls now facing each other**.**

Response: The proposed Project building would be greater than 200 feet (60 meters) from the existing building to the north and in between there is a dense row of eucalyptus trees and City access road. A canyon noise effect is typically observed in highly urbanized areas in between two high rise buildings where the area between the two buildings is narrow, paved and subject to constant traffic noise.

Based on the distance, vegetation and proposed intensity of Project operations between the proposed Project building and existing building to the north, the proposed Project would likely not generate a perceptible canyon noise effect. Any added noise from reflections from the building to the north would send noise east and west of the area between the proposed Project building and existing building to the north, which are Eucalyptus groves with no sensitive receptors nearby. Therefore, no City noise standards would be exceeded and noise impacts would be less than significant.

Furthermore, no canyon noise effect was observed during onsite noise measurements between the building to the north of the Project site and the building north of the Couch property to east of the Project site. These two buildings are approximately the same distance apart as the proposed Project building and the existing building north of the Project site.

Comment A.32. The MND accounts for noise on site due to truck traffic, but does not account for any along the routes the trucks must take enter and exit the to the Project

Response: The IS/MND analyzed noise from on-site truck traffic as follows:

> *"The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Court and Green Island Road. The existing average traffic noise levels measured at Commerce Court (Site 5) were 52 to 59 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 367 trips per day during weekdays with 35 AM peak- hour trips and 28 PM peak-hour trips, which would be less than one trip per minute during the peak hour traffic (GHD, 2020). Project traffic would not result in a doubling of traffic and would have a less than 3 dB increase and would have a minimal effect upon ambient noise levels in the project vicinity.*

> *Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.*
>
> *The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).*
>
> *Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be* ***less than significant****."*

Trucks would travel between the site and Highway 29 via Commerce Blvd. and Green Island Road (an industrial region of the City). Trucks would enter the Project site at the northeast corner of the Project site via Commerce Blvd. Trucks would exit the Project site at the southeast corner of the Project site via Commerce Blvd.

The Project entry/exit and Commerce Blvd. is approximately 1,000 feet from the nearest sensitive receptor (mobile home on the Couch Property to the east). Napa Junction Elementary School is approximately 1,750 feet from the Project exit and approximately 2,150 feet from the Project entry, and is shielded by very dense eucalyptus on the Couch Property (east of the Project site and north of Napa Junction Elementary School). The residential neighborhood south of Napa Junction Elementary School is approximately 2,100 feet from the Project exit and approximately 2,500 feet from the Project entry, and is also shielded by very dense eucalyptus on the Couch Property.

Heavy trucks have an Lmax of approximately 85 dB at 50 feet.[4] Based on line source attenuation for a soft site (the land between Commerce Blvd and the nearest sensitive receptor on the Couch Property is undeveloped), heavy trucks would have an Lmax of approximately 65 dB at 1,000 feet. Since trucks would be entering and exiting the facility intermittently during daytime hours and very dense eucalyptus exists between the Project entry/exit and the nearest sensitive receptor, which would further attenuate noise, traffic noise levels would be well below 65 dB Ldn at the mobile home on the Couch Property approximately 1,000 feet to the east. Furthermore, the

[4] California Department of Transportation (CalTrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

majority of peak hour traffic is expected to be employee automobile trips, which would likely be imperceptible at the nearest sensitive receptor to the east. Therefore, traffic noise would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan and traffic noise impacts would be less than significant.

Comment A.33. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours and whether the noise created from them would stay under 65dB as required by American Canyon Municipal Code.

Response: The IS/MND analyzed nighttime concrete pours as follows:

> *"Project construction would require approximately 15 days of nighttime construction activities for pouring concrete for the building slab, wall panel, and additional large paving due to the scale of the pour requiring that the plant and trucks being dedicated to it for the pour duration. Previous nighttime concrete pours occurred for the construction of the SDG Commerce 330 Distribution Center building approximately 1,000 feet south of the project. The City received a few calls from the residents to the southeast (the neighborhood southeast of the Eucalyptus Drive/ Wetlands Edge Road intersection) inquiring about nighttime construction noise. Once the pre-notification of nighttime construction dates and times were submitted to the City, the residents to the southeast were notified and understood the nature and timing of nighttime construction and submitted no further noise inquiries (Doswald, 2020). The concrete pours would occur during nighttime hours starting no earlier than 12:00 a.m.*
>
> *Concrete pouring activities would occur approximately 1,000 feet from the existing residence and 2,300 feet from the residential neighborhood. In addition, the existing SDG Commerce 330 Distribution Center building to the south would work as a noise barrier to the residences approximately 2,300 to the southeast. As shown in Table Noise-4, the maximum noise levels generated at 1,000 feet would be approximately 53 dB. This would be below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code. Similar to previous construction for the SDG Commerce 330 Distribution Center building, pre- notification of these night pour dates and times would be provided to the City of American Canyon and to residents that expressed concern with nighttime noise during the Commerce 330 Distribution Center construction."*

There was no noise monitoring conducted during the previous nighttime pours for the SDG 330 Warehouse Project, thus no information was provided in the IS/MND. The SDG 330 Warehouse Project was also significantly closer to the residential neighborhood south of Napa Junction Elementary School where residents previously called the City regarding nighttime noise (SDG

330 Warehouse was approximately 1,000 feet away and did not benefit from noise attenuation from the very dense eucalyptus on the Couch Property, and the proposed Project is approximately 2,300 feet away with intervening structures and vegetation in between). As stated above, the noise analysis in the IS/MND estimated concrete pouring activities including concrete trucks at approximately 53 dB Lmax at the nearest receptor approximately 1,000 feet to the east (mobile home on Couch Property). This estimate was considered conservative as it did not account for the attenuation from the dense eucalyptus that would act as a noise barrier between the Project site and the nearest receptor approximately 1,000 feet away. As stated in the IS/MND, nighttime pouring activities would be well below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code and would be less than significant. As an added measure, see MM-Noise 1, which requires pre-notification of night time pours.

Traffic Comments

Comment A.34. Potential warehousing uses of the project building may result in significantly higher trip generation than assumed in the MND.

Response: The intensification in use as described in the comment would not be allowable under the conditional use permit being sought. As described on Page 7 of the Initial Study, under "Current Zoning and General Plan Designations":

> *The General Plan designates the site as Commercial Recreation (CR) and the Zoning Map designates the site as Recreation (REC). The City's Municipal Code, Chapter 19.15.020 permits Wineries and non-winery uses with a conditional use permit in the Recreation Zoning District. A Conditional Use Permit is applied for in the attached Entitlement Application Form. It is anticipated that the distribution center would be used for "Winery" work in conjunction with viticulture related activities such as bottling, storage logistics, distribution, wine-packing, and wine related services.*

Comment A.35. The MND's Transportation section fails to address the serious operations and safety problems on SR 29 in the project vicinity.

Response: Since the statewide implementation of SB 743 on July 1, 2020, automobile congestion and delay are no longer considered to constitute a significant environmental impact under CEQA (Pub. Resources Code, §21099(b)(2)). Therefore, notwithstanding the existing congestion issues present on the corridor, as documented in the SR 29 Comprehensive Multimodal Corridor Plan, the proposed project's contribution towards automobile delay on SR 29 are no longer considered in the determination of potential transportation impacts under CEQA. From a traffic safety perspective, the project proposes no geometric changes to the roadways or intersections that

would contribute towards or introduce unsafe conditions on SR 29. Further, Caltrans, the agency with jurisdiction over SR 29, has reviewed the transportation analyses prepared in support of this project and made no comment requesting additional study of the SR 29 mainline or its intersections.

Comment A.36. The MND assumes implausible mitigation of the Project's significant VMT impacts.

Response: The approach GHD has applied to estimate VMT reduction associated with the completion of the bikeway connection between Eucalyptus Drive and Commerce Court represents a reasonably conservative estimate. The existing Wetlands Edge bikeway provides no commute benefit, as it currently fails to connect residential neighborhoods to employment destinations. The proposed 800-foot bikeway that would close the gap between Eucalyptus Drive and Commerce Court thereby induce additional bicycle commute demand for the existing Wetlands Edge bikeway by connecting a large residential area (south of Eucalyptus Drive) with the City's largest employment destinations (north of Commerce Court).

There is no existing designated bikeway connecting from Eucalyptus Drive to the recently constructed Class I Bike Path, located adjacent to the Commerce 330 site, connecting to Commerce Court. The unpaved gap in bicycle infrastructure is not a suitable bicycle commute route and is, for bicycle network planning purposes, a non-traversable gap. Constructing an accessible, paved, designated bikeway to Class I standards from Eucalyptus Drive to Commerce Court will provide a safe and efficient route for bicycle commuters.

The existing bikeway gap serves as a barrier to commuters that may desire to bicycle. It is necessary to include the existing Wetlands Edge bikeway in the induced bicycle commuting calculation, as it quantifies the extent of "latent demand" estimated to be present along the Wetlands Edge corridor. However, because there is a non-zero chance that some existing commuters may "traverse" the bikeway gap, notwithstanding the present unpaved dirt and gravel conditions, GHD presented and averaged the resulting calculations for induced bicycle commuting demand of both the full 1.85-mile bikeway and the proposed 800-foot gap closure in an effort to present a reasonably conservative estimate.

With respect to bicycle commute distance, GHD's technical analysis demonstrates that applying either the lower or higher bicycle commute distances (3.8 miles or 5.2 miles) would induce sufficient bicycle commuting to offset the project's VMT impact. GHD presented the results of both calculations and presented an average thereof. However, It is not necessary to average the results of this calculation to make the determination relative to the project's VMT impact.

Lastly, the annualization of daily VMT estimates (assuming 5 days per week, 47 weeks per year) is standard industry practice for converting daily traffic volumes, trip generation estimates, or VMT calculations to an annualized figure.

Comment A.37. There is substantial evidence supporting a fair argument that the Project may result in potentially significant adverse impacts that were not identified in the MND.

Response: The opinion expressed in the comment is noted. As discussed in this Final IS, there are no unmitigated potentially significant impacts associated with the project, therefore preparation of an environmental impact report is not required.

B. Lozeau Drury Comment Letter, May 3, 2021.

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury May 3, 2021 comment letter. The comment letter is included as Attachment B to this appendix.

Comment B.1. Constructing an 800-foot bike lane would reduce VMT of commuters in nearby neighborhoods by 733 VMT daily is not supported by substantial evidence because it assumes that cyclists cannot currently ride on Commerce Avenue from Eucalyptus Drive to the existing bike lane adjacent to the SDG Commerce 330 building. In addition, the VM<T reduction would be inadequate.

Response: See responses to **A.16,** above and **B.6,** below**.**

Comment B.2. The VMT Analysis fails to address the numerous non-commute trips generated by the Project.

Response: The consideration of commute trips only when establishing VMT baselines, VMT thresholds, and VMT estimates for employment projects is standard industry practice. Per the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), with respect to recommended processes to establish VMT thresholds for office (work-based) projects, "where tour-based information is unavailable for threshold determination, […], **home-based work trip VMT should be used throughout all steps of the analysis**." (emphasis added)

Additionally, per the OPR Technical Advisory, the term "automobile" means on-road passenger vehicles, specifically cars and light trucks. Notwithstanding the fact that employment projects generate non-commute traffic and VMT, the selection of the commute VMT only provides a defensible apples-to-apples basis for establishing VMT baseline and thresholds against which all employment projects can be evaluated. Therefore, home-based work (i.e. commute) VMT, is the appropriate basis of analysis for this project.

Comment B.3. Substantial evidence of a fair argument exists that the project may have significant transportation impacts.

Response: See responses to **B.4, B.5,** and **B.6,** below. As discussed in those responses, the model inputs and assumptions made by GHD in preparation of the VMT analysis are considered conservative and rely on past studies most closely reflective on the characteristics of the proposed project. Therefore, the comment does not provide substantial evidence to support a fair argument of a significant impact.

Comment B.4. The MND's assertion that the proposed 800-foot bike lane should be credited with benefits for an additional 1.7 miles of existing bike lane is arbitrary and capricious.

Response: GHD's analysis does not "credit" VMT mitigation to the project from existing infrastructure. GHD's analysis quantifies the anticipated bicycle commute mode shift that could be reasonably expected to occur once the gap in the existing bikeway system is closed. See response to **A.36** for additional detail.

Comment B.5. The 5.2-mile average bicycle commute distance is based on an average bicycle commute trip distance documented in the Oregon Transportation Research and Education Consortium Report, *Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice* (OTREC 2008). This Report provides substantial evidence of the bicycle commute trip length because it collected statistically significant data, detailed bicycling behavior via GPS, and studied characteristics of bicycle commuters in an urbanized area. Since GHD's analysis is focused on bicycle commute mode shift in an urbanized area, use of bicycle commute trip length data from the OTREC study is appropriate, and is supported by substantial evidence.

The 3.8-mile average bicycle commute distance is reported in *Report 14. Bicycling and Walk Commuting* of *Commuting in America 2013: The National Report on Commuting Patterns and Trends* (AASHTO, 2015). This report is publicly available online and presents an average bicycle commute trip length of 3.8 miles based on nationwide household survey data. AASHTO is a nationally accepted and credible source and this study analyzed bicycle commuting nationwide with statistically significant data. GHD's analysis demonstrates that applying either the 3.8 mile or 5.2-mile distance to the calculation would result in sufficient induced bicycle commuting to offset the project's VMT impact.

The commenter suggests that the maximum potential bicycle commute that would be served by the bikeway is 0.75 miles. This is unreasonable, as the existing Wetlands Edge bikeway itself is nearly 2 miles long. It is, however, reasonable to assume that bicycle commuters could use the proposed bikeway gap closure to commute at least 5.2 miles to employment destinations on Commerce Court and along Green Island Road. South of the project, beyond the existing Wetlands Edge bikeway, there are low-stress residential streets and existing bikeways (i.e., bike lanes, bike routes) in American Canyon and in the City of Vallejo that will be connected to employment destinations via this gap closure.

Comment B.6. Applying CARB methodology to estimating VMT reductions induced by a bike facility, the proposed bike lane would induce only bike commutes replacing 24 VMTs.

Response: The CARB methodology is not appropriately applied in the comment. The equation utilizes an estimated 20 ADT on Commerce Court, which is a cul-de-sac. The intent of the CARB methodology is to use ADT as a proxy for latent bicycle commute demand where bikeways are not present. The correct application of the CARB methodology in this case would be to use the ADT of SR 29 (or a portion thereof) that is representative of the actual travel demand between Commerce Court and Eucalyptus Drive, were it connected by a public street instead of blocked by opposing cul-de-sacs.

Furthermore, the CARB methodology is not intended to estimate induced bicycle commute demand. The CARB methodology utilizes 1.5 miles as the average bicycle trip length. However, the 1.5-mile bicycle trip length presented by CARB represents the average distance of all bicycle trips, including commute trips, recreational trips, trips by children, shopping trips, and all other trip purposes. The methodology applied by GHD isolates induced demand to commute travel purposes only, which is required in order to maintain consistency with the home-based-work VMT calculations that establish a CEQA baseline and inform the determination of an impact.

C. Lozeau Drury Comment Letter, June 3, 2021.

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury June 3, 2021 comment letter. The comment letter is included as Attachment C to this appendix.

Comment C.1. For the many reasons identified in LIUNA's previous comments, the MND's estimate of VMT reductions that would result from the Project's proposed 800-foot bike lane are highly exaggerated. There is substantial evidence of a fair argument that the Project may have significant transportation impacts.

Response: See responses **B.1** through **B6,** to Lozeau Drury Comment Letter, May 3, 2021, above. As noted therein, there is not substantial evidence of a fair argument that the Project may have significant transportation impacts.

Comment C.2. For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required.

Response: The comment's expressed opinion regarding the adequacy of the IS and need for an EIR is noted. Please see responses **B.1** through **B.6**, above.

Attachment A: Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021

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May 3, 2021

Via Email and U.S. Mail

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RE: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008; SCH Number 2020120302)

Dear Mr. He:

We write on behalf of American Canyon Residents for Responsible Development ("Residents") to provide comments on the Initial Study and Mitigated Negative Declaration ("MND") prepared by the City of American Canyon ("City") for the SDG Commerce 217 Distribution Center Project (Application PL20-0008; SCH Number 2020120302) ("Project"), proposed by SDG Commerce 217, LLC ("Applicant").

The Applicant seeks a Conditional Use Permit ("CUP") to construct a new 217,294 square foot wine warehouse distribution center with parking and landscaping at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area. The Project site is on the west side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the Project site is from SR-29 via Green Island Road to Commerce Court.

The Project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on

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February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved as Project SDG 330 for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size[1]. According to the MND, there are no current plans for development of that parcel.[2]

Based upon our review of the MND and supporting documentation, we conclude that the MND fails to comply with the requirements of the California Environmental Quality Act[3] ("CEQA"). The MND fails to accurately describe the Project by piecemealing the City's environmental review of the Project from its related components. Additionally, it fails to identify the Project's potentially significant environmental impacts and fails to propose enforceable measures that can reduce those impacts to a less than significant level, as required by CEQA. 1

As explained in these comments, there is more than a fair argument that the Project will result in potentially significant impacts relating to air quality, public health, biological resources, energy, GHG, land use, noise, and transportation. The City may not approve the Project until it prepares an environmental impact report ("EIR") that adequately analyzes the Project's potentially significant direct, indirect and cumulative impacts, and incorporates all feasible mitigation measures to avoid or minimize these impacts.

We prepared these comments with the assistance of air quality and hazards experts James Clark, Ph.D., of Clark and Associates, Neil Shaw, FASA, FAES, Scott Cashen, M.S., and Daniel Smith Jr., P.E., of Smith Engineering & Management. Dr. Clark's technical comments and curricula vitae are attached hereto as **Attachment A**.[4] Mr. Shaw's technical comments and curricula vitae are attached hereto as

[1] MND, p. 4.
[2] MND, p. 4.
[3] Pub. Resources Code, §§ 21000 et seq.; 14 Cal. Code Regs. ("C.C.R") §§ 15000 et seq. ("CEQA Guidelines").
[4] **Attachment A**: Letter from James Clark re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 3, 2021 ("Clark Letter").

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Attachment B.[5] Mr. Cashen's technical comments and curricula vitae are attached hereto as **Attachment C**.[6] Mr. Smith's technical comments and curricula vitae are attached hereto as **Attachment D**.[7]

I. STATEMENT OF INTEREST

American Canyon Residents for Responsible Development is an unincorporated associations of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental and public service impacts of the Project. Residents includes American Canyon residents Robert Schwerin, Jason Moreno, and Anthony Ricker, the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail, Transportation Workers Local Union 104, and the District Council of Ironworkers, along with their members, their families, and other individuals who live and work in the City of American Canyon, and in Napa and Solano counties.

Individual members of Residents live, work, recreate, and raise their families in the City, in Napa and Solano counties, and in the surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist on site.

In addition, Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for businesses and industries to expand in the region, and by making the area less desirable for new businesses and

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[5] **Attachment B**: Letter from Neil Shaw re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 3, 2021 ("Shaw Letter").
[6] **Attachment C**: Letter from Scott Cashen re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 2, 2021 ("Cashen Letter").
[7] **Attachment D**: Letter from Daniel Smith Jr. re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) April 29, 2021 ("Smith Letter").

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new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. AN EIR IS REQUIRED

CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR.[8] "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR protects not only the environment, but also informed self-government."[9] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[10]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances.[11] CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[12]

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review

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[8] See Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.
[9] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goletta Valley*), internal citations omitted.
[10] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[11] See Pub. Resources Code, § 21100.
[12] Pub. Resources Code, §§ 21080, subd. (d), 21082.2, subd. (d); CEQA Guidelines, §§ 15002, subd. (k)(3), 15064, subds. (f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123 (*Laurel Heights II*); *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602 (*Quail Botanical*).
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> *would avoid the effects or mitigate the effects to a point where* <u>*clearly*</u> *no significant effect on the environment would occur*, and (2) there is *no substantial evidence* in light of the whole record before the public agency that the project, as revised, *may* have a significant effect on the environment.[13]

Courts have held that if "no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[14] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[15] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[16]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[17] According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (f):

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.

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[13] Pub. Resources Code, § 21064.5 (emphasis added).
[14] See, e.g., *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[15] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[16] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; see also *Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 (*Friends of B Street*) ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[17] CEQA Guidelines, § 15384, subd. (a).
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Furthermore, CEQA documents, including EIRs and MNDs, must mitigate significant impacts through measures that are "fully enforceable through permit conditions, agreements, or other legally binding instruments."[18] Deferring formulation of mitigation measures to post-approval studies is generally impermissible.[19] Mitigation measures adopted after Project approval deny the public the opportunity to comment on the Project as modified to mitigate impacts.[20] If identification of specific mitigation measures is impractical until a later stage in the Project, specific performance criteria must be articulated and further approvals must be made contingent upon meeting these performance criteria.[21] Courts have held that simply requiring a project applicant to obtain a future report and then comply with the report's recommendations is insufficient to meet the standard for properly deferred mitigation.[22]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts, and fails to provide substantial evidence to conclude that impacts will be mitigated to a less than significant level. Because the MND lacks basic information regarding the Project's potentially significant impacts, the MND's conclusion that the Project will have a less than significant impact on the environment is unsupported.[23] The City failed to gather the relevant data to support its finding of no significant impacts. Moreover, substantial evidence shows that the Project may result in potentially significant impacts. Therefore, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR. 2

III. THE CITY FAILED TO PROVIDE TIMELY ACCESS TO MND REFERENCE DOCUMENTS

The City violated CEQA and improperly truncated the MND's public comment period by failing to make all documents referenced, incorporated by reference, and relied on in the MND available for public review during the public 3

[18] CEQA Guidelines, § 15126.4, subd. (a)(2).
[19] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309; Pub. Resources Code, § 21061.
[20] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical, supra,* 29 Cal.App.4th at p. 1604, fn. 5.
[21] *Id.*
[22] *Id.*
[23] Pub. Resources Code, § 21064.5.

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comment period.[24] As a result, Residents was unable to complete its review and analysis of the MND and its supporting evidence during the current public comment period. Our request for a further extension went unanswered, and was therefore presumptively denied. We therefore provide these preliminary comments on the MND and reserve our right to submit supplemental comments on the MND at a future date.

CEQA requires that all documents referenced, incorporated by reference, and relied upon in an MND be available for review and "readily accessible" during the entire comment period.[25] The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the CEQA review period invalidates the entire CEQA process and that such a failure must be remedied by permitting additional public comment.[26] It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.[27] By failing to make all documents and underlying data referenced in the MND "readily available" during the current comment period, the City is violating the procedural mandates of CEQA.[28]

3 (cont.)

On April 15, 2021, our office submitted two letters to the City, the first seeking immediate access to all MND reference documents pursuant to CEQA, and the second seeking immediate access to all public records referring or related to the Project pursuant to the California Public Record Act ("CPRA").[29] We did not receive any response to the letters. On April 20, 2021, we followed up these letters with an email directed to Mr. He asking for an update on these document requests. On April 26, 2021, we filed a letter with the City again asking for immediate access to outstanding MND reference documents, and requesting an extension of the public comment period on the MND due to the City's failure to provide timely access to the

[24] *See* PRC § 21092(b)(1); 14 C.C.R § 15072(g)(4).
[25] Pub. Resources Code §§ 21092(b)(1); 14 Cal. Code Regs. § 15072(g)(4).
[26] *Ultramar v. South Coast Air Quality Man. Dist*. (1993) 17 Cal.App.4th 689, 699.
[27] *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 ("Whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.").
[28] Pub. Resources Code § 21092(b)(1); 14 C.C.R § 15072(g)(4).
[29] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Public Records – SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008) (Apr. 15, 2021.); Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Documents Referenced in the MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008) (Apr. 15, 2021.)

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reference documents during the public comment period.[30] We have received no response from the City regarding either of the record requests or the email as of the date of this comment letter, and still have not been given access to numerous MND reference documents that are relevant to our review of the MND.

In particular, the City has failed to provide access to the following MND reference documents that have delayed Residents' full analysis of issues addressed in this letter:

- GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

- Email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018 regarding Commercial Recreation Land Use in the General Plan.

3 (cont.)

Without this critical information, our clients and other members of the public are unable to meaningfully review and comment on the MND and are deprived of the opportunity to review the supporting information for the MND. The City's actions violate both CEQA and CPRA disclosure requirements, and have resulted in a violation of Resident's due process rights.

IV. THE MND FAILS TO PROVIDE AN ACCURATE AND COMPLETE PROJECT DESCRIPTION

An accurate and complete project description is necessary to perform an evaluation of the potential environmental effects of a proposed project.[31] Without a complete project description, the environmental analysis will be impermissibly narrow, thus minimizing the project's impacts and undercutting public review.[32] The courts have repeatedly held that "an accurate, stable and finite project description

[30] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Public Records – SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008) (Apr. 26, 2021.)
[31] See, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.
[32] See *Id.*

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is the *sine qua non* of an informative and legally sufficient [CEQA document]."[33] Only through an accurate view of the project may affected outsiders and public decision makers balance the proposal's benefit against its environmental costs.[34]

A. The City Violated CEQA by Piecemealing its Review of the Project and Related Projects

The Project is a component of a larger, phased warehouse development by the Applicant in the City. Yet, the MND does not include the Applicant's other warehouse projects in its description and fails to analyze the direct, indirect, and cumulative impacts of the Applicants' warehouse development project within the City as CEQA requires.[35] This approach, termed "piecemealing" or "segmenting," violates CEQA, as it inhibits the full disclosure, analysis and mitigation of impacts, and discussion of alternatives.[36]

4

The City within the last 5 years has reviewed the Project, the SDG 330 Project, the SGE 258 Warehouse Project, and the 2019 tentative map approval.[37] A review of the MNDs for the adjacent SDG 217 and SDG 330 Projects shows marked similarities between the two projects such as (1) having the same applicant, (2) similar LLC's who were organized by the same individual, (3) their Energy analysis in Appendix A-2 deferred actual analysis but instead stated the "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project"

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[33] *County of Inyo v. County of Los Angeles* (1977) 71 Cal.App.3d 185, 193.
[34] *Id*. at pp. 192-193.

[35] See generally, *Bozung v. LAFCO*, 13 Cal.3d 263, 283-84 (1975); *City of Santee v. County of San Diego*, 214 Cal.App.3d 1438, 1452 (1989); *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo*, 172 Cal.App.3d 151, 165 (1985).
[36] E.g., Pub. Resources Code, §21002, 210021.1(a); CEQA Guidelines, §§ 151363, 15121, 15140, 15151 (An EIR is informational document whose purpose is to disclose and mitigate impacts, analyze a reasonable range of alternatives, and select as the project any alternative which can achieve project objectives, but is more protective of the environment, consistent with CEQA's substantive mandate); CEQA Guidelines, § 15378 (project description must include all project components).
[37] SDG 330 Project MND, at Appendix A2, https://www.cityofamericancanyon.org/Home/ShowDocument?id=17307

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because they were nearly identical[38], (4) they are proposed every two years,[39] (5) previously in 2016 the three separate lots were combined into one single lot.[40]

These Projects should have been considered as one project because "piecemealing" or "segmenting" violates CEQA, as it inhibits the full disclosure, analysis and mitigation of impacts, and discussion of alternatives.[41]

4 (cont.)

A project under CEQA means the "whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment."[42] CEQA prohibits a project proponent from seeking approval of a large project in a piecemeal fashion in order to take advantage of environmental exemptions or lesser CEQA review for smaller projects.[43] CEQA mandates "that environmental considerations do not become submerged by chopping a large project into many little ones - each with a minimal potential impact on the environment - which cumulatively may have disastrous consequences."[44] Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences. As the Court of Appeal stated, "[t]he CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish."[45]

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[38] SDG 330 Project MND, at Appendix A2, https://www.cityofamericancanyon.org/Home/ShowDocument?id=17307

[39] CEQA Clearing House Projects in American Canyon, https://ceqanet.opr.ca.gov/Search?City=American+Canyon; **Attachment E** SDG 330 Project MND.

[40] CEQA SCH 2016012049, https://ceqanet.opr.ca.gov/Project/2016012049

[41] E.g., Pub. Resources Code, §21002, 210021.1(a); CEQA Guidelines, §§ 151363, 15121, 15140, 15151 (An EIR is informational document whose purpose is to disclose and mitigate impacts, analyze a reasonable range of alternatives, and select as the project any alternative which can achieve project objectives, but is more protective of the environment, consistent with CEQA's substantive mandate); CEQA Guidelines, § 15378 (project description must include all project components).

[42] CEQA Guidelines, § 15378(a).

[43] *Arviv Enterprises, Inc. v. South Valley Area Planning Com.*, 101 Cal.App.4th 1337, 1340 (2002).

[44] *Bozung v. LAFCO*, 13 Cal.3d 263, 283-84 (1975); *City of Santee v. County of San Diego*, 214 Cal.App.3d 1438, 1452 (1989); *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo*, 172 Cal.App.3d 151, 165 (1985).

[45] *Natural Resources Defense Council v. City of Los Angeles*, 103 Cal.App.4th 268 (2002); see also *Whtiman v. Board of Supervisors* (1979) (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).

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Here the Applicant every two years submits a nearly identical warehouse Project, with a nearly identical MND, in the exact same area in an apparent attempt to disguise the actual impacts on the environment of one large warehouse district.[46] The MND further explains that a tentative parcel map was adopted by the City on February 28, 2019, that split the previously 35.85-acre parcel into three separate parcels in order to facilitate the Project and the SDG 330 Project.[47] The 15.24-acre south parcel was approved for the approximately 330,000 square-foot SDG 330 wine distribution center, which was subsequently approved with a separate MND and is nearing completion.[48] The City failed to prepare a single EIR for the parcel map and subsequent warehouse projects on these parcels, despite the clear connection between these actions.

4 (cont.)

The City should have required an EIR for SGE 258, the subdivision map, SDG 330, and the Project, to determine whether future expansion would have occurred, similar to what is currently happening, in order to provide proper review. It was reasonably foreseeable from SDG 330 and on that the Applicant planned to turn the area into a warehouse district and so far has been allowed to do so with separate MNDs as environmental review, rather than a single EIR. This violates CEQA and cannot be permitted to continue.

The City must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the current Project in conjunction with the cumulative impacts of the previous projects. In particular, an EIR is required to review the cumulative impacts of all these warehouses being built in the same area since this will now be the third one, with space for potentially one more. The EIR must analyze the environmental effects of other phases or future expansions of a project if the other activities are reasonably foreseeable consequences of the initial project.49

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[46] *Arviv Enterprises, Inc. v. South Valley Area Planning Com*. (2002) 101 Cal. App. 4th 1333, 1340 (serial approval of multiple small housing and subdivision projects by same applicant in same location, leading to single large development project).

[47] MND, p. 12.
[48] *Id*.
[49] *Bozung*, 13 Cal.3d at 283–284.
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V. THERE IS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT IMPACTS THAT REQUIRE THE CITY TO PREPARE AN EIR

Under CEQA, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[50] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[51] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[52] Substantial evidence can be provided by technical experts or members of the public.[53] "If a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect."[54]

As discussed below, there is a fair argument supported by substantial evidence that the Project may result in significant impacts relating to air quality, biological resources, energy, GHG, land use, noise, and transportation. The City is required to prepare an EIR to evaluate the Project's impacts and propose mitigation measures to reduce those impacts to a less-than-significant level.

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[50] Pub. Resources Code, § 21082.2; CEQA Guidelines, § 15064, subds. (f), (h); *Laurel Heights II, supra,* 6 Cal. 4th at p. 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical, supra,* 29 Cal.App.4th at pp. 1601-1602.
[51] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[52] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; *see also Friends of B Street, supra,* 106 Cal.App.3d at p. 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an [environmental impact report] and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[53] See, e.g., *Citizens for Responsible and Open Government v. City of Grand Terrac*e (2008) 160 Cal.App.4th 1323, 1340 (substantial evidence regarding noise impacts included public comments at hearings that selected air conditioners are very noisy); *see also Architectural Heritage Assn. v. County of Monterey*, 122 Cal.App.4th 1095, 1117-1118 (substantial evidence regarding impacts to historic resource included fact-based testimony of qualified speakers at the public hearing); *Gabric v. City of Rancho Palos Verdes* (1977) 73 Cal.App.3d 183, 199.
[54] CEQA Guidelines, § 15062, subd. (f).
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A. There is Substantial Evidence that the MND Underestimates and Fails to Properly Mitigate Air Quality Impacts

1. The City Failed to Update the MND's Baseline Data and Relevant Analyses When It Revised and Recirculated the MND.

CEQA requires the lead agency to describe the baseline physical conditions that exist at a project site at the time its notice of intent to adopt a CEQA document is issued.[55] CEQA also requires the environmental document to accurately describe the severity of a project's impacts.[56]

The City issued its original Notice of Intent to adopt an MND on December 16, 2020. The City then decided to revise and recirculate the MND for a new round of public comment, and issued a new Notice of Intent on April 1, 2021.[57] When the City did this, it failed to update its baseline data and all the relevant timelines applicable to Project development, and rending several of its analyses inaccurate and unsupported.[58]

5

For example, the MND's CalEEmod analysis of construction and operational air emissions accounts for the seasons in which certain activities would take place to determine the proper emissions,[59] thus affecting the Air Quality analysis and the GHG analysis. The City's failure to update the CalEEmod analysis resulted in an inaccurate and unsupported air quality analysis because the revised MND does not accurately reflect the severity of emissions that will occur at different phases of Project construction and operation. The City must prepare an EIR to correct these errors.

[55] 14 C.C.R § 15125(a).
[56] 14 C.C.R §§ 15143, 15162.2(a); *Cal. Build. Indust. Ass'n v. BAAQMD* (2015) 62 Cal.4th 369, 388-90 (CEQA document must include sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact").
[57] MND, p. 1.
[58] MND, p. 13.
[59] Appendix B-2.
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2. The City Failed To Perform A Project-Specific Traffic Impact Analysis (TIA) For The 217 Commerce Center Project And Is Relying On A TIA For Another Project

The City has failed to perform a TIA for the 217 Commerce Center project. Rather than assess the impacts the City relies on the 2018 TIA performed for the SDG Commerce 330 Warehouse Project. According to the introductory paragraph of the TIA Memorandum, the TIA was prepared to present the results of an analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard Wine Storage Facility project in the City of American Canyon. The TIA assumed the construction of a 330,528 square foot wine storage warehouse. According to the TIA Memorandum, 9 projects were included in the traffic analysis along with the SDG Commerce 330 Warehouse Project. Those projects include[60]:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

6

The analysis showed that the conditions at State Route 29 and Green Island Road would drop from a Level of Service (LOS) C to LOS D in the AM peak hours.

The trip generation analysis used in the TIAM for the SDG Commerce 330 Warehouse assumed a generation rate of 1.69 vehicles for each 1,000 square feet of the wine warehouse constructed (1.69 * 330.528 = 558.59 or 559 vehicles). Clearly, the 2018 analysis does not consider the impact from the additional 367 vehicle trips (217.294 *1.69 = 367.22 or 367), an increase of approximately 66 percent (65.74% = ((367.22 + 558.59)/(558.59))). In addition, the TIA fails to account for the additional

[60] Clark Letter, p. 5.

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traffic burden/vehicle trips associated with the opening of the New Napa Junction School located at the corner of Eucalyptus Drive and Commerce Boulevard. Given the significant increase in trips from the unaccounted projects identified herein, the City must re-evaluate the traffic impacts from the project in an environmental impact report (EIR).[61] Given the unaccounted for increase in trips, the MND has understated its mobile emissions and GHGs as well.

6 (cont.)

3. The City Has Not Accurately Reported The Project's Estimated Daily Construction Emissions and Failed to Disclose Significant Air Quality Impacts During The Construction Phase

According to the MND, the Project's construction emissions are less than significant because they do not exceed the Bay Area Air Quality Management District's ("BAAQMD's") CEQA significance thresholds (See Table AQ-1) and because the proposed Project would also include Best Management Practices ("BMPs") required per the BAAQMD's CEQA Air Quality Guidelines.[62]

Table AQ-1: Estimated Daily Construction Emissions (pounds/day)

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
2021	13.6	24.6	19.5	1.0	0.9
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	No	No	No	No	No

7

However, Dr. Clark explains that the City's analysis assumes one continuous phase of construction, ignoring the substantial highs and lows in emissions which commonly occur during each phase of construction (site preparation, grading,

[61] Clark Letter, p. 5.
[62] MND, p. 31.

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building construction, paving, and architectural coating).[63] The City has failed in its obligation to accurately report the Project's construction emissions by failing to accurately quantify the Project's emissions in each construction phase, and by mis-interpreting guidance from BAAQMD which the City claims to follow.[64] The City is legally obligated to accurately disclose the nature and extent of project's air quality impacts pursuant to CEQA which it failed to do here by failing to follow its own selected significance threshold.[65]

According to the 2017 CEQA Guidance From BAAQMD, "[t]he Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year."[66] This means that, for each phase of construction, the Project's construction emissions should be presented and compared against the BAAQMD Significance Thresholds.[67]

7 (cont.)

As was previously pointed out in public comments on the original MND, the calculated daily construction emissions in the original MND were based on the total average emissions for the entire construction phase of the project. Dr. Clark explains that the City's continued use of the total average daily emissions in the revised MND ignores the substantial impacts that are associated with the maximum daily emission rates calculated by the CALEEMOD model of the Project.[68]

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
Site Preparation	3.9558	40.5366	21.6621	2.04546	1.88178
Grading	2.5683	37.5613	17.7651	1.16798	1.07479
Building Construction	2.6831	24.2402	22.5509	0.9815	1.3558

[63] Clark Letter, p. 6.
[64] 14 C.C.R §§ 15143, 15162.2(a); *Cal. Build. Indust. Ass'n v. BAAQMD,* 62 Cal.4th at 388-90; *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 518–522; 14 C.C.R § 15064.7(b), (c).
[65] see 14 C.C.R § 15064.7.
[66] BAAQMD, CEQA Guidelines May 2017, p. 2-3.
[67] Clark Letter, p. 6.
[68] Clark Letter, pp. 6-7.
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Paving	1.7638	12.952	15.0764	0.6785	0.62424
Architectural Coatings	155.6296	1.5948	2.6922	0.09575	0.09562
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	**Yes**	No	No	No	No

Dr. Clark concludes the that the MND's failure to analyze construction emissions during the different phases of Project construction results in an underestimation of the Project's total construction emissions. As Dr. Clark explains, over the course of construction, the emissions of reactive organic gases ("ROGs"), precursors to the formation of ozone, increase substantially from a low of 1.76 lbs/day during the paving phase of the project to a high of 155.63 lbs/day during the Architectural Coatings phase of the project. The MND fails to reflect this increase.

7 (cont.)

While the MND's total averaged values over the whole construction period are lower than the BAAQMD Significance Threshold value of 54 lbs/day, the MND fails to describe the emissions fluctuations during different phases of construction. The City is obligated to assess impacts of emissions from each phase of the construction of the Project in order to accurately assess the nature and magnitude of the Project's construction emissions. The MND fails to comply with this basic CEQA requirement. The MND also fails to explain that short term exceedances of the significance thresholds may have significant local impacts on the air quality and the community at large.

The City must report the impacts from each step of the construction of the project in an EIR providing a clear analysis of the criteria and toxic air contaminants ("TACs") as well as the greenhouse gas ("GHG") emissions.[69]

[69] Clark Letter, p. 7.

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4. The City Fails To Quantify The Impact That Transportation Refrigeration Units (TRUs) Will Have On Air Quality Impacts From The Proposed Project.

The MND fails to analyze the impacts from diesel particulate matter ("DPM") emissions from transportation refrigeration units ("TRUs") installed on insulated cargo vans and trucks that will be used to transport the temperature sensitive goods stored at the Project site. The MND explains that, because the Project's warehouse building is proposed for warehousing and distribution of wine and/or other wine related products, it would be heavily insulated and refrigerated.[70] Dr. Clark explains that this use will also require TRU's to transport refrigerated products, yet the MND fails to analyze any emissions from mobile refrigeration.[71]

In 2019, CARB released a health risk analysis that documented the significant impact of TRU's. CARB calculated that the operation of one daily truck delivery, one daily trailer delivery, and one seasonal trailer TRUs for a total of 202 hours per week results in a cancer health risk of 190 in one million on site, 28 in one million at a residence 100 meters off-site, and 5 in one million at a residence 400 meters off site.[72]

8

The closest residence to the proposed Project site is identified by the City as being located 500 feet (approximately 150 meters off-site).[73] Dr. Clark concludes that, when the number of daily trucks is increased to 10 per day and daily trailers increased to 6 per day, the Project's onsite cancer risk increases to 610 in one million, the 100-meter offsite risk increases to 92 in one million, and the 400-meter offsite risk increase to 16 in one million.[74] These impacts from the use of TRUs at the Project Site exceed BAAQMD's cancer risk significance threshold of 10 in one million, resulting in a significant health risk and air quality impact for residents nearby to the Project site that the MND fails to disclose.[75]

The City must prepare an EIR to accurately disclose and mitigate these impacts. In addition to the health impacts from exposure to DPM that must be

[70] MND, p. 9; Appendix B, p. 11.
[71] Clark Letter, p. 7.
[72] CARB, Preliminary Health Analyses: Transport Refrigeration Unit Regulation, p.26.
[73] MND, p. 35.
[74] Clark Letter, pp. 7-8.
[75] MND, p. 35.

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8 (cont.) assessed in an EIR, the impacts on GHG emissions from TRUs must also be included in an EIR of the Project.[76]

5. The City Failed To Quantify The Health Impacts From Emissions From The Project And Incorrectly Relies On A Non-Quantitative Analysis Performed For The SDG 330 Warehouse Project

The City failed to perform a quantitative analysis of the emissions from construction and operational emissions from the Project. Instead, the MND incorrectly relies on a non-quantitative 2019 analysis performed for a different project, the SDG 330 Warehouse Project.[77] The City's approach lacks merit and fails to comply with CEQA's requirements to quantify the impacts of a project's air emissions on human health.

CEQA mandates discussion, supported by substantial evidence, of the nature and magnitude of a project's impacts of air pollution on public health.[78] A CEQA document must analyze the impacts from human exposure to toxic substances.[79] The Supreme Court has held that a CEQA document fails to comply with CEQA's mandate to protect public health and safety when it fails to disclose the public health impacts from air pollutants that would be generated by a development project.[80] A lead agency's significance determination must also be supported by accurate scientific and factual data that is specific to the project being analyzed.[81] An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.[82] The MND fails to quantify the Project's DPM emissions and instead relies on a qualitative analysis of health impacts prepared for a different project. The MND's discussion of the Project's health risk fails to meet CEQA's basic legal requirements.

9

The MND acknowledges that sensitive receptors are located in close vicinity to the Project site. On page 35 of the MND, the City states that the nearest sensitive receptors to the Project include homes that could potentially be within

[76] Clark Letter, pp. 7-8.
[77] MND, p. 33; See also Appendix B.
[78] *Sierra Club*, 6 Cal.5th at 518–522.
[79] *Berkeley Jets*, 91 Cal.App.4th at 1369–1371.
[80] *Sierra Club,* 6 Cal.5th at 518–522.
[81] 14 C.C.R. § 15064(b).
[82] *Kings County Farm Bureau*, 221 Cal.App.3d at 732.

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1,000 feet of certain Project construction phases (site preparation and grading activities) and a school under construction only 1,500 feet away.[83] Nevertheless, the MND fails to disclose the exposure levels at these receptor sites to the Project's DPM and other TAC emissions.

The MND incorrectly attempts to justify this omission by relying on the SDG 330 Warehouse MND's claim that State health guidance does not require a health risk analysis of the Project's construction emissions because construction is a short-term impact. According to the City's analysis of the SDG 330 Warehouse Project, the "Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).[84]

9 (cont.)

The SDG 330 Warehouse Project MND next adopted a mitigation measure requiring enhanced exhaust emissions to purportedly "ensure the proposed project's health impacts are less than significant" – Mitigation Measure AQ-4." Mitigation Measure AQ-4 assumed that all off-road equipment should have: :[85]

> "a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;
>
> b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available."

10

However, as explained below and by Dr. Clark, the use of Tier 2 equipment would not enhance exhaust emission reductions and would, in fact, ***increase*** the potential emissions from sources on site, resulting in increased health risk at the

[83] MND, p. 35.
[84] See Clark Letter, p. 11.
[85] Clark Letter, p. 8.

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10 (cont.) SDG 330 project site, and at this Project site, if the same measure were adopted for the Project.[86]

The logic used by the City to justify not producing a dispersion model of the Project's toxic air emissions and a quantitative health risk analysis for the either this Project or the SDG Commerce 330 Warehouse project is flawed and fails to comply with CEQA. As explained by Dr. Clark, the City's reasoning also contradicts the BAAQMD CEQA guidance, on which the MND claims to rely.

Under Section 5.2.4, Sources Not Requiring A BAAQMD Permit, the BAAQMD states:

> For new land uses that would host a high number of non-permitted TAC sources, such as a distribution center, the incremental increase in cancer risk shall be determined by an HRA using an acceptable air dispersion model in accordance with BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards and/or CAPCOA's guidance document titled Health Risk Assessments for Proposed Land Use Projects. A Lead Agency may consult HRAs that have previously been conducted for similar land uses to determine whether it assesses the incremental increase in cancer risk qualitatively or by performing an HRA. This analysis shall account for all TAC and PM emissions generated on the project site, ***as well as any TAC emissions that would occur near the site as a result of the implementation of the project (e.g., diesel trucks queuing outside an entrance, a high volume of trucks using a road to access a quarry or landfill)***.[87]

11

Clearly, the City failed to assess the TAC and PM emissions from the SDG 330 Warehouse Project, and is relying on the same lack of analysis to avoid analyzing health risks from the current Project. The City also incorrectly assumes that Mitigation Measure AQ-4 (which is only required for the SDG 330 Project, and not for this Project) would reduce any TAC and PM emissions to a level that would not produce a risk above 10 in one million, without any supporting evidence. This hand waving does not meet the obligations that the City has under CEQA to quantify the impacts of the Project on the community. Furthermore, relying on this

[86] Clark Letter, p. 9.
[87] Clark Letter, p. 9.

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unsupported analysis to support the assertion that the SDG Commerce 217 Distribution Center project will not have a significant impact is patently false.

(11) (cont.)

The City must perform quantified health risk analysis of the Project's construction and operational emissions and assess the impact of those emissions in an EIR, consistent with the requirements of CEQA, and applicable guidance from OEHHA.[88]

6. The City Failed To Quantify The Health Impacts From Emissions From The Project On A New Elementary School (Sensitive Receptor) That Is Less Than 500 Meters Southeast of The Project Site.

The City failed to assess the public health impacts from TACs that will be released during the construction and operational phases of the Project on the Napa Unified School District's new Napa Junction School, being constructed at the corner of Eucalyptus Drive and Commerce Boulevard.

In the MND, the City states that there are no schools or daycare centers within 1,000 feet of the proposed project.[89] This is misleading. The new Napa Junction School is located approximately 450 meters (approximately 1500 feet) southeast of the Project site, and is scheduled to open in Fall 2021.[90] Schools are (12) considered sensitive receptors for purposes of CEQA analysis, and the MND explains that some Project construction activities during approximately nine weeks of site preparation and grading could be within 1,000 feet of the school property boundary.[91] Students and staff at the school will therefore be exposed to emissions from the construction and operational phases of the Project. Those emissions will include known human carcinogens, yet were ignored in the MND. The City's failure to analyze the health risk of the Project's emissions on the school violates CEQA.[92]

The BAAQMD CEQA Guidance Appendix also states that the "lead agency should enlarge the 1,000-foot radius on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is

[88] Clark Letter, p. 9.
[89] MND, p. 133.
[90] Clark Letter, p. 10.
[91] MND, p. 35; CEQA Appendix G, Section III.D.
[92] *Sierra Club*, 6 Cal.5th at 518–522; *Berkeley Jets*, 91 Cal.App.4th at 1369–1371.

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beyond the recommended radius."[93] Accordingly, in keeping with BAAQMD's recommendation, the City should expand the radius of influence to be evaluated to include all impacts on the school (not just within the 1,000-foot radius that will be impacted by construction). In order to accurately analyze the Project's health risk impacts on the school, Dr. Clark recommends that the City perform an EMFAC-compliant analysis of the increase in traffic from the project and the surrounding warehouses, perform dispersion model of the traffic emissions to determine the extent of DPM emissions that will impact the school, and perform a quantified health risk analysis to determine impacts on the staff and students of the school. The results of that analysis must be presented in a DEIR.[94]

12 (cont.)

7. The SDG 330 Project's Air Quality Mitigation Measure AQ-4 Is Insufficient To Reduce the Project's Significant Health Risk to Less than Significant Levels

In the City's analysis of air quality impacts for the SDG Commerce 330 Warehouse project, the preferred mitigation measure (AQ-4) for ensuring DPM emissions would remain below the significance thresholds was the use of U.S. EPA Tier 2 equivalent construction equipment. required ensure that the Project's health risk impacts are less than significant levels. The City stated at the time of the SDG 330 Project's MND release that the use of Tier 2 technology would keep emissions below a health risk of 10 in 1,000,000, without quantifying the actual health risk in the analysis. Tier 2 technology was first released in the mid-1990's and is not currently the recommended standard for diesel powered equipment.[95]

13

Far more effective technology is currently available. As Dr. Clark explains, the United States Environmental Protection Agency ("U.S. EPA") has slowly adopted more stringent standards to lower the emissions from off-road construction equipment since 1994. Since that time, Tier 1, Tier 2, Tier 3, Tier 4 Interim, and Tier 4 Final construction equipment has been phased in over time. Tier 4 Final represents the cleanest burning equipment and therefore has the lowest emissions compared to other tiers, including Tier 4 Interim equipment.[1] Dr. Clark concludes that requiring the use of Tier 2 or equivalent control technology for all equipment as

[93] BAAQMD, CEQA Guidelines May 2010, p. 2-5.
[94] Clark Letter, p. 10.
[95] Clark Letter, p. 10.

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a mitigation measure does not provide the community with greatest level of protection possible.[96]

For the operational phase of the Project, the City must promulgate mitigation measures to ensure that residents near the Project are not adversely affected by DPM emissions from any generator that may be installed onsite. Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. EPA and CARB. Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more), Dr. Clark explains that diesel back-up generators generally have U.S. EPA Tier II ratings and need to be outfitted with diesel particulate filters to achieve additional PM2.5 reductions. In addition, Dr. Clark recommends that diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). If higher rated diesel generators are available, the City must require that the proponent purchase and maintain the generator that will achieve the highest amount of DPM reduction.

13 (cont.)

The City should prepare a DEIR which accurately discloses the extent of the Project's health risk from construction and operational DPM emissions, and which includes a Mitigation Monitoring and Reporting Program with enforceable mitigation measures to reduce the Project's health risk to the greatest extent feasible.[97]

8. The City Failed To Perform A Cumulative Analysis Of The Impacts From The Proposed Project and Surrounding Projects.

The City must assess the cumulative impacts from the Project and the adjacent projects that are likely to have cumulatively considerable impacts.[98] The City has allowed a significant number of overlapping projects to be developed in the immediate vicinity of the SDG 217 Project without quantifying the impact of construction emissions and operation emissions from each of the projects on the surrounding community. Those projects include:[99]

14

[96] Clark Letter, p. 10.
[97] Clark Letter, p. 10-11.
[98] PRC § 21083; 14 C.C.R §15130(b)(1)(A); *CBE v. CRA*, 103 Cal.App.4th at 117.
[99] Clark Letter, pp. 13-15.

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1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project
10. SDG Commerce 330 Warehouse Project

(14) (cont.)

The results of this cumulative analysis should then be presented in a DEIR.

9. The MND Relies On Non-Binding Best Management Practices (BMPs) To Reduce Emissions Of Dust And Particulates.

(15)

Mitigation measures must be enforceable through conditions of approval, contracts or other means that are legally binding.[100] This requirement is intended to ensure that mitigation measures will actually be implemented, not merely adopted and then ignored.[101] The MND's reliance on BMPs fails to meet this threshold requirement because the measures are not incorporated as binding mitigation measures. As a result, the MND fails to include any binding mechanism to ensure that the Applicant will be required to implement these measures for the Project. This is exacerbated by the fact that the BMPs themselves are framed in a way that makes them unenforceable by using phrases such as "where and when possible".

[100] PRC § 21081.6(b); 14 C.C.R § 15126.4(a)(2); *Lotus v. Dep't of Transp*. (2014) 223 Cal. App. 4th 645, 651-52.
[101] *Fed'n of Hillside & Canyon Ass'n v. City of Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261; *Anderson First Coal. v. City of Anderson* (2005) 130 Cal.4th 1173, 1186.
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15 (cont.)

Without an enforceable mechanism, the BMPs described in the MND are little more than wishful thinking, and the MND's conclusions that the Project's impacts will be less than significant with these measures incorporated are unsupported. If the City intends to rely on BMPs as listed on page 32 to reduce impacts to less than significant levels, these measures must be incorporated into the Project's MMRP and Conditions of Approval.[102]

B. Substantial Evidence Supports a Fair Argument that the Project Will Have Significant, Unmitigated Impacts to Biological Resources

1. The MND Fails to Establish a Baseline Setting

16

The existing environmental setting is the starting point from which the lead agency must measure whether a proposed project may cause a significant environmental impact.[103] CEQA defines the environmental setting as the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and regional perspective.[104] Describing the environmental setting accurately and completely for each environmental condition in the vicinity of the Project is critical to an accurate, meaningful evaluation of environmental impacts. The courts have clearly stated that, "[b]efore the impacts of a project can be assessed and mitigation measures considered, an [environmental review document] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined."[105] The City failed to establish a proper baseline setting by not performing detection surveys.[106]

The MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle.[107] The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of

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[102] *Lotus v. Dep't of Transp.*, 223 Cal. App. 4th 645, 651-52.
[103] *See, e.g.*, *Communities for a Better Env't v. S. Coast Air Quality Mgmt. Dist.* (March 15, 2010) 48 Cal.4th 310, 316.
[104] CEQA Guidelines §15125(a) (emphasis added); *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1453 ("*Riverwatch*").
[105] *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.
[106] Cashen Letter, p. 2.
[107] MND, pp. 41 through 44.
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these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.[108,109]

Mr. Cashen notes that the California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys.[110] Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.[111]

16 (cont.)

Take avoidance surveys are conducted immediately prior to implementation of the project. The intent of take avoidance surveys is to: (a) determine whether there have been any changes in baseline conditions that affect implementation of mitigation. For example, take avoidance surveys might reveal that burrowing owls that had nested on the north side of the site, are now nesting on the south side of the site. In summary, detection surveys are conducted to satisfy the requirements of CEQA (and other regulatory review processes), whereas take avoidance surveys are conducted to ensure take avoidance when the project is actually constructed.[112]

Detection surveys were not conducted for the Project. Instead, the MND requires detection surveys as "mitigation," after the CEQA review process terminates. Mr. Cashen explains that this approach negates the value of detection surveys and is unacceptable because it precludes proper understanding of baseline conditions, and thus, the ability of the public and resource agencies to submit informed comments on the Project's impacts and proposed mitigation. Assuming a species may be present at the Project site (the approach taken in the MND) is generally not an acceptable substitute for baseline survey data because it precludes

[108] *Id*, p. 44; Cashen Letter, p. 2.
[109] According to the Revised Biological Resource Analysis ("BRA") prepared by Monk & Associates (March 2, 2020), the probability of western pond turtles on the Project site is "none" (*see* BRA, Table 4). However, according to the MND (p. 42): "there is a possibility of turtles nesting onsite."
[110] Cashen Letter, p. 2.
[111] Cashen Letter, p. 2.
[112] Cashen Letter, p. 2.
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understanding of the relative severity of the Project's impacts. For example, while the loss of nesting habitat for one pond turtle might not be significant, the loss of nesting habitat for five pond turtles would be very significant.[113]

16 (cont.)

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards, and the results of those surveys need to be released in a revised CEQA document so they can be thoroughly vetted by the public, resource agencies, and decision makers during the CEQA review process.[114]

2. The MND Underestimates the Project's Impacts on Sensitive Species

a) The MND Fails to Adequately Analyze and Mitigate Impacts to the Swainson's Hawk

Mr. Cashen explains that loss of foraging habitat is one of the primary threats to Swainson's hawks in California.[115] In addition to generating a potentially significant impact under CEQA, the loss of foraging habitat from the Project site may result in the take (killing) of Swainson's hawks, which would be a violation of Section 2080 of California Fish and Game Code.[116] The MND provides the following analysis of this issue:

17

> The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.[117]

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[113] Cashen Letter, p. 2.
[114] Cashen Letter, p. 3.
[115] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[116] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[117] MND, p. 43.

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Dr. Cashen identifies several flaws with the City's analysis. First, the City's analysis relies on California Natural Diversity Database ("CNDDB") data and assumes that the nearest nesting location is 2.6 miles north of the Project site.[118] However, the MND admits: "the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat."[119] CNDDB data on Swainson's hawk nest locations in Napa County have not been updated since 2013,[120] and the Applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the Project site.[121] As a result, the City does not have the basis for its assumption that the nearest nesting location is 2.6 miles from the Project site, and thus, that the loss of foraging habitat from the Project site would not have a significant impact on the species.[122]

17 (cont.)

Second, the Project site may provide important foraging habitat for Swainson's hawks even if the nearest nesting location is 2.6 miles away. Fleishman et al. (2016) found that the vast majority of adult Swainson's Hawks in the Natomas Basin (northern Central Valley, California) traveled distances up to 6.2 miles from the nest to forage.[123] Mr. Cashen provides substantial evidence documenting the likelihood of Swainson Hawk foraging activities in and around the Project site. He explains that Babcock found that Swainson's hawks in the Sacramento Valley foraged as far as 14 miles from the nest, and that ruderal fields was one of the vegetative cover types that ranked highest in foraging use.[124] Other studies have shown that Swainson's hawks may travel up to 18 miles from the nest to forage.[125]

Third, the fact that the Project site did not historically provide foraging habitat is irrelevant to its current function as foraging habitat for Swainson's

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[118] *Id*, p. 42.
[119] *Id.*
[120] California Natural Diversity Database. 2021. RareFind 5 [Internet]. California Department of Fish and Wildlife [Apr 2, 2021].
[121] MND, p. 44.
[122] Cashen Letter, p. 4.
[123] Fleishman E, Anderson J, Dickson DG, Krolick D, Estep JA, Anderson RL, Elphick CS, Dobkin DS, Bell DA. 2016. Space Use by Swainson's Hawk (*Buteo swainsoni*) in the Natomas Basin, California. Collabra, 2(1): 5, pp. 1–12.
[124] Babcock KW. 1995. Home Range and Habitat Use of Breeding Swainson's Hawks in the Sacramento Valley of California. Journal of Raptor Research 29:193–197.
[125] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California; Cashen Letter, p. 4.
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hawks. Dr. Cashen explains that, to reverse the decline of Swainson's hawk populations, it is CDFW's policy that new development projects that adversely modify nesting or foraging habitat within 10 miles of an active nest should mitigate the project's impacts by providing compensatory mitigation.[126] According to CDFW, the 10-mile foraging radius recognizes the need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of development(s) consistent with Fish and Game Code Section 2053.[127]

Fourth, the MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk population. Based on Mr. Cashen's review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.[128]

17 (cont.)

Fifth, Mr. Cashen explains that there is no scientific evidence that the eucalyptus forest surrounding the Project site precludes the site from being "a foraging destination which would likely attract foraging Swainson's hawks." To the contrary, Mr. Cashen points to substantial evidence demonstrating that the Project site may attract foraging Swainson's hawks because it contains California voles (*Microtus californicus*)—the Swainson's hawk's primary prey.[129]

Sixth, Mr. Cashen points to data demonstrating that Swainson's hawks have consistently been detected approximately 2,200 feet south of the Project site.[130] In addition, two Swainson's hawks were detected approximately 3,500 feet northeast of the Project site on April 16, 2021.[131] Therefore, Mr. Cashen concludes that either:

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[126] *Id.*
[127] *Id*, p. 2; Cashen Letter, p. 4.
[128] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California; Cashen Letter, pp. 4-5.
[129] Monk & Associates. 2020 Mar 2. Biological Resource Analysis, pp. 6 and 12; Cashen Letter, p. 5.
[130] eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed Apr 28, 2021). Swainson's hawks detected on: 19 Apr 2015; 25 Aug 2016; 14 Jul 2017; 18 Aug 2018; and 13 Jul 2019.
[131] *Id.*

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(a) the Project site is within the foraging radius of the Swainson's hawks that nest 2.6 miles north of the Project site, or (b) there is an undocumented Swainson's hawk nest in the vicinity of the Project site. Both scenarios undermine the validity of the rationale for the City's determination that impacts to foraging habitat would not be significant.[132]

17 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the Swainson's Hawk. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

3. The MND Fails to Adequately Analyze and Mitigate Impacts to the Northern Harrier

Mr. Cashen explains that one of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat.[133] According to the MND: "[s]hould northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be potentially significant."[134] Although the MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers).[135]

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The MND states the following with respect to the loss of foraging habitat: "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a less-than-significant level."[136] The MND's statement regarding historic conditions is incorrect because historically the Project site provided habitat (for northern harriers) before the eucalyptus trees were planted (sometime between

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[132] Cashen Letter, p. 5.
[133] Shuford WD, Gardali T, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. pp. 149 through 155.
[134] MND, p. 43.
[135] Cashen Letter, p. 6.
[136] *Id*.

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1916 and 1942).[137] Nevertheless, the significance of the impact under CEQA is dependent on the environmental conditions at the time the CEQA document was published,[138] *not* the environmental conditions in 2012. Mr. Cashen explains that Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. He concludes that, because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.[139]

18 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the Northern Harrier. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

4. The MND Fails to Adequately Analyze and Mitigate Impacts to the White-tailed Kite

Mr. Cashen explains that the City's analysis suffers the same flaws as the analysis it provided for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges[140] and seldom hunt more than 0.5 mile from their nests when breeding.[141] Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles,[142] which are known to occur at the Project site.[143] Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree.[144] Therefore, if white-tailed kites nest on or near the Project site, they would be significantly

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[137] United States Geological Survey. 1916 and 1942. *Mare Island, CA*. Topographic map.1:63,000. U.S. Department of the Interior, Reston, Virginia.
[138] MND, p. 669.
[139] Cashen Letter, pp. 6-7.
[140] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595.
[141] California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2005. CWHR version 9.0 personal computer program. Sacramento, CA.
[142] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595. *See also*, Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.
[143] MND, p. 38.
[144] Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.

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impacted by the loss of foraging habitat (from the Project site). Mr. Cashen concludes that Mitigation Measure BIO-3 does not mitigate the impact because it is limited to actions designed to minimize construction-related disturbance to nests. As a result, potentially significant impacts on the white-tailed kite remain unmitigated.[145]

19 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the White-tailed Kite. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

5. The MND Fails to Adequately Analyze and Mitigate Impacts to the Burrowing Owl

a) The MND Fails to Adequately Analyze and Mitigate Impacts to Burrowing Owl Habitat

"Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat.[146] Contrary to CDFW's guidance, the MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the MND is limited to the following:

> the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level.[147]

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As Mr. Cashen explains, there are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated from Napa County.[148] Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have

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[145] Cashen Letter, p. 6.
[146] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 24.
[147] MND, p. 42.
[148] Townsend SE, Lenihan C. 2003. Burrowing Owl Status in the Greater San Francisco Bay Area. Proceedings of the California Burrowing Owl Symposium. Bird Populations Monographs No. 1:60-70.

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been extirpated.[149] In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.[150]

Second, CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided."[151] Thus, CDFW recommends compensatory mitigation if the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.[152]

20 (cont.)

b) The MND Fails to Adequately Analyze and Mitigate Impacts From Passive Relocation

The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat.[153,154] The MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.[155] Specifically, burrow

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[149] Wilkerson RL, Siegel RB. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10:1-36.
[150] Cashen Letter, p. 7.
[151] *See* MND, p. 682.
[152] Cashen Letter, pp. 7-8.
[153] MND, p. 46 (MM BIO-1).
[154] Although not discussed in the MND, burrow exclusion entails the installation of one-way doors on occupied burrows so owls can exit, but not re-enter, the burrows.
[155] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.

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exclusion may result in: (a) significant loss of habitat for reproduction, refuge from predators, and shelter from weather; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[156] Consequently, the City must disclose and analyze impacts associated with the "passive relocation" of burrowing owls.[157]

As Mr. Cashen explains, the need for full analysis of potential impacts associated with passive relocation (i.e., burrow exclusion) of burrowing owls is further supported by research that indicates most relocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that relocation projects generally have failed to produce self-sustaining populations.[158] Investigators attribute the limited success of relocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[159]

21 (cont.)

6. The MND Fails to Adequately Analyze and Mitigate Cumulative Impacts

The MND indicates there are only four projects that are proposed or under construction in the City of American Canyon.[160] This does not comport with the "Active Project List" (dated March 2021) available on the City's website.[161] According to the Active Project List, there are several additional projects that would contribute to cumulative impacts on biological resources. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.[162]

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[156] *Id*, pp. 10 and 21.
[157] Cashen Letter, p. 8.
[158] Smith BW, Belthoff JR. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391.
[159] *Id*; Cashen Letter, p. 8.
[160] *Id.*
[161] *See* <https://www.cityofamericancanyon.org/government/community-development/projects>.
[162] Cashen Letter, p. 9.
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CEQA Guidelines § 15130(b)(3) state that lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. The geographic scope of the City's cumulative impacts analysis was the City of American Canyon.[163] The MND fails to provide an explanation for this geographic limitation. Moreover, the cumulative impacts analysis is fundamentally flawed because the City applied two different geographical scales to its analysis. The MND states:

> With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.[164]

22 (cont.)

The Lynch Canyon Preserve (1,039 acres) and the CDFW California Red-Legged Frog Preserve (317 acres) are not located within the City of American Canyon. It is not possible to accurately analyze cumulative impacts by using one geographic scope for open space preserves, but a smaller geographic scope for development projects. Furthermore, the MND misrepresents the functions of the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project as habitat. The Clark Ranch Project is designed to be a multi-use community park with a bike skills loop, dog park, equestrian riding area, and several buildings (among other features that are incompatible with wildlife conservation).[165] Therefore, the Clark Ranch Project would contribute to cumulative impacts (that were not contemplated in the MND). The other three

[163] MND, p. 119.
[164] *Id.*
[165] City of American Canyon. 2017 Nov 7. Clarke Ranch Master Plan. Exhibit A.

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open space areas are negatively impacted by recreation activities,[166] are comprised primarily of salt ponds or wetlands, and generally do not provide habitat for the same suite of species as those that would be impacted by the Project.[167]

The MND provides the following analysis of cumulative impacts to biological resources:

> Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

22 (cont.)

Although the MND states the Project would result in cumulative impacts to ruderal habitats, and that Project-related impacts would be considered cumulative with other projects, it fails to provide the City's determination on the significance of the cumulative impacts. In addition, the MND fails to identify what type(s) of Project-related impacts would be considered cumulative, and which species would be subject to the cumulative impacts.[168]

The City's determination regarding the significance of cumulative impacts to biological resources is vague and not supported by substantial evidence. On the CEQA Environmental Checklist Form, the City indicates the impact would be "Less Than Significant." However, the subsequent text in the MND states "[i]mplementation of the proposed project would result in cumulative impacts to ruderal habitats," but that "mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant."[169]

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[166] *See* California Fish and Wildlife, Recreation Special Issue 2020.
[167] Cashen Letter, pp. 9-10.
[168] Cashen Letter, p. 10.
[169] Cashen Letter, p. 10.

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The City's determination that mitigation measures prescribed in the MND would offset cumulative impacts to special-status species to less-than-significant levels is not supported by evidence or analysis. The Project would eliminate 10.39 acres of habitat. Mr. Cashen explains that habitat loss is the primary threat to special-status species that occur in the Project area. However, the mitigation measures proposed in the MND are almost entirely limited to measures (e.g., seasonal buffers) designed to avoid or minimize direct impacts to individual animals. Although the MND requires compensatory mitigation if nesting burrowing owls are detected onsite, it does not require compensatory mitigation if non-nesting burrowing owls are detected onsite, nor does it require compensatory mitigation if any other special-status species are detected onsite. Mr. Cashen concludes that this mitigation is inadequate to reduce impacts to less than significant levels. As a result, the City's determination that the proposed mitigation would offset cumulative impacts to less-than-significant levels is not supported by evidence.[170]

22 (cont.)

7. The MND Provides Inadequate Compensatory Mitigation for Potentially Significant Impacts to Biological Resources.

a) Mitigation Measure BIO-1 (Burrowing Owl)

Mitigation Measure BIO-1 states: "[i]f passive relocation of non-nesting burrowing owls is necessary; a qualified biologist shall prepare a Relocation Plan and submit it to CDFW." The proposed mitigation is vague because it does not establish minimum standards for the content of the Relocation Plan, nor does it require CDFW's approval of the Relocation Plan. According to CDFW's Staff Report on Burrowing Owl Mitigation: "burrowing owls should not be excluded from burrows unless or until:

23

- A Burrowing Owl Exclusion Plan (see Appendix E) is developed and approved by the applicable local DFG office;
- Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the Mitigating Impacts sections below. Temporary exclusion is mitigated in accordance with the item #1 under Mitigating Impacts below.
- Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided.

[170] Cashen Letter, p. 10.

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Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion will occur immediately after the end of the breeding season.
- Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight)."[171]

Mitigation Measure BIO-1 does not require these elements, nor does it establish success criteria for burrowing owls that are relocated from the Project site.[172]

Mitigation Measure BIO-1 further states:

> If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

23 (cont.)

As described below, the compensatory mitigation requirements of Mitigation Measure BIO-1 are far too vague to ensure impacts on nesting burrowing owls are reduced to less-than-significant levels.[173]

First, the MND fails to identify how much compensatory mitigation would be required. Mitigating Project impacts to burrowing owl habitat requires compensatory mitigation at a ratio of at least 1:1. As stated in CDFW's Staff Report on Burrowing Owl Mitigation:

> As set forth in more detail in Appendix A, the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well

[171] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 11.
[172] Cashen Letter, p. 11.
[173] Cashen Letter, p. 11.

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drained soils, and abundant and available prey within close proximity to the burrow.[174]

Second, the MND fails to establish any criteria for selection of the compensatory mitigation site. These include: (a) geographic location, (b) habitat conditions, and (c) the status of burrowing owls at the site. These variables are critical to the mitigation site's ability to reduce Project impacts to less-than-significant levels. Most notably, permanent protection of a site that is not occupied by burrowing owls would not mitigate the Project's impacts to occupied nesting habitat.[175]

22 (cont.)

Third, the MND fails to establish a mechanism that would ensure the mitigation site is maintained and managed in perpetuity to conserve burrowing owls and their habitat. Burrowing owls are limited to habitats with relatively short vegetation and only sparse shrubs or taller vegetation.[176] Therefore, even if the Applicant acquires a mitigation site that currently contains burrowing owls, the site would not offset Project impacts unless the Applicant implements a mechanism (e.g., grazing or mowing) for maintaining short vegetation at the site. In addition, deed restrictions do not ensure habitat conservation in perpetuity because: (a) they can be changed or eliminated,[177] and (b) do not have a third party that can be designated to monitor and enforce the restriction.[178]

Fourth, the MND fails to establish performance standards or monitoring and reporting requirements for the mitigation site. Thus, Mitigation Measure BIO-1 provides no assurances that the mitigation site would effectively compensate for the loss of burrowing owl habitat from the Project site.[179]

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[174] *Id*, p. 8.
[175] Cashen Letter, pp. 11-12.
[176] Gervais JA, Rosenberg DK, Comrack LA. 2008. Burrowing Owl (*Athene cunicularia*). Pages 218-226 *In:* Shuford WD, Gardali T, editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
[177] County of Kern. 2016. Willow Springs Solar Array Project. Comment 1-Q from the California Department of Fish and Wildlife (dated 1 October 2015).
[178] Land Trust Alliance. 2001. LTA Fact Sheet: Conservation Easement v. Deed Restriction. Available at: https://conservationtools.org/library_items/203-LTA-Fact-Sheet-Conservation-Easement-vs-Deed-Restriction; Cashen Letter, p. 12.
[179] Cashen Letter, p. 12.
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Finally, Mitigation Measure BIO-1 requires compensatory mitigation only "if such a protected area makes sense for protection of nesting owls." This condition is vague and confusing. The MND fails to explain the factors that the City would evaluate to determine whether a protected area "makes sense," nor does it explain how significant impacts to nesting burrowing owls would be mitigated if a protected area does not "makes sense."[180]

23 (cont.)

b) Mitigation Measure BIO-2 (Swainson's Hawk)

CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.[181] For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio.[182] Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.[183]

24

c) Mitigation Measure BIO-3 (Nesting Raptors)

Mitigation Measure BIO-3 states: "[i]f nesting raptors are identified during the [pre-construction] surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests…To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction."[184]

25

Mitigation Measure BIO-3 defines a qualified biologist as "a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections." The response of nesting birds to human-related disturbance activities is dependent

[180] Cashen Letter, p. 12.
[181] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. p. 13.
[182] *Id,* p. 12.
[183] Cashen Letter, p. 12.
[184] Cashen Letter, p. 13.

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on numerous site-specific and species-specific variables. Consequently, determining the appropriate buffer distance requires knowledge of species-specific responses to various types of disturbance in various settings. Many biologists that have experience conducting raptor surveys have no experience with (or knowledge of) avian responses to disturbance. As a result, Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.[185]

For buffer zones to be effective, they need to be based on empirical evidence of avian responses to disturbance. There is an overall lack of this type of empirical evidence.[186] As a result, monitoring is critical to validating the adequacy of a buffer. The MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Nevertheless, there is no scientific basis for the assumption that a nesting raptor can tolerate an inadequate nest buffer for one week (i.e., the proposed interval of construction monitoring), especially without adverse effects to reproductive success and productivity. This issue is compounded by the absence of any success standards, or monitoring and reporting requirements, for Mitigation Measure BIO-3. For these reasons, the actions proposed in Mitigation Measure BIO-3 do not ensure significant impacts to nesting raptors are avoided. To rectify this issue, the City must require nest buffers consistent with the best available scientific information.[187]

25 (cont.)

Suter and Joness (1981) surveyed 74 raptor researchers to derive recommendations for nest site protection.[188] Based on the survey results, Suter and Joness (1981) recommended a buffer distance of at least one kilometer (3,281 feet) to prevent raptors from abandoning their nests in response to construction and similar noisy, extended activities.

d) Mitigation Measure BIO-4 (Nesting Passerines)

Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active

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[185] Cashen Letter, p. 13.
[186] Richardson CT, Miller CK. 1997. Recommendations for Protecting Raptors from Human Disturbance: A Review. Wildlife Society Bulletin 25(3):634-638.
[187] Cashen Letter, p. 11.
[188] Suter GW III, Joness JL. 1981. Criteria for Golden Eagle, Ferruginous Hawk and Prairie Falcon Nest Site Protection. Raptor Research 15(1):12-18.
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26 (cont.) nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.[189]

e) Mitigation Measure BIO-5 (Pond Turtle)

Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." Mr. Cashen explains that the proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, he 27 explains that it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.[190]

Pursuant to Mr. Cashen's recommendations, the City must analyze the Project's significant impacts to Biological Resources the City must prepare an EIR.

C. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Energy Impacts

28 The MND fails to perform its own energy analysis and instead relies on the SGE 258 analysis.[191] Recent cases interpreting Appendix F hold that, to comply with CEQA, the lead agency must not only describe a project's energy impacts in a CEQA document, it must also quantify them.[192] This is consistent with

[189] Cashen Letter, p. 13.
[190] Cashen Letter, p. 14.
[191] Appendix B, p. 11.
[192] *Ukiah Citizens for Safety First v. City of Ukiah* ("*Ukiah Citizens*") (2016) 248 Cal.App.4th 256, 264-65 (energy impact analysis requires clarification and technical information regarding project-related energy usage and conservation features); *Spring Valley Lake Association v. City of Victorville* ("*Spring Valley*") (2016) 248 Cal.App.4th 91, 103 (CEQA doc must show factual basis of its assumptions that both energy use and greenhouse gas emissions will be reduced); *California Clean Energy Committee v. City of Woodland* ("*CCEC*") (2014) 225 Cal.App.4th 173, 210 ("CEQA EIR requirements are not satisfied by saying an environmental impact is something less than some previously unknown amount").

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longstanding precedent which holds that unsupported conclusions are entitled to no judicial deference.[193]

Here the City did not quantify the energy uses from the Project but instead relied on an MND analysis that was not provided. This Project's analysis of energy is at best superficial and merely puts forth the conclusion that because this Project is similar to others in the past, no energy analysis is required.[194] Even if the analysis under SGE 258 were appropriate here, it is impossible to tell from the face of this MND because that analysis can only be found after looking the MND of SGE 258 which is not part of the MND for this Project and was not included in the MND. The MND should have provided the analysis under SGE 258 in the discussion of Energy and the CalEEMod analysis under SGE 258.

28 (cont.)

D. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Impacts from Greenhouse Gas Emissions

1. The GHG Analysis Relies on Inapplicable Thresholds In Violation of CEQA

Under the CEQA Guidelines, which have been recently updated, a lead agency must analyze a project's impacts on GHG emissions.[195] The Guidelines allow for several approaches to this analysis, both qualitative and quantitative. The Guidelines explicitly mandate, however, that the "analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes.[196]"

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The MND's GHG analysis relies on the outdated tiered approach developed by BAAQMD for assessing the impacts of land use development projects. Under this approach, projects are first analyzed using a "bright-line" screening threshold of

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[193] *Comtys. for a Better Env't v. City of Richmond* ("*CBE v. Richmond*") (2010) 184 Cal.App.4th 70, 85; *Topanga,* 11 Cal.3d at 515 (CEQA document must provide reader with analytic bridge between ultimate findings and the facts in the record).

[194] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 (quoting California Oak Foundation v. City of Santa Clarita (2005) 133 Cal.App.4th 1219, 1239.).

[195] 14 C.C.R §15064.4.

[196] 14 C.C.R §15064.4(b)

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1,100 metric tons of carbon dioxide-equivalents per year ("MTCO2e/year").[197] If the project's annual emissions go beyond this threshold, it should be analyzed under an efficiency threshold.[198] The MND analyzed the Project's annual emissions and found they were below the "bright-line" threshold, ending the analysis there.[199]

BAAQMD's bright-line threshold, however, is not applicable to the Project, and relying on it violates CEQA. BAAQMD's thresholds, included in the district's 2017 CEQA Guidelines, were developed to comply with the state reduction target as it is embodied in AB 32,[200] which mandates that statewide greenhouse gas emissions be reduced to 1990 levels by the target year 2020.[201] In 2016, the state passed SB32,[202] which codified a new statewide 2030 GHG emissions reduction target of 40% below 1990 levels. Following the new legislation, CARB adopted in December 2017 a new scoping plan to outline the strategy needed to achieve SB 32 GHG targets. These are the binding "state regulatory scheme" that the CEQA Guidelines require agencies to account for.

29 (cont.)

The BAAQMD Guidelines do not account for or include any numeric threshold for compliance with SB 32 or the scoping plan and are therefore not applicable to projects that will be built and operated beyond the AB 32 target year.[203] Because the Project's first fully operational year would be 2021, and it would continue to operate many years beyond that, the City must analyze the Project for its compatibility with the state's mandated goals for, at the very least, the year 2030.[204]

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[197] MND, p. 61.
[198] The Guidelines also allow for a CAP consistency analysis, but it is not applicable here.
[199] MND, pp. 61-62.
[200] See, California Environmental Quality Act Air Quality Guidelines, Bay Area Air Quality Management District, May 2017, at p. D-27.
[201] California Air Resources Board, Assembly Bill 32 Overview; available at: https://www.arb.ca.gov/cc/ab32/ab32.htm, accessed April 3, 2019.
[202] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32
[203] See also *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497.
[204] The MND contains a single paragraph which purports to analyze the Project's consistency with SB 32. MND, p. 62. However, the section lacks any detailed discussion of how the City asserts the Project would comply with SB 32 goals, stating merely that "[t]he assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals," and that, for this reason, the Project's GHG impacts would be less than significant under a qualitative plan-based approach. This analysis is inadequate.
5038-008acp

BAAQMD *itself* advises lead agencies not to rely on its numeric significance thresholds and instead advises they make significance determinations based on the most recent state greenhouse gas reduction targets. For example, in recent comment letters to lead agencies, BAAQMD stated as follows:

> The Air District encourages the City to make a significance determination for greenhouse gas impacts based on the most recent State greenhouse gas targets and CEQA guidance. The Air District's 2010 CEQA guidelines are based on the State's 2020 greenhouse gas targets. These targets have been superseded by the State's 2030 and 2050 climate stabilization goals and by the most recent draft of the AB 32 Scoping Plan written by the California Air Resources Board.[205]

29 (cont.)

> The GHG impact analysis should include an evaluation of the Plan's consistency with the California Air Resources Board 2017 Scoping Plan and State and Air District climate stabilization goals for 2030 and 2050. Please be advised that the Air District is in the process of updating the CEQA guidelines/thresholds and current thresholds for GHGs should not be used for this plan.[206]

BAAQMD is in the process of updating its current CEQA Guidelines and thresholds of significance.[207] This is yet another reason why the MND cannot rely on BAAQMD's bright-line threshold.

The MND must be revised to include a detailed analysis of the Project's compatibility with the reduction targets set in SB 32, which go beyond those set in AB 32. As it is now, the MND's analysis violates both CEQA and the Supreme Court rulings on GHG analysis.

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[205] Greg Nudd, BAAQMD, Letter to Joshua McMurray, Oakley, CA, Oakley Logistics Center Project, March 21, 2019; available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa-letters/2019/2019_03_21_city_of_oakley_oakley_logistics_center_nop-pdf.pdf?la=en, accessed April 12, 2019.

[206] Greg Nudd, BAAQMD, Letter to Alicia Parker, City of Oakland, RE: Downtown Oakland Specific Plan - Notice of Preparation of a Draft Environmental Impact Report, February 15, 2019; available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa-letters/2019/downtown_oakland_specific_plan_eir_notice_of_preparation_021519-pdf.pdf?la=en

[207] BAAQMD, CEQA Guidelines Update Underway; available at: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, accessed April 9, 2019.

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E. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Land Use Impacts.

The MND notes that the City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan.[208]

30 While this may be substantial evidence of that fact, given the City's failure to provide said email, it is merely a conclusory statement and evidence of nothing. "Substantial evidence" includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.[209] A legal opinion alone does not constitute substantial evidence.[210]

Since the email is not made available for review the City cannot rely on it in support of this MND.

F. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Noise Impacts

1. The New Building Will Form A Canyon With The Existing Building To The North.

31 Mr. Shaw concludes that the Project may have significant noise impacts because it will create a canyon noise effect on the north side since there will be two concrete walls now facing each other. The MND fails to describe or analyze this effect in its current calculations thus resulting in an underestimate for the test samples located in Table Noise-1. The MND needs to include analysis regarding how the ambient levels would change with this canyon effect.[211]

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[208] MND, Land Use, p. 2.
[209] 14 C.C.R § 15384 (b).
[210] Id.; See People v. County of Kern (1974) 39 Cal.App.3d 830, 841-842 (conclusory statements unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind are insufficient to support a finding of insignificance).)
[211] Shaw Letter, p.1.
5038-008acp

2. The Project Does Not Account for the Truck Routes and Noise as a Result of those Routes.

The MND accounts for noise on site due to truck traffic, but does not account for any along the routes the trucks must take enter and exit the to the Project. The MND states there will be 35 peak hour trips in the morning which means there will be an average of 1.7 minutes between trips. For the 28 peak hour PM trips there will be an average of 2.1 minutes between trips. With the transit around the building as noted in Figure 2, Site Plan on page 14/701, this means there will be a continuous parade of trucks around the building. The MND fails to analyze noise during operations, except for those on the North side.[212] An EIR must be prepared to correct this omission.

32

3. The Project Does Not Properly Account for Noise as a Result of Night Time Construction

There will be construction activities at night for 15 nights. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours and whether the noise created from them would stay under 65dB as required by American Canyon Municipal Code, Chapter 8.12. The MND should have provided this information along with noise levels from the previous night time pour since the last pour resulted in calls to the City regarding noise.[213] The impact from the concrete activities is thus not disclosed, rendering the MND significance conclusions unsupported.[214]

33

G. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Transportation Impacts

1. Potential Warehousing Uses of the Project Building May Result in Significantly Higher Trip Generation than Assumed in the MND

The MND and its Appendix F rely on studies of trip generation at six existing wine storage/distribution facilities in the Project's vicinity to estimate the proposed

34

[212] Shaw Letter, p.2
[213] MND p. 88.
[214] Shaw Letter, p. 2

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Project's motor vehicle trip generation. While Mr. Smith finds the MND's trip generation measurements performed at the nearby buildings to be reasonably consistent with the Institute of Transportation Engineer's authoritative publication *Trip Generation, 10th Edition* data for Land Use Category 150-Warehouse and for Category 154-High Cube Logistics Warehouse, he explains that the MND's trip generation fails to consider that the type of warehouse building planned for the Project is readily adaptable to much more traffic-intensive types of warehousing than calculated.

Mr. Smith explains that this type of building could easily be used as what *Trip Generation, 10th Edition* characterizes as Land Use Category 156 – Parcel Hub Warehouse or, to use the terminology of a major operator of such facilities, Amazon, a "Last Mile" facility.[215] These are facilities where goods are brought in directly from "fulfillment centers" or air freight terminals by heavy tractor-trailer truck rigs and trans-loaded to van-type vehicles for actual delivery to consumers. As Mr. Smith explains, the difference in trip generation of a "parcel hub warehouse" and a "wine warehouse" as analyzed in the MND is highly significant.

34 (cont.)

The MND estimates the trip generation for a wine warehouse in vehicles per thousand square feet of floor area as 1.69 daily, 0.16 in the AM peak and 0.125 in the PM peak. *Trip Generation, 10th Edition* indicates the trip generation for a "parcel hub warehouse" in vehicles per thousand square feet of floor area as 7.75 daily, 0.7 in the AM peak and 0.64 in the PM peak.[216] In other words, if used as a parcel hub instead of a wine warehouse, which is reasonably foreseeable, the Project's warehouse building would generate 4.6 times as much traffic daily, 4.4 times as much traffic in the AM peak and 5.1 times as much traffic in the PM peak as what is disclosed in the MND.[217]

The MND contains no condition or mitigation measures which would restrict the Project's warehouse use to the less trip-intensive use analyzed in the MND. Indeed, the fact that the proposed warehouse is apparently a 'spec' building (the MND says it could be occupied by up to 3 tenants implying that there were no tenant commitments at the time of writing) and its proximity to heavy jet-capable Napa County Airport, strengthen the possibility that the Project could end up being used as a parcel hub. Hence, to be adequate, the MND must consider the possibility

[215] Smith Letter, p. 1
[216] Smith Letter, p. 1.
[217] Smith Letter, p. 1.

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(34) (cont.) of this plausible and more traffic intense use, or the Conditional Use Permit must limit the warehouse to being used solely as a wine storage warehouse.[218]

2. The MND's Transportation Section Fails To Address the Serious Operations and Safety Problems on S.R. 29 in the Project Vicinity

Because of its location, most motor vehicle traffic to and from the Project must ultimately use parts of State Highway 29 ("SR 29").[219] This State Highway experiences considerable operational and safety problems, as is well documented in the *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020.[220]

Mr. Smith explains that the City and its consultants, GHD, who prepared the transportation work supporting the MND, know this as they both were participants in the above-referenced SR 29 study.[221] Yet, the MND utterly fails to address the SR 29 issues or how the Project and others like it in the area contribute to the problem and can contribute to implementing the corridor study recommendations. Instead, the MND devotes much attention to studies of level of service, traffic signal (35) warrants and right-turn lane warrants at a single local intersection, that of Commerce Boulevard with Green Island Road. Mr. Smith concludes that the MND's lack of analysis of the Project's impacts on SR29 is a major omission which leaves out a critical component of the Project's transportation impacts.[222]

The MND is defective in failing to acknowledge and address the problems in the SR 29 corridor and the Project as a cumulative contributor to them.[223] As a result, the MND's conclusion that the Project will have less than significant impacts on traffic and transportation is not supported by substantial evidence. The City must prepare an EIR to fully disclose and mitigate the Project's traffic and transportation impacts from all reasonably foreseeable uses and on all reasonably foreseeable major thoroughfares.

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[218] Smith Letter, pp. 1-2.
[219] MND, p. 12.
[220] *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020, https://www.nvta.ca.gov/sites/default/files/SR%2029%20Final%20Report.pdf
[221] Smith Letter, p. 2.
[222] Smith Letter, p. 2.
[223] Smith Letter, p. 2.
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3. The MND Assumes Implausible Mitigation of the Project's Significant VMT Impacts

After considering highly disparate data sources regarding average employee trip lengths, the MND's transportation analysis finds that the Project, without mitigation, would generate an average of 16.28 daily vehicle miles traveled ("VMT") per employee compared to an impact significance threshold of 10.92 VMT per employee, resulting in a significant impact.[224] Hence, without mitigation, the Project would have significant transportation impacts. Translated to aggregate VMT numbers, the MND finds that the Project's employees would generate 2214 VMT each weekday, exceeding the significance threshold of 1485 VMT and requires mitigation that eliminates 729 VMT daily in order for the Project to be said to have no significant impact with mitigation.[225]

The MND goes on to assume that, because the Project is committed to pave what the MND claims is an 800 foot gap in the area bikeway network. This action, based on a theoretical formulation, would induce commuters on between 76 and 310 daily commute trips[226] to shift from commuting by auto to bicycle (or splitting the difference between the high and low estimate a so-called average of 193 trips) resulting in a purported daily VMT saving of between again splitting the difference between high and low estimates) of 733 to 1004 miles.[227] The MND asserts these theoretical VMT savings would be sufficient to fully mitigate the Project's the significant VMT impacts. However, Mr. Smith explains that the MND's analysis is flawed because it fails to consider what underlies the high and low estimates, and fails to justify the reasonableness of the MND's approach of just averaging between them.[228]

36

As Mr. Smith explains, both the high and low estimates in the MND are generated by a theoretical formula estimating the number of commuters who would be induced to travel by bike, instead of auto, as the result of a bikeway of certain length. The MND's low estimate reflects only the commuters induced to travel by bike solely by the 800 feet of paved path the Project proposes to provide. The high estimate credits the Project with the commute attractiveness of the entire 1.85 mile bikeway that has already existed for a number of years to the south of the 800 feet

[224] MND Appendix F, GHD Memorandum, p. 4.
[225] Smith Letter, p. 3.
[226] Commuters to the general area, not just to the Project itself.
[227] MND, p. 102.
[228] Smith Letter, pp. 3-4.

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of bikeway the Project will pave.[229] Mr. Smith concludes that averaging between an estimate that just reflects the length of bikeway the Project will pave and one that credits the Project with the entire 1.85 miles of bikeway that already existed is not supported by substantial evidence and is simply not reasonable.[230]

Mr. Smith further explains that the MND's high VMT-reduction estimate reflects a limited localized study by an Oregon research cooperative that found the average commute bike trip length was 5.2 miles, whereas the low estimate reflects a national study by the American Association of State Highway and Transportation Officials (AASHTO) that found the average bike commute trip length was 3.8 miles.[231] Mr. Smith opines that splitting differences is, in essence, placing equal credence on a limited local study as on one with a national data base. This assumption is unsupported. The MND also discloses by footnote that it assumes the bike commuters would do so 5 days per week for 47 weeks per year.[232] This is in essence every single work day per year, discounting vacation, sick leave and holidays. It leaves no allowance for days of substantial rain or when rain is forecast to fall before quitting time, days of high winds, very cold days or extreme summer heatwaves, or days where the commuter intends to make a trip at lunch hour or immediately after work for which travel by bike may be unsuitable.[233]

36 (cont.)

Finally, the MND's notion that the Project is "filling a gap" in the area bikeway network is an exaggeration. Mr. Smith identified aerial photo evidence which shows that a bikeable path has existed on the alignment of Commerce Boulevard at the supposed gap since the mid-1990s, if not before.[234] The aerial photos provide substantial evidence demonstrating that the Project's bike path is a minor addition to existing bike access, and is therefore not likely to produce significantly higher VMT reductions than currently provided by the existing bike lanes. Mr. Smith concludes that the Project is not supplying a missing link, it is just improving the pavement.[235]

It is unreasonable for the MND to assume that the Project's significant VMT impacts will be mitigated by simply paving a few hundred feet of bikeway. The

[229] Smith Letter, pp. 3-4.
[230] Smith Letter, pp. 3-4.
[231] Smith Letter, pp. 3-4; citing MND p. 701.
[232] MND, Appendix F, p. 256, FN 2.
[233] Smith Letter, pp. 3-4.
[234] Smith Letter, pp. 3-4.
[235] Smith Letter, pp. 3-4.

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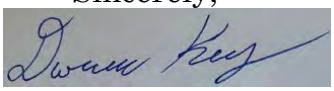
(36) (cont.) Project cannot be approved under an MND. [236] An EIR must be prepared to incorporate additional mitigation to reduce the Project's VMT impacts to less than significant levels.

VI. CONCLUSION

(37) There is substantial evidence supporting a fair argument that the Project may result in potentially significant adverse impacts that were not identified in the MND, and thus have not been adequately analyzed or mitigated. We urge the City to fulfill its responsibilities under CEQA by withdrawing the MND and preparing a legally adequate EIR to address the potentially significant impacts described in this comment letter and the attached expert comments. This is the only way the City and the public will be able to ensure that the Project's significant environmental impacts are mitigated to less than significant levels.

Thank you for your attention to these comments.

Sincerely,



Darien K. Key
Associate

DKK:acp
Attachment

[236] Smith Letter, pp. 3-4.

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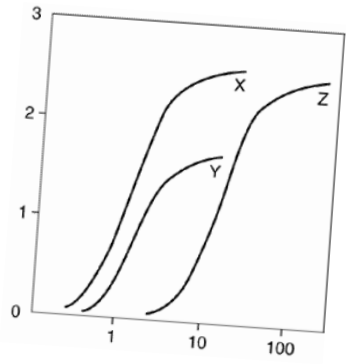
ATTACHMENT A



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May 3, 2021

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
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Attn: Mr. Darien Key

Subject: Comment Letter on Recirculated Initial Study For The SDG Commerce 217 Distribution Center Project (PL20-0008), American Canyon, California

Dear Mr. Key:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the 2021 City of American Canyon (the City) Recirculated Initial Study (RIS) of the above referenced project. The City circulated a draft Initial Study (DIS) for a 30-day public review on December 16, 2020. After receiving comments on the DIS, a Final IS was completed and adopted at the City's February 25, 2021 Planning Commission meeting. At that meeting, additional comments on the Final IS were received. The Planning Commission's project approval was appealed on March 5, 2021. The City elected to recirculate the Draft IS including modifications in response to comments received both during the initial public comment period and at the Planning Commission hearing.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the RIS. If we do not comment on a specific item, this does not constitute acceptance of the item.

Project Description:

The project site is located at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area. The project location is on the west

side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the project site is from SR-29 via Green Island Road to Commerce Court.

The project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size; there are no current plans for development of that parcel.

The project applicant proposes to develop a 217,294 sq. ft. wine distribution center on the northern 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR). The assumed 4,350 square feet of office space is an estimate. The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. It would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings to provide additional modulation. The average roof height of the building would be approximately 35 feet and exterior walls would have various heights (33-37 feet) to provide architectural relief. The building would have earth-tone colors and style matching the SDG Commerce 330 Distribution Center building to the south. Building elevations are shown on Figure 4 of the RIS. The building has the potential of accommodating multiple tenants with provisions for up to three offices. It is anticipated that the distribution center would be used for wine storage and other wine-related storage, distribution, and warehousing activities (i.e. bottles, corks, barrels, etc.).

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would

allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

A total of 134 car and 21 truck dock parking spaces would be provided. Six of the parking stalls would be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building would have 21 truck loading docks.

Construction Activities and Schedule

According to the City, the construction of the proposed project would occur in one phase. This phase would include site grading and installation of underground utilities stubbed to the building pad. The detention/bioretention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during the initial construction phases. It is anticipated that approximately 9.5 months would occur from commencement of initial grading start to building construction completion. The grading component is anticipated to take approximately 9 weeks.

According to the RIS, the Project construction hours would occur from 7:00am to 6:00pm Monday through Friday except for the concrete building slab pour, wall panel and large concrete paving pours. These are required to be performed during nighttime hours starting no earlier than 12:00am. Pre-notification of these night pour dates and times will be provided to the City and nearby residents that expressed concerns during the SDG 330 nighttime concrete pours, as well as all property owners within 300 feet of the project site. The project is anticipated to have approximately 5 concrete night pours for the building slab, 4 for the large concrete paving, and 6 for the tiltup walls. Pours would start between 12am - 2am and continue into daytime hours. Maximum noise levels at the nearest residential receptor would be less than 53 dBA (See section XIII, Noise, for a complete discussion of concrete pour noise impacts). Nighttime pours are not optional due to cooler ambient nighttime temperatures, volume of concrete poured, morning traffic congestion that can prevent concrete trucks from arriving at the site on time, and concrete vendor conflict with other customers needing concrete during the day.

According to the RIS, typical construction equipment used at the site would include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels,

tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, it is typical for 12 to 24 workers on- site but can equal up to 80 workers.

Proposed Building Uses

It is anticipated that the building will operate 12-18 hours per day in up to 3 overlapping shifts during the peak season. During this time, up to 32 full-time employees and 18 part-time employees may work on-site at the same time. The employment estimates are approximations as there is no specific user identified with the application; however, they are substantiated with similar uses. The proposed uses for the building can be estimated that approximately 2 to 4 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The building is designed to accommodate three tenants. Office space within the building is incidental to the distribution center operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal months, typically June through November.

General Comments:

The Proponent of the project has already constructed another building in the immediate vicinity that is exactly like the Commerce 217 Distribution Center (SDG Commerce 330 Warehouse Project) and has recycled the design and environmental analysis from that project for use in the SDG 217 project. It is clear that the Proponent is piecemealing a larger project by constructing the same project every two years. The City and the Proponent have failed in their obligations under CEQA to adequately describe and assess the impacts of the whole project on the surrounding community. The City is attempting to recirculate appealed DIS on March 5, 2021 without addressing serious concerns raised about the "Final" IS. The issues not addressed include exceedances of significance thresholds during the construction phase of the project, a lack of health risk analysis for increases in the diesel particulate matter that will be emitted from activities associated with the Site, health impacts and the lack of a quantitative health risk analysis for the air emissions associated with the Site.

In addition, the RIS fails to assess latent hazards that may be present in the soils present at the

site which will impact not only construction workers at the site but workers in adjacent businesses. The Phase II report of the subsurface investigation relied on an inadequate sampling program that failed to adequately characterize conditions across the site. The City must re-evaluate the impacts and compile them in a draft environmental impact report (DEIR).

Specific Comments:

1. The City Failed To Perform A Project Specific Traffic Impact Analysis (TIA) For The 217 Commerce Center Project And Is Relying On A TIA For Another Project

The City has failed to perform a TIA for the 217 Commerce Center project. Rather than assess the impacts the City relies on the 2018 TIA performed for the SDG Commerce 330 Warehouse Project. According to the introductory paragraph of the TIA Memorandum, the TIA was prepared to present the results of an analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard Wine Storage Facility project in the City of American Canyon. The TIA assumed the construction of a 330,528 square foot wine storage warehouse. According to the TIA Memorandum 9 projects were included in the traffic analysis along with the SDG Commerce 330 Warehouse Project. Those projects include:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

The analysis showed that the conditions at State Route 29 and Green Island Road would drop from a Level of Service (LOS) C to LOS D in the AM peak hours.

The trip generation analysis used in the TIAM for the SDG Commerce 330 Warehouse assumed a generation rate of 1.69 vehicles for each 1,000 square feet of the wine warehouse

constructed (1.69 * 330.528 = 558.59 or 559 vehicles). Clearly, the 2018 analysis does not consider the impact from the additional 367 vehicle trips (217.294 *1.69 = 367.22 or 367), an increase of approximately 66 percent (65.74% = ((367.22 + 558.59)/(558.59))). In addition, the TIA fails to account for the additional traffic burden/vehicle trips associated with the opening of the New Napa Junction School located at the corner of Eucalytpus Drive and Commerce Boulevard. Given the significant increase in trips from the unaccounted projects identified herein, the City must re-evaluate the traffic impacts from the project in an environmental impact report (EIR).

2. **The City Has Not Accurately Reported The Estimated Daily Construction Emissions and Ignored The Significant Impacts During The Construction Phase**

According to the DIS and the RIS, the Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include Best Management Practices (BMPs) required per the Bay Area Air Quality Management District's (BAAQMD's) CEQA Air Quality Guidelines. Therefore, project impacts from construction emissions would be less than significant. The City's analysis assumes one continuous phase of construction, ignoring the substantial highs and lows based on each phase of construction evaluated (site preparation, grading, building construction, paving, and architectural coating).

Table AQ-1: Estimated Daily Construction Emissions (pounds/day)

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
2021	13.6	24.6	19.5	1.0	0.9
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	No	No	No	No	No

The City has failed in its obligations to accurately report the construction emissions by mis-interpreting guidance from BAAQMD. According to the 2017 CEQA Guidance From BAAQMD, "The Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather

than the full year." This means that for each phase of construction emissions should be presented and compared against the BAAQMD Significance Thresholds.

As was previously pointed out in comments on the DIS, the calculated daily construction emissions in the RIS are based on the total average emissions for the entire construction phase of the project. The City's use of the total average daily emissions ignores the substantial impacts that are associated with the maximum daily emission rates calculated by the CALEEMOD model of the project.

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
Site Preparation	3.9558	40.5366	21.6621	2.04546	1.88178
Grading	2.5683	37.5613	17.7651	1.16798	1.07479
Building Construction	2.6831	24.2402	22.5509	0.9815	1.3558
Paving	1.7638	12.952	15.0764	0.6785	0.62424
Architectural Coatings	155.6296	1.5948	2.6922	0.09575	0.09562
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	**Yes**	No	No	No	No

Over the course of the construction the emissions of reactive organic gases (ROGs), precursors to the formation of ozone, increase substantially from a low of 1.76 lbs/day during the paving phase of the project to a high of 155.63 lbs/day during the Architectural Coatings phase of the project. While the total averaged values over the whole are lower than the Significance Threshold value of 54 lbs/day, the City is obligated to assess impacts of emissions from each phase of the construction of the project. Short term exceedances of the significance thresholds may have significant local impacts on the air quality and the community at large. The City must report the impacts from each step of the construction of the project in an EIR providing a clear analysis of the criteria and toxic air contaminants as well as the greenhouse gas emissions.

3. The City Has Failed To Quantify The Impact That Transportation Refrigeration Units (TRUs) Will Have On Air Quality Impacts From The Proposed Project In The Alternative Project Analysis.

The RIS's assessment of the project does not include the impacts from diesel particulate matter (DPM) emissions from transportation refrigeration units (TRUs) installed on insulated cargo vans and trucks that will be used to transport the temperature sensitive goods stored at the project site. In 2019, CARB released a health risk analysis that documented the significant impact of TRU's. In CARB's analysis they calculated that the operation of one daily truck delivery, one daily trailer delivery, and one seasonal trailer TRUs for a total of 202 hours per week results in a cancer health risk of 190 in one million on site, 28 in one million at a residence 100 meters off-site, and 5 in one million at a residence 400 meters off site. The closest residence to the proposed project site is identified by the City as being located 500 feet (approximately 150 meters off-site). When the number of daily trucks is increased to 10 per day and daily trailers increased to 6 per day, the onsite risk increases to 610 in one million, the 100-meter offsite risk increases to 92 in one million, and the 400-meter offsite risk increase to 16 in one million. Clearly the impacts from the use of any TRUs at the Project Site will have a substantial impact on the air quality for residents and other sensitive nearby to the project site. Since the TRU mobile refrigeration unit emissions will have a significant health impact for workers on site and residents nearby the City must require mitigation measures to reduce that risk below BAAQMD thresholds. The mitigation measures at a minimum must

1. Track the number, types, and emissions of DPM from TRUs brought on-site;
2. Establish a baseline acceptable level based on a health risk analysis of the TRUs utilized (total DPM emissions allowable per year); and/or
3. Implement alternative systems for powering TRUs, including the use of electrified systems.

In addition to the health impacts from exposure to DPM that must be assessed in the analysis, the impacts on greenhouse gas (GHG) emissions from TRUs must be included in an EIR of the project.

4. The City's Reliance On Best Management Practices (BMPs) To Keep Emissions Below Significance Threshold Values Are Unenforceable.

The use of best management practices (BMPs) as a mitigation measure are an unenforceable measure. These measures rely on the good will of a third party (e.g., construction contractors) to ensure that mitigation is being performed on known sources of pollution. Without clear lines of authority to penalize for failure to meet stated goals (i.e., reports of daily dust emission monitoring at the fence line during the construction phase of the project) the BMPs become meaningless and counter-

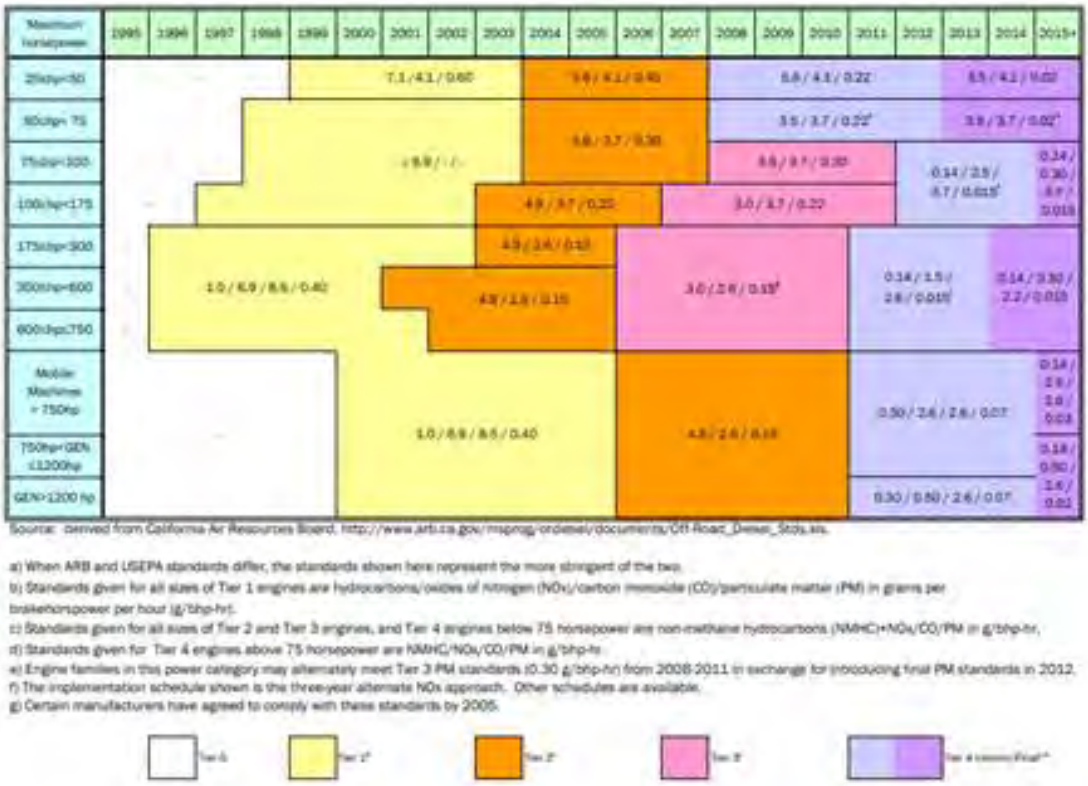
productive.

5. The City's Air Quality Mitigation Measure AQ-4 Utilized In The Analysis of The SDG Commerce 330 Warehouse Project Was Insufficient To Reduce the Project's Significant Health Risk to Less than Significant Levels

In the City's analysis of air quality impacts for the SDG Commerce 330 Warehouse project, the preferred mitigation measure (AQ-4) for ensuring DPM emissions would remain below the significance thresholds was the use of U.S. EPA Tier 2 equivalent construction equipment. required ensure that the Project's health risk impacts are less than significant levels. The City stated at the time of the IS/MNDs release that the use of Tier 2 technology would keep emissions below a health risk of 10 in 1,000,000 without quantifying the actual health risk in the analysis. Tier 2 technology was first released in the mid-1990's and is not currently the recommended standard for diesel powered equipment.

The United States Environmental Protection Agency (U.S. EPA) has slowly adopted more stringent standards to lower the emissions from off-road construction equipment since 1994. Since that time, Tier 1, Tier 2, Tier 3, Tier 4 Interim, and Tier 4 Final construction equipment has been phased in over time. Tier 4 Final represents the cleanest burning equipment and therefore has the lowest emissions compared to other tiers, including Tier 4 Interim equipment.[1]

[1] "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, *available at:* https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p. 6.



As demonstrated in the figure above, Tier 2 equipment has greater emission levels than Tier 3, Tier 4 Interim, and Tier 4 Final equipment.[2] Requiring the use of Tier 2 or equivalent control technology for all equipment as a mitigation measure does not provide the community with greatest level of protection possible.

For the operational phase of the project, the City must promulgate mitigation measures to ensure that residents near the Project are not adversely affected by DPM emissions from any generator that may be installed onsite. Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more), diesel back-up generators generally have U.S. EPA Tier II ratings and need to be outfitted with diesel particulate filters to achieve additional PM2.5 reductions. In, addition, diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur

[2] "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, *available at:* https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p. 6.

content of 15 parts per million (ppm). If higher rated diesel generators are available, the City must require that the proponent purchase and maintain the generator that will achieve the highest amount of DPM reduction. The City should prepare a DEIR which accurately discloses the extent of the Project's health risk from construction and operational DPM emissions, and which includes a Mitigation Monitoring and Reporting Program with enforceable mitigation measures to reduce the Project's health risk to the greatest extent feasible.

6. The City Has Failed To Perform a Quantitative Health Risk Analysis Of The Emissions From The SDG Commerce 217 Project And Is Relying On A Non-Quantitative Analysis Performed On The SDG 330 Warehouse Project

The City must perform a quantitative analysis of the emissions from construction and operational emissions from the Project, instead of relying on a non-quantitative analysis provided in the SDG 330 Warehouse Project which lacks any merit. On page 25 of the Initial Study for the SDG 330 Warehouse Project, the City states that the nearest sensitive receptors to the project, a residential neighborhood, with two-to-three homes that could potentially be within 1,000 feet of certain project construction phases (site preparation and grading activities).

According to the City's analysis of the SDG 330 Warehouse Project, the "Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).

To ensure the proposed project's health impacts are less than significant, this Initial Study implements the enhanced exhaust emissions reduction measures as Mitigation Measure AQ-4." Mitigation Measure AQ-4 assumed that all off-road equipment should have:

"a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;

b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment

products, add-on devices such as particulate filters, and/or other options as such are available." As will be demonstrated in Comment 5 above, the use of Tier 2 equipment for the SDG 330 Warehouse Project would not have met the goal of enhancing exhaust emission reductions and would in fact increase the potential emissions from sources on site.

The logic used by the City to justify not producing an air dispersion model of emissions and a quantitative health risk assessment for the SDG Commerce 330 Warehouse project is flawed and contradicts the BAAQMD CEQA guidance. Under Section 5.2.4, Sources Not Requiring A BAAQMD Permit, the BAAQMD states that "For new land uses that would host a high number of non-permitted TAC sources, such as a distribution center, the incremental increase in cancer risk shall be determined by an HRA using an acceptable air dispersion model in accordance with BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards and/or CAPCOA's guidance document titled Health Risk Assessments for Proposed Land Use Projects. A Lead Agency may consult HRAs that have previously been conducted for similar land uses to determine whether it assesses the incremental increase in cancer risk qualitatively or by performing an HRA. This analysis shall account for all TAC and PM emissions generated on the project site, ***as well as any TAC emissions that would occur near the site as a result of the implementation of the project (e.g., diesel trucks queuing outside an entrance, a high volume of trucks using a road to access a quarry or landfill)***" (emphasis added).

Clearly the City has previously failed to assess the TAC and PM emissions from the SDG 330 Warehouse Project and is falsely assumed that Mitigation Measure AQ-4 would reduce any TAC and PM emissions to a level that would not produce a risk above 10 in one million without any supporting evidence. Applying the same hand waving of the facts to the SDG Commerce 217 Project does not meet the obligations that the City has under CEQA to quantify the impacts of the project on the community. Furthermore, relying on this unsupported analysis to support the assertion that the SDG Commerce 217 Distribution Center project will not have a significant impact is patently false. The City must quantify the diesel particulate emissions from all sources associated with the SDG Commerce 217 Distribution Center project (including TRUs that will be utilized onsite), perform an acceptable air dispersion model of the SDG Commerce 217 construction and operational emissions, and assess the impact of those emissions in a health risk assessment consistent with guidance from OEHHA. Additionally, the City must include a cumulative impact analysis that includes the emissions from all of the projects identified previously as having a potential impact on traffic in the vicinity. The

results of those analyses must be presented in a DEIR.

7. The City Has Failed To Quantify The Health Impacts From The Construction Emissions Of The Project On The New Elementary School Receptors That Are Less Than 500 Meters Southeast of The Project Site.

In the RIS, the City states that "Construction activities would occur intermittently for approximately 9.5 months and the vast majority of construction activities would be well beyond 1,000 feet from the nearest residence and 1,500 feet from the school. *Some construction activities during the approximately nine weeks of site preparation and grading for the project could be within 1,000 feet of the school property boundary, however, site preparation and grading activities are planned for March 2021 and the school is set to begin instruction in Fall 2021* (emphasis added). Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a healthrisk evaluation and would be considered less-than-significant by the BAAQMD" Given that it is now May, 2021 and a final RIS has not been approved by the City, it is clear that construction activities that will generate dusts and DPM that will affect the students and staff at the new school will occur during the start of the new school year. The City must now perform the health risk analysis and air dispersion modeling to ensure that the students and staff of the school are not adversely impacted and submit the results in a DEIR.

8. The City Has Failed To Quantify The Health Impacts From Operational Emissions From The Project On New Elementary School (Sensitive Receptor) That Is Less Than 500 Meters Southeast of The Project Site.

The City must assess the air quality impacts for all toxic air compounds that will be released during the operational phase of the project on the new Napa Unified School District new Napa Junction School constructed at the corner of Eucalytpus Drive and Commerce Boulevard. In the RIS, the City states that there are no schools or daycare centers within 1,000 feet of the proposed project. The new Napa Junction School is located approximately 450 meters (approximately 1500 feet) southeast of the project site and is scheduled to open in the Fall of 2021. Students and staff at the school will be exposed to emissions from the operational phase of the project. Those emissions were ignored in the

RIS and will include known human carcinogens.

The BAAQMD CEQA Guidance Appendix states " lead agency should enlarge the 1,000-foot radius on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is beyond the recommended radius." The City must expand the radius of influence to be evaluated, perform an EMFAC compliant analysis of the increase in traffic from the project and the surrounding warehouses, perform dispersion model of the traffic emissions to determine the extent of DPM emissions that will impact the school, and perform a health risk assessment to determine impacts on the staff and students of the school. The results of that analysis must be presented in a DEIR.

9. The City Has Failed To Quantify All Of The Health Impacts Emissions From The Project On The Surrounding Community.

The City must assess the air quality impacts for all toxic air compounds that will be released during the construction and operational phases of the project. CARB[3] defines diesel exhaust as a complex mixture of inorganic and organic compounds that exists in gaseous, liquid, and solid phases. CARB and U.S. EPA identify 40 components of the exhaust as suspected human carcinogens, including formaldehyde, 1,3-butadiene, and benzo[a]pyrene. The inhalation unit risk factor identified by OEHHA for use in risk assessments is for the particulate matter (DPM) fraction of diesel exhaust and not the vapor phase components identified by CARB and U.S. EPA.

The City attempts to argue that it is not required to analyze the health risk from operational exposure to TAC emissions. However, there is notable precedent requiring a quantitative analysis of TACs from diesel exhaust in CEQA documents. Moreover, the absence of this analysis renders the DEIR's health risk analysis incomplete. In a 2017 Air Quality Technical Report[4] submitted in support

[3] CARB. 1998. Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Part A, Public Exposure To, Sources and Emissions of Diesel Exhaust In California. April 22, 1998. Pg A-1.

[4] Ramboll Environ. 2017. Air Quality Technical Report Turk Island Landfill Consolidation And Residential Subdivision Project. Prepared For City of Union City, Union City, CA. Prepared by Ramboll Environ US Corporation, San Francisco, CA August, 2017. https://www.unioncity.org/DocumentCenter/View/1867/Turk-Island---App-D---AQ-Emissions-Report?bidId=

of a Draft EIR for the Turk Island Landfill Consolidation and Residential Subdivision[5], proponents accounted for the gaseous phase of diesel emission and detailed the speciated diesel total organic gas (TOG) emissions along with the DPM emissions for all construction equipment. The speciated diesel TOG emissions and DPM emissions were utilized in dispersion modeling to identify the maximally exposed individual sensitive receptor (MEISR) of the project to determine the health risks associated with all sources of air toxins from the construction phase of the project. This is a common and feasible analysis that is routinely performed for development projects like the SDG Commerce 217 Warehouse project.

Here, the City's analysis ignores the presence of TACs being emitted with diesel exhaust during the construction and operational phases of the project without making any attempt to quantify the impacts. This omission is a continuing flaw that must be addressed by the City. The results should then be presented in a DEIR.

10. The City Has Failed To Perform A Cumulative Analysis Of The Impacts From The Proposed Project and The Surrounding Projects Allowed Previously By The City.

The City must assess the cumulative impacts from the project and the adjacent projects it authorized in the last 10 years. The City has allowed a significant number of projects to be developed in the immediate vicinity of the SDG 217 Project without quantifying the impact of the emissions from each of the projects on the surrounding community. Those projects include:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch

[5] Union City. 2018. Draft Environmental Impact Report (DEIR) Turk Island Landfill Consolidation And Residential Subdivision Project. SCH Number 20008112107. Dated 3/15/2018. https://www.unioncity.org/DocumentCenter/View/1863/Turk-Island-DEIR?bidId=

9. Green Island 258 Warehouse Project
10. SDG Commerce 330 Warehouse Project

The results of this cumulative analysis should then be presented in a DEIR.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant unmitigated impacts if allowed to proceed. The City must prepare a DEIR to address these substantial concerns and to address the errors presented in the IS/MND.

Sincerely,



JAMES J. J. CLARK, Ph.D.

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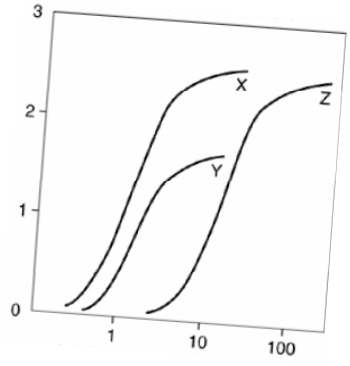

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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment*.

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

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Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

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Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. Organohalogen Compounds, Volume 70 (2008) page 000527

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** (2007). "Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *Environmental Research.* 105:194-199.

Rosenfeld, P.E., **Clark, J. J.,** Hensley, A.R., and Suffet, I.H. 2007. "The Use Of An Odor Wheel Classification For The Evaluation of Human Health Risk Criteria For Compost Facilities" Water Science & Technology. 55(5): 345-357.

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** 2006. "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006, August 21 – 25, 2006. Radisson SAS Scandinavia Hotel in Oslo Norway.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2004. "The Value Of An Odor Quality Classification Scheme For Urban Odor" WEFTEC 2004. 77th Annual Technical Exhibition & Conference October 2 - 6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

Clark, J.J.J. 2003. "Manufacturing, Use, Regulation, and Occurrence of a Known Endocrine Disrupting Chemical (EDC), 2,4-Dichlorophnoxyacetic Acid (2,4-D) in California Drinking Water Supplies." National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Minneapolis, MN. March 20, 2003.

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Browne, T., **Clark, J.J.J.** 1998. Treatment Options For Perchlorate In Drinking Water. Proceedings From the Groundwater Resource Association Seventh Annual Meeting, Walnut Creek, CA, October 23, 1998.

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Clark, J.J.J.; Corbett, G.E.; Kerger, B.D.; Finley, B.L.; Paustenbach, D.J. 1996. Dermal Uptake of Hexavalent Chromium In Human Volunteers: Measures of Systemic Uptake From Immersion in Water At 22 PPM. Toxicologist. 30(1):14.

Dodge, D.G.; **Clark, J.J.J.**; Kerger, B.D.; Richter, R.O.; Finley, B.L.; Paustenbach, D.J. 1996. Assessment of Airborne Hexavalent Chromium In The Home Following Use of Contaminated Tapwater. Toxicologist. 30(1):117-118.

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Gong, H., Jr.; Simmons, M.S.; McManus, M.S.; Tashkin, D.P.; Clark, V.A.; Detels, R.; **Clark, J.J.** (1990). Relationship Between Responses to Chronic Oxidant and Acute

Ozone Exposures in Residents of Los Angeles County. American Review of Respiratory Disease. 141(4):A70.

Tierney, D.F. and **J.J.J. Clark.** (1990). Lung Polyamine Content Can Be Increased By Spermidine Infusions Into Hyperoxic Rats. American Review of Respiratory Disease. 139(4):A41.

ATTACHMENT B

MENLO SCIENTIFIC ACOUSTICS, INC.
Consultants in Acoustics and Communication Technologies

3 May 2021

Ms. Christina Caro
Adams Broadwell Joseph & Cardozo
601 Gateway Blvd., Suite 1000
South San Francisco, California 94080

Subject: **Review of the Draft Initial Study for The SDG Commerce 217 Distribution Center Project (PL20-0008)**

Dear Ms. Caro,

Per Mr. Darien K. Key's request, Menlo Scientific Acoustics, Inc. (MSAI), reviewed the Draft Initial Study (DIS) for the SDG Commerce 217 Distribution Center Project (PL20-0008). The discussion below provides a brief summary of our review.

The items discussed below indicate ways in which the DIS does not adequately describe the Project's noise impacts, presents the impression the impacts are not significant when in fact they are potentially significant, does not account for potential noise sources and a discussion of their impacts from its analysis, and fails to mitigate potentially significant noise impacts. In short, the initial study fails to provide the details necessary to meaningfully review the Project's noise impacts and assess the mitigation needed to minimize them. The Project description lacks information critical for the reviewing public to meaningfully assess the DIS's conclusions in several ways.

PDF Comment

14 **The New Building Will Form A Canyon with The Existing Building to The North**. This can concentrate the noise from operations on the north side of the proposed Project since the walls for the building to the north are concrete, which acts as an efficient reflector of sound. As such, the normal spreading of sound (a 6 dB decrease in level with each doubling of distance from the source to the receiver) that is implied in the noise propagation calculations in Section XIII, Noise, page 85, is not correct for the noise level vs distance from this location. A review of Table Noise-1 presents noise levels without the canyon effect, and there is no discussion is provided about how much it would increase due to the effect. The reflections from the building from the north, which are not identified in the DIS, will add to noise emanating from the Project to the east and west and so increase the level of this noise. Therefore, the impact noted in the DIS from these activities is not accurate and will result in levels that may be significant. To reduce the canyon effect the Project could incorporate barriers that limits the open areas between the buildings, but the impact from operations at the north side of the building may still be significant.

14 **The Project Does Not Account for the Truck Routes and Noise as a Result of those Routes.**

Figure 2, Site Plan, shows Project truck traffic to and from the site will first turn right (travel west) from the southbound lane of Commerce Court to access the loading docks on the north side of the building, then to exit the site, trucks will continue west to the northeast corner of the building, then turn south and travel along the west side of the building, then at the southwest corner of the building turn east and travel along the south side of the building, and at the south east corner of the building turn left to enter the Commerce Court northbound lane. The noise impact from the truck traffic route is not limited to the north side of the building but will also have an impact to the west, south, and east. The impact from the truck traffic around the perimeter of the proposed Project is not addressed nor is the continuous character of the noise from the truck traffic on DIS page 89 or elsewhere in Section XIII, Noise, and so, the impact noted in the DIS from these activities is not accurate. A possible mitigation may be to erect a barrier on the west and south sides of the building. Despite these measures, the impact from truck traffic leaving the site and then travelling north on Commerce Court will be un-mitigated and significant.

22 **The Project Does Not Properly Account for Noise as a Result of Night Time Construction**

There will be construction activities at night for 15 nights. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours. The MND should have provided this information along with noise levels from the previous night time pour noted, since the last pour resulted in calls to the City regarding noise. The impact from the concrete activities is thus not disclosed and so the DIS conclusions are not accurate.

81 **Project Is Not Consistent with City Land Use Policies.**

In section XI Land Use and Planning, the DIS mentions Policy 11.2.9 and states the Project is "Consistent: The proposed Project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise)" (correct Noise section is XIII). However, the DIS makes no mention of impact from construction vehicles or operational truck and other traffic nor discloses any design features to help mitigate noise. Therefore, the conclusion the proposed Project is consistent with Land USE and Planning is not accurate.

85 **The Project Underestimates the Increased Noise from Consistent Truck Traffic**.

In DIS Table Noise-1: Existing Noise Levels in the Project Area, for the Site 5 data (the noisiest site listed), a longer measurement period that also included information about the number and type of traffic, would better characterize the existing noise levels.

With this said, the reported noise level for Site 4 (the quietest site) is 41 dB Leq and 44 dB Leq. The future noise level at this location due to the proposed Project will be much higher due to the almost continuous truck traffic due to Project operational phase truck traffic.

89 The DIS states there will be 35 peak hour trips in the morning which means there will be an average of 1.7 minutes between trips. For the 28 peak hour PM trips there will be an average of 2.1 minutes between trips. With the transit around the building as noted in Figure 2, Site Plan on page 14/701, this means there will be a continuous parade of trucks around the building. The DIS does not adequately or accurately discuss this impact.

The DIS uses the noise at Site 5 in Table Noise-1 for the baseline Existing Noise Level. This is the noisiest site. Site 4 is more appropriate and the levels here are up to 18 dB less than that at Site 5. Therefore, the calculated impact is understated.
Although the trailers will be backed up to the building and load/unloaded into the building, the loading dock activities description does the not seem to note the tractors for the trucks will remain outside the building and the noise from the tractors in not mitigated.
And the "Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse" will occur every 1.7 to 2.4 minutes while the truck noise from entering, circuiting the building, and the leaving the property can be almost continuous.
The quoted distance, 1400 feet, between the source and receptor is to which receptor? The Couch residence is about 700 feet from the source.
The 65 Ldn is an inappropriate measure. The American Canyon Municipal Code sections of concern are:

8.12.010 Purpose of provisions – Public nuisance determination

A. Certain noise levels and vibrations are detrimental to the public health, welfare, safety and quality of life, and are contrary to the public interest;

B. The making and creating of disturbing, excessive or offensive noises within the city is a public nuisance, and is unlawful, and the noise ordinance shall be enforced as provided in this chapter.

8.12.040 General noise restrictions designated.

B. 8. Whether the noise is continuous, recurrent or intermittent;

B. 9. Whether the noise is produced by a commercial or noncommercial activity.

8.12.070 Exterior Noise Limits – 10 p.m.- 7 a.m. 50 dBA, 7 a.m. to 10 p.m. 60 dBA

which provide the criteria for noise levels and general noise characteristic restrictions. Using Ldn allows for levels above the ACMC night time criteria.
The DIS conclusion that the impact is less than significant is inaccurate.

87 The distance from the east edge of the proposed Project and the Couch residence appears to be about 700 feet (MND say 1000 feet). The distance from the SE corner of the proposed property to the development to the south of Eucalyptus Drive appears to be about 2000 feet (MND say 2300 feet). Although these discrepancies will result in a small increase in the calculated levels, the protected Project noise levels are inaccurate.

224 **The Project Underestimates the Increased Noise from Consistent Truck Traffic to Nearby Receptors.**
There is no analysis of expected levels due to the large number of trucks during the operational phase. As noted for page 89, above, the conclusion the impact is less than significant is unsupported.

Please contact me to discuss at your convenience. Thank you for the opportunity to be of service.

Sincerely,

MENLO SCIENTIFIC ACOUSTICS, INC.

Neil A. Shaw

Neil A. Shaw, FASA, FAES

NAS:sk

RESUME - NEIL A. SHAW

Education:

University of California, Los Angeles
B. S. Engineering, 1977, cum laude
M. S. Engineering, 1977

Cooper Union, New York, 1968 - 1970

Honors:

Kenward S. Oliphant Memorial Fellowship in Acoustical Engineering (awarded by Consulting Engineers Association of California)
Tau Beta Pi

Experience:

Menlo Scientific Acoustics, Inc., Topanga

Designer and manager for acoustic design projects including audio-visual systems, sound reinforcement systems, television and radio production systems, architectural room acoustics, electromagnetic compatibility system design and criteria development, electroacoustic and electronic signal processing equipment product performance criteria development, product design and development, environmental noise surveys and analysis, noise and vibrations control, sound isolation, and machine noise control.
1992 to present.
Principal.

University of Southern California, Thornton School of Music
2008 - 2010.

Southern California Institute of Architecture, Los Angeles
2003.

WEAL, Santa Monica

Design and construction services for sound reinforcement systems, television systems, A/V systems, paging systems, and masking noise systems for various production facilities, convention centers, airport terminals, auditoriums, places of worship, concert halls, athletic facilities, courtrooms, multipurpose rooms, gymnasiums, museums, banquet halls, lecture rooms and other facilities. Transportation ambient noise surveys and analysis, construction site noise measurements, and field STC and NIC measurements per ASTM E 336-84. Lead member of team to install, run and maintain database manager computer software for company projects and clients. Part of design, implementation and enhancement team for computer controlled laboratory data acquisition and processing for laboratory tests performed per ASTM E 90-85 and ASTM C 423-84a.
1975 to 1992.

Aero-acoustics Laboratory, UCLA

Responsibilities include computer programming, aero-acoustic measurements, acoustic measurements, database search and statistical processing, A/D anti-aliasing filter design and prototyping, multi-channel data acquisition and processing, post processing and display.
1978 to 1984.

Affiliations:

Fellow, Acoustical Society of America
- Chairman, Los Angeles Chapter, 1991 to 2001.
- Organizer and Co-Chair, Joint ASA/ASJ meeting 1996, Auralization Special Session.
- Organizer and Chair, ASA meeting, 1997, Engineering Acoustics Special Session.
- Organizer and Co-Chair, ASA meeting, 1999, Engineering Acoustics Special Session.
- Organizer and Co-Chair, ASA meeting, 2000, Student Loudspeaker Design Competition.
- Chairman, ASA meeting, 2001, Architectural Acoustics Modeling and Imaging Special Session.
- Organizer and Chair, ASA meeting, 2001, Architectural Acoustics Cruise Ship Acoustics Special Session.
- Tutorial on Architectural Acoustics, Joint ASA/ICA/MCA Cancun meeting, December 2002.
- Invited Paper, November 2003 ASA meeting, "Sound Quality and Loudspeakers," Special Session on Sound Quality - When Sound is the Essential Quality.
- Organizer and Co-Chair, ASA meeting, 2004, Special Session on the Bell Laboratories and Acoustics.
- Invited Paper, June 2004 ASA meeting, "Textbooks on Acoustics," On the Occasion of His 90th Birthday, To Honor the Contributions of Leo L. Beranek to Acoustics and Teaching Special Session sponsored by all the Technical Committees and ASA Committees.
- Chairman, June 2004 ASA meeting, General Topics in Architectural Acoustics
- Invited Paper, June 2005 ASA meeting, "Barnum Hall - The Continuing Renovation of a Streamline Moderne Theater," Special Session on Preserving Acoustical Integrity in the Course of Renovation.
- Invited Paper, Winter 2007 ASA meeting, "Sound Systems for Large Scale Venues," with John Monitto, Special session on Sound Systems in Large Rooms and Stadia
- Member, Technical Committee on Architectural Acoustics, 1996 - 2010
- Member, Technical Committee on Engineering Acoustics, 1998 - 2010
- Member, Technical Committee on Physical Acoustics, 2000 - 2010
- Member, Books+ Committee, 1996 - present

Fellow, Audio Engineering Society
- Member, Technical Committee on Acoustics and Sound Reinforcement, 1988 to 2005.
- Chairman, Large Array Systems Session and Special JAES issue, 1987
- Chairman, Workshop on Auralization, 1993
- Co-Chairman, Workshop on Weather-Related Issues in Outdoor Sound Reinforcement, 1998
- Tutorial on Loudness, Los Angeles Chapter, March 2003

Senior Member, Institute of Electrical and Electronic Engineers

Member, Society of Motion Picture and Television Engineers
- Member, Standards Community TC-20F Film, TC-20F-30 WG Film Audio, TC-20F-40 Theatrical Projection, ST-SG Theater B-chain 1990 to present.

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Member, Institute of Noise Control Engineering

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EIT, CA #37673

Publications: Preface to the Reprint Edition, "Principles and Applications of Room Acoustics", Lothar Cremer and Helmut A. Muller (translated by Theodore J. Shultz), Peninsula Publishers, Los Altos Hills, CA, reprint edition, to be re-published.

Patent reviews, Journal of the Acoustical Society of America, 2004 -present.

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Shaw, Neil A., "The Pre-history and Early History of Loudspeakers", part 1 of 4, Live Sound International, 14(4), 38ff, November 2005

"Audio" monthly column, Club System International magazine, 2000 - 2003.

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Shaw, Neil A., "Digital Delays, Part Three - Real World Applications for Real World Delay Units," Sound and Communications, 39(10), 16ff, October 1993.

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"Sound for Film and Television" 3rd Edition, Tomlinson Holman - Journal of the Audio Engineering Society, Volume 58, No. 11, November 2010

"The Acoustics of Performance Halls Spaces for Music from Carnegie Hall to the Hollywood Bowl," J. Christopher Jaffe - Journal of the Audio Engineering Society, Volume 59, No. 4, April 2011

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"Acoustics and Audio Technology," Mendel Kleiner - Journal of the Audio Engineering Society, to be published

"Grounds for Grounding," Elya B. Joffee and Kai-Sang Lock - Journal of the Audio Engineering Society, to be published

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Selected Product Development Projects - Neil A. Shaw

Aura Systems	1992 - 2005 Technical support for audio projects using inherently shielded neodymium speakers.
Peavey	1995 - 1997 Loudspeaker engineering for professional woofers and compression drivers, out-sourcing of electronics and speaker manufacturing, joint venture liaison.
Armstrong World Industries	1999 - 2002 Conception and product definition for active acoustic initiative. Product definition and development of ceiling tile speaker, and other projects.
Microsoft	1999 - 2000 Headset and headset element design for voice recognition product.
Cisco	1999 - 2000 Telephone and speaker-phone design for Internet telephone.
Intel	2000 Internet appliance sound system product
RPG	2001 - 2020 Technical and marketing support for this vendor of acoustical devices for architectural spaces.
Bohlender-Graebener	2001 - 2004 Technical support and loudspeaker engineering for planar diaphragm loudspeaker products.
Johns Manville	2002 Strategic product and market research and analysis.
Tri-path	2002 - 2006 Technical support and system engineering for digital audio power amplifiers.
Extron	2002 - 2003 Technical and material support for loudspeaker development and research.
Microsoft	2003 - 2006 Anechoic chamber design. Electroacoustic product testing protocol development.
University of Illinois	2008 - 2009 Transducer and power amplifier design and selection for food industry processing equipment.
Microsoft	2008 - 2009 Anechoic chamber design. Electroacoustic product testing protocol development.
KLA-Tencor	2010 Vibration isolation engineering for scanning electron microscope semiconductor wafer inspection equipment.
Microsoft	2011 Acoustic measurement and analysis for Kinect manufacturing end-of-line 100% test chamber.
ETC	2011 Noise analysis and noise control for electrically operated variable speed theater hoist equipment.

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Selected Projects - Neil A. Shaw:

Arcadia City Council Chambers	Arcadia, California
Grossmont Civic Auditorium	El Cajon, California
Center for Faith and Life, Luther College	Decorah, Iowa
Concert Hall, University of Kentucky	Lexington, Kentucky
Swimming Pool, University of Riyad	Riyad, Saudi Arabia
Oakland-Piedmont Municipal Courts	Oakland, California
2500 seat Auditorium, 700 seat Auditorium, 250 seat Library Hall, Mosque and Minaret, Gymnasium, Fine Arts Recital Hall, 100 seat Museum Hall, 500 seat Lecture Rooms, 250 seat Lecture Rooms, 1000 seat Banquet Hall, 200 seat Meeting Rooms, 100 seat Meeting Rooms, University of Riyad	Riyad, Saudi Arabia
Des Moines Civic Auditorium	Des Moines, Iowa
California School For the Blind	Hayward, California
South Coast Air Quality Management District Hearing Room	El Monte, California
First United Methodist Church	Santa Monica, California
George R. Moscone Convention Center	San Francisco, California
H. J. Kaiser Convention Center	Oakland, California
Carson Community Center	Carson, California
LAX Terminal One	Los Angeles, California
Crocker Bank Auditorium	Los Angeles, California
Wilshire Auditorium, Fullerton College	Fullerton, California
Salt Palace Convention Center Expansion	Salt Lake City, Utah
Metro Toronto Convention Center and Theater	Toronto, Ontario
Orpheum Theater Restoration	Davenport, Iowa
Athanaeum, Claremont College	Claremont, California
San Jose Federal Office Building	San Jose, California
Fairmont Hotel	San Jose, California
LAX Terminal Five	Los Angeles, California
First Presbyterian Church	Upland, California
Royal Saudi Air Force Hush Houses	Saudi Arabia
NCO Training Facility, March AFB	Riverside, California
Veterans Administration Out Patient Clinic	Los Angeles, California
Lied Center for the Performing Arts, University of Nebraska	Lincoln, Nebraska
MaMaison Hotel	Los Angeles, California
Escondido City Council Chambers	Escondido, California
Mercy Hospital	San Diego, California
Mercy Hospital	Sacramento, California
Jain Bhavan Worship Center	Santa Ana, California
Ojai Valley Inn	Ojai, California
Simon Wiesenthal Center and Holocaust Museum	Los Angeles, California
New Otani Hotel	Los Angeles, California
Oceanside City Council Chambers	Oceanside, California
Santa Monica Beach Hotel	Santa Monica, California
Greenwood Racetrack	Toronto, Ontario
Woodbine Racetrack	Toronto, Ontario
Mohawk Racetrack	Campbellville, Ontario
Toyota Training Center	Torrance, California
Fresno Art Center	Fresno, California
McLaren Children's Center	Los Angeles, California

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Lindbergh Field West Terminal Expansion	San Diego, California
Richard M. Nixon Presidential Library	Yorba Linda, California
Carnation Headquarters	Glendale, California
Los Angeles County Bar Association	Los Angeles, California
Los Angeles Federal Office Building	Los Angeles, California
Intercontinental Hotel	Los Angeles, California
Lake Avenue Congregational Church	Pasadena, California
Hewlett Packard Presentation Center	North Hollywood, California
Dance Recital Hall and Auditorium, California State University	Long Beach, California
Inyo County Superior Court	Independence, California
Adele Platt Conference Center, City of Hope Medical Center	Duarte, California
Los Angeles County Emergency Operation Center	Los Angeles, California
Antonio B Won Pat International Airport	Tamuning, Guam
Temple Adat Sholam	Westwood, California
Sound Stage 29/30, Paramount Pictures	Hollywood, California
Executive Screening Room, Theater, Dubbing Theater, Metro-Goldwyn-Mayer	Santa Monica, California
Lakeview Terrace Rehabilitation Facility, Phoenix House of Los Angeles	Lakeview Terrace, California
Physiological Acoustics Research Facility, UCLA Medical Center	Westwood, California
Performing Arts Center	Lancaster, California
Crystal Harmony, Crystal Cruise Lines	Los Angeles, California
Integrated Service Facility, NASA/Dryden Research Facility	Edwards, California
Theater, Metro-Goldwyn-Mayer	New York, New York
Santa Ana Theater	Santa Ana, California
Sammy Davis Jr. Festival Plaza	Las Vegas, Nevada
City Hall, Council Chamber	Santa Monica, California
Video Conference Facility, Sony Music	New York, New York
Legend of the Seas, Royal Caribbean Cruise Lines	Miami, Florida
Orange County Branch Library	Aliso Viejo, California
Screening Room, Warner Brothers Animation	Glendale, California
Screening Room, Turner Feature Animation	Glendale, California
Las Vegas Motor Speedway	North Las Vegas, Nevada
Large Screening Room, Metro-Goldwyn-Mayer	Santa Monica, California
Japanese American National Museum	Los Angeles, California
Carson City Courthouse	Carson City, Nevada
St. Mel Parish Center	Woodland Hills, California
Congregation Ner Tamid	Rancho Palos Verdes, California
Old Town Temecula Streetscape	Temecula, California
Grandeur of the Seas, Royal Caribbean Cruise Lines	Miami, Florida
Disney Magic, Disney Cruise Lines	Orlando, Florida
Coral Sky Amphitheater	West Palm Beach, Florida
First Chinese Baptist Church	Los Angeles, California
St. Mark Coptic Orthodox Church	Los Angeles, California
C-17 Assembly Facility, Douglas Aircraft Division, The Boeing Corporation	Long Beach, California
Crisci's Restaurant	Brooklyn, New York
JamSync Studios	Nashville, Tennessee
New Standard Post	Hollywood, California
Media Artists, Pty	Madras, India
The Lobster	Santa Monica, California

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International Rectifier	Tijuana, Baja California, Mexico
Antelope Valley Courthouse	Lancaster, California
Fe Bland Forum, Santa Barbara City College	Santa Barbara, California
Arizona Humane Society	Phoenix, Arizona
Cartoon Network	Glendale, California
Santa Monica High School	Santa Monica, California
Malibu High School	Malibu, California
Barnum Hall Auditorium	Santa Monica, California
Sobrato High School	Morgan Hill, California
Temple Beth El	Aliso Viejo, California
Sacramento East End Project	Sacramento, California
Gold Circle Films	Beverly Hills, California
Denver City Hall Extension	Denver, Colorado
Fullerton City Hall	Fullerton, California
Union Station Improvement	Los Angeles, California
Intimate Theater, California State University	Los Angeles, California
San Diego Convention Center, Sails Pavilion	San Diego, California
Temple Shir Ha-Ma'A Lot	Irvine, California
United States Courthouse	Fresno, California
Department of Education Office Complex, State of California	Sacramento, California
MGM Constellation Headquarters	Century City, California
Ketchum Advertising	Venice, California
Orange County Register	Santa Ana, California
28th Church of Christ, Scientist	Westwood, California
Temple Solel	Escondido, California
NT Audio Mixing and QC Rooms	Santa Monica, California
River Cats Restaurant	Sacramento, California
Caltrans District 7 Headquarters	Los Angeles, California
1221 Ocean Avenue	Santa Monica, California
Memorial Assembly Hall	Manhattan Beach, California
City of Manhattan Beach Annex	Manhattan Beach, California
Twohy Building	San Jose, California
Widget Post Production	Culver City, California
1st Church of Christ, Scientist	Beverly Hills, California
Sunrise Assisted Living	Pacific Palisades, California
Sunrise Assisted Living	Santa Monica, California
Sunrise Assisted Living	Woodland Hills, California
Academy of Motion Picture Arts and Sciences Boardroom	Beverly Hills, California
Getty Villa Outdoor Amphitheater	Los Angeles, California
Ressler Residence	Beverly Hills, California
American Honda	Torrance, California
Community Baptist Church	Manhattan Beach, California
Bernard Hodes Agency	Marina Del Ray, California
Houston's Restaurant	Santa Monica, California
Café R&D	Newport Beach, California
Getty Center Auditorium	Los Angeles, California
Mid-City Police Station	Los Angeles, California
College of Humanities, Arts, and Social Sciences Instruction and Research Facility, University of California	Riverside, California
Genomics Research Facility, University of California	Riverside, California
Panasonic Hollywood Laboratory	Universal City, California

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Sports Spectrum Club	Pacific Palisades, California
Sunrise Assisted Living	Simi Valley, California
Rose Bowl	Pasadena, California
First Presbyterian Church	Santa Monica, California
Los Angeles Fire Department Headquarters	Los Angeles, California
New York City Transit No. 7 Line Extension	New York, New York
Los Angeles County Metropolitan Transportation Authority Goldline	Los Angeles, California
South Lawn Project, University of Virginia	Charlottesville, Virginia
Shangri-La Hotel	Santa Monica, California
Pacific Star, Princess Cruise Lines	Santa Clarita, California
Allied Post	Santa Monica, California
Jet Propulsion Laboratory von Karman Auditorium	Pasadena, California
Self Realization Fellowship	Los Angeles, California
Temple Beth Am	Los Angeles, California
Broome Library, California State University, Channel Islands	Camarillo, California
California High-Speed Train Project	State of California
Morongo Band of Mission Indians Administrative Complex	Banning, California
The Buddy Group	Irvine, California
Café R&D	Santa Monica, California
Club 7969	West Hollywood, California
Brent's Deli	Westlake Village, California
Santa Cruz County Criminal Justice Complex	Nogales, Arizona
Porto's Bakery	Burbank, California
Microsoft Hardware Group Audio Test Laboratories	Redmond, Washington
University of California, Irvine, Arts Building	Irvine, California
Los Angeles Unified School District High School No. 9	South Gate, California
Notre Dame High School	Sherman Oaks, California
St. Mark Presbyterian Church	Newport Beach, California
Fame Academy Poly High School	Sun Valley, California
FAA Sonic Boom Simulator (with the Pennsylvania State University)	State College, Pennsylvania
Metropolitan Transit District Hearing Room	Los Angeles, California
St. Peter and St. Paul Coptic Church	Santa Monica, California
Lifehouse Properties	Pacific Palisades, California
Wilson Well No.2	San Gabriel, California
Habitat for Humanity Lynwood Housing	Lynwood, California
Whole Foods Plaza	Malibu, California
Habitat for Humanity Burbank Housing	Burbank, California
The Cork	Los Angeles, California
Cove Way Residence	Beverly Hills, California
Habitat for Humanity Lawndale Housing	Lawndale, California
Forest Lawn Chapel	Cypress, California
Rodney Bay and Gros Islet Villages	St. Lucia
Panasonic Avionics	Lake Forest, California
Capitol Records	Hollywood, California
Art of Living Foundation	Los Angeles, California
Conexant Corporation	Newport Beach, California
University of California, Santa Barbara Faculty Center	Santa Barbara, California
Bill and Melinda Gates Foundation	Seattle, Washington
J Restaurant and Lounge	Los Angeles, California
Newcom	Santa Monica, California

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American School in Vietnam	Hanoi, Vietnam
Apple Yellowstone Anechoic Chamber Facility	Cupertino, California
Barnum Hall Continuing Renovation	Santa Monica, California
Malibu High School Auditorium Renovation	Malibu, California
John Adams Middle School Auditorium Renovation	Santa Monica, California
Westminster Presbyterian Church	Newbury Park, California
American School in Bombay	Mumbai, India
Temple Judea	Tarzana, California
Holy Angel Church	San Marino, California
Kroc Institute for Peace and Justice University of San Diego	San Diego, California

7 June 2012

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ATTACHMENT C

May 2, 2021

Mr. Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on the Recirculated Draft Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 Distribution Center Project

Dear Mr. Key:

This letter contains my comments on the Recirculated Draft Initial Study and Mitigated Negative Declaration ("IS/MND") prepared by the City of American Canyon ("City") for the SDG Commerce 217 Distribution Center Project ("Project"). SDG Commerce 217, LLC ("Applicant") proposes to develop a 217,294 square foot wine distribution center on a 10.39-acre parcel in the City of American Canyon. Construction of the Project would require approximately 38,000 cubic yards of fill, which would be obtained from an abutting parcel to the south.

I am an environmental biologist with 28 years of professional experience in wildlife biology and natural resources management. I have served as a biological resources expert for over 125 projects in California. My experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"), and submitting written comments in response to CEQA and NEPA documents. My work has included the preparation of written and oral testimony for the California Energy Commission, CPUC, and Federal courts. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University. A copy of my curriculum vitae is attached hereto.

The comments herein are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, my experience with other projects in Napa County, and the knowledge and experience I have acquired during my 28-year career in the field of natural resources management.

Baseline Setting

The IS/MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle.[1] The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.[2,3]

The California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys. Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.

Take avoidance surveys are conducted immediately prior to implementation of the project. The intent of take avoidance surveys is to: (a) determine whether there have been any changes in baseline conditions that affect implementation of mitigation. For example, take avoidance surveys might reveal that burrowing owls that had nested on the north side of the site, are now nesting on the south side of the site. In summary, detection surveys are conducted to satisfy the requirements of CEQA (and other regulatory review processes), whereas take avoidance surveys are conducted to ensure take avoidance when the project is actually constructed.

Detection surveys were not conducted for the Project. Instead, the IS/MND requires detection surveys as "mitigation," after the CEQA review process terminates. This approach is unacceptable because it precludes proper understanding of baseline conditions, and thus, the ability of the public and resource agencies to submit informed comments on the Project's impacts and proposed mitigation. Assuming a species may be present at the Project site (the approach taken in the IS/MND) is generally not an acceptable substitute for baseline survey data because it precludes understanding of the relative severity of the Project's impacts. For example, while the loss of nesting habitat for one pond turtle might not be significant, the loss of nesting habitat for five pond turtles would be very significant.

The need to establish baseline conditions prior to assessing impacts and formulating mitigation measures is emphasized in regulatory guidance documents. For example, CDFW's Staff Report on Burrowing Owl Mitigation states:

> The following three progressive steps are effective in evaluating whether projects will

[1] IS/MND, pp. 41 through 44.
[2] *Ibid*, p. 44.
[3] According to the Revised Biological Resource Analysis ("BRA") prepared by Monk & Associates (March 2, 2020), the probability of western pond turtles on the Project site is "none" (*see* BRA, Table 4). However, according to the IS/MND (p. 42): "there is a possibility of turtles nesting onsite."

> result in impacts to burrowing owls. The information gained from these steps will inform any subsequent avoidance, minimization and mitigation measures. The steps for project impact evaluations are: 1) habitat assessment, 2) surveys, and 3) impact assessment. ….Adequate information about burrowing owls present in and adjacent to an area that will be disturbed by a project or activity will enable the Department, reviewing agencies and the public to effectively assess potential impacts and will guide the development of avoidance, minimization, and mitigation measures…Detailed information, such as approximate home ranges of each individual or of family units, as well as foraging areas as related to the proposed project, will be important to document for evaluating impacts, planning avoidance measure implementation and for mitigation measure performance monitoring.[4]

Similarly, California Burrowing Owl Consortium mitigation guidelines state:

> There is often inadequate information about the presence of owls on a project site until ground disturbance is imminent. When this occurs there is usually insufficient time to evaluate impacts to owls and their habitat. The absence of standardized field survey methods *impairs adequate and consistent impact assessment during regulatory review processes, which in turn reduces the possibility of effective mitigation*.[5]

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards, and the results of those surveys need to be released in a revised CEQA document so they can be thoroughly vetted by the public, resource agencies, and decision makers during the CEQA review process.

PROJECT IMPACTS ISSUES

Swainson's Hawk

Loss of foraging habitat is one of the primary threats to Swainson's hawks in California.[6] In addition to generating a potentially significant impact under CEQA, the loss of foraging habitat from the Project site may result in the take (killing) of Swainson's hawks, which would be a violation of Section 2080 of California Fish and Game Code.[7] The IS/MND provides the following analysis of this issue:

> The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.[8]

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[4] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, pp. 5, 6 and 29.
[5] *See p. i in:* The California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. [emphasis added].
[6] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[7] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[8] IS/MND, p. 43.

There are several flaws with the City's analysis. First, the City's analysis relies on California Natural Diversity Database ("CNDDB") data and assumes that the nearest nesting location is 2.6 miles north of the Project site.[9] However, the IS/MND admits: "the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat."[10] CNDDB data on Swainson's hawk nest locations in Napa County have not been updated since 2013,[11] and the Applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the Project site.[12] As a result, the City does not have the basis for its assumption that the nearest nesting location is 2.6 miles from the Project site, and thus, that the loss of foraging habitat from the Project site would not have a significant impact on the species.

Second, the Project site may provide important foraging habitat for Swainson's hawks even if the nearest nesting location is 2.6 miles away. Fleishman et al. (2016) found that the vast majority of adult Swainson's Hawks in the Natomas Basin (northern Central Valley, California) traveled distances up to 6.2 miles from the nest to forage.[13] Babcock found that Swainson's hawks in the Sacramento Valley foraged as far as 14 miles from the nest, and that ruderal fields was one of the vegetative cover types that ranked highest in foraging use.[14] Other studies have shown that Swainson's hawks may travel up to 18 miles from the nest to forage.[15]

Third, the fact that the Project site did not historically provide foraging habitat is irrelevant to its current function as foraging habitat for Swainson's hawks. To reverse the decline of Swainson's hawk populations, it is CDFW's policy that new development projects that adversely modify nesting or foraging habitat within 10 miles of an active nest should mitigate the project's impacts by providing compensatory mitigation.[16] According to CDFW, the 10-mile foraging radius recognizes the need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of development(s) consistent with Fish and Game Code Section 2053.[17]

Fourth, the IS/MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the IS/MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk

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[9] *Ibid*, p. 42.
[10] *Ibid.*
[11] California Natural Diversity Database. 2021. RareFind 5 [Internet]. California Department of Fish and Wildlife [Apr 2, 2021].
[12] IS/MND, p. 44.
[13] Fleishman E, Anderson J, Dickson DG, Krolick D, Estep JA, Anderson RL, Elphick CS, Dobkin DS, Bell DA. 2016. Space Use by Swainson's Hawk (*Buteo swainsoni*) in the Natomas Basin, California. Collabra, 2(1): 5, pp. 1–12.
[14] Babcock KW. 1995. Home Range and Habitat Use of Breeding Swainson's Hawks in the Sacramento Valley of California. Journal of Raptor Research 29:193–197.
[15] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[16] *Ibid.*
[17] *Ibid*, p. 2.

population. Based on my review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.[18]

Fifth, there is no scientific evidence that the eucalyptus forest surrounding the Project site precludes the site from being "a foraging destination which would likely attract foraging Swainson's hawks." To the contrary, there is evidence that the Project site may attract foraging Swainson's hawks because it contains California voles (*Microtus californicus*)—the Swainson's hawk's primary prey.[19]

Sixth, Swainson's hawks have consistently been detected approximately 2,200 feet south of the Project site.[20] In addition, two Swainson's hawks were detected approximately 3,500 feet northeast of the Project site on April 16, 2021.[21] Therefore, either: (a) the Project site is within the foraging radius of the Swainson's hawks that nest 2.6 miles north of the Project site, or (b) there is an undocumented Swainson's hawk nest in the vicinity of the Project site. Both scenarios undermine the validity of the rationale for the City's determination that impacts to foraging habitat would not be significant.

Northern Harrier

One of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat.[22] According to the IS/MND: "[s]hould northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be potentially significant."[23] Although the IS/MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers).

The IS/MND states the following with respect to the loss of foraging habitat: "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a less-than-significant level."[24] The IS/MND's statement regarding historic conditions is incorrect because historically the Project site provided habitat

[18] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[19] Monk & Associates. 2020 Mar 2. Biological Resource Analysis, pp. 6 and 12.
[20] eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed Apr 28, 2021). Swainson's hawks detected on: 19 Apr 2015; 25 Aug 2016; 14 Jul 2017; 18 Aug 2018; and 13 Jul 2019.
[21] *Ibid.*
[22] Shuford WD, Gardali T, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. pp. 149 through 155.
[23] IS/MND, p. 43.
[24] *Ibid*.

(for northern harriers) before the eucalyptus trees were planted (sometime between 1916 and 1942).[25] Nevertheless, the significance of the impact under CEQA is dependent on the environmental conditions at the time the CEQA document was published,[26] *not* the environmental conditions in 2012. Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. Because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.

White-tailed Kite

The IS/MND provides the following analysis of Project impacts to the white-tailed kite:

> The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a less-than-significant level.[27]

The City's analysis suffers the same flaws as the analysis it provided for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges[28] and seldom hunt more than 0.5 mile from their nests when breeding.[29] Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles,[30] which are known to occur at the Project site.[31] Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree.[32] Therefore, if white-tailed kites nest on or near the Project site, they would be significantly impacted by the loss of foraging habitat (from the Project site). Mitigation Measure BIO-3 does not mitigate the impact because it is limited to actions designed to minimize construction-related disturbance to nests. As a result, potentially significant impacts on the white-tailed kite remain unmitigated.

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[25] United States Geological Survey. 1916 and 1942. *Mare Island, CA*. Topographic map.1:63,000. U.S. Department of the Interior, Reston, Virginia.
[26] IS/MND, p. 669.
[27] *Ibid*, p. 44.
[28] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595.
[29] California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2005. CWHR version 9.0 personal computer program. Sacramento, CA.
[30] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595. *See also*, Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.
[31] IS/MND, p. 38.
[32] Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.

Burrowing Owl

Habitat Impacts

"Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat.[33] Accordingly, CDFW's Staff Report on Burrowing Owl Mitigation states the following with regard to impact assessments:

> The impact assessment evaluates the potential loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages, including habitat supporting prey and host burrowers and other essential habitat attributes. This assessment determines if impacts to the species will result in significant impacts to the species locally, regionally and range-wide per CEQA Guidelines §15382 and Appendix G. The significance of the impact to habitat depends on the extent of habitat disturbed and length of time the habitat is unavailable (for example: minor – several days, medium – several weeks to months, high - breeding season affecting juvenile survival, or over winter affecting adult survival).[34]

Contrary to CDFW's guidance, the IS/MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the IS/MND is limited to the following:

> the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level.[35]

There are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated from Napa County.[36] Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have been extirpated.[37] In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.

CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided."[38] Thus, CDFW recommends compensatory mitigation if

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[33] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 24.
[34] *Ibid*, pp. 7 and 8.
[35] IS/MND, p. 42.
[36] Townsend SE, Lenihan C. 2003. Burrowing Owl Status in the Greater San Francisco Bay Area. Proceedings of the California Burrowing Owl Symposium. Bird Populations Monographs No. 1:60-70.
[37] Wilkerson RL, Siegel RB. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10:1-36.
[38] *See* IS/MND, p. 682.

the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.

Impacts from Passive Relocation

The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat.[39,40] The IS/MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.[41] Specifically, burrow exclusion may result in: (a) significant loss of habitat for reproduction, refuge from predators, and shelter from weather; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[42] Consequently, the City must disclose and analyze impacts associated with the "passive relocation" of burrowing owls.

The need for full analysis of potential impacts associated with passive relocation (i.e., burrow exclusion) of burrowing owls is further supported by research that indicates most relocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that relocation projects generally have failed to produce self-sustaining populations.[43] Investigators attribute the limited success of relocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[44]

Cumulative Impacts

The IS/MND states:

> A number of cumulative projects are proposed or under construction in the project area (City of American Canyon, Active Planning Projects, July 2020. The 330,000 sq. ft. Commerce 330 Distribution Center building is just south of the proposed project site. Copart Auto applied for a Conditional Use Permit to store vehicles at 1578 and 1660 Green Island Road. A new elementary school is under construction just southeast of the site at Commerce Blvd. and Eucalyptus Road. The only other large project planned is an

[39] IS/MND, p. 46 (MM BIO-1).
[40] Although not discussed in the IS/MND, burrow exclusion entails the installation of one-way doors on occupied burrows so owls can exit, but not re-enter, the burrows.
[41] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.
[42] *Ibid*, pp. 10 and 21.
[43] Smith BW, Belthoff JR. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391.
[44] *Ibid.*

> approximately 200,000 sq. ft. logistics center at 300 Boone Drive, near the Napa Airport, about a mile north of the site.[45]

The IS/MND indicates there are only four projects that are proposed or under construction in the City of American Canyon.[46] This does not comport with the "Active Project List" (dated March 2021) available on the City's website.[47] According to the Active Project List, there are several additional projects that would contribute to cumulative impacts. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The IS/MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.

CEQA Guidelines § 15130(b)(3) state that lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. The geographic scope of the City's cumulative impacts analysis was the City of American Canyon.[48] The IS/MND fails to provide an explanation for this geographic limitation. Moreover, the cumulative impacts analysis is fundamentally flawed because the City applied two different geographical scales to its analysis. The IS/MND states:

> With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.[49]

The Lynch Canyon Preserve (1,039 acres) and the CDFW California Red-Legged Frog Preserve (317 acres) are not located within the City of American Canyon. It is not possible to accurately analyze cumulative impacts by using one geographic scope for open space preserves, but a smaller geographic scope for development projects. Furthermore, the IS/MND misrepresents the functions of the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project as habitat. The Clark Ranch Project is designed to be a multi-use community park with a bike skills loop, dog park, equestrian riding area, and several buildings (among other features that are incompatible with wildlife conservation).[50] Therefore, the Clark Ranch Project would contribute to cumulative impacts (that were not contemplated in the IS/MND). The other three open space areas are negatively impacted by recreation activities,[51]

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[45] IS/MND, p. 119.
[46] *Ibid.*
[47] *See* <https://www.cityofamericancanyon.org/government/community-development/projects>.
[48] IS/MND, p. 119.
[49] *Ibid.*
[50] City of American Canyon. 2017 Nov 7. Clarke Ranch Master Plan. Exhibit A.
[51] *See* California Fish and Wildlife, Recreation Special Issue 2020.

are comprised primarily of salt ponds or wetlands, and generally do not provide habitat for the same suite of species as those that would be impacted by the Project.

The IS/MND provides the following analysis of cumulative impacts to biological resources:

> Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

Although the IS/MND states the Project would result in cumulative impacts to ruderal habitats, and that Project-related impacts would be considered cumulative with other projects, it fails to provide the City's determination on the significance of the cumulative impacts. In addition, the IS/MND fails to identify what type(s) of Project-related impacts would be considered cumulative, and which species would be subject to the cumulative impacts.

The City's determination regarding the significance of cumulative impacts to biological resources is vague and not supported by evidence. On the CEQA Environmental Checklist Form, the City indicates the impact would be "Less Than Significant." However, the subsequent text in the IS/MND states "[i]mplementation of the proposed project would result in cumulative impacts to ruderal habitats," but that "mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant."

The City's determination that mitigation measures prescribed in the MND would offset cumulative impacts to special-status species to less-than-significant levels is not supported by evidence or analysis. The Project would eliminate 10.39 acres of habitat. Habitat loss is the primary threat to special-status species that occur in the Project area. However, the mitigation measures proposed in the MND are almost entirely limited to measures (e.g., seasonal buffers) designed to avoid or minimize direct impacts to individual animals. Although the MND requires compensatory mitigation if nesting burrowing owls are detected onsite, it does not require compensatory mitigation if non-nesting burrowing owls are detected onsite, nor does it require compensatory mitigation if any other special-status species are detected onsite. As a result, the City's determination that the proposed mitigation would offset cumulative impacts to less-than-significant levels is not supported by evidence.

MITIGATION MEASURE ISSUES

Mitigation Measure BIO-1 (Burrowing Owl)

Mitigation Measure BIO-1 states: "[i]f passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW." The proposed mitigation is vague because it does not establish minimum standards for the content of the Relocation Plan, nor does it require CDFW's approval of the Relocation Plan. According to

CDFW's Staff Report on Burrowing Owl Mitigation: "burrowing owls should not be excluded from burrows unless or until:

- A Burrowing Owl Exclusion Plan (see Appendix E) is developed and approved by the applicable local DFG office;
- Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the Mitigating Impacts sections below. Temporary exclusion is mitigated in accordance with the item #1 under Mitigating Impacts below.
- Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion will occur immediately after the end of the breeding season.
- Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight)."[52]

Mitigation Measure BIO-1 does not require these elements, nor does it establish success criteria for burrowing owls that are relocated from the Project site.

Mitigation Measure BIO-1 further states:

> If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

As described below, the compensatory mitigation requirements of Mitigation Measure BIO-1 are far too vague to ensure impacts on nesting burrowing owls are reduced to less-than-significant levels.

First, the IS/MND fails to identify how much compensatory mitigation would be required. Mitigating Project impacts to burrowing owl habitat requires compensatory mitigation at a ratio of at least 1:1. As stated in CDFW's Staff Report on Burrowing Owl Mitigation:

> As set forth in more detail in Appendix A, the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow.[53]

Second, the IS/MND fails to establish any criteria for selection of the compensatory mitigation site. These include: (a) geographic location, (b) habitat conditions, and (c) the status of burrowing owls at the site. These variables are critical to the mitigation site's ability to reduce

[52] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 11.
[53] *Ibid*, p. 8.

Project impacts to less-than-significant levels. Most notably, permanent protection of a site that is not occupied by burrowing owls would not mitigate the Project's impacts to occupied nesting habitat.

Third, the IS/MND fails to establish a mechanism that would ensure the mitigation site is maintained and managed in perpetuity to conserve burrowing owls and their habitat. Burrowing owls are limited to habitats with relatively short vegetation and only sparse shrubs or taller vegetation.[54] Therefore, even if the Applicant acquires a mitigation site that currently contains burrowing owls, the site would not offset Project impacts unless the Applicant implements a mechanism (e.g., grazing or mowing) for maintaining short vegetation at the site. In addition, deed restrictions do not ensure habitat conservation in perpetuity because: (a) they can be changed or eliminated,[55] and (b) do not have a third party that can be designated to monitor and enforce the restriction.[56]

Fourth, the IS/MND fails to establish performance standards or monitoring and reporting requirements for the mitigation site. Thus, Mitigation Measure BIO-1 provides no assurances that the mitigation site would effectively compensate for the loss of burrowing owl habitat from the Project site.

Finally, Mitigation Measure BIO-1 requires compensatory mitigation only "if such a protected area makes sense for protection of nesting owls." This condition is vague and confusing. The IS/MND fails to explain the factors that the City would evaluate to determine whether a protected area "makes sense," nor does it explain how significant impacts to nesting burrowing owls would be mitigated if a protected area does not "makes sense."

Mitigation Measure BIO-2 (Swainson's Hawk)

CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.[57] For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio.[58] Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.

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[54] Gervais JA, Rosenberg DK, Comrack LA. 2008. Burrowing Owl (*Athene cunicularia*). Pages 218-226 *In:* Shuford WD, Gardali T, editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
[55] County of Kern. 2016. Willow Springs Solar Array Project. Comment 1-Q from the California Department of Fish and Wildlife (dated 1 October 2015).
[56] Land Trust Alliance. 2001. LTA Fact Sheet: Conservation Easement v. Deed Restriction. Available at: <https://conservationtools.org/library_items/203-LTA-Fact-Sheet-Conservation-Easement-vs-Deed-Restriction>.
[57] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. p. 13.
[58] *Ibid,* p. 12.

Mitigation Measure BIO-3 (Nesting Raptors)

Mitigation Measure BIO-3 states: "[i]f nesting raptors are identified during the [pre-construction] surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests…To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction."

Mitigation Measure BIO-3 defines a qualified biologist as "a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections." The response of nesting birds to human-related disturbance activities is dependent on numerous site-specific and species-specific variables. Consequently, determining the appropriate buffer distance requires knowledge of species-specific responses to various types of disturbance in various settings. Many biologists that have experience conducting raptor surveys have no experience with (or knowledge of) avian responses to disturbance. As a result, Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.

For buffer zones to be effective, they need to be based on empirical evidence of avian responses to disturbance. There is an overall lack of this type of empirical evidence.[59] As a result, monitoring is critical to validating the adequacy of a buffer. The IS/MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Nevertheless, there is no scientific basis for the assumption that a nesting raptor can tolerate an inadequate nest buffer for one week (i.e., the proposed interval of construction monitoring), especially without adverse effects to reproductive success and productivity. This issue is compounded by the absence of any success standards, or monitoring and reporting requirements, for Mitigation Measure BIO-3. For these reasons, the actions proposed in Mitigation Measure BIO-3 do not ensure significant impacts to nesting raptors are avoided. To rectify this issue, the City must require nest buffers consistent with the best available scientific information.

Suter and Joness (1981) surveyed 74 raptor researchers to derive recommendations for nest site protection.[60] Based on the survey results, Suter and Joness (1981) recommended a buffer distance of at least one kilometer (3,281 feet) to prevent raptors from abandoning their nests in response to construction and similar noisy, extended activities.

Mitigation Measure BIO-4 (Nesting Passerines)

Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.

[59] Richardson CT, Miller CK. 1997. Recommendations for Protecting Raptors from Human Disturbance: A Review. Wildlife Society Bulletin 25(3):634-638.
[60] Suter GW III, Joness JL. 1981. Criteria for Golden Eagle, Ferruginous Hawk and Prairie Falcon Nest Site Protection. Raptor Research 15(1):12-18.

Mitigation Measure BIO-5 (Pond Turtle)

Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." The proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.

Conclusion

Substantial evidence demonstrates that the Project could have significant, unmitigated impacts on sensitive biological resources. The IS/MND that was prepared for the Project does not adequately disclose and analyze those impacts, nor does it provide the mitigation necessary to ensure significant impacts are reduced to less-than-significant levels. To comply with CEQA, the City needs to prepare an Environmental Impact Report for the Project.

Sincerely,



Scott Cashen, M.S.
Senior Biologist

Scott Cashen, M.S.
Senior Wildlife Biologist

Scott Cashen has 28 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with numerous taxa, ecoregions, biological resource issues, and environmental regulations. As a biological resources expert, Mr. Cashen is knowledgeable of the various agency-promulgated guidelines for field surveys, impact assessments, and mitigation. Mr. Cashen has led field investigations on several special-status species, including ones focusing on the yellow-legged frog, red-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and various forest carnivores.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process of over 100 solar, wind, biomass, and geothermal energy projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support. Mr. Cashen provided expert witness testimony on several of the Department of the Interior's "fast-tracked" renewable energy projects. His testimony on those projects helped lead agencies develop project alternatives and mitigation measures to reduce environmental impacts associated with the projects.

Mr. Cashen was a member of the independent scientific review panel for the Quincy Library Group project, the largest community forestry project in the United States. As a member of the panel, Mr. Cashen was responsible for advising the U.S. Forest Service on its scientific monitoring program, and for preparing a final report to Congress describing the effectiveness of the Herger-Feinstein Forest Recovery Act of 1998.

AREAS OF EXPERTISE

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy development
- Scientific field studies, grant writing and technical editing

EDUCATION

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)
Thesis: *Avian Use of Restored Wetlands in Pennsylvania*
B.S. Resource Management - The University of California, Berkeley (1992)

PROFESSIONAL EXPERIENCE

Litigation Support / Expert Witness

Mr. Cashen has served as a biological resources expert for over 125 projects subject to environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his clients with an assessment of biological resource issues. He then submits formal comments on the scientific and legal adequacy of the project's environmental documents (e.g., Environmental Impact Report). If needed, Mr. Cashen conducts field studies to generate evidence for legal testimony, or he can obtain supplemental testimony from his deep network of species-specific experts. Mr. Cashen has provided written and oral testimony to the California Energy Commission, California Public Utilities Commission, and U.S. district courts. His clients have included law firms, non-profit organizations, and citizen groups.

REPRESENTATIVE EXPERIENCE

Solar Energy

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- California Flats Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- McCoy Solar Project
- Mt. Signal and Calexico Solar
- Panoche Valley Solar
- San Joaquin Solar I & II
- San Luis Solar Project
- Stateline Solar Project
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project
- Willow Springs Solar

Geothermal Energy

- Casa Diablo IV Geothermal
- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Orni 21 Geothermal Project
- Western GeoPower Plant

Wind Energy

- Catalina Renewable Energy
- Ocotillo Wind Energy Project
- SD County Wind Energy
- Searchlight Wind Project
- Shu'luuk Wind Project
- Tres Vaqueros Repowering Project
- Tule Wind Project
- Vasco Winds Relicensing Project

Biomass Facilities

- CA Ethanol Project
- Colusa Biomass Project
- Tracy Green Energy Project

Other Development Projects

- Cal-Am Desalination Project
- Carnegie SVRA Expansion Project
- Lakeview Substation Project
- Monterey Bay Shores Ecoresort
- Phillips 66 Rail Spur
- Valero Benecia Crude By Rail
- World Logistics Center

Project Management

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of the projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

REPRESENTATIVE EXPERIENCE

Wildlife Studies

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (*CA State Parks*)
- "KV" Spotted Owl and Northern Goshawk Inventory: (*USFS, Plumas NF*)
- Amphibian Inventory Project: (*USFS, Plumas NF*)
- San Mateo Creek Steelhead Restoration Project: (*Trout Unlimited and CA Coastal Conservancy, Orange County*)
- Delta Meadows State Park Special-Status Species Inventory: (*CA State Parks, Locke*)

Natural Resources Management

- Mather Lake Resource Management Study and Plan – (*Sacramento County*)
- Placer County Vernal Pool Study – (*Placer County*)
- Weidemann Ranch Mitigation Project – (*Toll Brothers, Inc., San Ramon*)
- Ion Communities Biological Resource Assessments – (*Ion Communities, Riverside and San Bernardino Counties*)
- Del Rio Hills Biological Resource Assessment – (*The Wyro Company, Rio Vista*)

Forestry

- Forest Health Improvement Projects – (*CalFire, SD and Riverside Counties*)
- San Diego Bark Beetle Tree Removal Project – (*SDG&E, San Diego Co.*)
- San Diego Bark Beetle Tree Removal Project – (*San Diego County/NRCS*)
- Hillslope Monitoring Project – (*CalFire, throughout California*)

Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

REPRESENTATIVE EXPERIENCE

Biological Assessments/Biological Evaluations ("BA/BE")

- Aquatic Species BA/BE – Reliable Power Project (*SFPUC*)
- Terrestrial Species BA/BE – Reliable Power Project (*SFPUC*)
- Management Indicator Species Report – Reliable Power Project (*SFPUC*)
- Migratory Bird Report – Reliable Power Project (*SFPUC*)
- Terrestrial and Aquatic Species BA – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BE – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BA/BE – Public Lands Lease Application (*Society for the Conservation of Bighorn Sheep*)
- Terrestrial and Aquatic Species BA/BE – Simon Newman Ranch (*The Nature Conservancy*)
- Draft EIR (Vegetation and Special-Status Plants) - Wildland Fire Resiliency Program (*Midpeninsula Regional Open Space District*)

Avian

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory *(CA State Parks: Locke)*
- Study design and lead bird surveyor - Placer County Vernal Pool Study *(Placer County: throughout Placer County)*
- Surveyor - Willow flycatcher habitat mapping *(USFS: Plumas NF)*
- Surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects *(Ducks Unlimited/USGS: San Pablo Bay)*
- Study design and Lead Investigator - Bird use of restored wetlands research *(Pennsylvania Game Commission: throughout Pennsylvania)*
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County *(HCV Associates: Napa)*
- Surveyor - Baseline inventory of bird abundance following diesel spill *(LFR Levine-Fricke: Suisun Bay)*

- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site *(City of Fairfield: Fairfield, CA)*
- Surveyor - Burrowing owl relocation and monitoring *(US Navy: Dixon, CA)*
- Surveyor - Pre-construction burrowing owl surveys *(various clients: Livermore, San Ramon, Rio Vista, Napa, Victorville, Imperial County, San Diego County)*
- Surveyor - Backcountry bird inventory *(National Park Service: Eagle, Alaska)*
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor – Pre-construction surveys for nesting birds (*various clients and locations)*

Amphibian

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys *(USFS: Plumas NF)*
- Surveyor - Foothill yellow-legged frog surveys *(PG&E: North Fork Feather River)*
- Surveyor - Mountain yellow-legged frog surveys *(El Dorado Irrigation District: Desolation Wilderness)*
- Crew Leader - Bullfrog eradication *(Trout Unlimited: Cleveland NF)*

Fish and Aquatic Resources

- Surveyor - Hardhead minnow and other fish surveys *(USFS: Plumas NF)*
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping *(City of Fairfield: Fairfield, CA)*
- GPS Specialist - Salmonid spawning habitat mapping *(CDFG: Sacramento River)*
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use *(CA Coastal Conservancy: Gualala River estuary)*
- Crew Leader - Exotic species identification and eradication *(Trout Unlimited: Cleveland NF)*

Mammals

- Principal Investigator – Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)

- Scientific Advisor –Study on red panda occupancy and abundance in eastern Nepal *(The Red Panda Network: CA and Nepal)*
- Surveyor - Forest carnivore surveys *(University of CA: Tahoe NF)*
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals *(US Navy: Skagg's Island, CA)*
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

Natural Resource Investigations / Multiple Species Studies

- Scientific Review Team Member – Member of the scientific review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units *(CDF: San Diego, San Bernardino, and Riverside Counties)*
- Biological Resources Expert – Peer review of CEQA/NEPA documents (*various law firms, non-profit organizations, and citizen groups)*
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites *(SDG&E: San Diego County)*
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan *(Trout Unlimited: Cleveland NF)*
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park *(County of Sacramento: Sacramento, CA)*
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property *(Yuba County, CA)*
- Lead Investigator - Wildlife Strike Hazard Management Plan *(HCV Associates: Napa)*
- Lead Investigator - Del Rio Hills Biological Resource Assessment *(The Wyro Company: Rio Vista, CA)*
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California's Wildlife Habitat Relationships (CWHR) Model *(University of California: Tahoe NF)*

Forestry

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen's experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

REPRESENTATIVE EXPERIENCE

- Lead Consultant - CalFire fuels treatment projects *(SD and Riverside Counties)*
- Lead Consultant and supervisor of harvest activities – San Diego Gas and Electric Bark Beetle Tree Removal Project *(San Diego)*
- Crew Leader - Hillslope Monitoring Program *(CalFire: throughout California)*
- Consulting Forester – Forest inventories and timber harvest projects *(various clients throughout California)*

Grant Writing and Technical Editing

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

PERMITS

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS

The Wildlife Society

Cal Alumni Foresters

Mt. Diablo Audubon Society

OTHER AFFILIATIONS

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

TEACHING EXPERIENCE

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

PUBLICATIONS

Gutiérrez RJ, AS Cheng, DR Becker, S Cashen, et al. 2015. Legislated collaboration in a conservation conflict: a case study of the Quincy Library group in California, USA. Chapter 19 *in*: Redpath SR, et al. (eds). Conflicts in Conservation: Navigating Towards Solutions. Cambridge Univ. Press, Cambridge, UK.

Cheng AS, RJ Gutiérrez RJ, S Cashen, et al. 2016. Is There a Place for Legislating Place-Based Collaborative Forestry Proposals?: Examining the Herger-Feinstein Quincy Library Group Forest Recovery Act Pilot Project. Journal of Forestry.

ATTACHMENT D

SMITH ENGINEERING & MANAGEMENT

April 29, 2021

Mr. Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Subject: SDG Commerce 217 Distribution Center Project

P21011

Dear Mr. Key:

Per your request, I reviewed the Recirculated Draft Initial Study/Mitigated Negative Declaration (the "ISMND") for the SDG Commerce 217 Distribution Project (the "Project") in the City of American Canyon (the "City") . My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

Potential Warehousing Uses of the Project Building Could Have Trip Generation Significantly Higher than Assumed in the ISMND Analysis

The ISMND and its Appendix F rely on studies of trip generation at six existing wine storage/distribution facilities in the Project's vicinity to estimate the proposed Project's motor vehicle trip generation. While we believe the trip generation measurements performed at the nearby buildings to be credible (in fact, the results are reasonably consistent with the Institute of Transportation Engineer's authoritative publication *Trip Generation, 10th Edition* data for Land

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Use Category 150-Warehouse and for Category 154-High Cube Logistics Warehouse), the problem is that this type of warehouse building is readily adaptable to much more traffic-intensive types of warehousing. In specific, this type of building could easily be used as what *Trip Generation, 10th Edition* characterizes as Land Use Category 156 – Parcel Hub Warehouse or, to use the terminology of a major operator of such facilities, Amazon, a "Last Mile" facility. These are facilities where goods are brought in directly from "fulfillment centers" or air freight terminals by heavy tractor-trailer truck rigs and trans-loaded to van-type vehicles for actual delivery to consumers. The difference in trip generation of a "parcel hub warehouse" and a "wine warehouse" as analyzed in the ISMND is highly significant. The ISMND estimates the trip generation for a wine warehouse in vehicles per thousand square feet of floor area as 1.69 daily, 0.16 in the AM peak and 0.125 in the PM peak. *Trip Generation, 10th Edition* indicates the trip generation for a "parcel hub warehouse" in vehicles per thousand square feet of floor area as 7.75 daily, 0.7 in the AM peak and 0.64 in the PM peak. In other words, used as a parcel hub instead of a wine warehouse, the proposed building would generate 4.6 times as much traffic daily, 4.4 times as much traffic in the AM peak and 5.1 times as much traffic in the PM peak as what is disclosed in the ISMND. The facts that the proposed warehouse is apparently a 'spec' building (the ISMND says it could be occupied by up to 3 tenants implying that there were no tenant commitments at the time of writing) and the proximity to heavy jet capable Napa County Airport strengthen the possibility that the building could end up being used as a parcel hub. Hence, to be adequate, the ISMND must consider the possibility of this plausible and more traffic intense use. Or, the Conditional Use Permit must limit the warehouse to being used solely as a wine storage warehouse.

The ISMND Transportation Section Fails To Address the Serious Operations and Safety Problems on S.R. 29 in the Project Vicinity

Because of its location, most motor vehicle traffic to and from the Project must ultimately use parts of State Highway 29 ("SR 29"). This State Highway experiences considerable operational and safety problems as is well documented in the *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020. The City and its consultants, GHD, who prepared the transportation work supporting the ISMND know this as they both were participants in the above referenced SR 29 study. Yet the ISMND utterly fails to address the SR 29 issues or how the Project and others like it in the area contribute to the problem and can contribute to implementing the corridor study recommendations. Instead, it devotes much attention to trivial studies of level of service, traffic signal warrants and right turn lane warrants at a single local intersection, that of Commerce Boulevard with Green Island Road. The ISMND is defective in failing to acknowledge and address the problems in the SR 29 corridor and the Project as a cumulative contributor to them.

The ISMND Assumes Implausible Mitigation of the Project's Significant VMT Impacts

The ISMND transportation analysis, after considering highly disparate data sources regarding average employee trip lengths, finds that the Project, without mitigation, would generate an average of 16.28 daily vehicle miles traveled ("VMT") per employee compared to an impact significance threshold of 10.92 VMT per employee. Hence, without mitigation, the Project would have significant transportation impacts. Translated to aggregate vehicle miles traveled numbers, the ISMND finds that the Project's employees would generate 2214 VMT each weekday, exceeding the significance threshold of 1485 VMT and requires mitigation that eliminates 729 VMT daily in order for the Project to be said to have no significant impact with mitigation.

The ISMND goes on to assume that because the Project is committed to pave what the ISMND claims is an 800 foot gap in the area bikeway network, this action, based on a theoretical formulation, would induce commuters on between 76 and 310 daily commute trips[1] to shift from commuting by auto to bicycle (or splitting the difference between the high and low estimate a so-called average of 193 trips) resulting in a purported daily VMT saving of between again splitting the difference between high and low estimates) of 733 to 1004 miles. The ISMND asserts these theoretical VMT savings would be sufficient to fully mitigate the Project's the significant VMT impacts. However, one must consider what underlies the high and low estimates and the reasonableness of just averaging between them.

Both the high and low estimates are generated by a theoretical formula estimating the number of commuters who would be induced to travel by bike instead of auto as the result of a bikeway of certain length. The ISMND's low estimate reflects only the commuters induced to travel by bike solely by the 800 feet of paved path the Project proposes to provide. The high estimate credits the Project with the commute attractiveness of the entire 1.85 mile bikeway that has already existed for a number of years to the south of the 800 feet of bikeway the Project will pave. Averaging between an estimate that just reflects the length of bikeway the project will pave and one that credits the Project with the entire 1.85 miles of bikeway that already existed is simply not reasonable.

Also, the high estimate reflects a limited localized study by an Oregon research cooperative that found the average commute bike trip length was 5.2 miles. The low estimate reflects a national study by the American Association of State Highway and Transportation Officials (AASHTO) that found the average bike commute trip length was 3.8 miles. Splitting differences is in essence placing equal credence on a limited local study as on one with a national data base. The

[1] Commuters to the general area, not just to the Project itself.

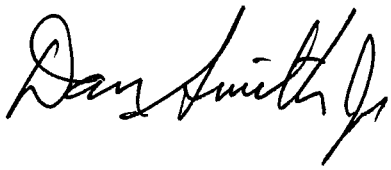
ISMND analysis also discloses by footnote that it assumes the bike commuters would do so 5 days per week for 47 weeks per year. This is in essence every single work day per year, discounting vacation, sick leave and holidays. It leaves no allowance for days of substantial rain or when rain is forecast to fall before quitting time, days of high winds, very cold days or extreme summer heatwaves, or days where the commuter intends to make a trip at lunch hour or immediately after work for which travel by bike may be unsuitable.

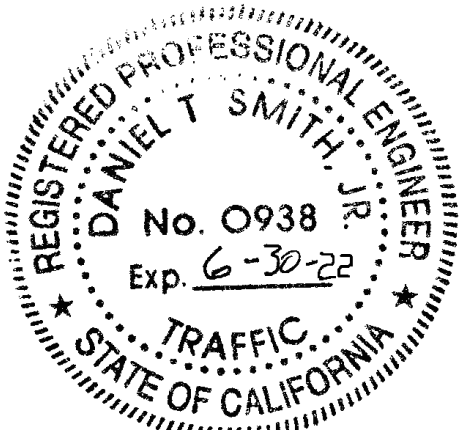
Finally, the notion that the Project is 'filling a gap' in the area bikeway network is an exaggeration. Aerial photo evidence shows that a bikeable has existed on the alignment of Commerce Boulevard at the supposed gap since the mid-1990s if not before. The Project is not supplying a missing link, it is just improving the pavement.

Given all of the above, it is unreasonable to suppose that the Project's significant VMT impacts will be mitigated by paving a few hundred feet of bikeway. Consequently, the Project cannot be approved under a mitigated negative declaration.

Sincerely,

Smith Engineering & Management
A California Corporation





Daniel T. Smith Jr., P.E.
President

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil)
California No. 938 (Traffic)
Nevada No. 7969 (Civil)
Arizona No. 22131 (Civil)
Washington No. 29337 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

ATTACHMENT E

INITIAL STUDY FOR THE SDG COMMERCE 330 WAREHOUSE PROJECT

(PL18-0010, PL18-0011)

Prepared for:

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Community Development Department
4381 Broadway, Ste. 201
American Canyon, CA 94503

Prepared by:

Grassetti Environmental Consulting
7008 Bristol Drive
Berkeley, CA 904705

Date: November 2018

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ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics	X	Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
X	Air Quality		Land Use/Planning		Tribal Cultural Resources
X	Biological Resources		Mineral Resources	X	Transportation/ Traffic
X	Cultural Resources	X	Noise	X	Utilities/Service Systems
X	Geology/Soils		Population/Housing		Mandatory Findings of Significance
	Greenhouse Gas Emissions				

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	**X**
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Brent Cooper

Brent Cooper, Community Development Director

4/19/18

Date

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A Air Quality Model Output Data
B Biological Resources Assessment
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D Noise Appendices
E Will Serve Applications
F Mitigation Monitoring and Reporting Program (to be included in Final IS/MND)

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO2E	carbon dioxide equivalent
CWA	Clean Water Act
District	American Canyon Fire Protection District
DPR	California Department of Parks and Recreation
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MBTA	Migratory Bird Treaty Act
MDL	most likely descendant
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCALUCP	Napa County Airport Land Use Compatibility Plan
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
NWIC	Northwest Information Center
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SO_x	sulfur dioxide
SR-29	State Route 29
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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INITIAL STUDY FOR THE

SDG COMMERCE 330 WAREHOUSE PROJECT (PL18-0010, 0011)

This Initial Study has been prepared by the City of American Canyon, Community Development Department, 4381 Broadway, Ste. 201, American Canyon, CA 94503, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations).

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I – SUMMARY: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II – PROJECT DESCRIPTION: Includes a project background and detailed description of the proposed project.

SECTION III – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION IV – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Napa Junction Phase III EIR (SCH#2010082062).

SECTION V – MANDATORY FINDINGS OF SIGNIFICANCE: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

SECTION VI – REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

APPENDICES - Including applicable technical studies and the Mitigation Monitoring and Reporting Program (MMRP)

I. SUMMARY

Project Name and File Number:	SDG Commerce 330 Warehouse Project (Application PL18-0010, 11)
Project Location:	Commerce Boulevard in the City of American Canyon. APN 058-030-065
Project Applicant:	SDC Commerce 330 LLC Brian Doswald, Project Manager 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 bdoswald@icc-stravinski.com
Project Planner:	Tricia Stevens, Contract Project Planner; Brent Cooper, AICP, Community Development Director City of American Canyon 4381 Broadway, Ste. 201 American Canyon, CA 94503 (707) 647-4336
Property Owner:	American Canyon Flat Land Co., Inc. 7674 N. Woodson Ave. Fresno, CA 93711 (559) 908-6363
General Plan Designation:	Commercial Recreation (CR)
Zoning:	Recreation (REC)
Project Approvals:	Conditional Use Permit for 330,528 sq. ft. wine warehouse; Tentative Parcel Map to subdivide larger property into three parcels.
Date Initial Study Completed:	November 19, 2018

II. PROJECT DESCRIPTION

Project Location

The project site is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive, and due north of the City of American Canyon Clarke Ranch open space/recreation area (see Figure 1, Project Location Map). The property proposed for development is at the south end of the expanded Green Island Industrial Area. The property is generally trapezoidal in shape, approximately 15.24 acres in size and is the south parcel of a proposed tentative parcel map (see Figure 2, Proposed Tentative Parcel Map). Access to the project site is from SR-29 via Green Island Road to Commerce Blvd.

The project site is currently one 35.85-acre parcel (APN: 058-030-065). A tentative parcel map is proposed that would divide the one 35.85-acre parcel into three parcels. The parcel proposed for development as a wine warehouse would be the 15.24-acre south parcel. The other two parcels to the north would be approximately 10.16 and 10.39 acres in size. The remaining 0.6 acres would be in the *cul de sac* turnaround, shown as Parcel A. No development is currently proposed for the other two parcels. The proposed parcel map is shown on Figure 2.

Site Conditions

Since 1937 the site was occupied by a planted crop of trees and at some time after that but before the late 1950's a eucalyptus grove was planted. Until 2001 the site remained relatively unchanged. Then in 2001 until around 2012 the northwest corner of the site was used as a paintball field (Sherwood Forest Paintball Area) with the eucalyptus trees remaining in place. In 2004 a warehouse was built directly to the north of the site which included Commerce Boulevard Cul-de-sac Road Improvements on the northeast corner of the site. Also in 2004, the City of American Canyon installed underground utilities and a rock-paved access road through the middle of the eucalyptus grove adjacent to the east side of this site. This work also included the installation of a sanitary sewer force main that bisects the northeast corner of the site. This utility and rock road work included removal of eucalyptus trees as required. In 2012 the site was cleared and grubbed of the eucalyptus trees and shrubs, and is currently a gently sloping open site covered primarily with ruderal vegetation.

The project is bounded on the north by open grassland. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus tree grove and a wire fence; on the south is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space, partially covered eucalyptus trees, and including horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 68-foot wide City Public Access and Utility Easement, with underground sewer, water, reclaimed water and sewer force lines, and PG&E has underground power with vaults; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement (PUE); to the east of these

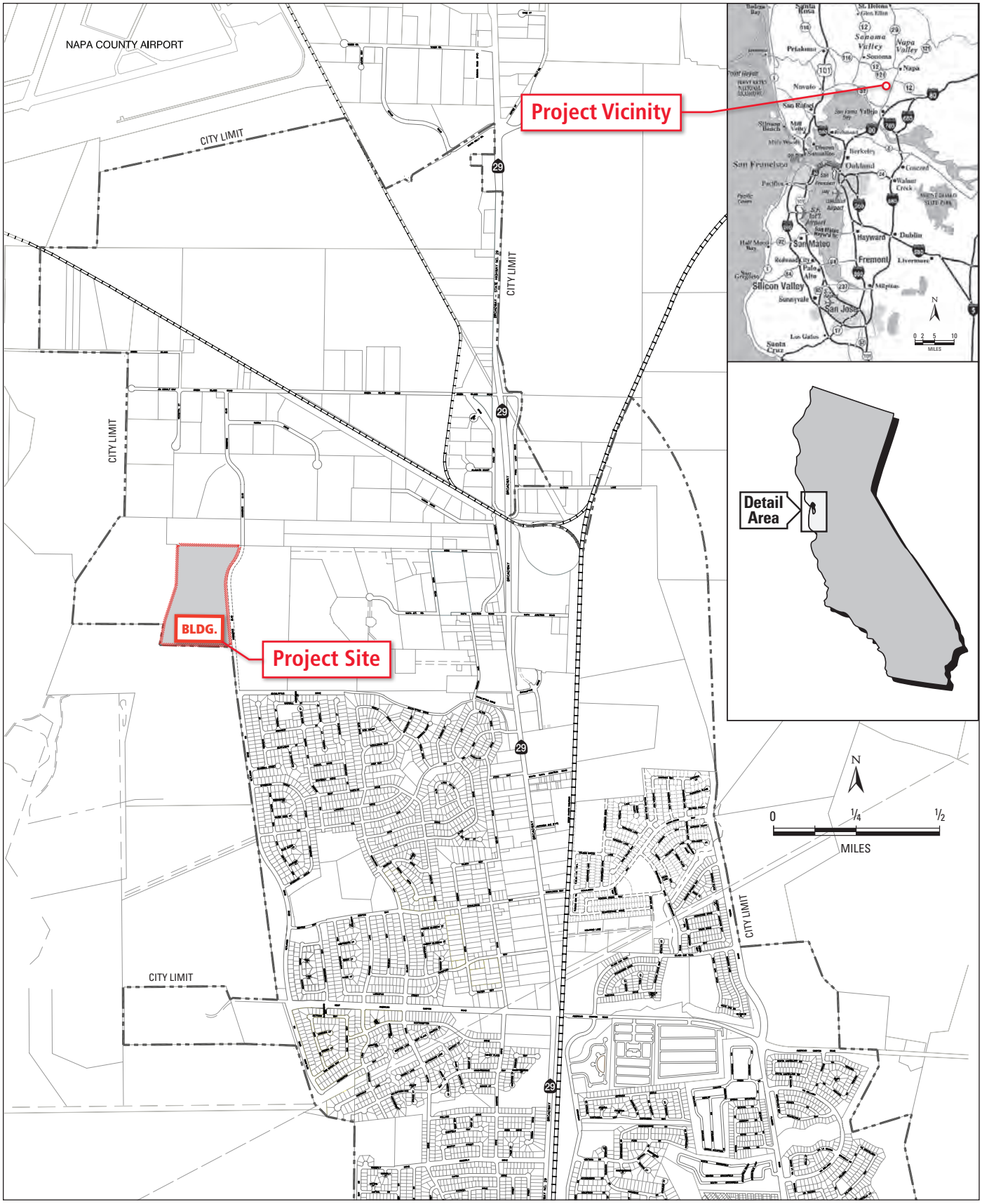

Figure 1

Project Location

Source: City of American Canyon General Plan

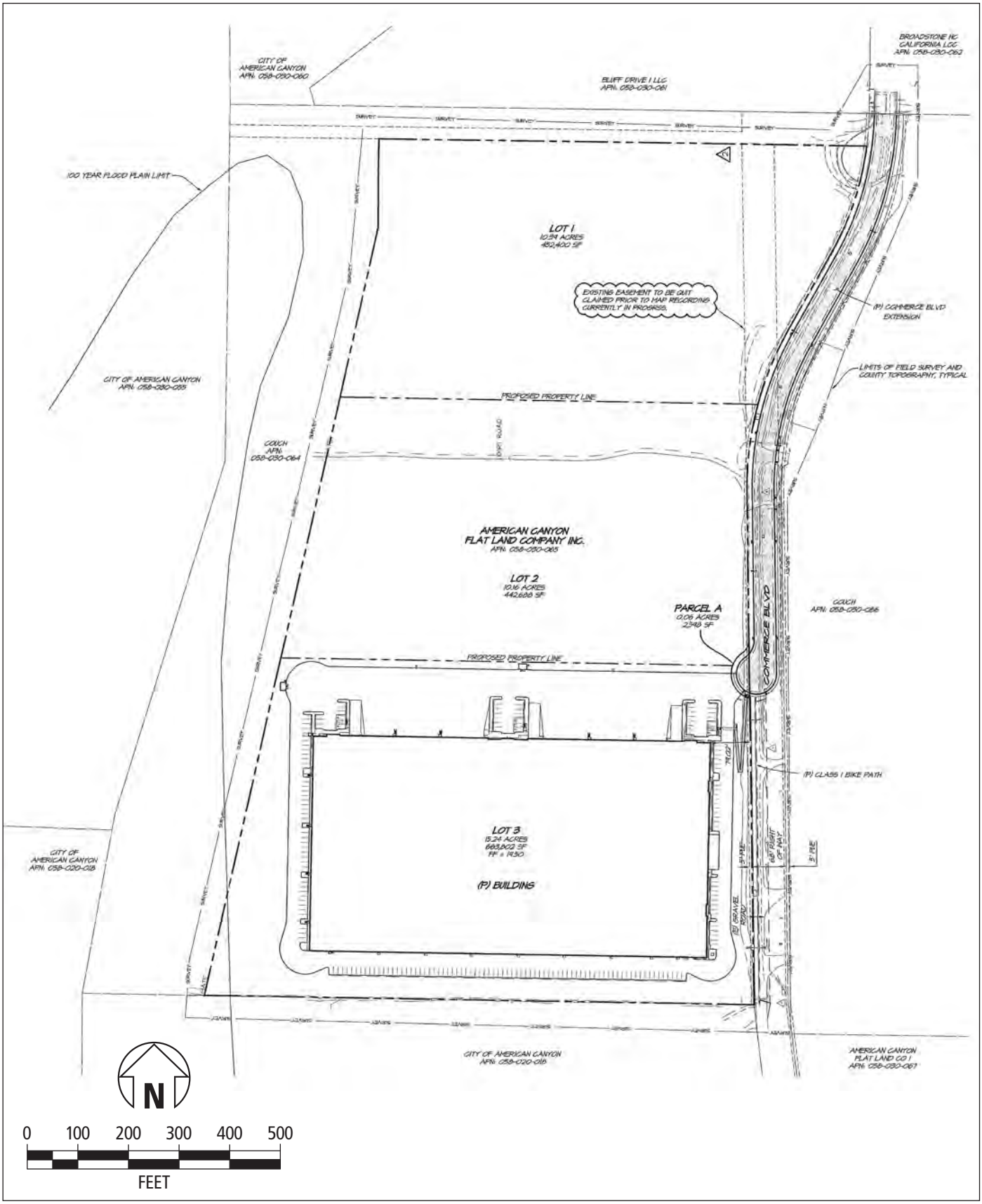

Figure 2

Tentative Parcel Map

Source: RSA+ Consulting Civil Engineers

easements is a 40-acre parcel owned by the Couch Family including a mobile home, dirt/gravel roads, various sheds and lean-to structures, and wire fences;

Current Zoning and General Plan Designations

The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). This Parcel is in the City's Recreation Zoning District (REC). A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries and as a conditionally permitted use. An amendment to the Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit".

Proposed Development

As discussed above, the project applicant proposes to subdivide the overall 35.85-acre parcel and develop a wine warehouse on the southern 15.24-acre parcel. The proposed warehouse development is described below.

Proposed Warehouse Building

The applicant proposes to develop a wine warehouse on the 15.24-acre parcel. The project would consist of one 330,528 square foot wine storage and distribution center on the 663,802 square foot site, which represents a 49.9% building coverage (0.499 FAR). The assumed 6,600 square feet of office space is an estimate as exact office build outs would be determined in the future and reviewed by the City during the Tenant improvement phase of the project. The building has the potential of accommodating multiple tenants with provisions for offices at two corners and midway on the north wall. It is anticipated that the warehouse would be used for wine storage and other wine-related storage and warehousing activities (i.e. bottles, corks, barrels, etc.). The proposed site plan is shown in Figure 3.

The building would be approximately 424 feet deep from north to south, and 780 feet wide from east to west. The building would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings to provide additional modulation. The average roof height of the building would be approximately 35 feet high and portions of the building exterior walls would have various heights to provide architectural relief. The building would be designed with earth-tone colors and in a style similar to the Green Island 258 Warehouse project and the Santa Clara/Yandell Warehouse, located on Green Island Road. Building elevations are shown on Figure 4.

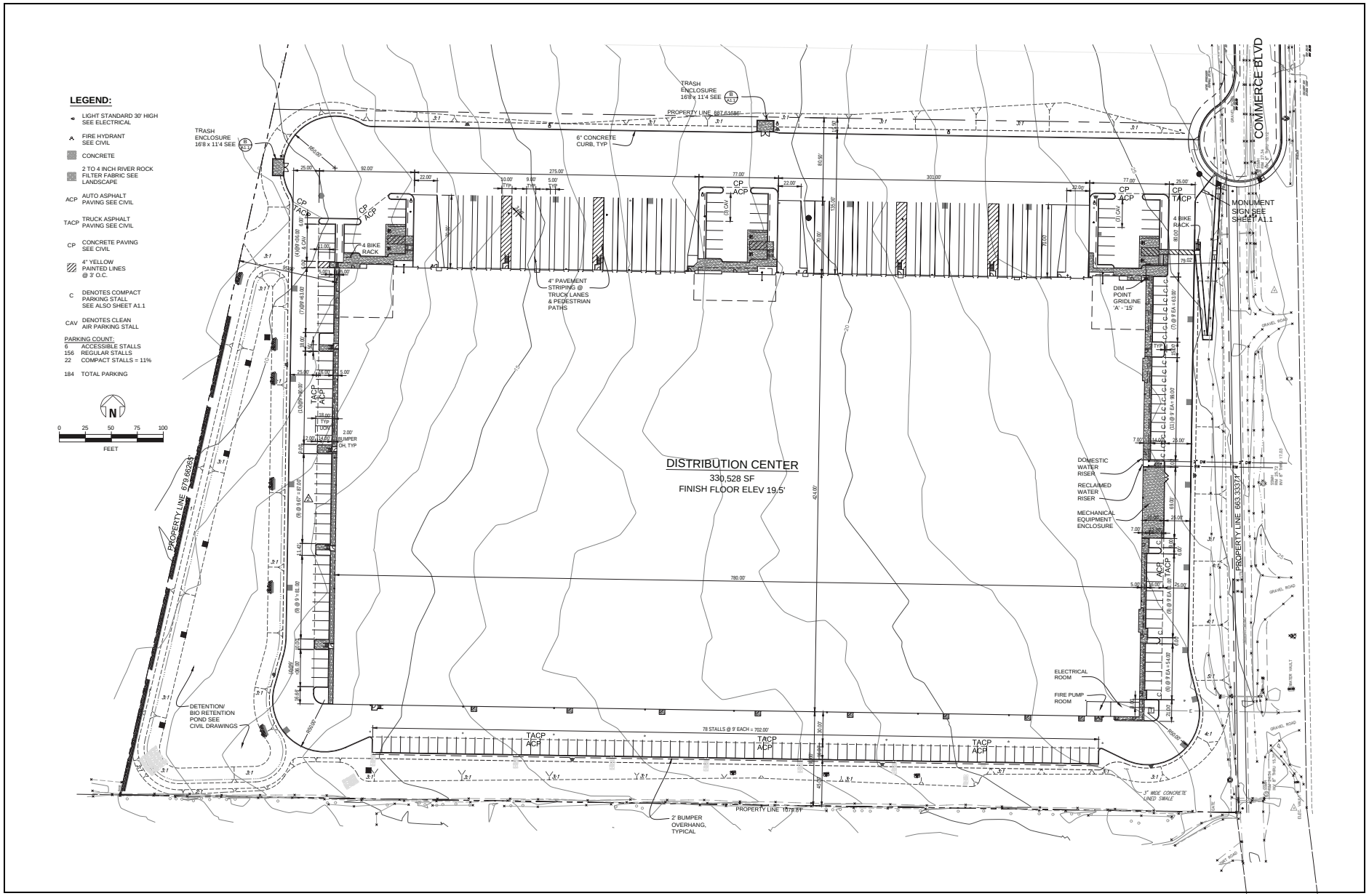

Figure 3

Site Plan

Source: Ward Architects, Inc.

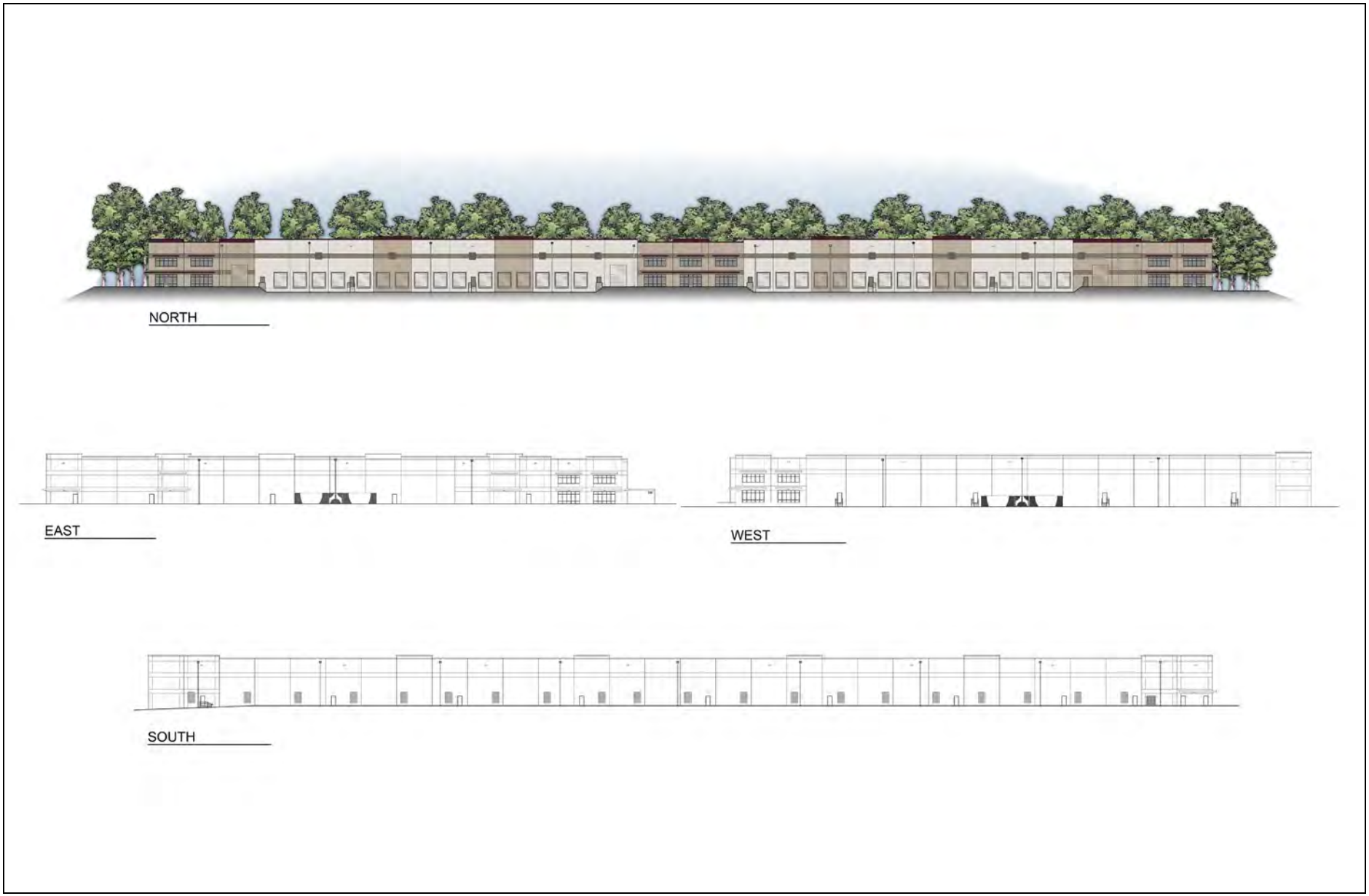

Figure 4

Elevations

Source: Ward Architects, Inc.

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

Parking and Truck Circulation

A total of 189 car and 32 truck dock parking spaces would be provided for the building. Of these parking stalls, 6 would be designated for handicap access with 3 stalls designated for van accessibility and 10 stalls for Clean Air Vehicle parking. The building would have a total of 32 truck loading docks. The developer would construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress would be provided around the full perimeter of the building.

Site circulation has been evaluated, specifically including fire truck movements and in-bound/ out-bound turning movements at the Commerce Boulevard entrance. This is discussed further in the Transportation section of this Initial Study.

Bicycle Facilities

Each end of the building would have a bike rack to accommodate up to 4 bicycles, 1 more than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

Lighting

Exterior lighting for the proposed project would include lighting on the building and on parking lot poles on the north side of the property. Parking lot lighting would be consistent with that which is required by the City of American Canyon. The lights would be "shoebox" fixtures, with a height of 30 feet, dimmable LED fixtures which are designed to direct the light towards the ground and reduce glare to surrounding properties. A photometric study has been prepared to analyze the light pole spacing to maximize light coverage and minimize excessive light spillage off-site and is available for review at the City Community Development Department.

Signage

The site plan shows one proposed monument sign, (approximately 8-foot wide by 5 -foot tall) located at the entry to the site from Commerce Blvd. The applicant would submit a separate Sign Permit

application for City approval of the monument sign, as this proposed sign is not submitted with this application.

Grading and Retaining Structures

Grading of the property would consist of cuts of approximately nine (9) feet and fills of approximately seven (7) feet. A retaining wall that ranges in height from about 2 to 4.5 feet would be constructed along a portion of the east side of the site to accommodate the grade differential. These walls would be engineered to meet the requirements of the California Building Code and are proposed to be a pre-cast concrete block system. Excavations and fills and protection of adjoining property would comply with Chapter 33 of the California Building Code. The Applicant would ensure that adequate erosion protection is installed (see Hydrology discussion).

Landscaping

Landscaping would be provided around the site perimeter, around the building, in parking islands, ends of parking aisles. The south side auto parking would have a 45-foot landscaped/swale setback as a buffer to the Clarke Ranch Property. Mechanical equipment would be placed on the east t side of the building and out of view from the Clarke Ranch property. The irrigation system would be connected to the City's reclaimed water system thus eliminating the use of the City's potable water for landscape purposes. The project would have approximately 70,000 square feet (+/- 1.60 acres) of landscaping.

Utilities and Drainage Facilities

Major utility services (sewer, water, electricity, phone, etc.) are existing along the Commerce Boulevard extension project frontage. The building would have 6" domestic sewer service stubbed to the three (3) office locations and a sewer pump lift station located near the northeast corner of the building tying into the existing City sewer main line in Commerce Blvd. extension. Domestic water service, fire water service and reclaimed water service would be brought to the east side of the building from existing City mains in Commerce Blvd. extension. Gas service can be tied into the existing gas stub in the Commerce Blvd. extension to the north. Electric and telephone service is available along the project frontage on the Commerce Blvd. extension. Electric and Telephone service would be extended underground within the subject property to the southeast corner of the building.

As part of the proposed project, the parcel's storm water runoff would be directed via pipes and a bio-swale into the newly created detention/bioretention pond. This storm water detention/bioretention pond and bio-swale are designed to treat the storm water in conformance with federal, state, and regional requirements. The vegetated swale on the south would be planted with plant material as specified by the hydrology engineer to retain and filter runoff from the site. The roof drains would be

connected to the proposed detention/bioretention pond and storm drain systems surrounding the building by way of down spouts on the exterior of the building that would be painted to blend in with the building façade.

Building Energy Efficiency

The building will be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

The fork lifts used within the buildings would be powered by electricity instead of the typical natural gas-powered fork lifts.

Interior lighting would be designed to meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion-sensor lighting would be installed for areas within the warehouse. This reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current PG&E incentives would be investigated and all attempts to incorporate them into the design would be made.

Construction Activities and Schedule

Construction of the proposed project would take place in one phase. Initial grading would be completed for the site and all underground utilities stubbed to the building pad. The detention/bio-retention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during the initial phases of construction. It is anticipated that from commencement of the initial grading it would take approximately 10 months to complete the construction of the building and associated facilities.

Typical construction equipment that would be used at the site would include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, 15 to 25 workers typically would be on- site, with a maximum near to 100 workers.

Proposed Building Uses

It is anticipated that the building might have approximately 50 full-time employees and up to 30 part-time employees working in up to 3 overlapping shifts and operating 12-18 hours a day during the peak season. These numbers are only approximations as there is no specific user identified with the

application; however, they are substantiated with similar uses. Warehousing and storage of wine and other wine related industries as a whole is not labor intensive on-site. The proposed uses for the building do not demand frequent client or user trips to the site and it can be estimated that approximately 3 to 5 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The proposed uses are generally of low intensity as the storage of wine is necessary for the aging process. The building is designed to accommodate four (4) tenants, however, our experience is that the building will generally have fewer tenants than planned. Office space within the buildings is incidental to the warehouse operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal months, typically June through November.

Proposed Access Improvements

The Project would be accessed from the existing Commerce Blvd. to the north off of Green Island Road. The existing truck turn-around cul-de-sac at the south end of Commerce Blvd. would be relocated approximately 1,100 feet to the south, at the northeast corner of the project site. Commerce Blvd. would be extended this same length and would be a two-lane road (44 feet wide) with concrete curbs and gutters on its east and west sides. The fire access gate would be relocated just south the new *cul-de-sac* at the existing rock maintenance road to prohibit public access. The new Commerce Blvd. extension would have landscaping on the west side and street lights (both sides) in accordance with City Standards. The east side of the Commerce Blvd. extension would have a five-foot wide sidewalk to match Commerce Boulevard to the north, and a Class 2 bike path in the roadway. The east side frontage to the south of the new *cul-de-sac* would have a class 1 bike path on the west side, with the widened rock maintenance road.

Off-Site Wetlands

The proposed project would create a new off-site wetland to mitigate for a small existing isolated wetland (IW1) at the southeast corner of the property. A 0.05-acre newly created wetland habitat area is proposed on the Hanna Court 411 Warehouse Property – Open Space Easement Site (APN: 058-420-052), just north of the Hanna Court Warehouse access road to mitigate for 0.020 acres of “isolated” waters of the State (isolated seasonal wetlands) that would be affected by the project, which represents a 2.5:1 wetland replacement ratio. The soil within the mitigation wetland would be hydroseeded with a seed mix recommended by the consulting wetland biologist.

Application would be made to the Regional Water Quality Control Board for appropriate approvals, with the City as the lead agency.

Land Use Entitlements and other Agency Approvals

City of American Canyon

The applicant is requesting a Conditional Use Permit and a Tentative Parcel Map from the City of American Canyon for the project.

Other Agency Approvals

The project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Stormwater Pollution Prevention Plan and Permit.
- Regional Water Quality Control Board, San Francisco Bay Region, 401 Water Quality Certificate for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to isolated waters on the project site.
- Napa County Airport Land Use Commission, Avigation Easement (an Avigation and Hazard Easement Deed) extends over the whole of the project site.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			**X**	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			**X**	

a, c) The project site is currently undeveloped open land covered with sparse, weedy vegetation, with some small seasonal wetland areas. The project is bounded on the north by open grassland and beyond that is the developed Green Island commercial and industrial area, containing large modern warehouses with parking lots aesthetically similar to the proposed warehouse. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove. To the south is a line of mature eucalyptus trees and beyond that is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space. Clarke Ranch is utilized for horse-riding facilities operated by Spirit Horse Riding Center. Farther south on Commerce Boulevard is a residential neighborhood. To the east is a 40-acre parcel owned by the Couch Family including a mobile home and various lean-to buildings, and a large commercial recreational paintball facility known as American Canyon Paintball Jungle. A public school is proposed just southeast of the site, to the south of the paintball area, on open land at the corner of Eucalyptus Drive and Commerce Blvd Views of the project site from this eastern boundary can be seen in Figures 5-7.

Figure 5- View of the Site from cul-de-sac at northern part of Commerce Blvd. looking south. The eucalyptus line along the southern boundary constitutes the border between the Commerce 330 Parcel and the Clarke Ranch Site.



Figure 6 – View from the southwest corner of the site looking north.



Figure 7: View from the shoulder of the utility access road on the eastern site boundary looking west. Eucalyptus trees are at the western border of the site.



The site is visible from the northern end of Commerce Blvd., the unpaved extension of Commerce Blvd. from the south, as well as from the Couch property and the Paintball Jungle facility. Distant views of the site may be accessed from the crest of the Oat Hill. There are no views of the site from nearby residential neighborhoods as the property is screened from views by a dense stand of eucalyptus trees Clarke Ranch northern property frontage.

Implementation of the proposed project would replace the existing view of relatively level, undeveloped grassland with views of a new large warehouse structure and parking area. Views from the residential area from the South would be buffered by the line of mature eucalyptus trees along the Southern Boundary and by Clarke Ranch. In addition, the project's landscaping plan includes two rows of screening trees along the site's southern property line. Views of the hillsides and ridgelines visible from Eucalyptus Drive and Commerce Blvd. would not be disturbed.

The proposed project includes a landscape plan, which would soften views from both adjacent properties and Eucalyptus Drive. The project constitutes a visual extension of the existing warehouses that characterize views in the Green Island Road viewshed. Overall, the project would change the visual character of the site from one of a large, undeveloped field

to industrial. While this change would be substantial, the number of viewers affected would be small. For these reasons, the proposed project would not substantially degrade the visual character of the project site or its surroundings consistent. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

b) The project site is located in the City of American Canyon, east of SR-29. Highway SR-29 is designated as an Eligible State Scenic Highway by Caltrans. The City's General Plan specifies that the SR-29 corridor provides opportunities for enhancing the City's visual quality and includes a policy to preserve significant views from areas along major arterial roadways (City of American Canyon 1994, as amended through January 2018). The project site is about 5,000 feet west of the SR-29 highway and is fully shielded from any views by intervening hillside terrain.

Because the proposed project would not be visible in views from that highway, it would have ***no impact*** to vistas from a state scenic highway.

The project would not remove any existing trees, historic buildings or rock outcroppings that would be considered scenic resources. Because there are no city-designated scenic vistas or scenic resources on this site or nearby that the project could adversely affect, development of this site would result in ***no impact*** on these resources.

d) The proposed project includes exterior lighting.

Project lighting would include building lights and lights in the parking lot areas which would increase artificial light in the project area and potentially generate glare. On-site lighting would be shielded and designed to cast light downward, thereby reducing spillover light and glare on adjacent properties. The applicant has prepared a photometric plan showing that project lighting spillover beyond the project site would be minimal (Bosley Electric, 2018). The lighting would be required to adhere to the City of American Canyon's performance standards for street lighting and glare. In reviewing the Conditional Use Permit application for the proposed project, the City would consider the proposed use of outdoor lighting prior to approval. The building design would not introduce a source of glare associated with large expanses of glass. Therefore, impacts from light or glare would be ***less than significant***.

The project applicant would also be required to submit a sign program (indicating location of any lighted signs) to the City for review and approval. The project applicant would be required to implement the sign program, as approved by the City. Visual impact from signage would be ***less than significant***.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

a-e) The project site is undeveloped and located adjacent to a developed area of the City of American Canyon. The site has been rough graded and stripped of trees. The site is designated Recreation in the City's General Plan. Although portions of the site may have historically been used for small-scale agriculture, no such uses have occurred since at least the 1950s, when the site was planted with a eucalyptus grove. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. The most recent California Department of Conservation Important Farmland Maps for Napa County designates the site as Urban and Built Up Land (California Department of Conservation, California Important Farmland Finder,

accessed July 16, 2018 https://maps.conservation.ca.gov/DLRP/CIFF/). In addition, this site is located within the municipal boundaries of the City of American Canyon. There are no Williamson Act lands on the site. The proposed project would not involve any changes that could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use or loss of forest land.

There are no forest lands on the site, nor is the site designated or zoned for timberland resources. Therefore, implementation of the project would not involve the loss of any forest land.

Therefore, there would be ***no impact*** to agricultural and forestry resources.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?		**X**		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		**X**		
c) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		**X**		
d) Expose sensitive receptors to substantial pollutant concentrations?		**X**		
e) Create objectionable odors affecting a substantial number of people?			**X**	

The air quality analysis was performed using methodologies and assumptions recommended within the Bay Area Air Quality Management District (BAAQMD) *CEQA Air Quality Guidelines* (May 2017).[1] This section describes existing air quality and air pollutant construction and operational impacts.

Air quality pollutants evaluated are carbon monoxide (CO), reactive organic compounds (ROG), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5). Greenhouse gas (GHG) emissions are addressed in Section VII, Greenhouse Gas Emissions.

[1] The May 2017 BAAQMD *CEQA Guidelines* includes revisions made to the BAAQMD's *2010 Guidelines* to address the California Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Cal.4th 369. The May 2017 *CEQA Guidelines* update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The BAAQMD is currently working to update any outdated information in the Guidelines.

The project site is located within the San Francisco Bay Area Air Basin (Air Basin) under the jurisdiction of the BAAQMD. The BAAQMD is the local agency responsible for the administration and enforcement of air quality regulations for the area. The Air Basin is currently designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Air Basin is designated "attainment" or "unclassifiable" with respect to the other ambient air quality standards. Additional information regarding the air quality setting is found in Appendix A.

a) The BAAQMD's Clean Air Plan (2017 CAP) is the regional air quality plan for the Air Basin. The 2017 CAP updates the 2010 CAP, pursuant to air quality planning requirements defined in the California Health and Safety Code. The 2017 CAP provides a comprehensive strategy to improve air quality, protect public health, and protect the climate, utilizing all the tools and resources available to the BAAQMD. The BAAQMD recommends that the agency approving a project where a CAP consistency determination is required analyze a project with respect to the following questions. If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Bay Area. Therefore, the following criteria are used for determining the proposed project's consistency with the 2017 CAP:

Criterion 1: Does the proposed project support the primary goals of the 2017 CAP?

The primary goals of the 2017 CAP are to:

- Protect air quality and health at the regional and local scale
- Protect the climate

As discussed in this section and the GHG Emissions section of this Initial Study, all air quality and GHG emissions impacts would be less than significant after implementation of MM AQ-1 through AQ-4. Therefore, the proposed project supports the primary goals of the 2017 CAP.

Criterion 2: Does the proposed project include applicable control measures from the 2017 CAP?

The 2017 CAP's control strategy includes 85 control measures designed to reduce ozone precursors in order to fulfill ozone planning requirements, protect public health by reducing emissions of ozone precursors, particulate matter and toxic air contaminants, and to serve as a regional climate protection strategy by reducing GHG emissions across a full range of economic sectors. The proposed project would include features that support applicable control measures such as water conservation, green buildings, and bicycle access/facilities. Therefore, the proposed project includes applicable control measures from the 2017 CAP.

Criterion 3: Does the proposed project disrupt or hinder implementation of any 2017 CAP control measures?

The BAAQMD provides examples of how a project may cause the disruption or delay of control measures. Examples include a project that precludes an extension of a transit line or bike path, or proposes excessive parking requirements. The proposed project would not cause a disruption or delay of the 2017 CAP's control measures.

The proposed project with mitigation measures would support the primary goals of the 2017 CAP and would be consistent with applicable 2017 CAP control measures, and would not disrupt or hinder implementation of any 2017 CAP control measures. Therefore, the proposed project would have a ***less than significant impact with mitigation***.

b) Construction activities were assumed to commence in spring 2019 with site preparation and grading. Building construction, paving and coating would follow and construction would be complete in approximately winter 2020. The proposed project would be constructed in a single phase estimated to require approximately ten months.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. Air quality calculation details and CalEEMod output worksheets are included in Appendix A.

Table AQ-1 provides the estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's thresholds for construction exhaust emissions. As the construction phases (i.e., grading, building construction, paving, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. All construction-related emissions would be below the BAAQMD significance thresholds. The air quality analysis includes use of paint compliant with BAAQMD Regulation 8, Rule 3 for architectural coatings. Regulation 8, Rule 3 limits the VOC content of the paint.

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM10 and PM2.5. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local meteorological conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Nearby receptors could be adversely affected by dust generated during construction activities.

Table AQ-1
Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2018-2019	**18.5**	**36.5**	**1.6**	**1.5**	**28.7**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--
Proposed Project Mitigated Emissions					
2018-2019	**16.9**	**37.6**	**0.6**	**0.6**	**29.6**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. Mitigation Measures AQ-1 and AQ-2 address the implementation of best management practices to reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*. Mitigation Measure AQ-3 addresses compliance with BAAQMD regulations concerning architectural coating.

The construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include Mitigation Measures AQ-1 through AQ-3 per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant with mitigation***.

Following the completion of construction activities, the proposed project would generate VOC, NO_x, CO, PM10, and PM2.5 emissions from mobile and stationary sources, including vehicular traffic, off-road warehouse equipment (electric forklifts) and area sources (space heating, water heating, maintenance of the buildings and landscaping). Complete details of the emissions calculations are provided in Appendix A.

Estimated maximum daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and 3 and are compared to BAAQMD's thresholds of significance. As indicated, the estimated operational emissions that would be

associated with the proposed project would be below the BAAQMD's significance thresholds and would be ***less than significant***.

Table AQ-2
Estimated Daily Operational Emissions (pounds/day)

Condition	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Summer	11.1	22.0	4.7	2.0	28.2
Winter	10.9	22.4	4.7	2.0	28.5
Maximum Proposed Project	**11.1**	**22.4**	**4.7**	**2.0**	**28.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Table AQ-3
Estimated Annual Operational Emissions (tons/year)

	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Area	1.5	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.9	0.4	0.1	1.8
Off-Road Equipment (Forklifts)	0.2	2.0	0.2	0.1	1.8
Total Proposed Project	**1.8**	**2.9**	**0.6**	**0.3**	**3.6**
BAAQMD Significance Threshold	*10*	*10*	*15*	*10*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD has identified preliminary screening criteria for determining whether CO emissions would be exceeded. The screening criteria provide a conservative indication of whether the implementation of a project would result in CO emissions that are potentially significant. This methodology includes the following:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per day.

- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per day where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on the size of the proposed project and the anticipated resultant traffic volumes, the additional traffic would meet the screening criteria. Therefore, impacts that would be associated with long-term operational CO exhaust emissions would be ***less than significant***.

c) The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the BAAQMD's mass daily and annual significance thresholds. As shown in Tables AQ-1 through AQ-3, proposed project-related emissions would be below the thresholds with implementation of the recommended mitigations measures. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be ***less than significant with mitigation***.

d) The significance of impacts to sensitive receptors is dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) such as DPM or of having adverse health effects from exposure to non-carcinogenic TACs. A project is considered to be significant if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project's impact area. The nearest sensitive receptors, a residential neighborhood, is situated approximately 900 feet southeast of the proposed project boundary, with two-to-three homes that could potentially be within 1,000 feet of certain project construction phases (site preparation and grading activities).

The Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).

To ensure the proposed project's health impacts are less than significant, this Initial Study implements the enhanced exhaust emissions reduction measures as Mitigation Measure AQ-4.

Implementation of Mitigation Measure AQ-4 would ensure the maximum cancer risk from project construction for a residential-adult and child receptors would be below 10 in a million. Thus, the cancer risk due to construction activities would be below the BAAQMD threshold of 10 per million and would be ***less than significant with mitigation***.

e) The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect a substantial number of people. Post construction odors would be minimal. Therefore, odor impacts associated with construction and operation of the proposed project would be ***less than significant***.

Mitigation Measures

Mitigation Measure AQ-1: The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ-2:. The construction contractor shall implement the following measures during construction to reduce construction-related exhaust emissions:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure AQ-3: Emissions of volatile organic compounds (VOC) due to the use of architectural coatings are regulated by the limits contained in Regulation 8: Organic Compounds, Rule 3: Architectural Coatings (Rule 8-3). The VOC architectural coating limits, which were effective on January 1, 2011, was projected to result in a 32 percent reduction of VOC emissions in the Bay Area associated with architectural coating applications. The project contractor shall use paints and solvents with a VOC content of 100 grams per liter or less for interior and 150 grams per liter or less for exterior surfaces.

Mitigation Measure AQ-4: The construction contractor shall implement the following measures during construction to further reduce construction-related exhaust emissions:

All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All off-road equipment shall have:
    a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;
    b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Background Information

A Biological Resource Analysis (BRA) was prepared by Monk & Associates (Monk & Associates 2018a) that provides a description of existing biological resources on the project site and identifies potentially significant impacts that could occur to sensitive biological resources from the construction

of the proposed project site. Monk & Associates also conducted a jurisdictional wetland delineation in 2016, which was verified by the Army Corps of Engineers (Corps) on May 16, 2018 (USACE 2018). A wetland mitigation plan was also prepared (Monk & Associates 2018b) that when implemented would compensate for impacts to waters of the State that will occur from development of the proposed project. The full reports are on-file at the City of American Canyon. Pacific Biology conducted a site visit on August 10, 2018 to confirm the biological conditions of the project site as described in the biological documentation prepared for the project.

The approximately 15-acre project site is bordered to the east by Jungle Paintball, a 40-acre paintball park, and a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space and large warehouses occurs north of the project site. The American Canyon Wastewater Treatment Plant and associated treatment ponds are located west of the project site. The Napa River and associated marsh habitat occurs greater than 300 feet west of the project site, and these habitats are separated from the site by a dense eucalyptus grove. Clark Ranch, open space owned by the City of American Canyon, borders the project site to the south, and Eucalyptus Drive and a residential subdivision are located further to the south.

The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Coyote brush (*Baccharis pilularis*), a native plant that responds to land disturbances, such as have occurred on the project site, is also common on the site.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), all of which have been observed on the project site by Monk & Associates.

Various species of *Eucalyptus* trees have been planted in California for windbreaks, wood, pulp, and other uses. These areas constitute a plantation community (Holland and Keil 1995) and are usually composed of a single species in a very dense planting. On the project site, blue gum eucalyptus trees (*Eucalyptus globulus*) were once abundant throughout; these trees are now restricted to the southern project site boundary where they grow in a linear row, and a dense grow of eucalyptus borders the site to the west. Blue gum trees tower over all of the species native to the area. The trees shade the ground and litter the soil surface with fallen branches, leaves, fruits, and bark.

Rainwater passing through the leaves and branches carry dissolved chemicals that add to the substances leached from the fallen litter producing a significant allelopathic (growth inhibiting) effect on understory vegetation. The net result is that very few other plant species are able to grow around or under the blue gum trees. Consequently, the understory is often sparse if present at all. Thus, in areas where blue gum trees have been planted, they have almost completely replaced the native vegetation (Holland and Keil 1995). Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees on the or bordering the project site.

There is a small (0.02 acre) seasonal wetland in the southeast corner of the project site. This isolated seasonal wetland is dominated by Italian rye grass, English plantain (*Plantago lanceolata*), Mediterranean grass, curly dock (*Rumex crispus*) and bristly ox-tongue; all of these plants are non-native species that are just as readily found in upland habitats as they are in wetland areas. Seasonal wetlands provide a temporary water source for amphibians such as the common Sierran tree frog (*Pseudacris sierra*) and California toad (*Anaxyrus boreas halophilus*) to mate, lay eggs, and forage through the winter and early spring months. Seasonal wetlands also provide drinking water for local wildlife such as the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*).

a) Special-status plant species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 8. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of nine special-status plant species are known to occur in the region of the project site (Monk & Associates 2018a). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris collects on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017 and 2018, special-status plants are not likely to be found onsite (Monk & Associates 2018a). Therefore, impacts to special-status plants would be less-than-significant.

   Special-status wildlife species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 8. No special-status wildlife records have been mapped on or adjacent to the project site. However, a total of 16 special-status wildlife species are known to occur in the region of the project site (Monk & Associates 2018a). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status species



LEGEND

- Special-Status Species (CNDDB August 2018)
- Critical Habitat - California Red-Legged Frog
- Critical Habitat - Soft Bird's-Beak
- Critical Habitat - Vernal Pool Fairy Shrimp
- Critical Habitat - Steelhead

FIGURE 8
Documented Special-Status Species
SDG Commerce 330 Warehouse Project

N
W E
S

0 0.75 1.5 Miles

NOTE: Point data shows centroid of CNDDB polygon

occurring onsite (Monk & Associates 2018a). However, due to the sensitivity of four of the special-status wildlife species known to occur in the area and/or potential habitat on the site, these species are further discussed below. Additional information regarding these special-status species, as well as species known from the region but for which no suitable habitat occurs on or in areas to be impacted by the proposed project, is provided in Table 4 from the Biological Resource Analysis prepared for the project site by Monk & Associates (2018a); (included as Appendix B).

California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a state species of special concern. The project site is located outside USFWS designated critical habitat for the species, but designated critical habitat occurs approximately 1.7 miles to the east. In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site (Monk & Associates 2018a). There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. There are no drainages onsite and the isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae (Monk & Associates 2018a). Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the highly disturbed conditions on the project site due to prior grading and tree removal activities and the other factors discussed above, this species is not expected to occur on the project site. Therefore, impacts to California red-legged frog would be ***less-than-significant***.

Western burrowing owl (*Athene cunicularia*) is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.5 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin (Monk & Associates 2018a). The mobility of the western burrowing owl enables the species to colonize the recent burrows. Monk & Associates (2018b) did not observe western burrowing owls or any indirect

evidence that burrowing owls are using or residing on the project site during any of the site surveys. However, the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl would be potentially significant. Mitigation Measure BIO-1 would be implemented to reduce this impact to a ***less-than-significant*** level.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species afforded protection pursuant to the California Endangered Species Act (CESA). While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800). The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing along the southern project site border and adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near the project site in future years and that nesting could be disturbed by construction activities. Therefore, impacts to nesting Swainson's hawks would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks. Although it is unlikely that the proposed project would impact nesting Swainson's hawk, Mitigation Measure BIO-2 (preconstruction surveys and buffers) is included to ensure that any potential impacts are reduced to a ***less-than-significant*** level.

Northern harrier (*Circus cyaneus*) is a California species of special concern. The closest CNDDB record was documented 2.7 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. However, the project site provides marginal nesting habitat for the northern harrier (Monk & Associates 2018a). Should northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3

would be implemented to reduce potential impacts to nesting northern harriers to a ***less-than-significant*** level.

White-tailed kite (*Elanus leucurus*) is a state Fully Protected species. It inhabits grasslands, agriculture fields, oak woodlands, savanna and riparian habitats in rural and urban areas. The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a ***less-than-significant*** level.

In addition to the above special-status bird species, construction of the proposed project has the potential to affect species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (§3503), such as tree or ground nesting raptors or nesting passerine birds. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project could cause nest abandonment and death of eggs or young. Passerine birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Similar to the raptors, construction activities could disturb or directly affect passerine birds, their eggs, and/or young. Therefore, impacts to nesting raptors and passerines are potentially significant, and Mitigation Measures BIO-3 and BIO-4 would reduce the impact to a ***less-than-significant*** level.

b) There is no riparian habitat at the project site, and no Streambed Alteration Agreement from CDFW would be necessary. Additionally, there are no sensitive plant communities on the project site. The project site is separated from the Napa River and associated marsh habitats by greater than 300 feet and by a dense eucalyptus grove. Therefore, related impacts are ***less than significant***. Wetlands are discussed below under c).

c) A formal wetland delineation was performed by Monk & Associates in in 2016, which was verified by the Army Corps of Engineers (Corps) on May 16, 2018. Based on the verified wetland delineation, the 0.02-acre seasonal wetland on the project site is “isolated” and is not under the jurisdiction of the Corps. However, this “isolated” wetland is considered a “Waters of the State” and is under the jurisdiction of the Regional Water Quality Control Board (RWQCB). The proposed project will result in impacts to the 0.02-acre of “isolated” wetlands (waters of the State) regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. Impacts to “waters of the State” from the proposed project would be regarded

as a significant impact**.** Mitigation Measure BIO-5 would be implemented to reduce this impact to a ***less-than-significant*** level.

d) Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not substantially interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the east. In addition, Clark Ranch to the south has frequent activity associated with a horse-riding facility, and warehouses and other development occur north of the project site. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife, and these areas would not be impacted by the proposed project. Therefore, the proposed project would not substantially affect wildlife movement and related impacts would be ***less than significant***

e) The mature eucalyptus trees along the southern and western project boundaries will remain. In the project site's interior there are no mature trees, but there are a few small stump-sprouting eucalyptus trees that will be removed for the project. Since these are essentially stumps that have some green foliage, they do not meet the definition of a mature tree that is protected pursuant to the City of American Canyon tree ordinance (Monk & Associates 2018a); therefore, no tree replacement should be required and related impacts are ***less than significant.***

f) There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans that include the proposed project site. Therefore, the project would have ***no impact*** to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

Mitigation Measure BIO-1: A preconstruction survey for burrowing owls shall be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

1) Burrowing owl surveys shall be conducted by walking the entire project site. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be seven meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approximately 160 feet) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.

2) If burrowing owls are detected on the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented:

   - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities should have a 500-meter buffer from occupied nests.
   - From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests.
   - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls are found in the project area, a qualified biologist shall delineate the extent of burrowing owl habitat on the site.

3) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site using CDFW-approved methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW approval.

Mitigation Measure BIO-2: Pre-construction surveys for nesting Swainson's hawks shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Mitigation Measure BIO-3: To ensure that impacts to tree or ground nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within the 14-day period prior to site disturbance. The raptor nesting surveys shall include examination of all trees and ruderal habitat or grassland within 200 feet of the project site.

2) If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site shall be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site shall be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and shall be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers shall be maintained

in place through the month of August and work within the buffer can commence on September 1st.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a nesting survey shall be conducted within 14 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July, and some species can complete nesting later in August. Regardless, nesting buffers shall be maintained until September 1 unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to September 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report should be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before September 1st.

Mitigation Measure BIO-5: Based on the Corps verified map, 0.02-acre of isolated seasonal wetland will be impacted by the proposed project. The RWQCB has a Water Quality Order No. 2004-004-DWQ (General WDRs), *Standard General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction*. This project will apply for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to isolated waters on the project site. The requirements stipulated in this permit will become conditions of project approval.

The applicant is proposing to mitigate for project-related impacts to waters of the State at a 2:1 mitigation ratio as described in the *Wetland Mitigation Plan, SDF Commerce 330 Distribution Center, City of American Canyon, California* (Monk & Associates 2018b). The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. The mitigation wetlands shall be created, monitored, and evaluated for success as described in the wetland mitigation plan. The mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

a) A cultural resources investigation of the project area was undertaken by Solano Archaeological Services (SAS) which consisted of a record search conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System, a field survey, outreach to the Native American community, and study documentation. The NWIC research indicates that sixteen previous cultural resources investigations were conducted within or in the vicinity of the project area between 1975, and 2009. None of these studies or other research identified any prehistoric or historic-era sites, features, or artifacts within the project area. One site (CA-NAP-727H), a historic period ranch complex, was identified approximately 200 meters south of the project area. Additional archival research and a field survey conducted by SAS also did not identify the locations of any potential cultural or historical resources in the project area.

The Native American Heritage Commission (NAHC) conducted a search of Sacred Lands File the results of which indicate that no Native American historical resources or other culturally sensitive properties are known to be present within or near the project area. Outreach to tribal organizations and individual representatives per a contacts list provided by the NAHC also did not result in the identification of properties or locations possessing cultural significance to the Native American community.

Archival research, outreach to the Native American community, and a field survey did not identify the present of any historical resources within the project area. However, field surveys cannot always identify the presence of sub-surface cultural remains that could be significant

per CEQA criteria. As a result, presently unidentified historical resources could be present within the project area. Mitigation Measure CUL-1, below, would reduce any impacts to presently unidentified historical resources to a ***less-than-significant*** level.

b) As described in a), above, an NWIC record search, archival research, NAHC and Native American community input, and a field survey did not identify any prehistoric or historic-era cultural sites, features, artifacts, or culturally significant properties within the project area. However, there remains a possibility that project ground-disturbing activities could uncover evidence of Native American or early historic period use and/or occupation of the project area. Mitigation Measure CUL-1, below, would reduce any impacts to such resources to a ***less-than-significant*** level.

c) A review of the University of California Museum of Paleontology (UCMP) on-line database indicates that very few paleontological specimens have been collected from Napa County. Only one specimen, an example of *Magnoliposida* (a flowering plant) was found in the general vicinity (City of Napa) approximately six miles north of the project area (UCMP 2018). In addition, according to the Geologic Map of the Cuttings Wharf 7.5' Quadrangle (Bezore et al. 2002), the project area is located solely within late Quaternary alluvial fan deposits. Quaternary alluvium is often devoid of fossil remains due to its high-energy depositional regime, and the subaerial nature of that deposition which generally precludes rapid burial. Organic remains are left exposed to the elements and degrade rapidly before they can be buried. Given the lack of previous paleontological discoveries in and near the project area and the low sensitivity of the landform, it is unlikely that significant paleontological remains or unique geological features would be encountered during project ground-disturbing activities. Therefore, this impact would be ***less than significant*.**

d) Archival research, Native American community outreach, an NWIC record search, and a field survey did result in the documentation of any known human remains within the project area However, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Mitigation Measure CUL-2 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures

***Mitigation Measure CUL-1*:** If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance

in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

VI. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

A Geotechnical Investigation of the project site was prepared by Krazan and Associates, Inc.[2] (Krazan 2018). Krazan's geologists performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 26 borings to depths ranging from about 10 to 50 feet, followed by laboratory testing. Results of the Krazan study are summarized in responses to specific checklist questions below. The full report is available for review at the City Community Development Department.

a.i, ii, iii, iv) The project site is located in a seismically active region associated with the San Andreas Fault System. It is in close proximity to several major faults including the West Napa, Green Valley, Hayward-Rogers Creek, Mount Diablo Thrust, Calaveras, and San Andreas Faults (see Table GEO-1). Data presented by the Working Group on California Earthquake Probabilities (2008) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region between 2007 and 2036 to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It would be necessary to design and construct the proposed warehouse and parking lot in strict adherence with current standards for earthquake-resistant construction.

Although the site is in close proximity to several faults, it is not within the mapped California Earthquake Fault Zone or Alquist-Priolo Earthquake Fault Zone (Krazan 2018). It is approximately 3,200 feet east of the West Napa fault and 600 feet east of the California Earthquake Fault Zone for the West Napa Fault zone. Therefore, the risk of fault rupture at the site is low.

Table GEO-1
Active Fault Proximity to the Project Site

Fault	Direction from Site	Distance from Site (miles)
San Andreas	W	30
Hayward-Rogers Creek	W	11
Mt. Diablo Thrust	S	24
Green Valley	E	8
West Napa	W	0.8
Calaveras	NW	29

Source: Krazan & Associates, 2018

[2] Krazan & Associates, Inc. Geotechnical Engineering Investigation, Proposed SDG Commerce 330 Distribution Center, Commerce Boulevard, American Canyon, California. April 20, 2018.

For the West Napa Fault, the maximum credible earthquake on this fault is approximately 6.5 moment magnitude[3] based on empirical data and the length of the fault. The 2014 South Napa earthquake was located to the south of Napa and to the northwest of American Canyon on the West Napa Fault. It had a magnitude of 6.0 on the moment magnitude scale, and with a maximum Mercalli intensity of VIII (Severe); the event was the largest in the San Francisco Bay Area since the 1989 Loma Prieta earthquake.

Liquefaction is a 'liquefying' of the ground under strong seismic shaking. Liquefaction occurs in water-saturated, loose, granular soils (such as sandy soils). Because of active faults near the site and high acceleration the site may be subject to liquefaction hazards. Krazan evaluated the site's liquefaction potential and determined that soils above a depth of 5 feet below the ground surface have no liquefaction potential because of an absence of groundwater; soils between 5 and 10 feet below the ground surface were determined to have a low to very low liquefaction potential. Total and differential seismic-induced ground settlement were calculated not to exceed 1 inch and 0.75-inch, respectively. There are three potential consequences of liquefaction: bearing capacity failure, lateral spreading toward a free face (e.g. riverbank) and settlement. Bearing capacity failure is sudden and extreme settlement of foundations that typically occurs when the liquefied layer is relatively close (typically within two times the footing width, depending on the loads) to the bottom of the foundation. This impact can be reduced to *a* ***less-than-significant*** level by implementing the recommendations of the Krazan report, per Mitigation Measure GEO-1 (Krazan 2018).

Lateral spreading (or lurching) is another type of ground failure that is generally caused by liquefaction. It involves movement of large surficial blocks of soil as a result of subsurface liquefaction. Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, the potential for liquefaction-induced lateral spreading at the site is low.

Impacts associated with seismic shaking and associated ground failure issues can be reduced to a ***less-than-significant*** level by proper engineering and construction in accordance with the provisions of the Uniform Building Code and with other site stabilization, drainage, and, foundation design methods, as detailed in the Krazan report.

The project site is nearly flat, so landslide hazards would be minimal.

[3] "The **moment magnitude scale** (a successor to the Richter scale), is used by seismologists to compare the energy released by earthquakes. The constants in the equation are chosen so that estimates of moment magnitude roughly agree with estimates using other scales such as the Richter magnitude scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes. The USGS does not use this scale for earthquakes with a magnitude of less than 3.5." (Wikipedia, 2005)

b) The proposed project would require site stripping, grading and excavation/re-compaction of soils, therefore, construction of the proposed project would result in soil erosion or loss of topsoil. All construction practices would be in accordance with the State of California UBC Title 24, 2013 and measures to control soil erosion found in the general construction activities non-point source storm-water permit (See Hydrology section of this IS). The RWQCB requires that Best Management Practices be incorporated into projects to reduce wind and water erosion (see Mitigation Measure GEO-2). This impact would be reduced to ***less than significant with mitigation***.

c) See responses to items aii, iii, and iv, above.

d) The upper soils on the site are predominantly silty sandy clay, silty clay, or sandy clay. These soils appear to have a moderate swell potential. Mitigation Measure GEO-3, below, would reduce hazards associated with potentially expansive soils to a level that is ***less than significant***.

e) The project would not use septic tanks or other on-site land disposal systems. ***No impac***t would occur.

Mitigation Measures

Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2018). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile

- o Establishment of a single destination “wash-out” for construction subcontractors
- o Use of siltation fences
- o Use of sediment basins

Mitigation Measure GEO-3: **T**he applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2018). Krazan recommends that the upper 24 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. Pads and pavement subgrades shall be treated to reduce the effects of soil expansion.

VII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

The BAAQMD *CEQA Air Quality Guidelines* identify a project specific threshold of either 1,100 metric tons of carbon dioxide-equivalents[4] (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development) as resulting in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion.

a) The CalEEMod (Version 2016.3.2) model was used to quantify GHG emissions associated with proposed project construction activities (for informational purposes), as well as long-term operations associated with energy usage, area sources (landscape maintenance), water/wastewater conveyance, off-road mobile equipment (forklifts) and vehicles. Additional information regarding the GHG emissions setting and calculation details are found in Appendix A.

Estimated construction GHG emissions that would be associated with the proposed project are presented in Table GHG-1. The estimated construction GHG emissions are 652 metric tons of CO_2e (165 in 2018 and 487 in 2019). The BAAQMD does not recommend a threshold for GHG emissions from construction, so this analysis (similar to many other analyses prepared in the San Francisco Bay Area Air Basin) amortizes the construction emissions over the lifetime of the proposed project (30 years) and adds amortized construction emissions to the annual operational emissions. The 30-year amortized annual construction related GHG emissions would be approximately 22 metric tons of CO_2e.

[4] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

Table GHG-1 also provides the estimated operational GHG emissions that would be associated with the proposed project. The GHG construction (amortized) plus operational emissions would be approximately 892 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a ***less-than significant*** impact.

Table GHG-1
Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	22
Operations	
Area	<1
Energy	154
Mobile	504
Off-Road Equipment (Forklifts)	211
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**892**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

b) The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is Assembly Bill (AB) 32 and other State regulations with post-2020 goals such as Executive Order S-3-05 and B-30-15. The proposed project would result in a significant impact if it would be in conflict with AB 32 goals or post-2020 goals in other State regulations. The assumption is that AB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2020 goals and post-2020 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHGs. The proposed project has been reviewed relative to the AB 32 and associated regulations and it has been determined that the proposed project would not conflict with the goals of AB 32 and goals of other State regulations. Therefore, the proposed project would result in a ***less-than-significant*** impact.

VIII. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

A Phase I environmental site assessment (ESA) was conducted by ATC in June 2018 (ATC 2018). This ESA summarized the previous ESA's on the property conducted by Environmental Science Associates (October 2004), Kleinfelder (July 2005; December 2009), and ICES (April 2010). Those previous reports focused on the larger 106-acre Couch Property, of which the overall project site is 35.85 acres, with the proposed development site of about 15 acres. The ATC study also conducted additional site interviews, database reviews, and a new site reconnaissance. The results of that study are summarized in responses to the questions below.

a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials. Therefore***, no significant impacts*** would occur during construction activities.

The site was historically used for agricultural purposes and was occupied by a crop of planted Eucalyptus trees since sometime before circa late 1950's. Up until 2001 the site remained relatively unchanged. From 2001 until around 2012 the northwest corner of the site was used recreationally as a paintball field with the Eucalyptus trees remaining in place. In 2012 the property was cleared and grubbed of the Eucalyptus trees and shrubs.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of institutional land use. Small quantities of these hazardous materials would likely be used on site, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, chlorine (pool), and fertilizers. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

The City of American Canyon Fire Protection District and Napa County Sheriff would be the first responders in the event of a train derailment or spill. Fire and police are trained in how to address hazardous materials spills or fires and in emergency evacuation procedures in the event of a major emergency.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be **less than significant.**

c) The proposed project site is located approximately 0.8 miles from Napa Junction Elementary School. Implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. A new elementary school is proposed across Commerce Blvd., approximately 0.25 miles southeast of the site. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant*.**

d) Given the historical use of the property for agricultural purposes, potential concern is noted regarding the possible use of pesticides, herbicides and fertilizers. If these materials were stored, used and applied according to industry standards, they should not have significantly impacted the property. Evidence of large-scale use or disposal of pesticides, herbicides or fertilizers, such as mixing tanks, chemical storage areas, sprayers, etc. was not observed on the property. Evidence for the overuse of these materials, such as stressed vegetation or soil discoloration was not observed. The property has not been used for agricultural purposes since sometime prior to 2012. Therefore, ATC concluded that the historical use of the property for agricultural purposes and any potential residual pesticides, herbicides and fertilizers in the property soil does not represent a recognized environmental condition to the property (ATC 2018).

The eastern portion of the overall Couch property, to the east of the project site, where some past contamination had been noted, is buffered from the project parcel by the unpaved extension of Commerce Blvd. and about 70 feet of utility easements. It is possible that methamphetamine labs operated in the eucalyptus groves in the area of the Couch Property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. The report by ATC did not note any stressed vegetation or soil staining at the 15-acre site of proposed development that would indicate a potential environmental condition from these chemicals of concern.

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the

review of regulatory agency database information. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a recognized environmental condition to the property.

The property is not listed within the Napa County Leaking Underground Storage Tank (LUST) database, and was not found in further database searches. However, Site Assessment was performed by Napa County in 1990 and the presence of underground storage tanks (USTs) was recorded (ATC 2018). The USTs are on the Eastern 40-acre parcel owned by the Couch Family. The property was reported to have three USTs sitting on the top of the ground in 2004, in an assessment by Environmental Science Associates. A Phase II soil investigation was conducted by Kleinfelder in July 2005, but groundwater sampling was not administered. The soil investigation found no hazards in concentrations above 2005 environmental screening levels except Chromium. The 130 milligrams per kilogram Chromium concentration is within new standards set by February 2016 environmental screening levels and thus constitutes a historical recognized environmental concern (ATC 2018). The current location of the USTs is unknown.

ATC concluded that a phase II soil investigation should be conducted; this is included in Mitigation Measure HZD-1. They also recommended a soil management plan be created; this recommendation is included in Mitigation Measure HZD-2. With implementation of mitigation measures HZD-1 and HZD-2 soil contamination is considered to represent ***a less than significant impact with mitigation***.

e) The Napa County Airport is located approximately 1.5 miles mile to the north of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the General Plan, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan, with a small part of the southern end of the site potentially in Zone E. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. Zone E is less restrictive, and allows all of the uses allowed in Zone D, plus certain additional uses.

Upon the City's approval of the project, an Avigation and Hazard Easement Deed extending over the whole of the property would be executed by the landowner and submitted to the Napa County Board of Supervisors for acceptance.

Therefore, the proposed project would not create aviation safety hazards for persons residing or working in the project vicinity, and impacts would be ***less than significant***.

f) The project is not located in the vicinity of a private airstrip. Therefore, there would ***be no impact*** associated with safety hazards from such airstrips.

g) The development of a wine warehouse on a 15.24-acre site at the end of Commerce Boulevard does not include any facilities or uses that would interfere with the City's emergency response or evacuation plans. The roadway extension would be developed per City standards. The project would be designed to facilitate emergency traffic through and around the site, in accordance with the City's Fire Protection District development standards. During construction, emergency routes would remain open and emergency response plans would not be affected. The impact would be ***less than significant.***

h) The project site is surrounded by parcels containing industrial and warehouse development, and open spaces with ruderal (weedy) vegetation, with marshlands to the West. These areas are not subject to wildlands fires. Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

There is a potential for the dry vegetation on this undeveloped site to catch fire during grading. Equipment could create sparks that would ignite vegetation. Standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire to a ***less-than significant*** level.

The American Canyon Fire Protection District would provide fire protection to the proposed project. The Fire District indicated in an email that mitigation fees would cover needs for fire services or facilities to serve the proposed project (Weeks 2018). For these reasons, the development of the proposed project would not expose persons or structures to wildland fire risks. Impacts would *be* ***less than significant***.

Mitigation Measures

Mitigation Measure HZD-1: Based on the fact that the locations of the former USTs on the eastern Couch parcel of land is unknown and the sampling done in the 2005 Kleinfelder Phase II soil investigation did not include groundwater sampling, the potential impacts from the USTs is a recognized environmental condition. Therefore, a Phase II soil investigation, including

groundwater sampling as applicable, shall be conducted, for the 15-acre proposed development site prior to approval of any building permits. All recommendations of that ESA shall be implemented as part of the project.

Mitigation Measure HZD-2: Following the Phase II ESA, a soil management plan shall be implemented. The plan would include contingencies for impacted areas. Also, if any septic systems and/or heating oil USTs are uncovered, they should be removed and disposed of per applicable regulations. In addition, if any wells are uncovered during development, it should be properly abandoned per applicable regulations

IX. Hydrology and Water Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

A Hydrology Report, and Stormwater Control Plan for the proposed project were prepared by RSA+ (2018a; 2018b). The project site is relatively flat with gentle slopes draining toward the west. Runoff from the property flows over the surface of the site to the west property line. Stormwater is ultimately conveyed to the Napa River (RSA+ 2018a). Downstream, the Napa River discharges into the San Pablo Bay through the Napa Sonoma Marsh.

a, c, d, f) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) Stormwater program to control Stormwater discharges, including those associated with construction activities. Authority for NPDES permitting has been delegated by the federal government to the California State Water Resources Control Board (SWRCB), which has nine regional boards; the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the project area, which is in Napa County. The NPDES Stormwater permitting program regulates Stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009DWQ). Development of the proposed project would require clearing ruderal vegetation and grading of the approximately 15.24-acre proposed development site. In addition, a new warehouse building, truck loading docks, and parking area would be constructed; landscaping would be installed; and bioretention facilities would be created. During construction activities there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's Stormwater system and local waterways. Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the proposed project also would require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. On-site portable toilets could leak or tip over and spill, releasing sanitary waste, bacteria, solids, nutrients, and pathogens. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would exceed the NPDES one-acre threshold; therefore, the project proponents would be required to comply with the CGP. The project applicant would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a less-than-significant level, as described in Mitigation Measure HYD-1.

As required under State Water Resources Control Board Order No. 2013-001 DWQ, the City of American Canyon requires regulated projects, such as this one to prepare a Stormwater Management Program (NPDES Permit No. CAS 612007). As one element of the program, the City requires regulated projects to address post construction stormwater quality. More specifically, the City of American Canyon requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP) in accordance with the Bay Area Stormwater Management Agencies Associated Post Construction Manual. The SWPC must include post-construction Stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWMP must also address ongoing maintenance of those facilities.

The project site currently has no impervious surfaces. Development of the proposed project would increase impervious surface coverage on the project site through construction of the warehouse building, parking areas, internal roadways and driveways, and sidewalks. The increase in impervious surface coverage would create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff transported to receiving waters. Runoff from the proposed landscaped areas may also contain residual pesticides and nutrients.

A Stormwater Control Plan has been prepared for the proposed project in accordance with the Bay Area Stormwater Management Agencies Association-Post Construction Manual. The proposed project would incorporate low impact development design strategies. A detention pond would be designed with biotreatment and constructed on the western property line of project site, and a vegetated swale would be installed along the south side of the proposed warehouse to convey flows from upstream off-site to downstream off-site. (RSA+ 2018b).

The project proposes to use recycled water for landscape irrigation. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. The City, as the purveyor of recycled water, is required

to comply with the State Water Resources Control Board's (SWRCB) General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water. Coverage under the State's General Waste Discharge Requirements (WDRs) for Recycled Water Use (Water Quality Order 2009-006-DWQ) is limited to treated municipal wastewater for non-potable uses. The General Permit establishes requirements to manage recycled water for landscape irrigation uses in a manner that is protective of public health and the environment. The City is responsible for overseeing the recycled water system and compliance with specific BMPs set forth by the SWRCB which include implementation of operations and a management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 1,000 gallons; proper design and operation of sprinkler heads; refraining from application during precipitation events; and management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater. In the event of an unauthorized discharge, the Executive Officer of the appropriate Regional Water Board shall be notified. In addition, as part of the site maintenance, the recycled water system is inspected monthly to verify there are no leaks or runoff from the landscaped area. The recycled water is managed by the City of American Canyon, and use of the recycled water by the proposed project would be a ***less-than-significant*** impact.

b) The proposed project would be served with potable water supplied by the City of American Canyon, and no additional groundwater wells or supplies would be required. Therefore, the proposed project would not contribute to depletion of groundwater supplies. The project's on-site drainage systems would consist of a detention pond and a vegetated detention swale. These features of the development would contribute to replenishing the groundwater supply. Therefore, the development of the proposed project would not interfere with groundwater recharge. As such, impacts would be ***less than significant***.

e) The proposed project's detention basin system would result in a net decrease in peak Stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 62.5 cubic feet per second (cfs) to 56.4 cfs with the proposed project. Potential impacts related to compliance with post-construction runoff would be would be reduced to ***less-than-significant*** with implementation of Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, which assure proper design, construction, and long-term maintenance of the Stormwater facilities.

g,h) The Federal Emergency Management Agency's Flood Insurance Rate Map No. 06055C0617F, Panel 617 out of 650 indicates that the project site is not located within a 100 year flood hazard area and is in an area of minimal flood hazard. Therefore, ***no impact*** would occur.

i) The project site is not located in a dam failure inundation zone, as depicted in the American Canyon General Plan (City of American Canyon 1994, as amended through January

2018). The project site is east of the Conn and Miliken Dams, Rector Reservoir, and Summit Reservoir inundation areas. The project site is not protected by any levees. These conditions preclude the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. Therefore, the proposed project would have ***no impact*** related to exposing people or structures to risks associated with levee or dam failure.

j) Seiches and tsunamis are seismically induced large waves of water. The project site is distant from any water bodies that could result in a seiche or tsunami. Similarly, mudflows are not a concern in this area of the City. Therefore, the proposed project would have ***no impact*** to future residents relative to inundation by seiche, tsunami or mudflow.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.

- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

Mitigation Measure HYD-5: The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

X. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

a) The project site is currently undeveloped open land covered mostly with ruderal vegetation, with some small wetland areas. The project is bounded on the north by open grassland. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove; on the south is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space, partially covered eucalyptus trees, and including horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 64-foot wide City Public Access and Utility Easement; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement (PUE); to the east of these easements is a 40-acre parcel owned by the Couch Family including a mobile home and various out-buildings, and a large commercial recreation facility (Paintball Jungle). Farther north on Commerce Blvd. are other warehouses similar to the proposed project. Farther south on Commerce is a residential neighborhood. A public school is proposed just southeast of the site, to the south of the paintball center, at the corner of Eucalyptus Drive and Commerce Blvd. The nearest established residential community is to the south of the proposed Commerce Blvd. extension, and would not be accessible via that extension. Therefore, the project would have no potential to divide any such community. Therefore, there would be ***no impact.***

b) The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). The General Plan describes typical

permitted used in the CR land use category as: *Recreation vehicle parks, interpretative nature centers and conference facilities, and similar uses*. (General Plan Land Use Element, Land Use Schedule Table, p. 1-9). The City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed SDG 330 Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan (email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018).

A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries and as a conditionally permitted use. The Zoning Ordinance defines "Winery" as including viticulture-related activities such as bottling, storage, logistics, distribution, wine packing, and wine-related services. Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19th, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit". The project is in compliance with the City's Zoning Code standards, with approval of a minor variation to height standards to allow a 37-foot height.

The following City General Plan land use policies applicable to the project are noted below.

Policy 1.2.2: Establish as a priority the development of projects that are contiguous with and infill the existing pattern of development, avoiding leap-frog development, except for large scale master-planned projects that are linked to and planned to be extensions of existing development and for which infrastructure and services are in place or funded.

> **Consistent:** The proposed project would be near the developed existing Green Island industrial/warehouse area. Although two open parcels would be created between the project and existing warehouses, it is likely that those would be similarly built out in the foreseeable future. Therefore, the project would be generally consistent with this policy.

Policy 1.3.4: Limit the total additional new development that can be accommodated in the City and its Urban Limit Line to the following provided that the highway improvements stipulated by the Circulation Element are implemented. Industrial development within the City is limited to 1,560,195 sq. ft., and within the Urban Limit Line the limit would be 5,778,500 sq. ft.

Policy 1.3.5 of the GP provides some flexibility in implementing Policy 1.3.4: Consider increases in development capacity when it can be demonstrated that additional transportation improvements have been implemented or are funded, or demands have

been reduced (based on highway level of service and vehicle trips), and such increases are consistent with community needs and desires. (I 1.9 and I 1.10)

Consistent: The project would contribute its fair share to traffic improvements that would assure that appropriate transportation improvements would be implemented. See Transportation/Traffic section of this IS for additional discussion.

Policy 1.22.3: 1.22.3 Permit development according to the following standards:
a. Labor-intensive uses: a maximum floor area ratio of 0.5.
b. Low labor uses (such as warehousing): a maximum floor area ratio of 0.7.

Consistent: The proposed project would have a floor area ratio of 0.498.

Policy 1.22.4: Require that development be designed to achieve a high level of quality and compatibility with existing uses including the consideration of the following:

1. architectural treatment of all building elevations;
2. use of extensive landscape along the primary street frontages and parking lots; and
3. enclosure of storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements. (I 1.1, I 1.4-I 1.7, I 1.11, and I 1.14)

Consistent: The project includes architectural treatments for consistency with nearby warehouse developments. It includes a landscape plan for the street frontages, site perimeter, and storage areas.

Policy 1.27.1: Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Plan (ALUP).

Consistent: The project site is located mostly within ALUP Compatibility Zone D; a small portion of the southern end of the site may be in Zone E (the ALUP Compatibility Map is of low resolution, and it is not possible to definitively determine the exact boundary of the two zones from that map). The proposed project use (warehousing) would comply with the conditions of the ALUP. Therefore, the project would be consistent with this policy.

Policy 1.27.2: Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.

Consistent: The proposed project site is mostly located within Zone D; a small part of the site may be in Zone E. Warehouse uses are permitted in these zones. In addition, the applicant proposes to place an Avigation Easement on the entire property. Therefore, the project would be consistent with this policy.

Policy 1.32.1: Require adherence to the *Design and Development Principles* prescribed in the General Plan and the City's Design Review Guidelines, which shall be updated periodically.

Consistent: The project has been designed to adhere to the *Design and Development Principles* prescribed in the General Plan as well as the City's Design Review Guidelines. Therefore, the project would be consistent with this policy.

Policy 1.32.2: Require that development projects subject to discretionary review submit and implement a landscape plan.

Consistent: Landscaping would be provided throughout the parking lot areas and along project site boundaries. Therefore, the project would be consistent with this policy.

Policy 1.32.4: Require developers to incorporate mature and specimen trees and other significant vegetation, which may exist on a site into the design of a development project for that site.

Consistent: The project includes a landscaping plan, which includes trees and other plants. There are no mature or specimen trees on the project site that can be incorporated as part of the project.

Policy 1.32.5: Require the use of drought-tolerant species in landscape design in accordance with the provisions of the Water Conservation and Landscape Act.

Consistent: Vegetative species included in the project landscape plan are generally native to California and are drought-tolerant where appropriate. Therefore, the project would be consistent with this policy.

Policy 1.32.6: Require that commercial, industrial, and multi-family residential development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.

Consistent: The proposed project would incorporate drought-conscious irrigation systems and maintain the health of the landscape consistent with Policy 1.32.6. Therefore, the project would be consistent with this policy.

Policy 1.32.7: Require that all commercial, industrial, multi-family, and common area landscape be adequately irrigated with automatic irrigation systems.

> **Consistent:** The proposed project would include the use of automatic irrigation systems. Therefore, the project would be consistent with this policy.

Policy 1.32.8: Promote the use of reclaimed water for the irrigation of public and private landscape, as available.

> **Consistent:** The proposed project would include an on-site irrigation system that would use recycled irrigation water. Therefore, the project would be consistent with this policy.

Policy 1.33.1: Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings.

> **Consistent:** The proposed project would be constructed in accordance with the City's building and other pertinent codes. Therefore, implementation of the proposed project would be consistent with this policy.

Policy 1.33.3: Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, and other pertinent elements.

> **Consistent:** The project would provide sufficient space for access, parking, and open space consistent with Policy 1.33.1. Therefore, the project would be consistent with this policy.

Policy 4.9.3: Require that sufficient and secure bicycle parking be provided in all parking areas.

> **Consistent:** Bicycle parking is provided as part of the project. Therefore, the project would be consistent with this policy.

Policy 5.5: In order to reduce light and glare, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) is designed using City engineering standards and/or Best Management Practices to prevent artificial lighting from illuminating adjacent private property in residential neighborhoods and/or natural areas. If isolated areas are identified as having excessive spillover post construction, specific mitigations shall be implemented, e.g. installation of glare shields.

Consistent: The proposed project includes lights in the parking lot and on the building. The lighting has been designed to minimize spillover light, per City requirements. A lighting study has been prepared by the applicant showing minimal spillover lighting.

Policy 6.4.1: Continue to implement an ordinance requiring built-in fire protection for most building types, including single- and multi-family residential, to:

- minimize the potential for loss of life and property
- allow for the provision of a high level of fire protection services while reducing the needs for additional staff and equipment.

Consistent: The proposed project would be constructed to meet City and State fire code requirements. The proposed project would not require additional fire staff or equipment.

Policy 6.9.2: Require that landscaping in proximity to commercial, industrial, multi-family, and public structures be sited to allow for security surveillance.

Consistent: Landscaping would be planted in accordance with City standards to allow for security surveillance.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

- Site Design
  - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
  - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
  - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
  - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas; and
  - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels.

Consistent: The proposed project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise).

Napa County Airport

The Napa County Airport Land Use Commission regulates land use around the Napa County Airport by requiring compliance with the Napa County Airport Land Use Compatibility Plan (NCALUCP). The City of American Canyon's General Plan and Zoning Ordinance were found to be consistent with the NCALUCP. The project is consistent with the City's General Plan. The project site is located in Zones D and E of the Airport's land use compatibility map, which permit development of warehouse uses. Please see a comprehensive discussion of this issue in response to Item VIII e), above.

The project has been designed consistent with all applicable City land use and planning documents adopted to avoid or mitigate an environmental effect, as discussed throughout this Initial Study. Therefore, the impact is ***less than significant*.**

c) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be ***no impact***.

XI. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a, b) The project site is designated Commercial Recreation in the City's General Plan and consists of a vacant parcel. The site is not identified in the City's General Plan as a site containing locally important mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources. The project does not propose to excavate the site for mineral resources; therefore, no impacts related to mineral resources would result from construction of the project. The project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources.

XII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Existing Noise Levels and Sensitive Receptors

Noise-sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) include residential developments, schools, health care facilities, and libraries. Noise-sensitive receptors in the project vicinity include single-family residences southeast of the project site, with the closest residence being approximately 900 feet away and partially shielded by a noise barrier.

To quantify existing ambient noise levels at the project site and surrounding area, one long-term (72-hour) and several short-term (10-minute) noise measurements were conducted at and near the project site. The long-term meter was placed on the southern edge of the project site, and measured existing 24-hour noise levels. The short-term measurements were conducted at several locations on the project site to measure traffic noise from Eucalyptus Drive and Highway 29, and noise from adjacent properties.

The main source of noise in the project vicinity is aircraft noise from Napa County Airport. Secondary noise sources included traffic on nearby roadways, trains and train whistles, and pedestrians at the adjacent wetlands. The noise measurements are summarized in Table Noise-1, below. The Noise Appendix (Appendix D) includes noise measurement site locations, 24-hour noise plots and additional sound level data.

Table Noise-1: Existing Noise Levels in the Project Area

Location	Time Period	Noise Levels (dB[5])	Noise Sources
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Tuesday July 31, 12:00 a.m. through Thursday August 2, 11:59 p.m., 2018 72-hour measurement	Hourly Leq[6]s ranged from: 42-54 Ldn[7] s: 51, 52, 52 Hourly Lmax[8]s ranged from: 48-73	Unattended noise measurements do not specifically identify noise sources
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Monday July 30, 2018 12:08-12:18 p.m.	5-minute Leqs: 43, 42 5-minute Lmaxs: 49, 43	Airplanes were up to 49 dB. Quieter noises included distant traffic, back-up beeps, and roosters.
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Friday August 3, 2018 10:45-10:55 a.m.	5-minute Leqs: 44, 46 5-minute Lmaxs: 54, 55	Airplanes were up to 55 dB. Distant traffic was up to 47 dB. Quieter noises included back-up beeps and voices from Spirit Horse Riding Center.
Site 2. Southeast corner of Eucalyptus	Monday July 30, 2018	5-minute Leqs: 48, 51	Heavy truck passing by was 66 dB. Noise from

[5] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report would be A-weighted unless noted otherwise.

[6] The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[7] Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[8] Lmax is the instantaneous maximum noise level for a specified period of time.

Location	Time Period	Noise Levels (dB[5])	Noise Sources
Drive and Wetlands Edge Road. 25 feet south of the Eucalyptus centerline.	10:56-11:06 a.m.	5-minute Lmaxs: 61, 66	summer camp activities was up to 62 dB. Cars passing by were 55-58 dB. Airplanes were 50-51 dB. Quieter noises included a distant motorcycle.
Site 2. Southeast corner of Eucalyptus Drive and Wetlands Edge Road. 25 feet south of the Eucalyptus centerline.	Friday August 3, 2018 11:37-11:47 a.m.	5-minute Leqs: 53, 56 5-minute Lmaxs: 69, 75	Mail truck passing by was 75 dB. Other cars were up to 68 dB. Airplanes were up to 55 dB. A distant motorcycle was 50 dB. Quieter noises included passing cyclists and pedestrians.
Site 3. Eastern edge of project site. 350 feet north of the southern property line.	Monday July 30, 2018 11:21-11:31 a.m.	5-minute Leqs: 44, 49 5-minute Lmaxs: 50, 62	Airplanes were up to 62 dB. Quieter noises included train whistles, roosters, and cows. The ambient noise level was approximately 40 dB.
Site 3. Eastern edge of project site. 350 feet north of the southern property line.	Friday August 3, 2018 11:20-11:30 a.m.	5-minute Leqs: 52, 44 5-minute Lmaxs: 67, 53	Airplanes were up to 63 dB. Passing cars were up to 56 dB. Distant traffic was up to 46 dB. Quieter noises included voices from Spirit Horse Riding Center and roosters.
Site 4. Northern area of project site. 350 feet west of the eastern property line and 460 feet north of the southern property line.	Monday July 30, 2018 11:40-11:50 a.m.	5-minute Leqs: 42, 43 5-minute Lmaxs: 49, 59	Wind was up to 49 dB. Distant traffic was up to 45 dB. Quieter noises included a distant airplane, back-up beeps, and roosters.
Site 4. Northern area of project site. 350 feet west of the eastern property line and 460 feet north of the southern property line.	Friday August 3, 2018 11:05-11:15 a.m.	5-minute Leqs: 43, 46 5-minute Lmaxs: 53, 59	Airplane was 58 dB. Quieter noises included traffic, back-up beeps, and voices from Spirit Horse Riding Center.
Site 5. Western edge of project site. 200 feet north of the southern property line.	Monday July 30, 2018 12:26-12:36 p.m.	5-minute Leqs: 42, 42 5-minute Lmaxs: 48, 51	Nearby birds were up to 51 dB. Airplanes were up to 45 dB. Quieter noises included a train whistle and distant traffic, as well as pedestrian voices from the Bay Trail.
Site 5. Western edge of project site. 200 feet north of the southern property line.	Friday August 3, 2018 10:26-10:36 a.m.	5-minute Leqs: 44, 46 5-minute Lmaxs: 63, 58	Airplanes were up to 57 dB. Distant motorcycles were up to 50 dB. Quieter noises included distant traffic and back-up beeps.

Source: RCH Group, 2018

Regulatory Framework

The City of American Canyon addresses construction noise in Section 8.12.080 of the American Canyon Municipal Code. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties would not exceed those listed in Table Noise-2.

Policy 11.7.1 of the City's General Plan Noise Element limits construction activities adjacent to noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m. The Noise Element also requires construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses (Policy 11.7.2). Policy 11.2.4 of The Noise Element requires new industrial, commercial and related land uses to demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65dB in areas containing housing, schools, health care facilities, or other noise-sensitive land uses.

Table Noise-2: Noise Limits for Construction Activities (Lmax).

Timeframe	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dB	80 dB	85 dB
Daily: 7 p.m. to 7 a.m.	60 dB	65 dB	70 dB

Source: American Canyon Municipal Code, Chapter 8.12

a, c, d) Construction and operational noise impacts are addressed below.

Construction Noise

The project could result in temporary, short-term increases in noise levels during project construction. Noise-sensitive receptors near the project site include single-family residences (to the southeast). Residents in those homes could experience short-term increases in noise levels during construction of the project.

The maximum noise levels for various types of construction equipment that would be required to build the project are provided in Table Noise-3, below. Maximum noise levels generated by construction equipment used for the project would range from 74 to 85 dB at a distance of 50 feet. Table Noise-4 shows the maximum estimated noise levels at the nearest residence that could occur during construction.

Table Noise-3: Typical Noise Levels from Construction Equipment (Lmax)

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Auger Drill Rig	84
Backhoe	78
Bulldozer	82
Compactor (ground)	83
Crane	81
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Slurry Trenching Machine	80
Tractor	84
Welder/Torch	74

Source: *Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide,* 2006.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	900	54
Warehouse construction	1,000	53

Note: Noise levels were estimated using a reference noise level of 85 dB at 50 feet and attenuation rate of 7.5 dB per doubling of distance due to soft-site conditions at the project site.
Source: RCH Group 2018

As shown in Table Noise-1, ambient noise levels at the nearest residence (Site 2) were measured to be 48 to 56 dB, Leq. As shown in Table Noise-4, grading and paving activities would take place approximately 900 feet from the nearest residence and would generate maximum noise levels of approximately 54dB. The construction of the warehouse would take place approximately 1,000 feet from the residence and would generate maximum noise levels of approximately 53dB. Noise levels would be lower than these estimates most of the time, and maximum levels would only occur for a short duration when the construction equipment is at its closest point to the residence. Thus, noise levels resulting from project construction would be consistent with the ambient noise levels at the nearest residence, and would be far below the 65dB noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code.

The implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce construction noise to the maximum extent feasible and would reduce impacts from temporary construction noise to ***less than significant with mitigation***.

Operational Noise

Operational noise from the project would include automobile and truck traffic travel to and from the site, loading dock activities, and parking lot activities. The warehouse building's cooling system would bring in cool night air with intake louvers and fans. Cooling equipment would be located greater than 1,000 feet from the nearest residence to the southeast and the noise from the operation of mechanical equipment would not be audible at the residence over ambient noise levels in the project vicinity.

Noise from parking lot activities would occur at the project site intermittently when warehouse employees arrive at the beginning of a shift and leave at the end of a shift. Representative parking activities such as employees conversing and doors slamming generate maximum noise levels of 60-70 dB at 50 feet (LSA Associates, 2012). The project includes parking spaces approximately 1,000 feet from the nearest residence to the southeast and, given this distance, parking lot noise would attenuate to a level far below ambient noise levels before reaching the residence.

The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Boulevard and Green Island Road. The existing average traffic noise levels measured at Commerce Boulevard (Site 3) were 44 to 52 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 559 trips per day during weekdays (OmniMeans, 2016) including employee and truck trips. With about ten percent of these trips occurring during the peak traffic hour, the project would result in less than one trip per minute on Commerce Boulevard. Project traffic would result in a less than 3 dB increase, and would have a minimal effect upon ambient noise levels in the project vicinity.

Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.

The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-

truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).

Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be ***less than significant***.

b) Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table Noise-6. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry building (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers that could be above 0.5 ppv). Project construction would involve the use of a roller and a bulldozer, which could produce vibration levels of 0.210 and 0.089 ppv at 25 feet. Ground vibration generated by construction operations would be primarily associated with on-site trucks and excavation equipment and would result in vibration levels of less than 0.1 ppv at 25 feet. Construction activities would occur as close as approximately 900 feet from the nearest structure and the predicted vibration levels at the nearest structure would not exceed the 0.5 ppv threshold for residential and commercial structures. Therefore, vibrational impacts would be ***less than significant***.

e) The project site is located in Zone D of the Napa County Airport Land Use Compatibility Plan. Warehousing is listed in the American Canyon General Plan Noise Element as one of the uses that is normally acceptable in this zone. The project would not exceed the maximum density specified in the General Plan for Zone D and would be consistent with the land use designation in the Airport Land Use Plan and the General Plan's airport vicinity land use

compatibility criteria. The project would not expose people working on the project site to excessive noise levels. This impact would be considered ***less than significant***.

f) The project site is not located within the vicinity of a private airstrip. There are no private airstrips located in the City of American Canyon or near the city limits. Therefore, ***no impact*** would occur relative to exposing people to excessive airport related noise levels due to proximity to a private airport or airstrip.

Mitigation Measures

Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m.

Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

XIII. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

a) The proposed warehouse development would not directly increase the population because there is no housing component, but it would introduce new businesses to the area. As part of the project, infrastructure at the site would be expanded. This infrastructure would include an approximately 1100-foot-long paved roadway extension and widening of an existing rock-surfaced road, water and sewer main tie-ins, a sewer lift station, gas line extension, storm drainage facilities, and recycled water service. These improvements would serve the proposed project and the two additional parcels to be created by the tentative map. The project subdivision could induce similar warehouse development on the two parcels to be created to the north of the site. However, the number of new employees at each of these facilities would be small, similar to the project's employment (50 full-time employees and up to 30 part-time employees). Therefore, this impact would be considered ***less than significant***.

b, c) The project site is currently vacant and development of the proposed project would not displace existing housing or people. Therefore, there would be ***no impact*** associated with displacements.

XIV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?			**X**	
d) Parks?				**X**
e) Other public facilities?				**X**

a) As a light industrial/warehouse development, the proposed project would not directly increase the residential population of the City of American Canyon. The General Plan for the City evaluated impacts related to increased industrial development (City of American Canyon. 1994, as amended through January 2018).

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The ACFPD's goal is to respond to 90 percent of their calls in five minutes or less. The response time from this fire station is around five minutes, but may be longer depending on traffic and other variables. Therefore, the proposed development may exceed the District's target response time. In 2017, the ACFPD responded to 94 incidents in the Green Island Industrial area. In 32 percent of the incidents, response time of the first fire vehicle was within five minutes to this area. In 2013 the ACFPD and the City of American Canyon installed an emergency-vehicle-only left-turn lane onto Green Island Road from SR29 to improve access and response times for emergency vehicles into the industrial area (Weeks 2018, email correspondence).

The City covers needs for fire service and facilities through two different fees. The first fee, a Fire Mitigation Fee is a one-time assessment of new development, which is currently $0.5279 per square foot for industrial properties. The second fee is the Fire Service Fee, which is an annual assessment for each parcel based on a formula which includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. The ACFPD many need additional resources to address increased call volume and fire flow needed for the proposed project in the form of

additional facilities, apparatus, and staffing. With payment of the required Fire Service Fee, this impact would be reduced to a ***less-than-significant*** level (Weeks 2018).

b) The City of American Canyon contracts with the Napa County Sheriff's Department for staffing the American Canyon Police Department to provide police services. The California Highway Patrol is responsible for traffic related enforcement. The police headquarters are located at 911 Donaldson Way East, which is the same location as the fire district, approximately 2.1 miles from the project site. The Police Department has a force of 24 full-time sworn officers, two police technicians, and an administrative clerk (City of American Canyon 2018d).

Staff and equipment required to provide service to the proposed project would depend on the occupants of the industrial buildings. The Police Department generally does not require additional police personnel for warehouse projects. Such businesses typically provide some self-monitoring, such as video cameras in parking lots, which reduces police calls. The applicant would be responsible for mitigation/impact fees for the police station in accordance with the City of American Canyon's Mitigation Impact Fee schedule (City of American Canyon 2018b). With payment of the Mitigation Fee, the project would result in a ***less-than-significant impact*** on the City's police services.

c) The City of American Canyon is within the Napa Valley Unified School District (NVUSD). The proposed project would not affect schools, parks or other public facilities because this warehouse project would not directly increase the population. However, industrial developments in the City of American Canyon are required to pay school fees and a Civic Facilities Fee, in accordance with the City's Master Fee Schedule. With payment of the mitigation fees this potential impact would *be* ***less than significant***.

d) The proposed industrial project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. Pursuant to the City's General Plan Policy 7.1.1, the City has a minimum parkland standard of 5.0 acres per 1,000 residents. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore, the project would have ***no impacts*** to parks and recreation facilities**.**

e) No other public facilities would be required by the proposed project. Therefore, Therefore, the project would have ***no impacts*** to any such facilities**.**

XV. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

a, b) The proposed warehouse project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. The project would be on land designated for recreation, but would not affect any such uses or facilities. Therefore the project would have ***no impact*** to recreational facilities.

XVI. Transportation/Traffic

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X		
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?		X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

a, b) **Background/Existing Conditions**

A traffic analysis was conducted for the overall Green Island Road area, including Commerce Blvd, by Omni Means Engineering Solutions (Omni Means) in January 2016[9], and has been reviewed for adequacy by the City Public Works Department. It should be noted that the study did not include the Commerce 330 project, but did include all of the potentially affected intersections. A follow-up focused traffic analysis addressing the proposed project's impacts on the Green Island Road/Commerce Boulevard intersection was prepared by GHD on October 24, 2018[10]. That report found that the existing Levels of Service (LOS) at the Green Island Road/Commerce Boulevard intersection are LOS A in the morning peak hour and LOS B in the afternoon peak hour.

The 2016 Transportation Impact Analysis evaluated future conditions with and without the project. Consistent with the Napa Logistics Park Phase 2 Project Draft EIR the following projects were included in the analysis:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase I
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

The analysis showed that conditions at SR 29 and Green Island Road would drop from the current LOS C to LOS D in the AM peak hour. All other studied intersection operations would be at LOS B or C. No operations would be below LOS D.

[9] Omni Means Engineering Solutions, American Canyon Wine Warehouse Transportation Impact Analysis Report, January 2016.
[10] GHD, Traffic Impact Analysis Memorandum, 330 Commerce Boulevard Wine Storage Facility Project, October 24, 2018.

Table Traffic-1: Projected Background Conditions: Intersection Level of Service

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Paoli Loop Rd/Green Island Rd	TWSC	D	18.9	C	17.9	C
2	State Route 29 SB/Green Island Rd	On Ramp	D	15.5	B	28.2	D
3	State Route 29 NB/Paoli Loop Rd	On Ramp	D	28.2	D	18.3	C
Notes:							
1. TWSC = Two Way Stop Control							
2. LOS = Delay based on worst minor street approach for TWSC intersections							
3. Intersection was analyzed using HCS 2000 software instead of Synchro. This software was chosen because it can more accurately perform a merge analysis. This analysis is required for this intersection due to the ramp-style right-turn only configuration of this intersection. Intersection vehicle/capacity delay has been supplanted by a density measure.							

Source: Omni Means, January 2016

Project Impact

Existing Plus Project Conditions

To determine project trip generation, data were collected and analyzed for daily trips at seven locations with similar wine warehouse buildings (Omni Means, June 21, 2016; GHD, October 24, 2018). The seven study locations have an average of 1.54 daily trips per thousand square feet (ksf). Eliminating one outlier project, the remaining six projects resulted in an average of 1.69 daily trips/ksf. The project's traffic demands would be substantially similar to those that are currently found in the Green Island Industrial Park, and specifically, similar to those found on Hanna Drive and Commerce Boulevard. Based on traffic counts and peer reviewed studies of traffic in Green Island Industrial Park, the proposed project would be expected to contribute a total of 559 daily project trips with 53 trips in the AM peak hour and 43 trips in the PM peak hour (Onmi Means 2016; GHD 2018).

The City of American Canyon has identified a need for roadway improvements along Green Island Road. The City has proposed an expansion of the roadway by approximately 12 feet, making it a three-lane section to accommodate a two-way left turn lane down the center of Green Island Road. The applicant would be required to pay the City's Transportation Impact Fee. The project's impact on traffic on Green Island Road and associated intersections would therefore be ***less than significant***.

The 2018 GHD report evaluated turn pocket and traffic signal warrants for the intersection of Commerce and Green Island Road. That report projected no change from the existing LOS in either the AM or PM peak hour at the Green Island Road/Commerce Boulevard intersection. The intersection would continue to operate acceptably.

The Green Island Road/Commerce Boulevard intersection also has been evaluated for northbound right-turn movements and an exclusive right-turn lane. Based on existing peak hour count data at the intersection, the vast majority of turning movements from northbound Commerce Boulevard onto Green Island Road are right-turn movements (29 AM right-turns and 168 PM right-turns). With proposed project traffic, these movements are expected to increase to 49 AM right-turns and 195 PM right-turns. Essentially, the northbound approach lane of Commerce Boulevard at Green Island Road is functioning as an exclusive right-turn lane under existing conditions given the very low northbound left-turn movements at the intersection.

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane would be warranted at the intersection based on an overall approach volume of 207 vehicles (PM peak hour worst-case) and a projected northbound right-turn movement of 195 vehicles. Mitigation Measure TRA-1 would address this issue and reduce this impact to a ***less-than-significant level***.

The Green Island Road/Commerce Boulevard intersection was also evaluated for traffic signal control warrants with Existing and Existing Plus Project Conditions. The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants with Existing and Existing Plus Project Conditions. The CaMUTCD manual identifies up to nine warrants which can be used and states that "An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location"[11]. However, the manual goes on to state that "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated." The manual recommends engineering judgment should ultimately be used when deciding the appropriateness of signal controls.

Six of the nine warrants were evaluated (three warrants concerning coordinated signal system, roadway network, and railroad crossing locations were not relevant). There are three warrants based on vehicle volumes and none of the three are met with Existing Plus Project Volumes. These include the “peak hour volume,” “8-hour volume,” and “4-hour volume” warrants. Overall hourly approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

[11] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 3 (March 9, 2018).

Two warrants are based on pedestrian crossing volumes ("pedestrian volumes" and "adequate gaps" for pedestrians) which were applied to the pedestrian volumes in the area. However, while there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road; there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard are very light. During the AM and PM peak period only two pedestrians were observed and only one pedestrian crossed north-south on Green Island Road (jay-walked). Therefore, no pedestrian warrants are met at this time.

Finally, an accident search history was conducted for the Green Island Road/Commerce Boulevard intersection based on the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for last three calendar years (2015-2017). The crash experience warrant requires at least five accidents at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). Based on the accident search history for the last three full calendar years; the Green Island Road/Commerce Boulevard intersection does not experience significant vehicle conflicts (0 recorded accidents).

Cumulative Development Plus Project Conditions

The 2018 GHD report evaluated cumulative-plus-project conditions for the intersection of Commerce and Green Island Road. That report projected the AM and PM LOSs at the Green Island Road/Commerce Boulevard intersection would decline from A to C and B to D, respectively. Even with this decline, the intersection would continue to operate at acceptable LOSs, given the City's minimum acceptable LOS of D.

Impacts After Mitigation

With Mitigation TRA-1, which recommends installation of a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under Existing Plus Project and Cumulative Plus Project conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (11.2 seconds) to LOS B (10.3 seconds) with Existing Plus Project conditions. Under Cumulative Plus Project conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds). Therefore all intersection impacts would be reduced to a ***less-than-significant level with mitigation***.

c) The Napa County Airport is located approximately one mile northwest of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County 1991, revised 1999) identifies a series of zones

with associated recommendations in relation to the proximity to aircraft over-flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the ALUCP, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. A small portion of the site may be in Zone E, which is less restrictive than Zone D, and would allow the proposed project use.

Upon the City's approval of the project, an Avigation and Hazard Easement Deed extending over the whole of the property would be executed by the landowner and submitted to the Napa County Board of Supervisors for acceptance.

Therefore, the proposed project would not create aviation safety hazards for air traffic. Impacts would be ***less than significant***.

d, e) The project circulation plan is in compliance with standard traffic design standards and would not present any traffic hazards. The project's location at the end of Commerce Blvd. assures that traffic into and out of the site would not conflict with any other traffic movements. Internal circulation within the proposed project's parking and loading dock areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. A truck turn-around area is included in the internal circulation plan. The project design does not include any features that would create a hazardous condition. A sidewalk would be built along the project site's Commerce Road frontage. Impacts of the proposed project would be ***less than significant***.

The circulation plan has been designed to allow 40-foot fire trucks to access all sides of the building. The access point to the project site from Commerce Blvd. would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

A total of 189 car and 32 truck dock parking spaces will be provided for the building. Of these parking stalls, 6 will be designated for handicap access with 3 stalls designated for van accessibility and 10 stalls for Clean Air Vehicle parking. The building will have a total of 32 truck loading docks. The developer will construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress will be provided around the full perimeter of the building.

The City of Napa Fire Department, who conducts plan check and inspection for the American Canyon Fire Department, has reviewed and approved the single access design. Semi-trucks would not be allowed on the east, west and south sides of the Building. Only cars and Fire trucks would be allowed. Signage and the truck turnaround at the west end of the truck docks would assure these limitations on truck access are implemented. The City Engineering Department has also reviewed the single access design with the applicant and has no comments.

f) The City of American Canyon and Napa County adopted a Bicycle Plan in 2012 (City of American Canyon and Napa County Transportation and Planning Agency, American Canyon Bicycle Plan, January 2012). That plan (Figure 1) shows a proposed Primary Class II Bicycle Route and Class II Bike Lane on Green Island Road connecting to other areas of the City to the east and wetland and open space areas to the west and south.

The proposed project has been designed to encourage and support public transit as well as bicycle and pedestrian access to the site. Each end of the building will have a bike rack to accommodate up to 4 bicycles, 1 more than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

The site plan and nearby off-site improvements appear to be compatible with walking, bicycling, and transit use and do not appear to create additional conflicts with intersections, streets, and highways near the site. Therefore, the project would not conflict with any adopted plans, policies or programs that address alternative transportation and this impact would be ***less than significant***.

Mitigation Measures

Mitigation Measure TRA-1: As described above, Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-stripeing northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 4.2% (43 trips / 1,019 cumulative volumes—PM peak hour).

XVII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				X
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significar pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) I, ii. A Sacred Lands File search and SB-52 contact information request was forwarded to the Native American Heritage Commission (NAHC) on behalf of the City. The NAHC stated that there were no Tribal Cultural Resources (TCRs) or other potentially significant properties known to be present within or in the vicinity of the project area. In collaboration with the City, SAS contacted four tribal representatives per NAHC recommendations:

Charlie Wright, Chairperson (Cortina Rancheria – Klestal Dehe Band of Wintun Indians)

Jose Simon III, Chairperson (Middletown Rancheria)

Scott Gabaldon, Chairperson (Mishewal-Wappo Tribe of Alexander Valley)

Anthony Roberts, Chairperson (Yocha Dehe Wintun Nation)

Based on input from several of the above-listed individuals, additional contacts were made with Ms. Sally Peterson (Tribal Vice-Chair – Middletown Rancheria), and Mr. Raymond Rouse (GIS Specialist – Yocha Dehe Wintun Nation (Yocha Dehe). None of the initial contacts or subsequent contacts resulted in the identification of any TCRs or other culturally sensitive properties or locations in or near the project area. However, Ms. Peterson did request to be contacted if any Native American cultural resources were encountered during project implementation. Mr. Rouse stated that the Yocha Dehe would like to receive a copy of the final cultural resources report prepared for the project and requested that a specialist from the tribe provide archaeological/cultural sensitivity training to project construction crews.

Archival research, coordination with the NAHC, an archaeological field survey, and outreach to the Native American community did not result in the identification of any TCRs within or near the project area. Consequently, the project would have ***no impact*** on Tribal Cultural Resources

XVII. Utilities and Service Systems

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		X		
e) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

This analysis is based on the City of American Canyon Will Serve Water Application for the project dated June 08, 2018 (City of American Canyon 2018a).

a ,b, e) The City of American Canyon would provide wastewater collection, treatment, and disposal services for the proposed project. Wastewater from the City's service area is

treated at the American Canyon Wastewater Treatment Plant on Mezzetta Court. This secondary/tertiary treatment plant handles domestic and industrial wastewater flows, and employs a Membrane Bio Reactor and ultraviolet light disinfection to produce a very high-quality effluent exceeding the standards set by the discharge permit (City of American Canyon 2017, 2018c). The facility, which was commissioned in 2002, has the capacity to treat 2.5 mgd with a 5.0 mgd wet weather peak flow. American Canyon's current average dry and wet weather daily flows are estimated at 1.3 and 2.7 million gallons, respectively. These daily flow amounts represent 52 percent and 54 percent of the treatment plant's design capacities (Ambrose, email communication). The proposed project would have an estimated domestic sewer demand of 0.37 AFY (275 gallons/day average), or peak sewer demand of 9,106 gallons per day, which would be less than 0.7% of plant capacity. The domestic sewer demand exceeds potable water demand because a portion of the wastewater would be reclaimed water used for toilets and urinals.

To the south of the treatment plant, 20 acres of constructed wetlands hold effluent from the wastewater plant prior to discharge into the Napa River, which has been designated by the regional Water Quality Control Board (RWQCB) as an impaired waterway. During the wet season from November 1 through April 30, effluent is discharged to North Slough, a tributary to the Napa River. Effluent can be discharged to constructed freshwater wetlands all year round, which eventually overflows to the North Slough. Year round, a portion of the effluent is reclaimed for irrigation (currently approximately 200 AFY). No large spills have been reported from this plant since 2007 (Steve Moore, City of American Canyon Water System Manager, personal communications August 7, 2018).

Discharge volumes of wastewater to the Napa River have been reduced by a wastewater reclamation and recycled water project implemented by the City. Approximately 87 percent of the effluent from the wastewater treatment plant is diverted to the constructed wetlands and the remaining 13 percent is available as recycled water for industrial, agricultural, landscaping, and other uses. The system continues to expand as new recycled lines added and new users are connected. The Wastewater Treatment Plant complies with the California Department of Public Health requirements for tertiary recycled water (California Department of Public Health 2009).

A six-inch sanitary sewer line will connect three office locations within the warehouse to a sewer pump lift station located near the northeast corner of the building tying into the existing City sewer main line in the Commerce Blvd extension.

The proposed project's domestic discharge (no industrial discharge is proposed) would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater treatment facilities or expansion or upsizing of existing facilities. Therefore this impact would be ***less than significant.***

c) Stormwater runoff from the project site would be directed through natural surficial flow and a bioswale into a detention pond that would be constructed as part of the proposed project.

The proposed project would result in a net decrease in peak Stormwater (100-year, 24-hour storm event) runoff rates from the exiting 62.96 cubic feet per second (cfs) to the proposed project's peak runoff rate of 56.40 cfs from the site. New storm drainage facilities are described in IX Hydrology and Water Quality section based on a Hydrology Report (RSA 2018a), and Stormwater Control Plan (RSA 2018b) that were written for the proposed project. With the project's proposed storm drainage/detention facilities and Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, the impact from storm water facilities would be reduced to a ***less-than-significant*** level.

d) The City of American Canyon would provide water service to the site. The City receives water from the following sources:

- State Water Project (SWP);
- Permit (raw) water from the City of Vallejo;
- Treated water from the City of Vallejo;
- Emergency (raw) water from the City of Vallejo, and
- Recycled water from the City of American Canyon's wastewater treatment plant and Napa Sanitation District (City of American Canyon 2016a).

The amount of water delivered to the City of American Canyon from each of these sources can vary from year to year. For instance, deliveries from the SWP have varied between five percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount (City of American Canyon 2016a).

The City of American Canyon has two water treatment plants: a conventional sedimentation and filtration plant that was commissioned in 1976 and a membrane filtration plant, which has pores small enough to filter out contaminants, such as microorganisms, and that has been in use since 2004 (City of American Canyon 2016a). The proposed project's water demand of 1.84 AFY (0.30 AFY domestic and 1.54 AFY reclaimed interior and landscaping) could be handled by the existing water treatment plants.

California Water Code requires that water purveyors, such as the City of American Canyon, develop an Urban Water Management Plan (UWMP) and update it every five years. The City's Urban Water Management Plan of 2015 estimated an available year 2020 water supply of 5287 AFY, and a demand of 4412 AFY. (City of American Canyon 2015).

The Public Works Department of the City of American Canyon manages the City's water supply. As required by the City, the applicant submitted a Will-Serve Water Application to the Public Works Department for the proposed project. A Water Supply Report would be required by the City in accordance with the City's Methodology for Determining Zero Water Footprint and Developing Water Supply Reports. That report would address how water demand would

be offset and/or whether a payment of in lieu fee towards citywide water demand reduction would be acceptable to the City.

Based on the potable and reclaimed water use at the 718,000 square-foot Hanna Court wine storage warehouses at 644 and 677 Hanna Drive, approximately 1,700 feet south of the project site, the proposed project is estimated to use .308 AFY of domestic (potable) water. This is three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 275 gpd for the proposed warehouse).

Domestic water would be limited to drinking fountains, sinks, and dishwashers, if any. Most of the water required for the proposed project would be reclaimed water (1.54 AFY), which would be used for landscape irrigation, toilets and urinals. Peak domestic water demand would be 692 gpd and peak reclaimed water demand would be 8,415 gpd (Stravinski Development Group 2018). Implementation of Mitigation Measures UTIL-1 through UTIL-5, below would reduce the project impacts to *a* ***less-than-significant*** level.

f, g) During project construction and operation, the project would generate solid waste requiring disposal. Recology American Canyon provides solid waste and recycling collection services to the commercial and residential customers in American Canyon. Solid waste from American Canyon is delivered by Recology American Canyon to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. The transfer station is permitted to receive 1,440 tons of waste per day. From the Devlin Road Transfer Station, solid waste is sent to Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill has a maximum daily throughput of 3,500 tons/day and remaining capacity of 63.4 million cubic yards, which is 84 percent of the landfill's maximum permitted capacity. The anticipated closure date for the landfill is 2030 (CalRecycle 2018). Construction and demolition waste accepted at Keller Canyon Landfill is sorted for recyclable material, such as wood, plastics, and metal, which further helps to alleviate the amount of solid waste going to the landfill. Approximately 3-5 tons a month of reusable items are pulled aside and sent to St. Vincent de Paul in Eugene, Oregon (Napa Recycling and Waste Services 2018). The City of American Canyon is currently meeting its disposal rate waste diversion targets (CalRecycle 2018).

The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon.

Green waste from landscape maintenance is minimal because there are no cultivated grass areas that would need to be mowed. Green wastes would be removed from the site. Natural areas would be left in their native state. If required for fire abatement purposes,

high weeds would be cut and left to decompose on-site (Stravinski Development Group LLC 2018). Solid waste impacts would be ***less than significant***.

Mitigation Measures

Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

- Reducing existing potable water demands onsite
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
- Purchase new water supplies from other water providers

Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.

Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

- Drought-resistant vegetation
- Irrigation systems employing the following features:
  - Drip irrigation
  - Low-precipitation-rate sprinklers

  - Bubbler/soaker systems
  - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
  - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
  - Conservative sprinkler spacings that minimize overspray onto paved surfaces
  - Hydrozones that keep plants with similar water needs in the same irrigation zone
- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

V. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) The proposed project could affect special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. Although the site does not contain any known historic resources or prehistoric resources, unknown resources could potentially be affected by project implementation, as discussed above in Section V. Cultural Resources. Compliance with the mitigation measures for the unearthing of any unknown cultural resources as well as mitigation required for biological resources would ensure all potential impacts associated with biological and cultural resources would be reduced to ***less than significant***.

b) The proposed project would not result in cumulative impacts that could be cumulatively considerable and potentially affect the general public and the environment. No major new

projects are currently proposed with access to Commerce Blvd. or Green Island Road (City of American Canyon, Active Planning Projects, July 2018). A new elementary school is proposed just southeast of the site at Commerce Blvd. and Eucalyptus Road. That project is in the CEQA review process. The only other large project planned is an approximately 500,000 sq. ft. warehouse project at SR 29 and S. Kelly Road, near the Napa Airport, about a mile north of the site. A conditional use application for outdoor vehicle storage at 834 Green Island Road. It is unlikely that impacts of those projects other than the school would overlap those of this project, with the exception of regional air quality (addressed in this IS) and traffic along SR 29, which is addressed in the City's General Plan. It is possible that construction impacts from the new school could overlap those of the proposed project, however they are likely to be accessed from opposite ends of Commerce Boulevard, so overlap of noise and traffic would be minimal. The cumulative effects of the proposed project would therefore be ***less than significant*.**

It is possible that the two additional parcels to be created by the proposed tentative map would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, and air quality impacts of the proposed project. No projects are currently proposed for those sites, therefore assessment of those impacts would be speculative at this time. Environmental review of those project would be required to also consider the proposed project, if approved.

c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. Hazards associated with any soil contamination would be mitigated on site. The project's hazards would be less than significant, as described in Section VIII of this IS. The impact is considered ***less than significant*.**

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Appendix A

Air Quality Model Output Data

Appendix A

Air Quality and GHG Emissions Data and Supporting Information

A-1: Air Quality Setting

A-2: Air Quality Calculations

A-3: CalEEMod Output Files

A-4: Greenhouse Gas Setting

Appendix A-1

Air Quality Setting and Regulatory Context

The project site is located within the San Francisco Bay Area Air Basin (Air Basin), which encompasses Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties. The Air Basin is characterized by complex terrain which distorts normal wind flow patterns, consisting of coastal mountain ranges, inland valleys, and bays.

Regional Meteorology

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, stability, and air temperature, in combination with local surface topography (i.e., geographic features such as mountains, valleys, and San Francisco Bay), determine the effect of air pollutant emissions on local air quality.

The climate of the greater San Francisco Bay Area, including Napa County, is a Mediterranean-type climate characterized by warm, dry summers and mild, wet winters. The climate is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. In winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, air emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as sulfates and nitrates.

The proposed project site lies in the Napa Valley climatological sub-region of the Bay Area. The Napa Valley is between the Mayacamas Mountains to the west and the Vaca Mountains to the east. These mountains, with an average ridge line height of about 2,000 feet, are effective barriers to the prevailing northwesterlies. The valley is 27 miles long with Napa and Calistoga defining its southern and northern ends, respectively.[1]

An upvalley wind frequently develops during warm summer afternoons drawing from air flowing through the San Pablo Bay. During the evening, especially in the winter, downvalley drainage flow can occur. The prevailing winds are upvalley, southwest through south southeasterly, and occur approximately 50 percent of the time. The second most common winds are down valley drainage winds, north northwesterly through northeasterly, which occur approximately 25 percent of the time. Wind speeds are low with almost 50 percent of the winds between calm and four miles per hour (mph) and an average speed of about five mph. Only five

[1] BAAQMD. Climate, Physiography, And Air Pollution Potential – Bay Area and Its Subregions http://hank.baaqmd.gov/dst/papers/bay_area_climate.pdf

percent of the winds are between 16 and 18 mph which represent strong summer time up valley winds and winter storm winds. Summer average maximum temperatures at the southern end of the valley are in the low 80's with extremes in the high 80's, and at the northern end are in the low 90's with extremes in the high 90's. Winter high temperatures are in the high 50's and low 60's with low temperatures in the high to mid-30's. Sunshine is plentiful and annual average precipitation is 24 inches at Napa.

Summer and fall prevailing winds can transport non-local and locally generated ozone precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows setup by the surrounding mountains may also recirculate pollutants adding to the total burden. Also, the high frequency of light winds and associated stable conditions during the late fall and winter, contributes to the buildup of particulates and carbon monoxide (CO) from automobiles, agricultural burning, and fireplace burning.

Local Air Quality

The Bay Area Air Quality Management District (BAAQMD) maintains a network of monitoring stations within the Air Basin that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to and most representative of the project site is in Napa (Jefferson Street), approximately ten miles north of the proposed project site; where levels of ozone (O_3), particulate matter less than 10 micrometers (coarse or PM10), particulate matter less than 2.5 micrometers (fine or PM2.5), CO, and nitrogen dioxide (NO_2) are recorded.

Table A-1 summarizes the most recent three years of data (2015 through 2017) from the Napa air monitoring station. The federal PM2.5 standard was exceeded once in 2015. No State or federal standards were exceeded in 2016. The State ozone standard (24-hour) was exceeded once in 2017 and the federal ozone standard (8-hour) was exceeded twice in 2017. The federal PM2.5 standard was exceeded 13 times in 2017. No other State or federal air quality standards were exceeded during the three-year period.

The Bay Area is currently designated “nonattainment” for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Bay Area is designated “attainment” or “unclassifiable” with respect to the other ambient air quality standards.

Table A–1
Air Quality Data Summary (2015 through 2017)

Pollutant	Standard[a]	Monitoring Data by Year 2015	2016	2017
Ozone				
Highest 1 Hour Average (ppm)[b]	0.09	0.079	0.080	**0.098**
Days over State Standard		0	0	**1**
Highest 8 Hour Average (ppm)[b]	0.070	0.069	0.067	**0.084**
Days over National Standard		0	0	**2**
Nitrogen Dioxide (NO_2)				
Highest 1 Hour Average (ppm)[b]	0.180	0.043	0.039	0.053
Days over State Standard		0	0	0
Annual Average ($\mu g/m^3$)[b]	0.030/0.053	0.008	0.007	0.007
Carbon Monoxide (CO)				
Highest 1 Hour Average (ppm)[b]	9.0	3.3	2.2	5.6
Days over State Standard		0	0	0
Highest 8 Hour Average (ppm)[b]	20	1.6	1.5	4.7
Days over State Standard		0	0	0
Coarse Particulate Matter (PM10)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	50	50	33	--
Days over State Standard		0	0	0
State Annual Average ($\mu g/m^3$)[b]	20	18.6	16.6	--
Fine Particulate Matter (PM2.5)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	35	**38.2**	24.3	**199.1**
Days over National Standard		**1**	0	**13**
State Annual Average ($\mu g/m^3$)[b]	12	10.6	8.5	**13.7**

*NOTES: Values in **bold** are in excess of at least one applicable standard.*
Generally, state standards and national standards are not to be exceeded more than once per year.
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. A "—" denotes no information available.

Source: BAAQMD, Air Quality Summary Reports, April 17, 2018. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for

CARB's diesel regulations. Overall, cancer risk from toxic air contaminants (TAC) dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[2]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

The proposed project is within the city of American Canyon, which is not part of the seven CARE program impacted communities in the Bay Area. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, is approximately 160 cancer risk per million persons, while in American Canyon, the health impact is approximately 98 cancer risk per million persons.[3]

Nearby Sensitive Receptors

BAAQMD considers the relevant zone of influence for an assessment of air quality health risks to be within 1,000 feet of a project site. The project site is generally bound by open land to the north, a eucalyptus tree grove to the west, Clarke Ranch West Open Space to the south and a 64-foot wide City Public Access and Utility Easement to the east, with a mobile home and various sheds farther east. A residential neighborhood is approximately 900 feet southeast of the southern project site boundary. There are no schools or daycare centers within 1,000 feet of the proposed project.

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2 BAAQMD. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective & Path Forward (2004 – 2013). April 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

3 BAAQMD. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Air Quality Significance Thresholds

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G, and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant air quality impacts if it were to:

A. Conflict with or obstruct implementation of the applicable air quality plan;

B. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

C. Expose sensitive receptors to substantial pollutant concentrations;

D. Create objectionable odors affecting a substantial number of people; or

E. Result in a cumulatively considerable net increase of any nonattainment pollutant, and/or health impacts (including releasing emissions that exceed quantitative thresholds for ozone precursors).

The air quality analysis follows the methodology presented in the BAAQMD 2017 CEQA Guidelines. The thresholds of significance applied to assess project-level air quality impacts are:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10;
- Average daily operation emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM2.5 or 15 tons per year of PM10;
- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers; or
- Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Assessment of a significant cumulative impact if it would result in:

- Exposure of persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs during either construction or operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 $\mu g/m^3$.

The BAAQMD air quality significance thresholds are found in **Table A-2**.

The BAAQMD *CEQA Air Quality Guidelines* identify a project-specific threshold of either 1,100 metric tons of carbon dioxide equivalent (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with

a new development), which is also considered a cumulatively considerable contribution to the global GHG burden and, therefore, a significant cumulative impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion to proposed project GHG emissions.

Table A–2

BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Daily Operational Thresholds	Annual Operational Thresholds
Criteria Air Pollutants			
Reactive Organic Compounds (ROG)	54	54	10
Nitrogen Oxides (NOx)	54	54	10
Coarse Particulate matter (PM10)	82	82	15
Fine Particulate Matter (PM2.5)	54	54	10
Carbon Monoxide (CO)	NA	9.0 ppm (8-hour) and 20.0 ppm (1-hour)	
Fugitive Dust	Best Management Practices	NA	
Project Health Risk and Hazards			
Excess Cancer Risk	10 per million	10 per million	
Chronic Hazard Index	1.0	1.0	
Acute Hazard Index	1.0	1.0	
Incremental Annual Average PM2.5	0.3 μg/m^3	0.3 μg/m^3	
Cumulative Health Risk and Hazards			
Excess Cancer Risk	100 per million	100 per million	
Chronic Hazard Index	10.0	10.0	
Acute Hazard Index	10.0	10.0	
Incremental Annual Average PM2.5	0.8 μg/m^3	0.8 μg/m^3	
Greenhouse Gas Emissions			
Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		

SOURCE: BAAQMD *2017 CEQA Guidelines*

Appendix A-2

Air Quality Calculations

Construction Activities

Construction activities are expected to commence in October 2018 with site preparation and grading. Building construction would follow and paving and coating would occur during the summer of 2018. The proposed project would be constructed in a single phase estimated to require approximately ten months. **Table AQ-3** provides the estimated construction schedule for each phase: site preparation, grading, building construction, paving, and coating.

Table AQ–3

Estimated Construction Schedule

Phase	Description	Start	End	Working Days
1	Site Preparation	10/15/2018	10/19/2018	5
2	Grading	10/20/2018	11/16/2018	20
3	Building Construction	11/17/2018	7/26/2019	180
4	Paving	7/27/2018	8/23/2019	20
5	Architectural Coating	8/24/2018	9/6/2019	10

SOURCE: CalEEMod Version 2016.3.2.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. CalEEMod output worksheets are included in **Appendix A-2**.

The estimated construction equipment associated with the proposed project along with the number of pieces of equipment, daily hours of operation, horsepower (hp), and load factor (i.e., percent of full throttle) are shown in **Table A-4**.

Table A–4

Estimated Project Construction Equipment Usage

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Grading	Scrapers	2	8	367	0.48
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

SOURCE: CalEEMod Version 2016.3.2.

Based on CalEEMod, a total of approximately 87 vendor truck trips were estimated during building construction. During the construction, 15 to 25 workers would be at the site, with a maximum near 100 workers. **Table A-5** provides a list of the expected trips and trip lengths by construction phase of vendors and construction workers.

Table A–5

Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Site Preparation	18	0	0	10.8	7.3	20.0
Grading	20	0	0	10.8	7.3	20.0
Building Construction	222	88	0	10.8	7.3	20.0
Paving	15	0	0	10.8	7.3	20.0
Architectural Coating	44	0	0	10.8	7.3	20.0

SOURCE: CARB CalEEMod Version 2013.2.2.

The emissions generated from these construction activities include:

- Dust (including PM10 and PM2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces;

- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM10, and PM2.5) primarily from operation of heavy off-road construction equipment and construction worker automobile trips (primarily gasoline-operated); and
- VOC emissions from coating.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles, screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

Operations

The project site is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area. The property is generally trapezoidal in shape and is approximately 15.21 acres in size.

The proposed project would consist of a 330,528 square foot wine storage warehouse and 6,600 square feet of office space on the 15.21 acre site. Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated. It is anticipated that the proposed project would have approximately 50 full-time employees and up to 30 part-time employees and operate 12 to 18 hours a day during the peak season. Approximately 3 to 5 vehicles trips per day would be from clients or visitors to the site.

A total of 184 car and 32 truck dock parking spaces would be provided for the building. Of these parking stalls, 10 stalls would be designated for Clean Air Vehicle parking. The project's traffic demands would be 559 weekday daily project trips (1.69 trips per 1,000 SF).[1]

The proposed project would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the refrigeration system. This reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

[1] OmniMeans. *Green Island Wine Warehouse Trip Generation Comparison*. June 21, 2016.

In many climates, night temperatures are cool even when daytime temperatures exceed economizer limits. Taking advantage of this resource, the air handler and economizer can flush the building with night air to cool down the building mass. The cool mass then acts as a heat sink the following day.

Setting controls for night precooling can save a significant amount of energy, depending on location. Studies indicate cost savings range from five percent in Phoenix, Arizona, to 18 percent in Denver, Colorado, for a typical office building. Night precooling also reduces peak demand. Simulation analyses show that precooling a 100,000 square foot three-story building in Sacramento, California, would reduce energy use by 12.6 percent and cause a peak demand reduction of 31.3 percent.[2]

Interior lighting for the proposed project would be designed to meet Title 24 standards; however, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion sensor lighting for areas within the warehouse would be installed. This is beneficial as it reduces energy bills and reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current Pacific Gas & Electric incentives would be investigated and all attempts to incorporate them into the design would be made.

The fork lifts used within the warehouse would be powered by electricity instead of the typical natural gas powered fork lifts. This reduces the GHG emitted by the fork lift and is more efficient and less impactful on the air within the building. Each end of the building would have a bike rack to accommodate up to four bicycles, one more than the required seven stalls.

CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project[3] but scaled up to 330,528 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.

CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices.

GHG emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric's projected 2020 (year in which project becomes operational) CO_2 intensity rate. This intensity rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641 pounds of CO_2 per megawatt of electricity produced. The Pacific Gas & Electric's projected 2020 CO_2 intensity rate is 290 pounds of CO_2 per megawatt of electricity produced.[4]

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[2] Energy Star Building Upgrade Manual, Chapter 9, Revised January 2008, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/energy-star

[3] City of American Canyon. Initial Study for the SDG Green Island 258 Warehouse Project (PL 15-0019). January 25, 2016.

[4] Greenhouse Gas Emission Factors: Guidance for PG&E Customers, November 2015. http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf

Appendix A-4

Greenhouse Gas Setting and Regulatory Context

"Global warming" and "global climate change" are the terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century and its projected continuation. Warming of the climate system is now considered to be unequivocal (IPCC, 2007), with global surface temperature increasing approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase global average temperature between 2 and 11°F over the next 100 years.

Natural processes and human actions have been identified as the causes of this warming. The International Panel on Climate Change (IPCC) concludes that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward. After 1950, however, increasing GHG concentrations resulting from human activity such as fossil fuel burning and deforestation have been responsible for most of the observed temperature increase. These basic conclusions have been endorsed by more than 45 scientific societies and academies of science, including all of the national academies of science of the major industrialized countries. Since 2007, no scientific body of national or international standing has maintained a dissenting opinion.

Increases in GHG concentrations in the earth's atmosphere are thought to be the main cause of human-induced climate change. GHGs naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space. Some GHGs occur naturally and are necessary for keeping the earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have decreased the amount of solar radiation that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Gases that trap heat in the atmosphere are referred to as GHGs because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, CO_2, CH_4, and N_2O are also emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur

hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in "carbon dioxide-equivalent" measures (CO_2e).[1]

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.[2]

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On December 30, 2009, the Natural Resources Agency adopted amendments to the CEQA Guidelines, as required by SB 97. These CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Assembly Bill 1493

In 2002, Assembly Bill (AB) 1493 was passed, which required the CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, the CARB approved amendments to the California Code of Regulations (CCR) in 2004, adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1), require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight [GVW] rating of less than 10,000 pounds and that is designed primarily for the transportation of persons), beginning with model year 2009. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for model year 2016 are approximately 37 percent

[1] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

[2] 2006 Final Climate Action Team Report to the Governor and Legislature. March 2006. http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

lower than the limits for the first year of the regulations, model year 2009. For light-duty trucks with an LVW of 3,751 pounds to a GVW of 8,500 pounds, as well as for medium-duty passenger vehicles, GHG emissions will be reduced approximately 24 percent between 2009 and 2016.

Because the Pavley standards (named for the bill's author, state Senator Fran Pavley) would impose stricter standards than those under the Federal CAA, California applied to the USEPA for a waiver under the Federal CAA. This waiver was initially denied in 2008. In 2009, however, the USEPA granted the waiver.

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established Executive Order S-3-05, which sets forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations to achieve reductions in GHG to meet the 1990 emissions cap by 2020.

Climate Change Scoping Plan

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHG to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008 and must be updated every five years. The initial AB 32 Scoping Plan contains the main strategies California will use to reduce the GHG that cause climate change. The initial Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 program implementation fee regulation to fund the program. In August 2011, the initial Scoping Plan was approved by CARB.

The 2013 Scoping Plan Update builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The 2013 Update defines CARB climate change priorities for the next five years and sets the groundwork to reach California's long-term climate goals set forth in Executive Orders S-3-05 and B-16-2012. The 2013 Update highlights California progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. In the 2013 Update, nine key focus areas were identified (energy, transportation, agriculture, water, waste management, and natural and working lands), along with short-lived climate pollutants, green buildings, and the cap-and-trade program. On May 22, 2014, the First Update to the Climate Change Scoping Plan was approved by the Board, along with the finalized environmental documents.

Executive Order No. B-30-15

On April 29, 2015, Executive Order No. B-30-15 was issued to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Executive Order No. B-30-15 sets a new, interim, 2030 reduction goal intended to provide a smooth transition to the existing ultimate 2050 reduction goal set by Executive Order No. S-3-05 (signed by Governor Schwarzenegger in June 2005). It is designed so State agencies do not fall behind the pace of reductions necessary to reach the existing 2050 reduction goal. Executive Order No. B-30-15 orders "All State agencies with jurisdiction over sources of GHG emissions shall implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 targets." The Executive Order also states that "CARB shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent." CARB's second update to the Climate Change Scoping Plan (The 2017 Scoping Plan") reflects the 2030 reduction target and is described below.

Senate Bill 32

In September of 2016, Governor Brown signed Senate Bill (SB) 32 into law, which extended the goals of AB32 and set a goal 2030 goal of reducing GHG emissions 40 percent below 1990 levels by 2030. With SB 32, the Legislature passed companion legislation AB 197, which provided additional direction for developing the Scoping Plan.

In December of 2017, CARB adopted the second update to the Climate Change Scoping Plan, the 2017 Scoping Plan. The 2017 Scoping Plan provides a framework for achieving the 2030 target. The 2017 Scoping Plan Update builds upon the successful framework established by the initial Scoping Plan and the first update (the 2013 Update), while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The 2017 Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constraints and reduces emissions at covered sources. The 2017 Plan also noted that the Recycling and Waste Sector generates two percent of California's total GHG emissions.

California Green Building Standards Code

The 2016 California Green (CALGreen) Building Standards Code (California Code Regulations, Title 24, Part 11) is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. The 2016 Standards were effective January 1, 2017.

CALGreen does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. CALGreen also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, CALGreen is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impacts during and after construction.

CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. The following provides examples of CALGreen requirements:

- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles.

- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.

- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

- **Wastewater reduction.** Each building shall reduce the generation of wastewater by installation of water-conserving fixtures or using nonpotable water systems.

- **Water use savings.** 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40-percent reductions.

- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.

- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas.

- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

- **Building commissioning.** Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Greenhouse Gas Regional Emission Estimates

In 2013, the United States emitted about 6.673 billion tons of CO_2e. Of the four major sectors nationwide - residential, commercial, industrial, and transportation – electrical generation accounts for the highest fraction of GHG emissions (approximately 31 percent); these emissions are entirely generated from direct fossil fuel combustion. . United States emissions increased by 2.0 percent from 2012 to 2013. Recent trends can be attributed to multiple factors including increased emissions from electricity generation, an increase in miles traveled by on-road vehicles, an increase in industrial production and emissions in multiple sectors, and year-to-year changes in the prevailing weather. Greenhouse gas emissions in 2013 were 9 percent below 2005 levels.[3]

The composition of gross GHG emissions in the United States in 2013 (expressed in terms of CO_2e) were as follows:

- CO_2 accounted for 82 percent;

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[3] USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013, April 2015,* http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf

- CH_4 accounted for 10 percent;
- N_2O accounted for 5 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3 percent.[4]

California's gross emissions of GHG decreased by 1.6 percent from 466.3 million metric tons of CO_2e in 2000 to 458.7 million metric tons in 2012, with a maximum of 492.7 million metric tons in 2004. During the same period, California's population grew by 11 percent from 34 to 37.8 million people. As a result, California's per capita GHG emissions have generally decreased over the last 12 years from 13.7 in 2000 to 12.1 million metric tons of CO_2e per person in 2012.[5] California has one of the lowest per capita GHG emission rates in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The transportation sector remains the largest source of GHG emissions in 2012, accounting for 36 percent of California's GHG emission inventory. Contributions from the transportation sector include emissions from on-road and off-road vehicles, aviation, rail and water-borne vehicles, and some other minor sources. Transportation-related GHG emissions have dropped 12 percent since reaching a maximum in 2007. In 2012, emissions from the on-road category decreased by 0.5 percent from the previous year.[6]

In the San Francisco Bay Area, the transportation sector and industrial/commercial sector represent the largest sources of GHG emissions, accounting for 36.4 percent each of the Bay Area's 95.8 million tons of CO_2e in 2007. Electricity/co-generation sources account for about 15.9 percent of the Bay Area's GHG emissions, followed by residential fuel usage at about 7.1 percent. Off-road equipment and agricultural/farming sources currently account for approximately three percent and 1.2 percent of the total Bay Area GHG emissions, respectively.[7]

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4 USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013, April 2015,* http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf

5 CARB, *2014 Edition California Greenhouse Gas Emission Inventory 2000 – 2012*, May, 2014, http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

6 CARB, *2014 Edition California Greenhouse Gas Emission Inventory 2000 – 2012*, May, 2014, http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

7 BAAQMD, Source Inventory of Bay Area Greenhouse Gas Emissions, February 2010, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx?la=en

Appendix B

Biological Resources Reports

BIOLOGICAL RESOURCE ANALYSIS
SDG COMMERCE 330 DISTRIBUTION CENTER
CITY OF AMERICAN CANYON, CALIFORNIA

June 12, 2018

Prepared for

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Figure 2. SDG Commerce 330 Distribution Center Project Site Location.

Figure 3. Aerial Photograph of the SDG Commerce 330 Distribution Center Project Site.

Figure 4. Known Special-Status CNDDB Records Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

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Table 1. Plant Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Table 2. Wildlife Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Table 3. Special-Status Plant Species Known to Occur in the Vicinity of the SDG Commerce 330 Distribution Center Project Site.

Table 4. Special-Status Animal Species Known to Occur in the Vicinity of the SDG Commerce 330 Distribution Center Project Site.

ATTACHMENTS
(At Back of Report)

Sheet C1. Site Plan for the SDG Commerce 330 Distribution Center, prepared by RSA, dated June 8, 2018

Sheet C4. Utility Plan for the SDG Commerce 330 Distribution Center, prepared by RSA, dated June 8, 2018

Exh – LS Detail. Level Spreader Detail, prepared by RSA, dated May 22, 2018

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resource analysis for the proposed SDG Commerce 330 Distribution Center project site (herein referred to as the project site) located in the City of American Canyon, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from the construction of a warehouse and associated parking on the project site.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW. Our analysis includes a formal delineation of "waters of the U.S." that was confirmed in 2012 and reverified by the Corps in 2017.

This biological resources analysis also provides mitigation measures for "potentially significant" and "significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of American Canyon for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The approximately 15-acre project site is located off an extension of Commerce Boulevard in the City of American Canyon, Napa County, California (Figures 1 and 2). The project site is bordered to the east by Jungle Paintball, a 40-acre paintball park, and a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space and large warehouses occurs north of the project site and the American Canyon Wastewater Treatment Plant is located west of the project site. Clark Ranch, open space owned by the City of American Canyon, borders the project site to the south, and Eucalyptus Drive and a residential subdivision are located further to the south. Figure 3 provides an aerial photograph that shows the project site features and the surrounding land use.

The 15-acre project site is part of a larger 35.85-acre parcel (formerly known as Lot 3) that is comprised of a highly disturbed, ruderal (weedy) plant community, with minor depressions that were likely created by the heavy equipment that was used to clear the site of blue gum eucalyptus (*Eucalyptus globulus*) trees in 2012.

3. PROPOSED PROJECT

The applicant proposes to construct a 330,528-square foot warehouse with associated parking areas and a detention basin on the 15-acre project site. Access to the warehouse will be provided

by extending Commerce Boulevard to the south with a cul-de-sac located at the northeastern corner of the 15-acre project site, as illustrated on the Preliminary Site Plan (see attached Sheet C1).

4. ANALYSIS METHODS

Prior to preparing this biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. The Corps Confirmed Reverification of Aquatic Resources Delineation Map is provided as Sheet 2.

During the site surveys and wetland delineations, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The results of our literature research and field reconnaissance are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography

The project site is relatively flat with elevations ranging from 8 to 20 feet above sea level. The ground is undulating due to past land use disturbances including eucalyptus tree removal in 2012. The site slopes gently to the west towards North Slough and the Napa River.

5.2 Hydrology

There are no drainages on the project site. The only indicators of hydrology found onsite are contained within one small topographic depression which the Corps confirmed to be an "isolated" seasonal wetland (i.e., not within their jurisdiction) (Sheet 2).

5.3 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website

(http://ucjeps.berkeley.edu/interchange/index.html). Table 2 is a list of wildlife species observed on the project site. Nomenclature for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (CDFW 2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

5.3.1 RUDERAL HERBACEOUS VEGETATION

On March 30, 2018, M&A biologists characterized the vegetation present on the project site. A complete list of plant species observed within the project site is presented in Table 1. The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, such as is found on the project site, is also common on this parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), all of which have been observed on the project site. Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that border the project site to the west, north and south.

5.3.2 EUCALYPTUS GROVE

Various species of *Eucalyptus* trees have been planted in California for windbreaks, wood, pulp, and other uses. These areas constitute a plantation community (Holland and Keil 1995) and are usually composed of a single species in a very dense planting. On the project site, blue gum eucalyptus trees (*Eucalyptus globulus*) were once abundant throughout; these trees are now restricted to the southern project site boundary where they grow in a linear row. Blue gum trees tower over all of the species native to the area. The trees shade the ground and litter the soil surface with fallen branches, leaves, fruits, and bark. Rainwater passing through the leaves and branches carry dissolved chemicals that add to the substances leached from the fallen litter producing a significant allelopathic (growth inhibiting) effect on understory vegetation. The net result is that very few other plant species are able to grow around or under the blue gum trees. Consequently, the understory is often sparse if present at all. Thus, in areas where blue gum trees have been planted, they have almost completely replaced the native vegetation (Holland and Keil 1995).

Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that border the project site to the west, north and south.

5.3.3 SEASONAL WETLANDS

The isolated seasonal wetland is dominated by Italian rye grass, English plantain (*Plantago lanceolata*), Mediterranean grass, curly dock (*Rumex crispus*) and bristly ox-tongue: all of these plants are non-native species that are just as readily found in upland habitats as they are in wetland areas.

Seasonal wetlands provide a temporary water source for amphibians such as the common Sierran tree frog (*Pseudacris sierra*) and California toad (*Anaxyrus boreas halophilus*) to mate, lay eggs, and forage through the winter and early spring months. Seasonal wetlands also provide drinking water for local wildlife such as the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*). By the summer months seasonal wetlands are undetectable to the untrained eye and may appear to be a part of the adjacent upland ruderal herbaceous community.

5.4 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the east. In addition, Clark Ranch to the south has frequent activity associated with a horse riding facility. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq*.; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);

- plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2001). The California Department of Fish and Wildlife (CDFW) recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);

- animals that are designated as "species of special concern" by CDFW (2018);

- Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

- Bat Species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as: "RED OR HIGH." This priority is justified by the WBWG as follows: "Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment."

In the paragraphs below we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized "take" (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a Federal listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the state Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized "take" (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to "take" a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the "take."

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered "rare." Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a "significant effect on the environment" (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an "Inventory" of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern, and are reviewed by CDFW and maintained on "watch lists."

Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)";
- .2 is "fairly endangered in California (20-80% of occurrences threatened)";
- .3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

6.2 Potential Special-Status Plants on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of nine special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris collects on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017 and 2018, special-status plants are not likely to be found onsite and mitigation for special-status plants should not be warranted.

6.3 Potential Special-Status Animals in the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within three miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animal records have ever been mapped on or adjacent to the project site. However, a total of 16 special-status animal species are known to occur in the region of the project site (Table 4). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status species occurring onsite. Regardless, due to the sensitivity of four of the special-status animal species known to occur in the area, we further discuss these species below.

6.3.1 California red-legged frog

The California red-legged frog (*Rana draytonii*) was federally-listed as threatened on May 23, 1996 (Federal Register 61: 25813-25833) and as such is protected pursuant to the Federal Endangered Species Act. On March 16, 2010 the USFWS issued the final designation for California red-legged frog Critical Habitat (USFWS 2010). *The project site does not fall within mapped critical habitat, although it is adjacent* (see Figure 5).

The California red-legged frog is also a state "species of special concern." While the state designation "species of special concern" does not provide any legally mandated protection, species of special concern must be considered in any project undergoing a CEQA review.

The California red-legged frog is typically found in ponds, slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. This frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. Populations probably cannot be maintained if all surface water disappears (i.e., no available surface water for egg laying and larval development habitat). Larval California red-legged frogs

require 11-20 weeks of permanent water to reach metamorphosis (i.e., to change from a tadpole into a frog), in water depths of 10 to 20 inches (USFWS 2002). Riparian vegetation such as willows and emergent vegetation such as cattails are preferred red-legged frog habitats, though not necessary for this species to be present. Populations of California red-legged frog will be reduced in size or eliminated from ponds supporting non-native species such as bullfrog, Centrarchid fish species (such as sunfish, bluegill, or large-mouth bass), and signal and red swamp crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*, respectively), all of which are known California red-legged frog predators. However, the presence of these non-native species does not preclude the presence of the California red-legged frog.

California red-legged frogs also use upland habitats for migration and dispersal. The USFWS *Recovery Plan for the California Red-Legged Frog* states that frog overland excursions via uplands can vary between 0.25-mile up to 3 miles during the wet season, and that frogs "have been observed to make long-distance movements that are straight-line, point to point migrations rather than using corridors for moving in between habitats" (USFWS 2002). The information presented in the USFWS' Recovery Plan was taken from a publication by Bulger et al. (2003) that recounts a study in coastal redwoods in Santa Cruz area. M&A believes that such overland straight-line migrations are primarily limited to periods of heavy rainfall or during periods when ambient conditions exhibit high moisture levels such as in fog belts along the coast. Working in Pointe Reyes National Seashore on the coast of California, Fellers and Kleeman (2007) found approximately 31 percent of California red-legged frogs moved more than 30 meters from their breeding sites and about 69 percent moved less than 30 meters from their breeding site during seasonal movement periods. Similarly, Bulger et al. (2003) found that 60 percent of their radio tagged frogs stayed within 30 meters of their breeding sites.

In locations that are characterized by hot and seasonally dry climates, the California red-legged frog is inclined to stay closer to its aquatic environments or will not migrate. Tatarian (2005) who studied an inland population of California red-legged frogs in eastern Contra Costa County where the climate is far drier than the coastal environment, found that all movements started after the first 0.5 cm of rain in the fall, with more terrestrial movements being made in the fall pre-breeding season (57%) than in the winter breeding season (32%) or spring post-breeding season (11%). Tatarian (op. cit.) also found that California red-legged frogs moved greater average distances aquatically (84.6 m) than terrestrially (27.7 m). Greater terrestrial distances were moved in the pre-breeding season (35.2 m) than in the breeding season (15.5 m) or post-breeding season (16.3 m) with the majority of movements occurring for only one of the 3-4 day survey periods. The majority of frogs (57%) were position faithful within a pool, indicating they did not migrate at all. These data suggest that long forays across the landscape found in coastal populations are less likely in dry inland locations.

The USFWS *Recovery Plan for the California Red-Legged Frog* states that populations are "most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal." "The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat" (USFWS 2002).

In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site, and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. There are no drainages onsite and the isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. *Therefore, the proposed project will not impact the California red-legged frog and mitigation should not be warranted.*

6.3.2 SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their active nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986). It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall (Schmutz et. al. 1984). Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads (Palmer 1988). Swainson's hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). They have also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded (CDFG 1994). The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats due to larger prey populations. In addition agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase

foraging success of Swainson's hawks by flushing prey (personal observations of G. Monk). During the nesting season Swainson's hawks usually forage within two miles of the nest. Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially, therefore it can occupy habitats with few or no perches except the nest tree (James 1992).

Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late-spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and the Swainson's hawk population appears to be dramatically responding in California. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round in the Davis area and in the Sacramento River Delta, resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since insecticide use over Argentinian wintering grounds was halted (G. Monk, personal observations). For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently.

The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing along the southern project site border and adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near this project site in future years. *Hence, prior to earth-disturbance or construction, nesting surveys must be conducted that confirm or negate this species' presence as a nesting bird on or adjacent to the project site. Accordingly, impacts to Swainson's hawk are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.3 WESTERN BURROWING OWL

The western burrowing owl (*Athene cunicularia hypugaea*) is a California "species of special concern." Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Otospermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows, or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

The closest CNDDB record was documented 2.5 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin. The mobility of the western burrowing owl enables the species to colonize the recent burrows. M&A did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys. Regardless, the project site provides marginal nesting habitat for the western burrowing owl. *In order to confirm or negate the presence of western burrowing owls on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to western burrowing owl are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.4 NORTHERN HARRIER

The northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young, and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. This species is particularly vulnerable to ground predators such as coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and various snake species. Ground nesting birds in general are also subject to disturbance by agricultural practices. Northern harriers may forage over the project site and may nest in the open ruderal habitats onsite that provide suitable nesting habitat for this species. Hence, the proposed project could result in impacts to nesting northern harriers.

The closest CNDDB record was documented 2.7 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. Regardless, the project site provides marginal nesting habitat for the northern harrier. *In order to confirm or negate the presence of northern harriers on site, surveys must be conducted*

prior to the commencement of earth-moving or construction. Accordingly, impacts to northern harrier are regarded as potentially significant pursuant to the CEQA.

7. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the U.S. Fish and Wildlife Service and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the

USFWS can no longer require mitigation based on the probability that the species could use the site. Rather they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain a incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an "incidental take" permit that allows applicants to "take" federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under

Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 Responsible Agency

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

7.1.2 Applicability to the Proposed Project

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs. State Route 29 is located between the closest California red-legged frog record and the project site, and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity along any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. The isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. Therefore, the proposed project will not impact the California red-legged frog.

No other federally listed species are expected to occur on the project site. The project site does not provide fisheries habitat as it consists entirely of upland communities. Therefore, it can be stated with confidence that the proposed project would not impact federally listed plant, animal, or fish species.

7.2 Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to “take” (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

7.2.1 APPLICABILITY TO THE PROPOSED PROJECT

Western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk, and red-tailed hawk (*Buteo jamaicensis*), among other raptors (birds of prey) could nest in the eucalyptus grove in the immediate vicinity of the project site. These raptors would be protected by the Migratory Bird Treaty Act. Also, the common songbirds that could forage on the site would be protected pursuant to this Act. As long as there is no direct mortality of species protected pursuant to this Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations section below.

7.3 **California Endangered Species Act**

7.3.1 SECTION 2081 OF THE CALIFORNIA ENDANGERED SPECIES ACT

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a provision for "harm" (see discussion of FESA, above), CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state-listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFW will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity;
2) the impacts of the authorized take are minimized and fully mitigated;
3) measures required to minimize and fully mitigate the impacts of the authorized take:
    a) are roughly proportional in extent to the impact of the taking on the species;
    b) maintain the project applicant's objectives to the greatest extent possible; and,
    c) capable of successful implementation; and,
4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." *See* Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy*"* federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent with state law, and that all state-listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state-listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 Applicability to The Proposed Project

No state-listed plant species would likely occur on the project site due to an absence of habitat. While the majority of the project site is treeless and does not provide nesting habitat for the Swainson's hawk, suitable nesting habitat for this hawk exists in the eucalyptus trees along the project site's southern border and in the eucalyptus groves on the adjacent properties; thus, preconstruction nesting surveys will be necessary to ensure that earth-work or construction does not occur while this raptor is nesting nearby or that if it does, it does not disturb the nesting birds. If the proposed project follows the proposed mitigation measures as detailed in the Impacts and

Mitigation section below, *an Incidental Take Permit (ITP) from the CDFW should not be necessary for this project.*

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.4.1 Applicability to the Proposed Project

Raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these birds including their eggs, or young. Any active nests that were found during preconstruction surveys would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. More specifics on the size of buffers are provided below in the Impacts and Mitigations section.

7.5 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

7.5.1 Goal 8, Objective 8.1 and Policies 8.1.1 and 8.1.4

- **Goal 8:** Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.
- **Objective 8.1:** Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.
- **Policy 8.1.1:** Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
- **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

7.5.2 Applicability to the Proposed Project

Consistent with General Plan Policies 8.1.1 and 8.1.4, this report provides a detailed assessment of the biological resources present on the project site and proposed impacts to these resources associated with development of the site. Proposed mitigation measures are detailed below in the Project Impacts and Mitigation Measures section.

7.5.3 Objective 8.2 and Policy 8.2.1

- **Objective 8.2:** Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.
- **Policy 8.2.1:** Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

7.5.4 Applicability to the Proposed Project

Consistent with General Plan Policy 8.2.1, the project site has been evaluated for the presence of sensitive biological resources. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the project site.

7.5.5 Objective 8.3 and Policy 8.3.1

- **Objective 8.3:** Protect natural drainages and riparian corridors within the American Canyon Planning Area.
- **Policy 8.3.1:** Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:
    a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

7.5.6 Applicability to the Proposed Project

Consistent with Policy 8.3.1.a, since avoidance of the isolated seasonal wetland onsite is not possible while still achieving the project's goals, the applicant will create approximately 0.05-acre of wetland on a mitigation property that will be preserved in perpetuity via deed restriction to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. This replacement will be at a 2:1 (replacement to impacts)

ratio and is consistent with the City's General Plan and is in general conformance with regulatory agency policy.

7.5.7 POLICY 8.3.1 B

- **Policy 8.3.1 b:** Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).

7.5.8 APPLICABILITY TO THE PROPOSED PROJECT

The isolated wetland on the project site is located adjacent to the access road to the project site and cannot feasibility be avoided.

7.5.9 POLICY 8.3.1 E

- **Policy 8.3.1 e:** Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

7.5.10 APPLICABILITY TO THE PROPOSED PROJECT

The existing open space preserve (offsite mitigation site) is adequately buffered by a steep slope and embankment which prevents unauthorized access and use of this area.

7.5.11 POLICY 8.3.1 F

- **Policy 8.3.1 f:** Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

7.5.12 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.f, and Policy 8.3.1.g roads and utilities have been designed to avoid conflicts with biological resources on the project site with the exception of the seasonal wetland onsite which will have to be impacted to construct a practical project.

7.5.13 POLICY 8.3.1 G

- **Policy 8.3.1 g:** Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

7.5.1 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.g, the open space preserve will be protected in perpetuity via a deed restriction.

7.5.2 POLICY 8.3.1 H

- **Policy 8.3.1 h**: Future development shall mitigate unavoidable adverse impacts to waters of the United States, wetlands and riparian habitats (pursuant to the Federal Clean Water

Act and the California Fish and Game Code, Section 1600 et seq.) by replacement on an in-kind basis. Furthermore, replacement shall be based on a ratio determined by the California Department of Fish and Game and/or Army Corps of Engineers in order to account for the potentially diminished habitat values of replacement habitat. Such replacement should occur on the original development site, whenever possible. Alternatively, replacement can be effected, subject to state and federal regulatory approval, by creation or restoration of replacement habitats elsewhere (offsite but preferably within the City's Planning Area), protected in perpetuity by provision for an appropriate conservation easement or dedication.

7.5.1 Applicability to the Proposed Project

Consistent with Policy 8.3.1.h, the applicant will create approximately 0.05 acre of wetland to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. This replacement will be at a 2:1 (replacement to impacts) ratio and is consistent with General Plan and is in general conformance with regulatory agency policy.

7.5.2 Policies 8.3.5 and 8.3.6

- **Policy 8.3.5:** Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.
- **Policy 8.3.6:** Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

7.5.3 Applicability to the proposed project

There are no drainages on the project site or significant biological habitats onsite; hence, these policies do not apply to the proposed project.

7.5.4 Policy 8.4.3

- **Policy 8.4.3:** Encourage activities that improve the biological value and integrity of the City's natural resources through vegetation restoration, control of alien plants and animals, and landscape buffering.

7.5.5 Applicability to the proposed project

Consistent with Policy 8.4.3, the applicant will create approximately 0.05 acre of wetlands to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. This replacement will be at a 2:1

(replacement to impacts) ratio and is consistent with General Plan and is in general conformance with regulatory agency policy.

8. CITY OF AMERICAN CANYON –ORDINANCES

8.1 Trees (Ord. 18.40.110)

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

8.1.1 Applicability to the Proposed Project

The mature eucalyptus trees immediately south of the southern project site boundary will remain. In the project site's interior there are no trees but only a few small stump-sprouting eucalyptus trees that will be removed for the project. Since these are essentially stumps that have some green foliage, they do not meet the definition of a mature tree that is protected pursuant to the tree ordinance; therefore, no tree replacement should be required.

9. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFW to determine those areas within a project area that would be subject to their regulation.

9.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

9.1.1 Section 404 of the Clean Water Act

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(1) Extends to the mean high tide line, or
(2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
(2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
(3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

9.1.1.1 Significant Nexus of Tributaries

On December 2, 2008, the Corps and the Environmental Protection Agency (EPA) issued joint guidance on implementing the U.S. Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act. In this joint guidance these agencies provide guidance on where they will assert jurisdiction over waters of the U.S.

The EPA and Corps will assert jurisdiction over the following waters:

- Traditional navigable waters

- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (for example, typically three months).
- Wetlands that directly abut such tributaries.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and

- Significant nexus includes consideration of hydrologic and ecologic factors.

9.1.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

9.1.1.3 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the United States. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to "waters of the United States."

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of "waters of the United States" found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared

pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g. a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of "no net loss" of wetlands (waters of the United States) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., if a stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 Applicability to the Proposed Project

M&A originally prepared a preliminary wetland delineation map of the 35 acre parcel in 2006; however, this map was never submitted to the Corps. In 2011, a formal wetland delineation was conducted on July 14th and July 20th by M&A biologists Ms. Hope Kingma and Mr. Tim O'Donnell. The wetland delineation report and map were submitted to the Corps on August 22, 2011, requesting confirmation of the extent of Corps jurisdiction at the American Canyon Flat

Lands site. In a letter dated January 31, 2012 the extent of Corps jurisdiction was confirmed, based on a field investigation on September 21, 2011. That jurisdictional determination expired five (5) years from the date of that letter.

M&A biologists Ms. Hope Kingma and Mr. Devin Jokerst conducted another wetland delineation of the entire 35.85-acre parcel (known as Lot 3) which includes this project site on November 16, 2016 to re-verify the extent of jurisdictional areas on the site. M&A used the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the *Regional Supplement for the Arid West Region*. The jurisdictional determination request and the Draft Aquatic Resources Delineation Map (Sheet 2) were submitted to the Corps in December 2016. Mr. Bryan Matsumoto of the Corps conducted a site verification visit on May 18, 2017. On May 16, 2018 the Corps issued the jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the 35.43-acre parcel which includes the presence of 0.020-acre of "isolated" wetlands on the 35.85-acre parcel (known as Lot 3). The confirmed Jurisdictional Delineation Map (Sheet 2) and letter are attached. *The "isolated" wetland on the 15-acre project site does not fall under the Corps' jurisdiction pursuant to the SWANCC decision (see Section 9.1.1.2, above); however, the isolated wetland would still be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act, as discussed below.*

9.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

9.2.1 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in "waters of the State" (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is a NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

9.2.2 Applicability to the Proposed Project

The Corps' Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017 is provided as Sheet 2. Since the RWQCB does not have a formal method for technically defining what constitutes waters of the State, M&A expects that the RWQCB should remain consistent with the Corps' determination. The proposed project will impact the isolated wetland/waters of the State. This isolated wetland would be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act (see below).

9.2.3 PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act, Water Code § 13260, requires that "any person discharging waste, or proposing to discharge waste, that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1). The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (Water Code § 13050(e)). It should be noted that pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates "isolated wetlands," or those wetlands considered to be outside of the Corps' jurisdiction pursuant to the SWANCC decision (see Corps Section above).

The RWQCB generally considers filling in waters of the State to constitute "pollution." Pollution is defined as an alteration of the quality of the waters of the state by waste that unreasonably affects its beneficial uses (Water Code §13050(1)). The RWQCB litmus test for determining if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act is if the action could result in any "threat" to water quality.

The RWQCB requires complete pre- and post-development BMPs of any portion of the project site that is developed. This means that a water quality treatment plan for the pre- and post-developed project site must be prepared and implemented. Preconstruction requirements must be consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES). That is, a SWPPP must be developed prior to the time that a site is graded (see NPDES section below). In addition, a post construction BMPs plan, or a Stormwater Management Plan (SWMP) must be developed and incorporated into any site development plan.

9.2.4 APPLICABILITY TO THE PROPOSED PROJECT

Since any "threat" to water quality could conceivably be regulated pursuant to the Porter-Cologne Water Quality Control Act, care will be required when constructing the proposed project to be sure that adequate pre-and post-construction BMPs are incorporated into the project implementation plans.

While impacts to the "isolated" wetland on the project site are outside of Clean Water Act jurisdiction regulated by the Corps pursuant to Section 404 of the Clean Water Act and by the RWQCB pursuant to Section 401 of the Clean Water Act, impacts associated construction of the warehouse would nonetheless be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. The RWQCB has a Water Quality Order (Water Quality Order No. 2004-0004-DWQ) that provides coverage for "threats to waters of the State when there is no Clean Water Act jurisdiction (i.e., for projects that do not require a Corps permit). This type of permit has particular applicability if impacts include features outside of the Corps jurisdiction. To be eligible for coverage under Water Quality Order No. 2004-0004-DWQ, Finding 9 of the General WDRs specifies that projects regulated be restricted to not more than two-tenths of an acre (0.20) and 400 linear feet. In addition, Section II (A) regarding eligibility to use this Order states that the discharge shall not be subject to Section 404 of the CWA, or Section 10 of the Federal Rivers and Harbors Act. As such the proposed project should obtain a "Notice of Applicability (NOA)" from the RWQCB for use of Water Quality Order No. 2004-0004-DWQ. To obtain this coverage the applicant should submit a formal "Request for Concurrence of

Applicability of Proposed Project with State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ" to the RWQCB.

The proposed project will result in impacts to 0.02-acre of "isolated" wetlands (waters of the State). Any impacts to waters of the State would have to be mitigated to the satisfaction of the RWQCB prior to the time this resource agency would issue a permit for impacts to such features. The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. A detailed mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction.

It should also be noted that prior to issuance of any permit from the RWQCB, this agency will require submittal of a Notice of Determination from the City of American Canyon indicating that the proposed project has completed a review conducted pursuant to CEQA. The pertinent sections of the CEQA document (typically the biology section) are often submitted to the RWQCB for review prior to the time this agency will issue a permit for a proposed project.

9.3 California Department of Fish and Wildlife Protections

9.3.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
   (A) A detailed description of the project's location and a map.
   (B) The name, if any, of the river, stream, or lake affected.
   (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
   (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
   (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
   (F) Any other information required by CDFW" (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into

a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

9.3.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would likely be regulated by CDFW. Hence, a SBAA with CDFW would not be necessary for this project.

10. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

10.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs). It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

Types of Construction Activity Covered by the Construction General Permit

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several "post-construction" requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This "runoff reduction" approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development ("LID") design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA's 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other

activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

10.1.1 Applicability to The Proposed Project

To obtain coverage under the SWRCB administered Construction General Permit, the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify Best Management Practices (BMPs) for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015).

10.2 RWQCB Municipal Storm Water Permitting Programs

The federal Clean Water Act (CWA) was amended in 1987 to address urban stormwater runoff pollution of the nation's waters. In 1990, the U.S. Environmental Protection Agency (USEPA) promulgated rules establishing Phase 1 of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase 1 program for Municipal Separate Storm Sewer System (MS4s) requires operators that serve populations of 100,000 or greater to implement a stormwater management program to control polluted discharges from these MS4s. While Phase 1 of the municipal stormwater program has focused on large urban areas, Phase 2 of the municipal stormwater program was promulgated by the USEPA for smaller urban areas including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

MS4 permits require the discharger (or dischargers that are permitted by the MS4 permittees) to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

[1] CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

10.2.1 NPDES C.3 REQUIREMENTS

The NPDES C.3 requirements went into effect for any project (public or private) that is "deemed complete" by the City or County (Lead Agency) on or after February 15, 2005, and which will result in the creation or replacement (other than normal maintenance) of at least 10,000 square feet of impervious surface area (roofs, streets, patios, parking lots, etc. Provision C.3 requires the onsite treatment of stormwater prior to its discharge into downstream receiving waters. Note that these requirements are in addition to the existing NPDES requirements for erosion and sedimentation controls during project construction that are typically addressed through acquisition of coverage under the SWRCB administered Construction General Permit. The C.3 requirements are typically required to be implemented by MS4 permittees (and their constituencies).

Projects subject to Provision C3 must include the capture and onsite treatment of all stormwater from the site prior to its discharge, including rainwater falling on building rooftops. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable.* While the Clean Water Act does not define "maximum extent practicable," the Stormwater Quality Management Plans required as a condition of the municipal NPDES permits identify control measures (known as Best Management Plans, or BMPs) and, where applicable, performance standards, to establish the level of effort required to satisfy the maximum extent practicable criterion. It is ultimately up to the professional judgment of the reviewing municipal staff in the individual jurisdictions to determine whether a project's proposed stormwater controls will satisfy the maximum extent practicable criterion. However, there are numeric criteria used to ensure that treatment BMPs have been adequately sized to accommodate and treat a site's stormwater. The C3 requirements are quite extensive, and their complete explanation is not provided here. However, the following are minimums that should be understood and adhered to:

- The applicant must provide a detailed and realistic site design *and impervious surface area calculations*. This site design *and calculations* will be used by the Lead Agency (County or City) to determine/*verify* the amount of impervious surface area that is being created or replaced. It should include all proposed buildings, roads, walkways, parking lots, landscape areas, etc., that are being created or redeveloped. If large (greater than 10,000 square feet) lots are being created an effort will need to be made to determine the total impervious surface area that could be created on that parcel. For example, if only a portion of the lot is shown as a "building envelope" then the lead agency will need to consider that a driveway will have to be constructed to access the envelope and that the envelope will then be developed as shown. If the C.3 thresholds are met (creation/redevelopment of 10,000 square feet of impervious surface area), a Stormwater Control Plan (SWCP) (if required by the Lead Agency, or whatever steps for compliance with Provision C3 are required locally) must accompany the application.

- If a SWCP is required by the Lead Agency for the project it must be stamped by a Licensed Civil Engineer, Architect, or Landscape Architect.

10.2.2 APPLICABILITY TO THE PROPOSED PROJECT

The Water Board issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s. On November 19, 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies. Permittees in the San Francisco Bay area are included in a Municipal Regional Permit (MRP), issued to 76 cities, counties and flood control districts in 2009 and revised in 2015. Each of the Permittee's must file an Annual Report that is comprised of three parts: regional, countywide, and individual. Some requirements of the MRP are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all the MRP Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs have submitted Annual Report elements on the regional and countywide collaborative tasks, respectively, on behalf of the MRP Permittees and the individual MRP Permittees have also submitted Annual Report elements on the Permit Provisions they have implemented individually.

It is the applicant's responsibility to ensure that the project civil engineer prepares all required Storm Water Planning documents for submittal to the City of American Canyon to comply with its MS4 permit requirements. In addition, if the project includes a requirement to obtain a Clean Water Act Section 401 permit from the RWQCB, the Storm Water Management Plan (or equivalent plan) must be submitted to the RWQCB with the application package submitted for acquisition of a Section 401 permit (aka "water quality certification").

The applicant is proposing to treat all stormwater falling on imperious surfaces in Detention/Bioretention Facilities located in the southern and western sides of the project site (see Sheet C4). Once treated, stormwater would be conveyed to "level spreader outfalls" that will be installed along the western project site boundary. The detail for the level spreader is provided on the Exhibit LS.Detail. The level spreader outfalls consist of perforated pipe set on contour that will discharge flows uniformly across a gradual slope covered by riprap, which will mimic sheet flow conditions similar to current project site runoff. Accordingly, the project will not violate any water quality standards.

The applicant is currently in discussion with the City of American Canyon regarding a new municipal stormwater outfall that will be constructed in uplands adjacent to the marsh habitat at the confluence of North Slough and the Napa River, immediately south of the project parcel. Construction of the new municipal stormwater outfall will not result in impacts to waters of the U.S. or State. When this outfall is constructed, the applicant will divert some or all of the project site runoff from the level spreaders to the new municipal outfall.

11. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit

must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are "Categorical Exemptions" that apply to the proposed activity; thus the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a "Negative Declaration." If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a "Mitigated Negative Declaration" is typically prepared by the lead agency. Finally those projects that may have significant effects on the environment, or that have impacts that can't be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. "Rare" species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

This report has been prepared as a Biology section that is suitable for incorporation into an Mitigated Negative Declaration. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA and can be incorporated by the CEQA lead agency (in this case City of American Canyon) into an initial study or higher levels of CEQA review including incorporation into the biology section of an Environmental Impact Report.

12. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

12.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water,

minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other Federal, State, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality

Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers to include riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources including special-status animal species and waters of the United States and/or State. We follow each impact with a mitigation prescription that when implemented would reduce impacts to the greatest extent possible. This impact analysis is based on the Preliminary Site Plan (Sheet 1).

13.1 Impact BIO-1. Development of the Project Could Have a Potentially Significant Impact on Western Burrowing Owl (Potentially Significant)

The western burrowing owl is a California Species of Special Concern. This raptor (that is, bird of prey) is also protected under the Migratory Bird Treaty Act (50 CFR 10.13) and its nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5. While western burrowing owls have not been observed on the project site and their likelihood of presence on the project site is considered to be low, limited suitable nesting habitat occurs on the project site. Since the western burrowing owl is a mobile species that could move onto the project site prior to development, preconstruction surveys would be necessary to determine its presence. Thus, the project may result in impacts to the western burrowing owl; this would be a *potentially significant impact pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.2 Mitigation Measure BIO-1. Mitigation for Potential Impacts to Western Burrowing Owl

Based on the presence of this species in the project vicinity and the potential habitat found on the project site, a preconstruction survey for burrowing owls should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

a. Burrowing owl surveys should be conducted by walking the entire project site. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be 7 meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or

dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approximately 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows should be avoided during all seasons.

b. If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per CDFW's Staff Report (2012).

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- From October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.

Implementation of these mitigation measures would reduce potential impacts to burrowing owls to a level considered less than significant pursuant to CEQA.

13.3 Impact BIO-2. Development of the Project Would Have a Potentially Significant Impact on Nesting Swainson's hawks (Potentially Significant)

The Swainson's hawk is a state listed threatened species. While the Swainson's hawk has no special federal status it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's multiple project site surveys; however, the nesting population appears to be increasing (G. Monk general observations) throughout its nesting range in northern California and thus, it could conceivably nest in trees near the project site in the future.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (CDFG v. ACID, 8 CA App. 4, 41554) (CDFG 1994).

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the

project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be *potentially significant pursuant to CEQA.* This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure BIO-2. Mitigation for Potential Impacts to Nesting Swainson's Hawk

Preconstruction surveys shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to the project's initiation. The survey period timing and methodology shall be conducted in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of this mitigation measure would reduce potential impacts to nesting Swainson's hawk to a level considered less than significant pursuant to CEQA.

13.5 Impact BIO-3: Development of the Project Would Have a Potentially Significant Impact on Tree or Ground Nesting Raptors (Swainson's Hawk Excluded; See Impact BIO-2) (Potentially Significant)

Tree or ground nesting raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Nesting raptors are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13). All nesting raptors, their eggs and young are protected pursuant to California Fish and Game Code §3503.5. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project may impact nesting raptors which could result in nest abandonment and death of eggs or young. Therefore, impacts to nesting raptors are regarded as *potentially significant pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.6 Mitigation Measure BIO-3: Mitigation for Potential Impacts to Tree or Ground Nesting Raptors Except Swainson's Hawk.

To ensure that impacts to tree or ground nesting raptors are avoided or offset, the following mitigation measures will be implemented:

a. In order to avoid impacts to nesting raptors, a preconstruction nesting survey will be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey should be conducted within the 30 day period prior to site disturbance. The raptor nesting surveys will include examination of all trees and ruderal habitat within 200 feet of the project site.

b. If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site must be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site must be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer should be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist should prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity should occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers should be maintained in place through the month of August and work within the buffer can commence on September 1st.

c. If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) should be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer should remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey should be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer should remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Implementation of these mitigation measures would reduce potential impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

13.7 Impact BIO-4: Development of the Project Would Have a Potentially Significant Impact on Nesting Passerine Birds. (Potentially Significant)

Nesting passerine birds (i.e., perching birds) including nesting special-status passerine birds are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13) and by California Fish and Game Code §3503 and §3503.5 which protects nesting birds,

their eggs and young. These birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Accordingly, impacts to nesting passerine birds, their eggs, and/or young resulting from the proposed project are considered potentially significant. This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.8 Mitigation Measure BIO-4: Mitigation for Potential Impacts to Nesting Passerine Birds.

To ensure that impacts to nesting passerine birds are avoided or offset, a nesting survey shall be conducted 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before August 1st.

Implementation of this mitigation measure would reduce potential impacts to common and special-status nesting passerine birds to a level considered less than significant pursuant to CEQA.

13.9 Impact BIO-5. Development of the Project Would Have a Significant Impact on Waters of the State (Significant)

The proposed project will result in impacts to 0.02-acre of "isolated" wetlands (waters of the State) regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. Impacts to "waters of the State" from the proposed project would be regarded as a *significant impact***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.10 Mitigation Measure BIO-5. Mitigation for Impacts to Waters of the State

Based on the Corps confirmed map, 0.02-acre of isolated seasonal wetland will be impacted by the proposed project. The RWQCB has a Water Quality Order No. 2004-004-DWQ (General WDRs), *Standard General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction.* This project will apply for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to

isolated waters on the project site. The requirements stipulated in this permit will become conditions of project approval.

The applicant is proposing to mitigate for project-related impacts to waters of the State at a 2:1 mitigation ratio. The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. A detailed mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction. This wetland creation/mitigation would need to be approved by the RWQCB at the time the permit application is applied for/issued.

Implementation of this mitigation measure would reduce impacts to waters of the State to a level considered less than significant pursuant to the CEQA.

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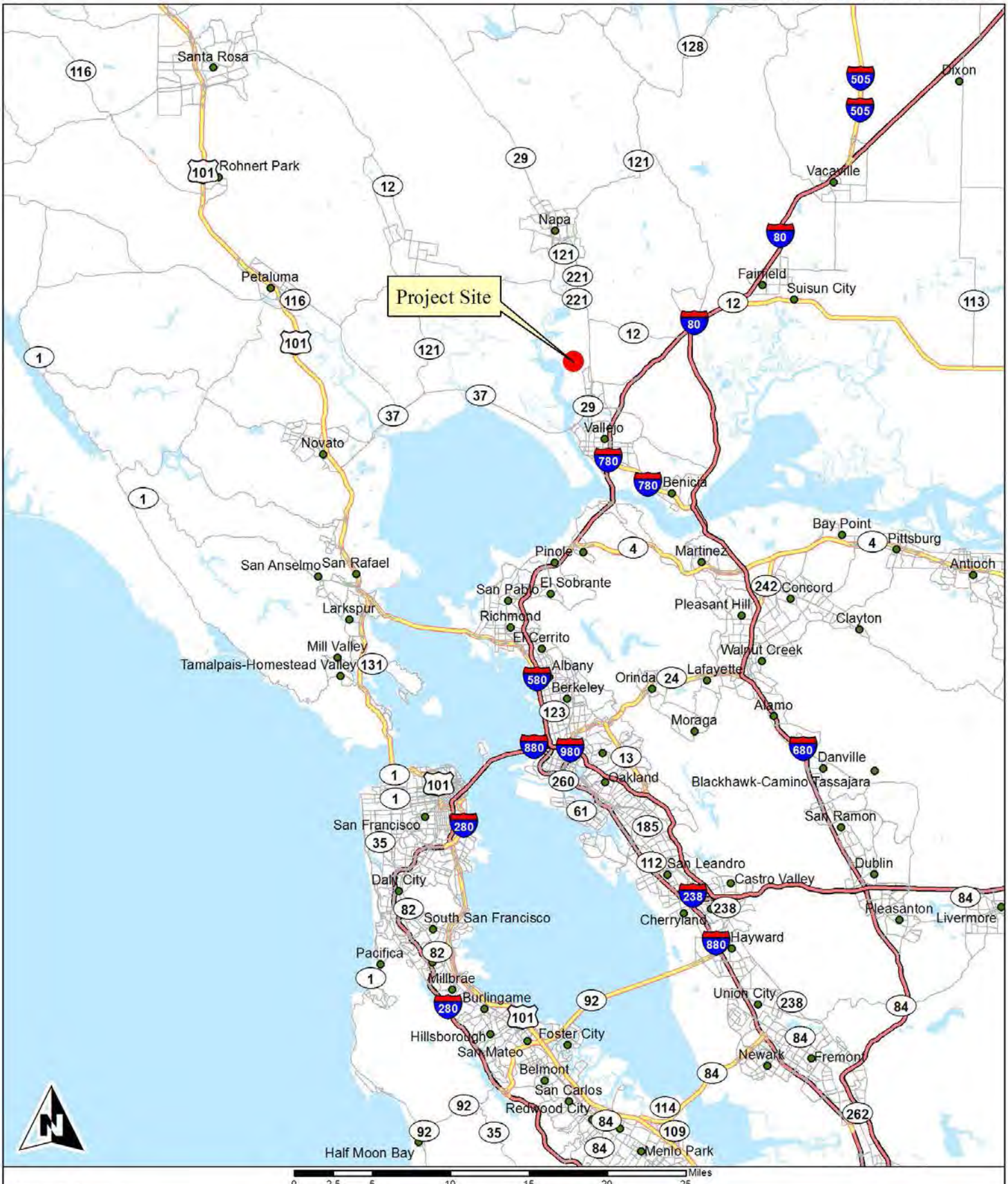

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Figure 1. Regional Map of the SDG Commerce
330 Distribution Center Project Site
City of American Canyon, California

County: Napa
Map Preparation Date: March 2[illegible] 3272

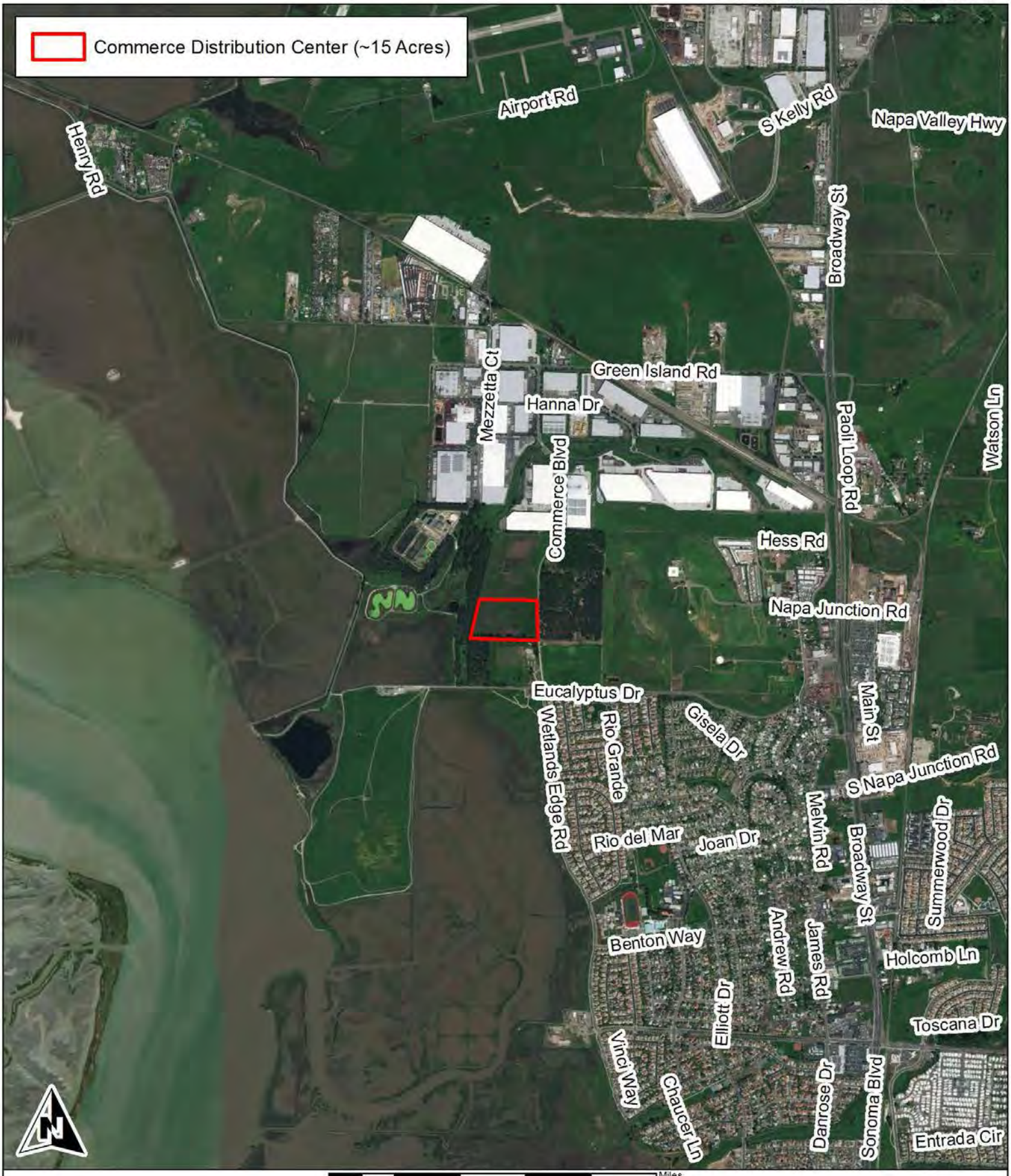

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Figure 2. SDG Commerce 330 Distribution Center Project Site Location.
City of American Canyon, California

38.184108 -122.274162
Section: 14, 23; T4N R4W
7.5-Minute Cuttings Wharf quadrangle
Aerial Photograph Source: ESRI
Map Preparation Date: March 22.



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Figure 3. Aerial Photograph of the SDG
Commerce 330 Distribution Center Project Site.
City of American Canyon, California

Aerial Photograph Source: ESRI
Map Preparation Date: March 2

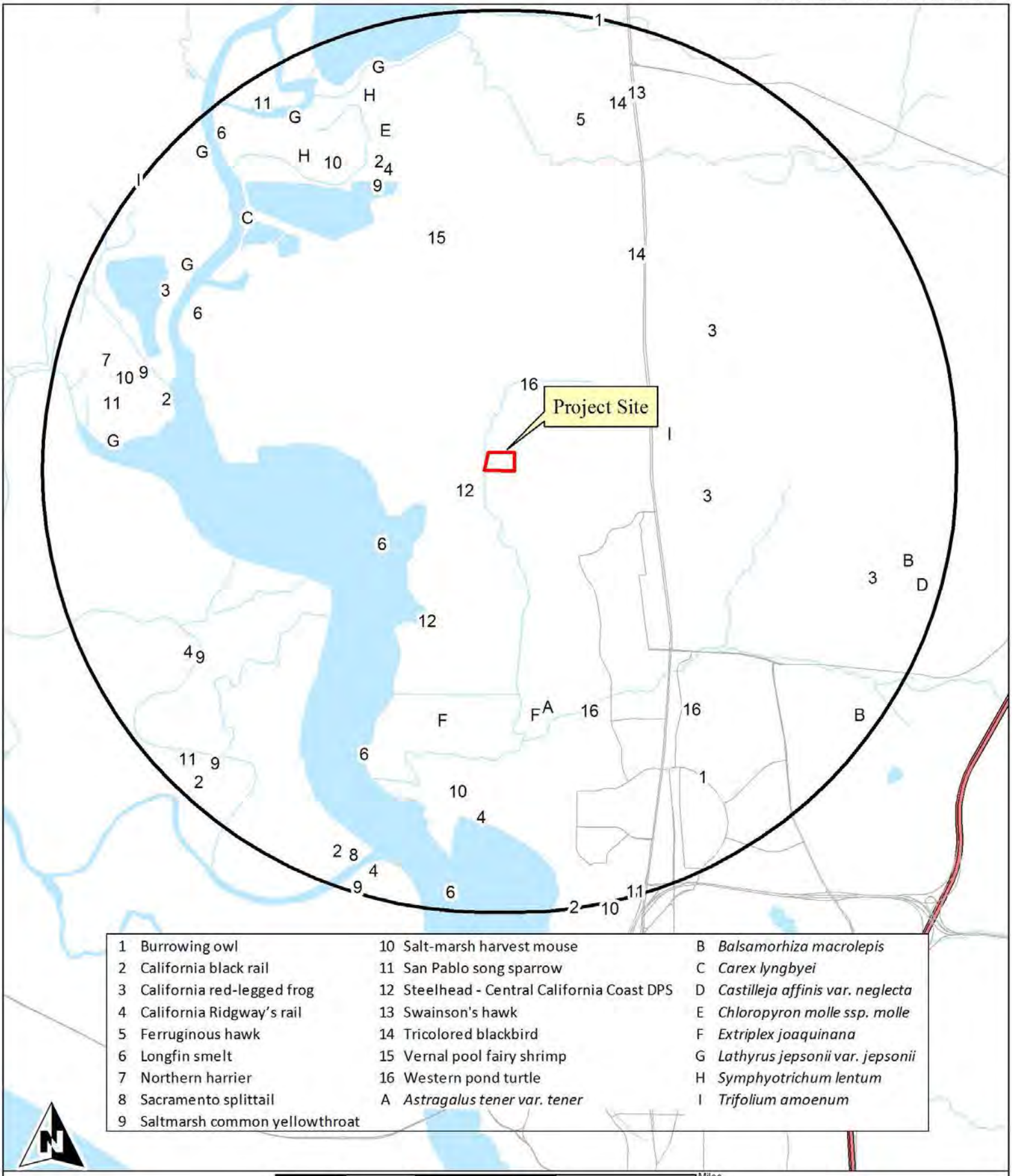

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Figure 4. Known Special-Status CNDDB Records Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Map Preparation Date: March 22. 2018
3-Mile Radius
Source: CDFW, California Natural Diversity Data Bas

Table 1

Plant Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Angiosperms - Dicots

Apiaceae

Torilis sp.	sock destroyer

Asteraceae

Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
**Hypochaeris radicata*	Rough cat's-ear
**Sonchus asper subsp. asper*	Prickly sow-thistle

Brassicaceae

**Hirschfeldia incana*	Short-podded mustard
**Sinapis alba*	White mustard

Caryophyllaceae

**Stellaria media*	Common chickweed

Convolvulaceae

**Convolvulus arvensis*	Bindweed

Fabaceae

**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch

Geraniaceae

**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium

Montiaceae

Claytonia perfoliata	Miner's lettuce

Myrsinaceae

**Lysimachia arvensis*	Scarlet pimpernel

Orobanchaceae

**Parentucellia viscosa*	Yellow glandweed

Papaveraceae

**Fumaria parviflora*	Fumaria

Plantaginaceae

**Plantago lanceolata*	English plantain

Polygonaceae

**Rumex crispus*	Curly dock

Ranunculaceae

**Ranunculus muricatus*	Spiny-fruit buttercup

Rubiaceae

Galium aparine	Goose grass

* Indicates a non-native species

Table 1

Plant Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Angiosperms -Monocots

Iridaceae

Sisyrinchium californicum	Golden-eyed-grass

Juncaceae

Juncus occidentalis	Slender rush

Poaceae

**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Elymus triticoides	Creeping wildrye
**Festuca perennis*	perennial ryegrass
**Hordeum murinum*	Wall barley
Phalaris angusta	Canary timothy grass

* Indicates a non-native species

Table 2
Wildlife Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Birds	
Northern flicker	*Colaptes auratus*
Red-shouldered hawk	*Buteo lineatus*
Wild turkey	*Meleagris gallopavo*
Mourning dove	*Zenaida macroura*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
American crow	*Corvus brachyrhynchos*
Tree swallow	*Tachycineta bicolor*
Violet-green swallow	*Tachycineta thalassina*
Bushtit	*Psaltriparus minimus*
Western bluebird	*Sialia mexicana*
Red-winged blackbird	*Agelaius phoeniceus*
House finch	*Haemorhous mexicanus*
Mammals	
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Otospermophilus beecheyi*
Botta's pocket gopher	*Thomomys bottae*
California meadow vole	*Microtus californicus*

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; chaparral; valley and foothill grassland; [sometimes serpentinite]. 90 - 1555 meters	The closest record of this species is located 2.8 miles east of the project site (Occurrence No. 7).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Symphyotrichum lentum Suisun Marsh aster	Fed: - State: - CNPS: Rank 1B.2	August-November	Marshes and swamps (brackish and fresh water)	The closest record of this species is located 2.3 miles northwest of the project site (Occurrence No. 128).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Chenopodiaceae					
Extriplex joaquinana San Joaquin spearscale	Fed: - State: - CNPS: Rank 1B.2	April-October	Chenopod scrub; meadows; valley and foothill grassland; [alkaline].	The closest record of this species is located 1.6 miles south of the project site (Occurrence No. 37).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Cyperaceae					
Carex lyngbyei Lyngbye's sedge	Fed: - State: - CNPS: Rank 2	May-August	Marshes or swamps (brackish or freshwater)	The closest record of this species is located 2.3 miles northwest of the project site (Occurrence No. 28).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Fabaceae					
Astragalus tener tener Alkali milkvetch	Fed: - State: - CNPS: Rank 1B.2	March-June	Playas; mesic grasslands (adobe clay), vernal pools (alkaline).	The closest record of this species is located 1.6 miles south of the project site (Occurrence No. 50).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Lathyrus jepsonii jepsonii Delta tule pea	Fed: - State: - CNPS: Rank 1B.2	May-September	Marshes and swamps (freshwater and brackish).	The closest record of this species is located 2.5 miles northwest of the project site (Occurrence No. 13).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: Rank 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	The closest record of this species is located 1.1 miles east of the project site (Occurrence No. 23).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Orobanchaceae					
Castilleja affinis neglecta Tiburon paintbrush	Fed: FE State: CT CNPS: Rank 1B.2	April-June	Valley and foothill grassland [serpentinite]	The closest record of this species is located 2.8 miles southeast of the project site (Occurrence No. 5).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Chloropyron molle molle Soft salty bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	July-September	Marshes and swamps (coastal salt).	The closest record of this species is located 2.2 miles north of the project site (Occurrence No. 3).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern

CNPS:
Rank 1A - Presumed extinct in California
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other:	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabit static rain-filled/vernal pools, small, clear water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression	Record for this species located 1.6 miles north of the project site (CNDDB Occurrence No. 232).	None. No vernal pools or suitable habitat onsite. No impacts to this species are anticipated.
Fish				
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Record for this species located 0.3 miles southwest of the project site (CNDDB Occurrence No. 4).	None. No streams or rivers on the project site. No impacts to this species are anticipated.
Longfin smelt *Spirinichus thaleichthys*	Fed: -- State: CT Other:	Endemic to the Sacramento-San Joaquin River system. Inhabits open waters in the Delta and Suisun Bay. After spawning, larvae are carried downstream to brackish nursery areas.	Record for this species located 1.1 miles east of the project site (CNDDB Occurrence No. 26).	None. No stream or river habitat located on the project site. No impacts to this species are anticipated.
Sacramento splittail *Pogonichthys macrolepidotus*	Fed: State: CSC Other:	Endemic to the lakes and rivers of the Central Valley; now confined to the delta, Suisun Bay, and associated marshes. Inhabits slow moving river sections and dead-end sloughs. Needs flooded vegetation for spawning.	Record for this species located 2.8 miles southwest of the project site (CNDDB Occurrence No. 12).	None. No streams or rivers on the project site. No impacts to this species are anticipated.
Amphibians				
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Record for this species located 1.4 miles east of the project site (CNDDB Occurrence No. 896).	Unlikely to occur onsite due to lack of suitable habitat and presence of a eucalytpus grove onsite for many decades. See text.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Reptiles				
Western pond turtle ** *Actinemys marmorata marmorata*	Fed: - State: CSC Other:	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County.	Record for this species located 0.5 miles north of the project site (CNDDB Occurrence No. 552).	None. No streams or open water onsite. No impacts to this species are anticipated.
Birds				
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other:	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging.	Record for this species located 2.6 miles north of the project site (CNDDB Occurrence No. 2744).	Low potential to nest in the eucalyptus adjacent to the project site. A pre-constuction nesting survey will be conducted. See text.
Ferruginous hawk *Buteo regalis*	Fed: -- State: WL Other:	Winter migrant to California where they prefer grasslands, cultivated fields and arid areas with an abundance of prey species, such as pocket gophers, black-tailed hares, and cottontails.	Record for this species located 2.4 miles north of the project site (CNDDB Occurrence No. 28).	None. This species does not nest in California. No impacts to this species are anticipated.
California black rail *Laterallus jamaicensis coturniculus*	Fed: -- State: CT Other:	Inhabits salt marshes bordering larger bays. Prefers tidal salt marshes of pickleweed.	Record for this species located 2.3 miles north of the project site (CNDDB Occurrence No. 13).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.
California Ridgway's rail *Rallus obsoletus obsoletus*	Fed: FE State: CE Other:	Inhabits salt water and brackish marshes with tidal sloughs in San Francisco Bay. Prefers dense pickleweed for cover, but forages for invertebrates along mud-bottomed sloughs.	Record for this species located 2.3 miles Northwest of the project site (CNDDB Occurrence No. 16).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Record for this species located 2.5 miles southeast of the project site (CNDDB Occurrence No. 109).	Low. Few burrows observed onsite. No owls were observed during suveys. A pre-constuction survey will be conducted. See text.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	Fed: - State: CSC Other:	Resident of freshwater and salt water marshes in the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	Record for this species located 2.3 miles north of the project site (CNDDB Occurrence No. 37).	None. No nesting habitat located on the project site. No impacts to this species are anticipated.
San Pablo song sparrow *Melospiza melodia samuelis*	Fed: -- State: CSC Other:	More properly known as Samuels Song Sparrow. Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the California marshes; nests in grindelia bordering slough channels.	Record for this species located 2.6 miles west of the project site (CNDDB Occurrence No. 17).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CC Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Record for this species located 1.6 miles northeast of the project site (CNDDB Occurrence No. 243).	None. Insufficent cover for nesting and no permanent open water onsite. No impacts to this species are anticipated.
Mammals				
Salt marsh harvest mouse *Reithrodontomys raviventris*	Fed: FE State: CE Other:	Inhabits saline marshes in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	Record for this species located 2.2 miles south of the project site (CNDDB Occurrence No. 150).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site

***Status**

Federal:	State:
FE - Federal Endangered	CE - California Endangered
FT - Federal Threatened	CT - California Threatened
FPE - Federal Proposed Endangered	CR - California Rare
FPT - Federal Proposed Threatened	CC - California Candidate
FC - Federal Candidate	CSC - California Species of Special Concern
FPD - Federally Proposed for delisting	FP - Fully Protected
	WL - Watch List. Not protected pursuant to CEQA

**The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.

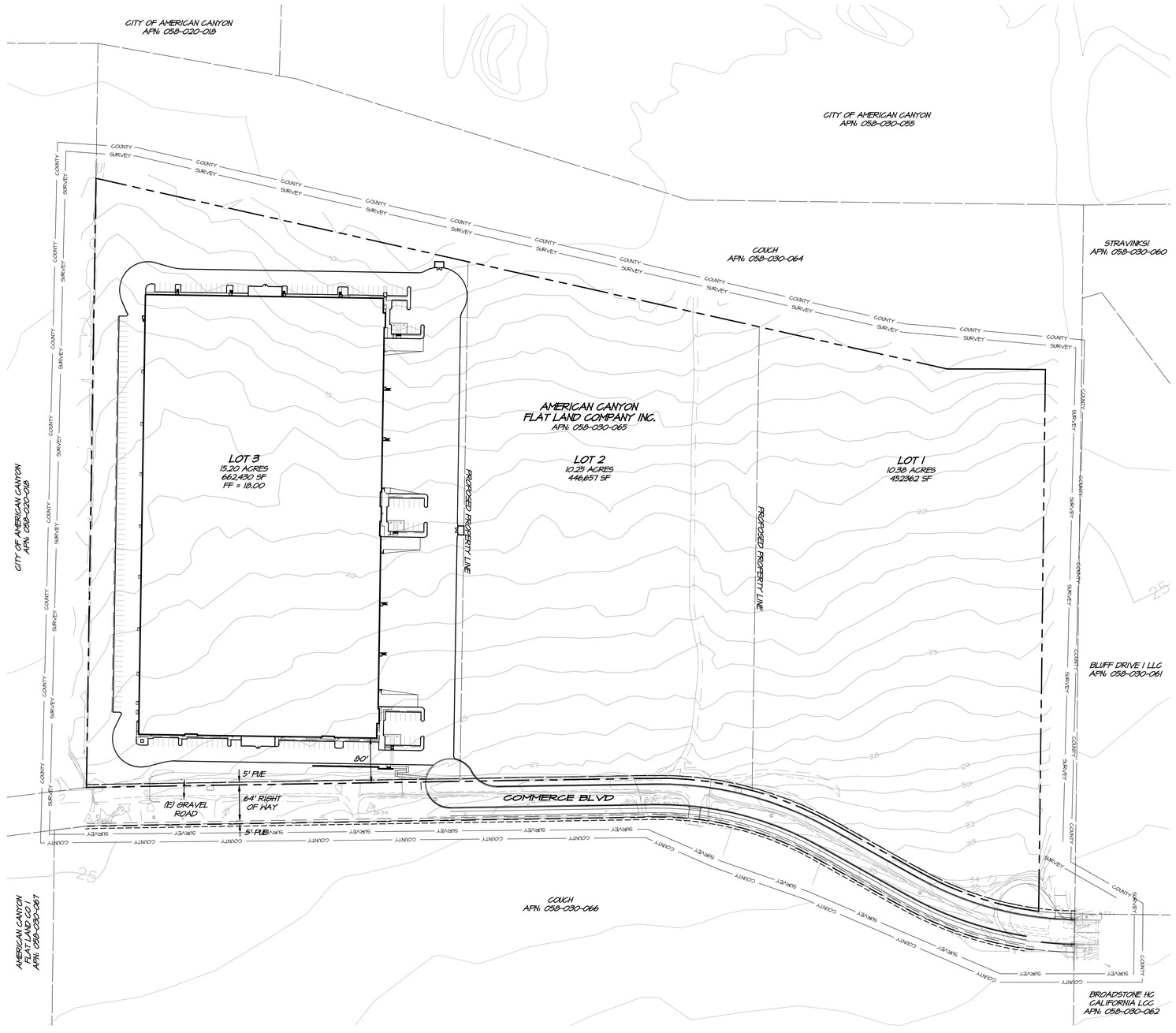
SDG 330 COMMERCE DISTRIBUTION CENTER

TENTATIVE PARCEL MAP & USE PERMIT MODIFICATION PLANS

GRAPHIC SCALE

100 0 100 200

(IN FEET)
1 inch = 100 FT



SYMBOL LEGEND

EXISTING

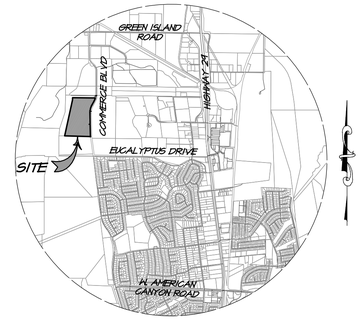
- SURVEY CONTROL STATION
- FOUND
- BRASS PIN
- FLOW LINE
- FENCE
- TREE (AS NOTED)
- WELL

PROPOSED

- SD — STORM DRAIN PIPE
- DRAIN INLET
- DS — DOWNSPOUT
- T-SPREADER
- TOP / TOE DAYLIGHT
- RETAINING WALL
- VERTICAL CURB
- CURB & GUTTER
- SS — SANITARY SEWER
- CO — CLEANOUT
- DW — DOMESTIC WATER
- FW — FIRE WATER
- RW — RECYCLED WATER
- FH — FIRE HYDRANT

ABBREVIATIONS

℄	CENTERLINE
CO	CLEANOUT
DW	DOMESTIC WATER
EP	EDGE OF PAVEMENT
EV	ELECTRIC VEHICLE
EX / (E)	EXISTING
FD	FOUND
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FW	FIRE WATER
GB	GRADE BREAK
HP	HIGH POINT
HWL	HIGH WATER LEVEL
INV	INVERT
IP	IRON PIPE
IW	IRRIGATION WATER
LF	LINEAL FEET/FOOT
LLA	LOT LINE ADJUSTMENT
LP	LOW POINT
MH	MANHOLE
OC	ON CENTER
OR	OFFICIAL RECORD
PL	PROPERTY LINE
(P)	PROPOSED NEW WORK
PW	PROCESS WATER
PWW	PROCESS WASTE WATER
R	RADIUS
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
ROW	RIGHT OF WAY
RW	RECYCLED WATER
S	SLOPE (FEET/FOOT)
S.A.D.	SEE ARCHITECTS DRAWINGS
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
WM	WATER METER



VICINITY MAP

SCALE: 1" = 3000'

PROJECT INFORMATION

CLIENT:	INDUSTRIAL & COMMERCIAL CONTRACTORS, INC. 413 W. YOSEMITE AVENUE, STE. 105 MADERA, CA 93637
CONTACT:	BRIAN DOSWALD
SITE ADDRESS:	COMMERCE BLVD. AMERICAN CANYON, CA 94503
CIVIL ENGINEER:	RSA+ 1515 FOURTH STREET NAPA, CA 94559
APN & AREA:	058-030-065 (35.85 ACRES)

SURVEY NOTES

1. TOPOGRAPHY BASED ON A FIELD SURVEY PERFORMED BY RSA+ IN MARCH, 2018. CONTOURS ARE SHOWN EVERY ONE FOOT (1'), HIGHLIGHTED EVERY FIVE FEET (5').
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83) 2011 EPOCH BASED UPON G.P.S. OBSERVATIONS ON NETWORK UTILIZING CONTINUALLY OPERATING REFERENCE STATION (C.O.R.S.) INFORMATION FROM THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.).

   VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3. BOUNDARY SHOWN IS RECORD INFORMATION PER BOOK 26 OR PARCEL MAPS AT PAGE 24, NAPA COUNTY RECORDS.

SHEET INDEX

C1.0	COVER SHEET
C1.1	TENTATIVE PARCEL MAP
C2.0	DEMOLITION AND LAYOUT PLAN
C3.0	GRADING PLAN
C3.1	COMMERCE BLVD PLAN
C3.2	COMMERCE BLVD PLAN
C4.0	UTILITY PLAN

NO.	DATE	REVISIONS	BY	APP'D

RSA+ | CONSULTING CIVIL ENGINEERS + SURVEYORS + (1980)
1515 FOURTH STREET
NAPA, CALIFORNIA 94559
OFFICE (707) 252-3301
+ www.RSAcivil.com +

SDG COMMERCE 330 DISTRIBUTION CENTER

SITE PLAN

AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNICK
No. 82758
Exp. 9-30-18
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	June 8, 2018
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4118010.0

SHEET NO.
C1.0
1 OF 7 SHEETS

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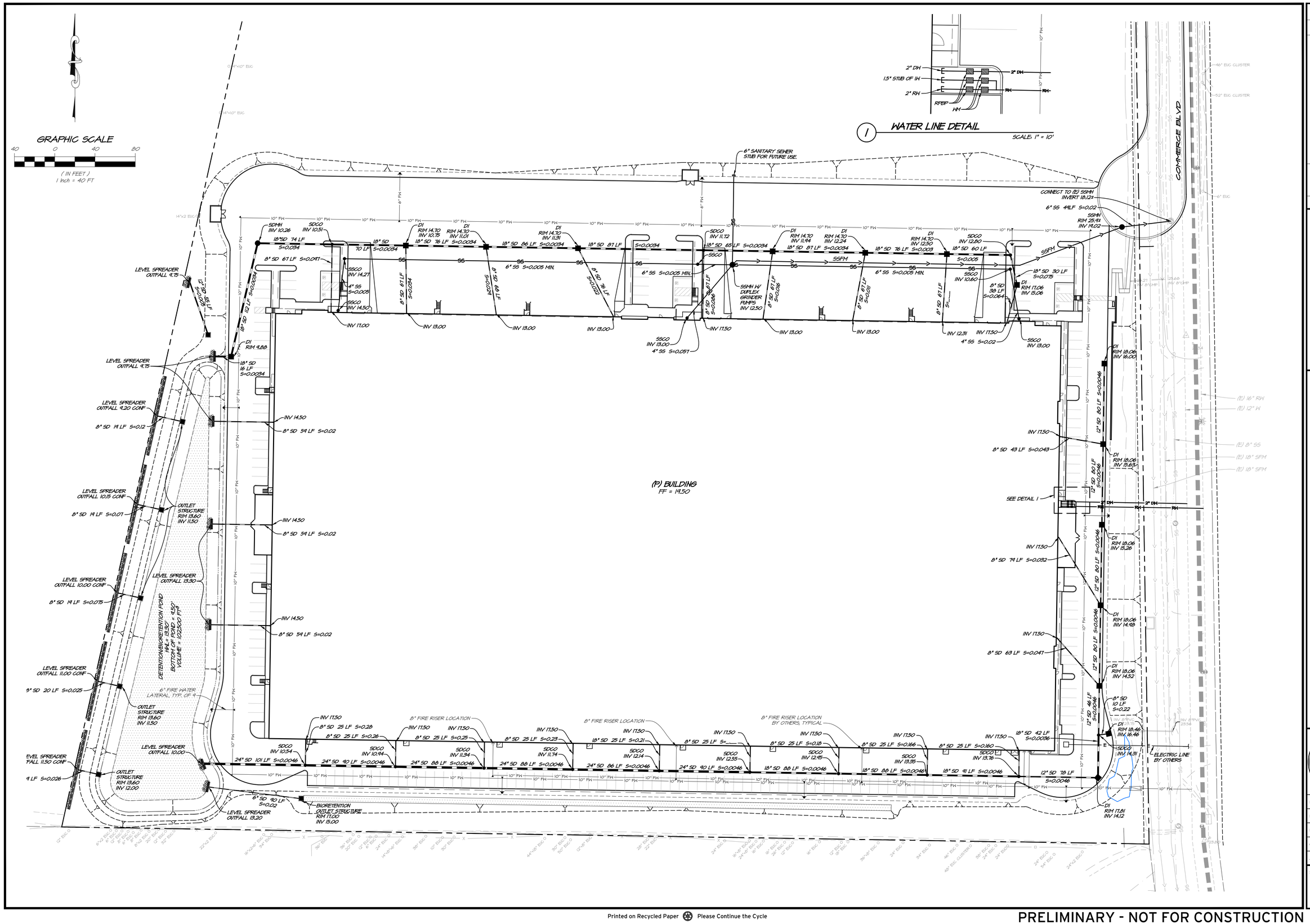

NO.	DATE	REVISIONS	BY	APPD

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SDG COMMERCE 330 DISTRIBUTION CENTER
UTILITY PLAN
AMERICAN CANYON
CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNOCK
No. 82758
Exp. 9-30-18
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	June 8, 2018
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4118010.0
SHEET NO.	C4.0
	7 OF 7 SHEETS

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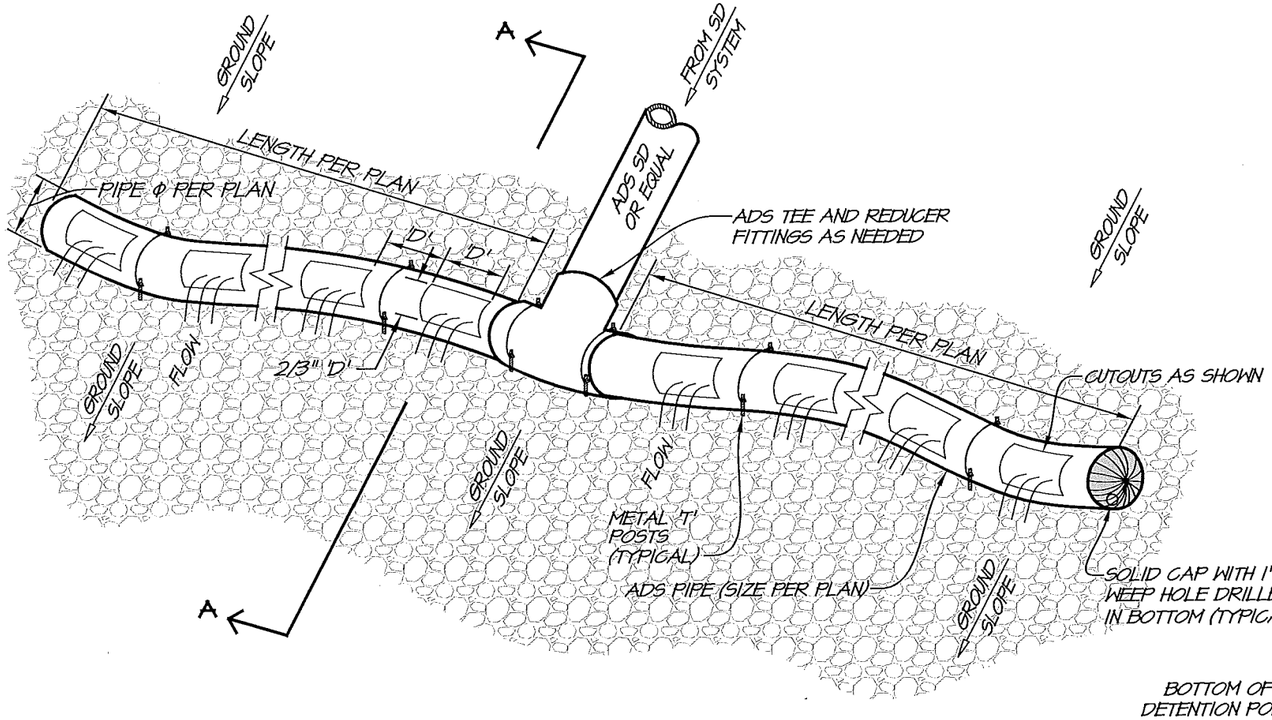
PRELIMINARY - NOT FOR CONSTRUCTION

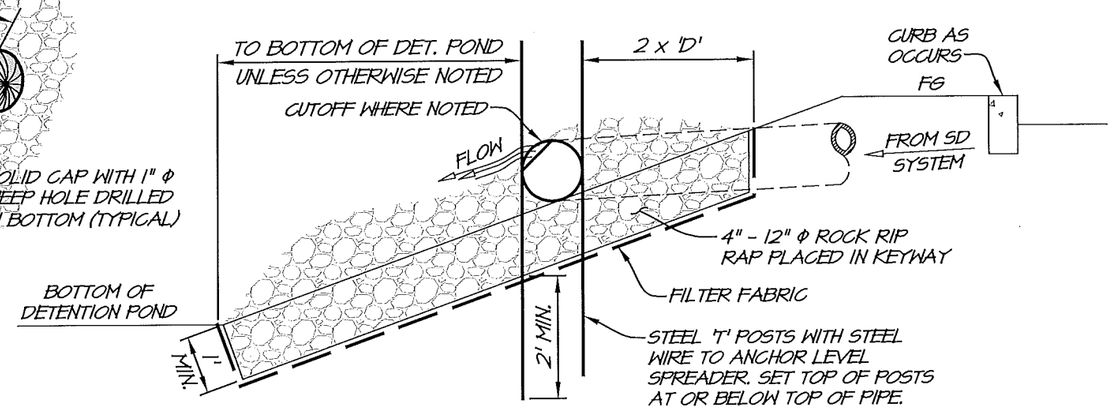
3287

SDG COMMERCE 330 DISTRIBUTION CENTER

LEVEL SPREADER DETAIL

AMERICAN CANYON CALIFORNIA





NOTE

1. INSTALL LEVEL SPREADER ALONG CONTOUR IN LOCATION SHOWN ON PLAN.

SECTION A-A

1 STORM DRAIN LEVEL SPREADER DETAIL

NOT TO SCALE

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- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
- Plastic Pipe
- RCP
- Control Points
- Delineation Area: Lot 3 (35.8 Acres)

Wetland #	Sq. Ft.	Acres	Linear Wetland #	Lin. Ft.	Sq. Ft.	Acres
W 1	601	0.014	LW 1	113	339	0.008
W 2	93	0.002	LW 2	276	828	0.019

Isolated Wetland #	Sq. Ft.	Acres
IW 1	874	0.020

Approved Jurisdictional Determination, pursuant to Section 404 Clean Water Act

U.S. Army Corps of Engineers
San Francisco District
Regulatory Division

American Canyon Flat Lands
American Canyon, Napa County, California
(APNs: 058-030-067 and 058-030-065)

Accurate as depicted in legend

Section 404 jurisdiction verified only within the designated Delineation Area. Construction-related and isolated wetlands are not subject to Section 404 jurisdiction.

File ID. **2011-00322** Date: **March 6, 2018** Sheet 2 of 2

38.187836 -122.271692 Decimal Degrees

38.183213 -122.276052 Decimal Degrees

W 1
LW 1
W2
LW2
IW 1
3'
3'

0 50 100 200 300 400 500 Feet Scale: 1 inch = 100 feet

Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

Appendix C

Traffic Memoranda

Memorandum

October 24, 2018

To:	Mr. Neil Thompson Stravinski Development Group	Project:	330 Commerce Boulevard Wine Storage Facility Project
From:	Kamesh Vedula, P.E. Peter Galloway, Senior Transportation Planner	Ref/Job No.:	11181445
CC:		File No.:	C2106MEM006.DOCX

Subject: Traffic Impact Analysis Memorandum

Introduction

This traffic impact analysis memorandum (TIAM) has been prepared to present the results of a traffic impact analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard in the City of American Canyon. The term "project" used in this memorandum refers to the proposed new 330,528 square foot wine storage warehouse. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[1] The project site is located on Commerce Boulevard south of Green Island Road and Hanna Drive at the terminus of the roadway.

Included in this technical memorandum are analyses and discussion of the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this project:

- Existing Conditions
- Existing Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

[1] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

GHD
943 Reserve Drive Roseville California 95678 USA
T 916 782 8688 F 916 782 8689 W www.ghd.com

The following study intersection was identified and analyzed for this project:

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

The *Existing Conditions* analysis represents current operations of roadway and intersections based on newly collected traffic count data (October, 2018);

The *Existing Plus Project Conditions* represent the net increase in project trips that are then added to existing traffic volumes to quantify potential impacts from proposed project uses;

The *Cumulative (No Project) Conditions* represent future traffic conditions based on the City of American Canyon General Plan to the Year 2030;

The *Cumulative Plus Project Conditions* represent the net increase in project trips added to cumulative (no project) volumes to quantify impacts from proposed project uses. Care is given not to "double count" proposed project trips based on assumed land uses for the proposed project site used in City's General Plan.

Existing Traffic Volumes

Existing traffic volumes for this analysis are based on new daily and peak hour traffic volume data collected during the first week of October, 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road (see Appendices for Supporting Data Information).[2]

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the amount of heavy vehicles (truck traffic) was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

Analysis Level of Service Methodologies/Policies

City of American Canyon Traffic Study Thresholds of Significance

The City of American Canyon Traffic Study Thresholds of Significance establishes the following significance criteria for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

[2] National Data and Surveying Services (NDS), AM peak period (7:00-9:00), PM peak period (4:00-6:00) intersection count at the Green Island Road/Commerce Boulevard intersection, October 2, 2018. Average daily traffic (ADT) counts on Green Island Road (east and west of Commerce Boulevard) and Commerce Boulevard (north and south of Green Island Road, October 2, 3, 4, 2018.

"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."

Project-Specific Significance and Mitigation Thresholds

In accordance with the City of American Canyon Traffic Study Thresholds of Significance, the following thresholds of significance are used to determine if an impact is significant and requires mitigation:

Unsignalized Intersections:
The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS in the *No Project* condition to deteriorate to an unacceptable LOS in the *Plus Project* condition; or,
- Increase the delay by more than 5 seconds at an unsignalized intersection that is already operating or will operate at an unacceptable LOS in the *No Project* condition.

Existing Intersection Operations

Methodology

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. For all-way-stop-control intersections it is the average delay for all approaches.

Intersection levels-of-service have been based on the most recent Highway Capacity Manual (*HCM 6*) operations methodology for unsignalized all-way-stop-control intersections using *Synchro-Simtraffic* software (version 10). In addition, peak hour factors (PHF's) for each intersection approach have been incorporated into all existing and future intersection LOS calculations. The PHF is a measure of the traffic flow rate at each of the intersection's approaches. Based on field count data, these PHF's ranged from .75 to .87 dependent on the peak hour. Intersection approaches with lower approach volumes typically have lower (and more conservative) PHF's.

Intersection

Table 1 provides a summary of the *Existing* peak hour intersection delay and level of service at the Green Island Road/Commerce Boulevard intersection using the most recent Synchro model.

Table 1: Existing Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	9.5	A	10.6	B

Notes:
1. AWSC = All Way Stop Control
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.

As shown in Table 1, the Green Island Road/Commerce Boulevard intersection is currently operating at acceptable LOS during both peak hours.

Project Description

The proposed 330 Commerce Boulevard Wine Storage Facility project would be located in the City of American Canyon at the far south end of Commerce Boulevard (south of Green Island Road). Based on the latest correspondence and site plan from the project applicant the proposed project would consist of a 330,528 square foot wine storage warehouse. At this time, vehicle and truck access to/from the proposed facility would be to/from Commerce Boulevard via Green Island Road.

Project Trip Generation

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[3] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities. Using the same methodology for the AM peak hour (between 7:00-9:00) and PM peak hour (between 4:00-6:00) peak hour trip generation has been compared in Tables 2 and 3.

Table 2: AM and PM Peak Hour Trip Generation Comparison--Tuesday

Tuesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	10-May-16	61 / 42	0.15 / 0.11
787 Airpark Road	377		27 / 37	0.07 / 0.10
175 & 177 Tower Road	254		30 / 31	0.12 / 0.12
Commerce Boulevard	692	16-Feb-16	72 / 93	0.10 / 0.13
Hanna Drive	718		151 / 109	0.21 / 0.15
Lombard Drive	287		50 / 33	0.17 / 0.12
Six Site Combined Average Tuesday Trip Rate				**0.14 / 0.12**

[3] Omni-Means, Ltd., Trip Generation Rates---Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

Table 3: AM and PM Peak Hour Trip Generation Comparison---Wednesday

Wednesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	11-May-16	57 / 34	0.14 / 0.09
787 Airpark Road	377		54 / 24	0.14 / 0.06
175 & 177 Tower Road	254		51 / 36	0.20 / 0.14
Commerce Boulevard	692	17-Feb-16	99 / 133	0.14 / 0.19
Hanna Drive	718		164 / 128	0.23 / 0.18
Lombard Drive	287		57 / 38	0.20 / 0.13
Six Site Combined Average Wednesday Trip Rate				**0.18 / 0.13**

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving the site prior to the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

As shown in Tables 2 and 3, the average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf , respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily and peak hour trip generation has been shown in Table 4.

Table 4: Project Trip Generation; Daily and Peak Hour

Observed Daily and Peak Hour Trip Rates	Unit[1]	Daily Trip Rate/Uni	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Wine Warehouse/Storage	ksf	1.69	0.16	60%	40%	0.13	35%	65%
Project Name	**Quantity**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
330 Commerce Wine Storage	331	559	53	32	21	43	15	28
Net New Project Trips		**559**	**53**	**32**	**21**	**43**	**15**	**28**
Notes:								
1. 1 ksf = 1,000 square feet								
2. Trip rates based on daily traffic driveway counts at six (6) different wine warehouse/storage facilities in the Ameri								
focusing on the 24-hour and AM and PM peak hours between (7:00-9:00 am and 4:00-6:00 pm).								

As calculated in Table 4, the proposed project would be expected to generate 559 daily trips with 53 AM peak hour trips and 43 PM peak hour trips.

Project Distribution

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Based on these factors, it is estimated that 95% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard). The remaining 5% of the proposed project trips would be to/from the west via Green Island Road.

Existing Plus Project Traffic Conditions

Existing plus Project conditions were simulated by superimposing AM and PM peak hour traffic by the proposed project onto *Existing* intersection traffic volumes.

Intersection Operation

Table 5 provides a summary of *Existing Plus Project* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 5: Existing Plus Project Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.0	A	11.2	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 5, the study intersection of Green Island Road/Commerce Boulevard would operate acceptably during both the AM and PM peak hours with existing and proposed project traffic.

Signal Warrants

The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants with *Existing* and Existing *Plus Project* Conditions. The CaMUTCD manual identifies up to nine warrants which can be used and states that "*An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location*".[4] Traffic signals can have several advantages which are outlined in the manual. These include: maintaining orderly movement of traffic; increasing capacity, reducing the frequency of certain

[4] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 3 (March 9, 2018).

accident types (right-angles), provide continuous movement of traffic at a definite speed, and permit minor street traffic/pedestrians to cross the major street.

However, the manual goes on to state that "*The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated*." The manual recommends engineering judgment should ultimately be used when deciding the appropriateness of signal controls.

Six of the nine warrants were evaluated (three warrants concerning coordinated signal system, roadway network, and railroad crossing locations were not relevant). The signal warrant worksheets are attached in the Appendix.

There are three warrants based on vehicle volumes and none of the three are met with Existing Plus Project Volumes. These include the “peak hour volume,” “8-hour volume,” and “4-hour volume” warrants. Overall hourly approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

Two warrants are based on pedestrian crossing volumes (“pedestrian volumes” and “adequate gaps” for pedestrians) which were applied to the pedestrian volumes in the area. However, while there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road; there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard are very light. During the AM and PM peak period only two (2) pedestrians were observed and only one pedestrian crossed north-south on Green Island Road (jay-walked). Therefore, no pedestrian warrants are met at this time.

Finally, an accident search history was conducted for the Green Island Road/Commerce Boulevard intersection based on the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for last three calendar years (2015-2017). The crash experience warrant requires at least five accidents at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). Based on the accident search history for the last three full calendar years; the Green Island Road/Commerce Boulevard intersection does not experience significant vehicle conflicts (0 recorded accidents).

Right-Turn Lane Requirements

At the City’s request, the Green Island Road/Commerce Boulevard intersection has been evaluated for northbound right-turn movements and an exclusive right-turn lane. Based on existing peak hour count data at the intersection, the vast majority of turning movements from northbound Commerce Boulevard onto Green Island Road are right-turn movements (29 AM right-turns and 168 PM right-turns). With proposed project traffic, these movements are expected to increase to 49 AM right-turns and 195 PM right-turns. Essentially, the northbound approach lane of Commerce Boulevard at Green Island Road is functioning as an exclusive right-turn lane under existing conditions given the very low northbound left-turn movements at the intersection.

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane would be warranted at the intersection based on an overall approach volume of

207 vehicles (PM peak hour worst-case) and a projected northbound right-turn movement of 195 vehicles (see Appendices; Right-Turn Lane Volumes).[5]

Cumulative (No Project) Conditions

Cumulative (No Project) conditions were based on cumulative AM and PM peak hour volume projections found in the *Napa Logistics Park Phase 2 Project Draft EIR*. Peak hour volume projections for Green Island Road west of Paoli Loop Road were used for this analysis and encompass all future vehicle trips originating from industrial and light industrial areas in the Mezzetta Court, Jim Oswalt Way, Hanna Drive, and Commerce Boulevard areas. As a conservative measure, the *No Shift Change Reduction* volumes were utilized.

Intersection Operation

Table 6 provides a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Syncho-Simtraffic model.

Table 6: Cumulative (No Project) Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	14.6	B	29.6	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 6, the Green Island Road/Commerce Boulevard intersection would operate at acceptable LOS during both peak hours.

Cumulative Plus Project Conditions

Cumulative Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto *Cumulative (No Project)* intersection traffic volumes.

Intersection Operation

Table 7 provides a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Syncho-Simtraffic model.

[5] Transportation Research Board, Intersection Channelization Design Guide, Chapter 4, Guidelines for Design of Channelized Intersections, Figure 4-23, Traffic volume guidelines of right-turn lanes, 1995.

Table 7 Cumulative Plus Project: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	16.5	C	35.0	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 7, the Green Island Road/Commerce Boulevard intersection would continue to operate at acceptable LOS with *Cumulative Plus Project* volumes during both peak hours.

Summary/Mitigation

The proposed 330 Commerce Boulevard Wine Storage Facility project would not significantly affect AM and PM peak hour traffic operations at the Green Island Road/Commerce Boulevard intersection. With *Existing Plus Project* and *Cumulative Plus Project* volumes, the intersection would continue to operate at acceptable levels during the AM and PM peak hours (LOS D or better). Analyses of intersection signal warrant satisfaction at the Green Island Road/Commerce Boulevard location indicates that no signal warrant would be satisfied under *Existing Plus Project* volumes. At the City's request, the northbound right-turn lane from Commerce Boulevard was evaluated for operations. Based on TRB and AASHTO guidelines for the installation of a right-turn lane; Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). In response, the following measure is recommended:

- Widen and/or re-stripe northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 4.2% (43 trips / 1,019 cumulative volumes—PM peak hour).

  With recommended improvements for a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under *Existing Plus Project* and *Cumulative Plus Project* conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (11.2 seconds) to LOS B (10.3 seconds) with *Existing Plus Project* conditions. Under *Cumulative Plus Project* conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds).

Appendix D

Noise Appendices

American Canyon Commerce Boulevard Wine Storage Project

Noise Appendix

Technical Information

Site 1 – 24-Hour Noise Plots (3 pages)

Noise Measurement Locations Figure

RCH GROUP
11060 WHITE ROCK ROAD, SUITE 150-A RANCHO CORDOVA, CA 95670 (916)782-4427

NOISE APPENDIX

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the "loudness" of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[1]; day–night 24-hour average sound level (Ldn)[2] with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[3], also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

Table 1 identifies decibel levels for common sounds heard in the environment.

Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (Caltrans, 1998b). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

Temporary Construction Noise

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. **Table 2** shows typical noise levels from construction equipment. **Table 3** shows noise levels from construction activities, which typically range from 81 to 88 dB Leq at 50 feet, depending on the construction phase.

[1]The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[2]Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[3]CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Table 1: Typical Noise Levels

Noise Level (dB)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: modified from Caltrans, 1998a

Groundborne Vibration

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment at a distance of 25 feet are summarized in **Table 4**. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inches per second (in/sec) or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a PPV threshold of 0.5 in/sec for residential and commercial structures, 0.25 in/sec for historic buildings and archaeological sites, and 0.2 in/sec for non-engineered timber and masonry buildings (FTA, 2006).

Table 2: Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Grader	85
Impact Pile Driver	101
Jackhammer	89
Loader	79
Paver	77
Pickup Truck	75
Roller	80

Source: FHWA, 2006

Table 3: Typical Construction Activities Noise Levels

Construction Phase	Noise Level (dB, Leq at 50 feet)
Ground Clearing	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.
Leq = equivalent sound level
Source: U.S. Environmental Protection Agency, Legal Compilation, 1973

Table 4: Representative Vibration Source Levels for Construction Equipment

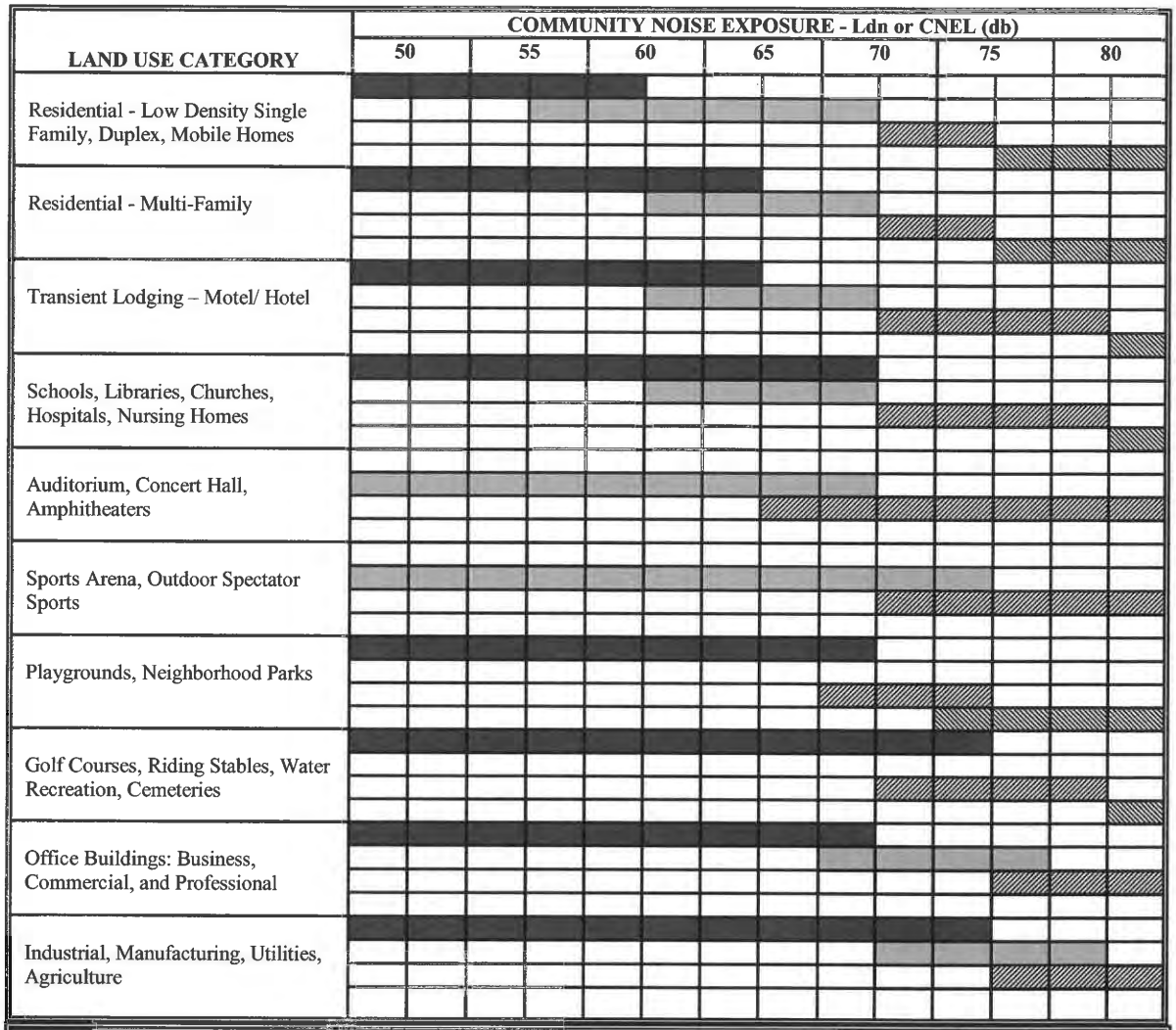
Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Large Bulldozer		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, 2006

State Guidelines

State Land Use Compatibility standards for Community Noise (**Table 5**) are provided in the State of California General Plan Guidelines.

Table 5: Land Use Compatibility for Community Noise Environment



	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: OPR, 2003

REFERENCES

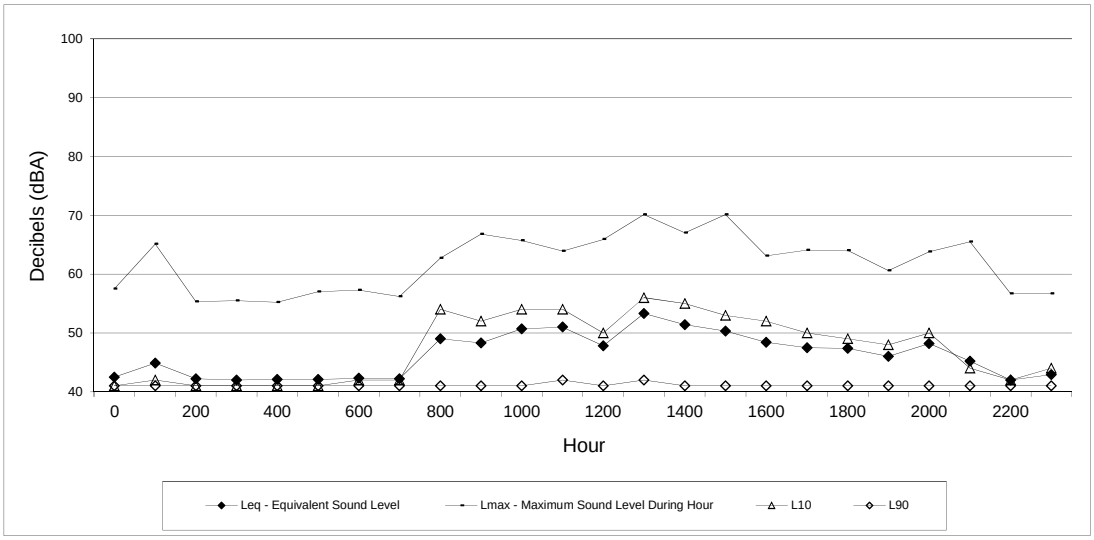
California Department of Transportation (Caltrans), 1998a. *Technical Noise Supplement*.

California Department of Transportation (Caltrans), 1998b. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October 1998.

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06).

Governor's Office of Planning and Research (OPR), 2003. *State of California General Plan Guidelines*. Appendix A: Noise Element Guidelines.

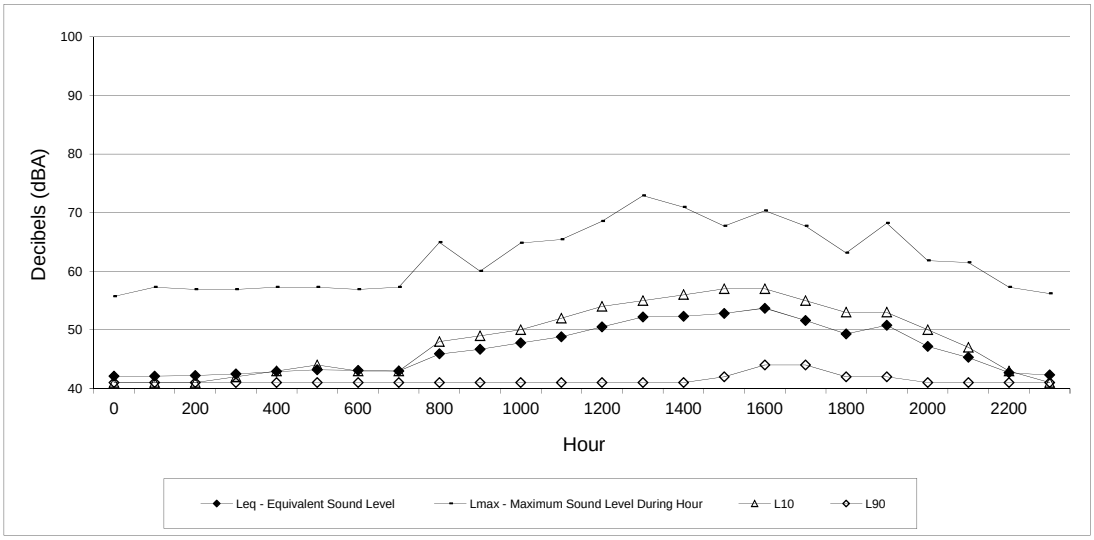


Site 1: S edge of project site, 480 ft W of E property line
Tuesday July 31, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	43	58	41	41
100	45	65	42	41
200	42	55	41	41
300	42	56	41	41
400	42	55	41	41
500	42	57	41	41
600	42	57	42	41
700	42	56	42	41
800	49	63	54	41
900	48	67	52	41
1000	51	66	54	41
1100	51	64	54	42
1200	48	66	50	41
1300	53	70	56	42
1400	51	67	55	41
1500	50	70	53	41
1600	48	63	52	41
1700	48	64	50	41
1800	47	64	49	41
1900	46	61	48	41
2000	48	64	50	41
2100	45	66	44	41
2200	42	57	42	41
2300	43	57	44	41

CNEL 51

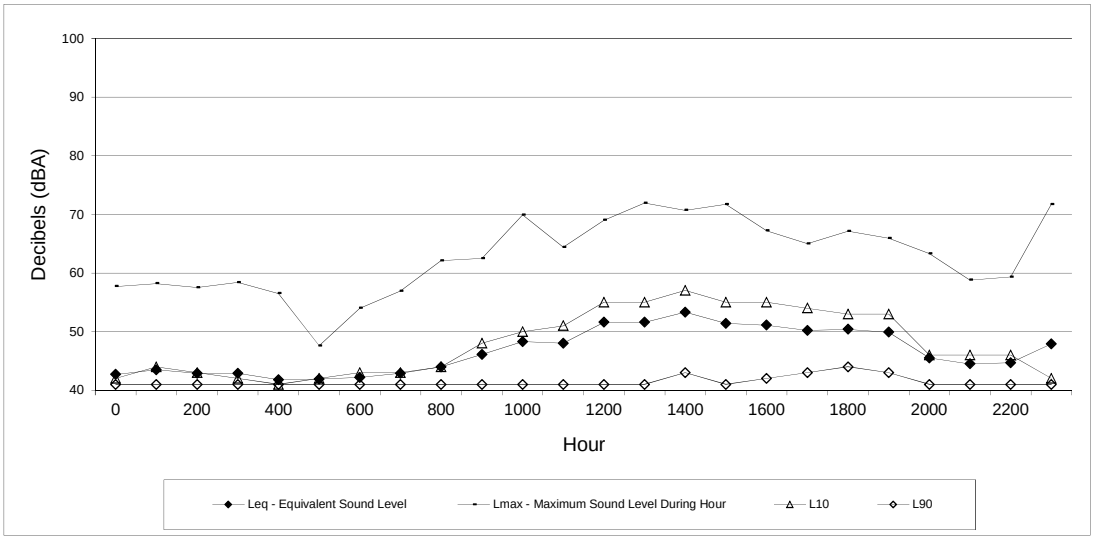
3308



Site 1: S edge of project site, 480 ft W of E property line
Wednesday August 1, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	42	56	41	41
100	42	57	41	41
200	42	57	41	41
300	43	57	42	41
400	43	57	43	41
500	43	57	44	41
600	43	57	43	41
700	43	57	43	41
800	46	65	48	41
900	47	60	49	41
1000	48	65	50	41
1100	49	65	52	41
1200	51	69	54	41
1300	52	73	55	41
1400	52	71	56	41
1500	53	68	57	42
1600	54	70	57	44
1700	52	68	55	44
1800	49	63	53	42
1900	51	68	53	42
2000	47	62	50	41
2100	45	62	47	41
2200	43	57	43	41
2300	42	56	41	41

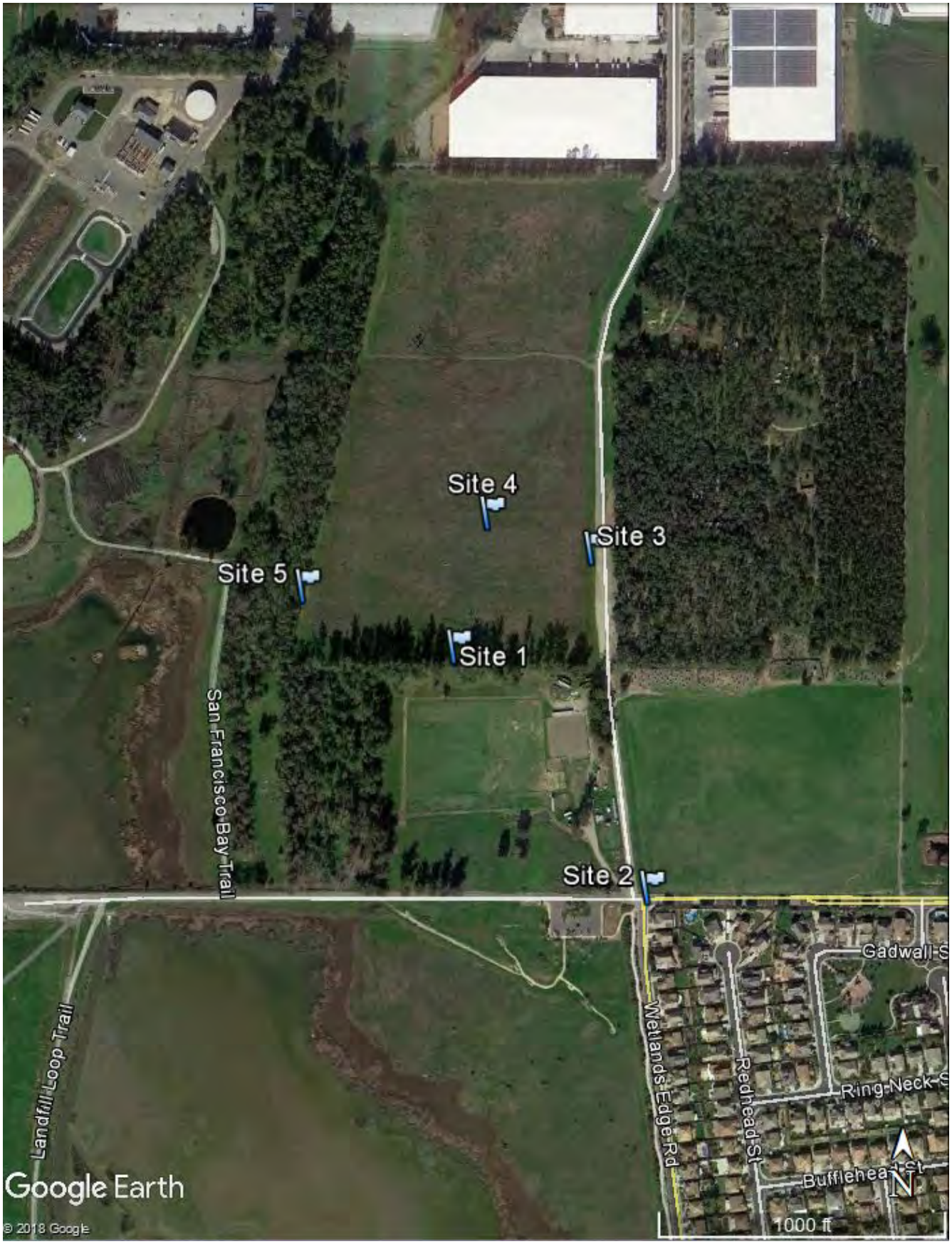
CNEL: 52



Site 1: S edge of project site, 480 ft W of E property line
Thursday August 2, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	43	58	42	41
100	44	58	44	41
200	43	58	43	41
300	43	58	42	41
400	42	57	41	41
500	42	48	42	41
600	42	54	43	41
700	43	57	43	41
800	44	62	44	41
900	46	63	48	41
1000	48	70	50	41
1100	48	64	51	41
1200	52	69	55	41
1300	52	72	55	41
1400	53	71	57	43
1500	51	72	55	41
1600	51	67	55	42
1700	50	65	54	43
1800	50	67	53	44
1900	50	66	53	43
2000	46	63	46	41
2100	45	59	46	41
2200	45	59	46	41
2300	48	72	42	41

CNEL: 52



American Canyon Commerce Blvd

SOURCE: Google Earth and RCH Group 2018

Noise Measurement Locations

Appendix E

Will-Serve Documentation

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT

City of American Canyon Will-Serve Application

Owner or Legal Representative's Name:	**Date:** 6/08/18
Company or Legal Entity Name: American Canyon Flatland Co., Inc.	**Applicant's Name:** SDG Commerce 330, LLC
Owner Address: 7674 N. Woodson Ave. Fresno, CA 93711	**Applicant Email:** bdoswald@icc-stravinski.com
Owner Email: rmmochizuki@yahoo.com	**Applicant Phone #:** (559) 674-0906
Owner Signature:	**Project Engineer:** RSA+
Project Name: SDG Commerce 330 Distribution Center	**Project Address:** Commerce Blvd. Extension North of Eucayptus Ave.
Project APN: 058-030-065	
Project Description: Warehouse storage and distribution of wine and wine industry goods.	

Permit Number:	**Time of Operation:**
Status of Environmental Clearance:	hours/day: 12-18
Permit Status:	days/week: 5
Land Use: Warehouse	months/year: 12
Property Zoning: Recreation	
Lot Size (acres): 15.2	**Building Size (sqft)** : 330,528

Anticipated Potable Water Demand

Average Day Demand* (annual):	**Maximum (Peak) Day Demand*:**
Domestic: 275 gpd Potable	Domestic: 629 gpd June Potable
Irrigation: 1,379 gpd Reclaimed	Irrigation: 5,672 gpd July Reclaimed
Industrial: 0 gpd	Industrial: gpd
Total: **gpd**	**Total:** **gpd**

***ATTACH REFERENCES USED AND CALCULATIONS FOR WATER DEMAND**

Comments:

Cost of Water Supply Report/Will-Serve Letters – The cost to process a Will-Serve application shall be fully borne by the applicant and will be based on the actual cost of staff time. If the City elects to use consultant services, the applicant shall pay the consultant's rate plus 15% for administrative overhead. An initial deposit of $2,000 shall be included at the time of application submission.

Owner & Applicant Acknowledgements and Notification

I declare under penalty of perjury that I am the owner of said property. I certify that all of the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application. I agree to pay all fees and recoverable costs for processing the application.

Property Owner Signature(s) _____ Date 06-20-2018

I declare under penalty of perjury that I have the written authority from property owner to file this application. I certify that all of the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application. I agree to pay all fees and recoverable costs due to the City for processing the application, whether it is approved, denied, or appealed.

Applicant Signature(s) _____ Date 6/18/18

Partnerships & Corporations

In the case of a partnership, all general and limited partners shall be identified. In the case of a corporation, all shareholders owning 10% or more of the stock and all officers and directors shall be identified.

Name	Address	Signature

Additional recipients of project correspondence

If you desire project correspondence and notice of meetings to be sent to parties other than the Applicant and Property Owner, please list their names, address and telephone numbers below.

Name	Address	Telephone number

Indemnification Agreement by Applicant

The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other document, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, Water Supply Report, Will-Serve Letter or any other document or approval related to the applicant's project.

The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

Brian Doswald _____ 6/18/18

Applicant's printed name | Applicant's signature | Date

HANNA COURT ACTUAL WATER CONSUMPTION

ACTUAL WATER CONSUMPTION

IN 100 CUBIC FOOT UNITS

			644 Hanna Drive		633	677 Hanna Drive	
Service Address:		Use:	Domestic	Reclaim	Fire	Domestic	Reclaim
Meter Number:			69115465	69115467	69650777	67995349	69115466
2014	Jan		10	90	0	2	55
	Feb		11	89	0	1	67
	Mar		11	85	0	1	136
	April		11	99	0	1	70
	May		14	71	0	2	56
	June		12	121	0	2	88
	July		13	200	0	1	117
	Aug		11	195	0	2	122
	Sep		10	179	0	1	130
	Oct		12	162	0	3	114
	Nov		13	185	0	2	133
	Dec		10	137	0	1	111
2015	Jan		9	68	0	1	24
	Feb		9	47	0	1	16
	Mar		9	64	0	1	48
	April		11	150	0	1	94
	May		15	75	0	1	30
	June		19	41	0	1	2
	July		16	89	0	0	52
	Aug		19	112	0	2	171
	Sep		15	131	0	1	235
	Oct		17	68	0	3	181
	Nov		17	126	0	2	130
	Dec		15	98	0	2	68
2016	Jan		14	82	0	2	70
	Feb		12	41	0	0	59
	Mar		15	23	0	1	71
	April		23	25	0	1	76
	May		18	38	0	0	37
	June		19	32	0	1	28
	July		14	31	0	0	41
	Aug		15	200	0	2	37
	Sep		15	316	0	0	27
	Oct		17	83	0	1	58
	Nov		16	140	0	1	20
	Dec		13	130	0	1	1
Annual Total Unit Consumption:			166.67	1274.33	0.00	15.00	925.00
Building Square Feet:			411,106			306,965	
Parcel Acreage:				28.79			21.53
Annual Total AF:			0.3826	2.9253	0	0.0344	2.1234
Domestic Gals/1,000 SF/YR:			303.33		0	0.0365	
Domestic Gals/1,000 SF/DAY:			0.8310				
Reclaim Acre Feet/YR/Acre:				0.1016			0.0986
Reclaim Acre Feet/DAY/Acre:				0.0003			

PROPOSED SDG COMMERCE BLVD 330 WAREHOUSE PROJECT

ANTICIPATED WATER CONSUMPTION

Domestic AF/YR For 330,528 SF:	0.3077		303.33*330.528/325,851 = 0.3077
Reclaim AF/YR For 15.2 acres:		1.5444	0.1016*15.2 = 1.5444
Average Domestic GALS/DAY For 330,000 SF:	275		Assumes 365 day year
Average Reclaim GALS/DAY For 15.2 acres:		1,379	Assumes 365 day year
Peak Domestic GALS/DAY For 330,528 SF:	629		Assumes 22 working days during peak m
Peak Reclaim GALS/DAY For 15.2 acres:		5,672	Assumes 22 days during peak month

DEVELOPER DEPOSIT PROJECT SET UP FORM

APPLICANT INFORMATION
(PLEASE PRINT)

APPLICANT NAME: SDG Commerce 330, LLC

ADDRESS: 413 W. Yosemite Avenue, Suite 105, Madera, CA 93637

PHONE: (559) 674-0906 E-MAIL bdoswald@icc-stravinski.com

CONTACT PERSON: Brian Doswald

BILLING INFORMATION
(PLEASE PRINT)

BILLING PARTY: Industrial & Commercial Contractors, LP

ADDRESS: 413 W. Yosemite Avenue, Suite 105, Madera, CA 93637

PHONE: (559) 674-0906 E-MAIL bdoswald@icc-stravinski.com

CONTACT PERSON: Brian Doswald

As an authorized representative of the applicant, I hereby consent by my signature below, that I understand the following:
The service of processing an application for a new or increased water demand through the City of American Canyon is of primary benefit to the applicant. The cost of processing an application is charged according to the hours spent by staff in reviewing and analyzing the project including checking plans, writing reports, conducting water audits, and verifying water demand estimates. The applicant receiving the benefit from the service shall pay the cost of these services. Total cost varies according to the size of the project and the complexity of the issues involved. At the City's sole discretion, a consultant may process the application. Pursuant to City Council Resolution 2008-79 for development applications, the applicant will pay all costs for consultant services inclusive of any applicable "in-house" administrative costs. Project specific expenditures such as City Attorney services, postage for mailing public notices, advertising, etc. have been excluded from the hourly rates. These project specific expenditures will be billed "at cost" on a project by project basis to the applicant.

The deposit creates an open account to which processing time is charged. Processing charges will automatically be drawn against the deposit funds until the minimum balance is remaining. All service charges will be invoiced to the applicant on a monthly basis. Accompanying the invoice will be a statement, which will include a description of services rendered during the billing period. Payment is due within 15 days of the invoice. **If payment is not received within 7 working days after the invoice due date, all development activities will be suspended until payment is received.**

At the conclusion of the Will-Serve process, after full payment of all invoices is received, any remaining deposit amounts will be refunded to the applicant.

DATE: 6/14/18 SIGNATURE: [signature]

COMMUNITY DEVELOPMENT USE ONLY

NEW PROJECT DEPOSIT: $2,000

MINIMUM INITIAL DEPOSIT MET? (CHECK) ____ YES ____ NO

MINIMUM DEPOSIT AMOUNT: $200

DEPOSIT WAIVED – EXPLAIN:

_____

_____

PROJECT #_____

RECEIPT #_____

PROJECT NAME: _____

RELATED PROJECTS:

_____

_____

_____

☐ ADDITIONAL DEPOSIT (EXISTING PROJECT)

☐ CASH BOND $_____

☐ REOPEN OLD PROJECT

CITY STAFF: _____ DATE: _____

Rev. 4/2/15

Appendix F

Mitigation Monitoring and Reporting Program

(to be included in Final IS/MND)

Attachment B: Lozeau Drury May 3, 2021 Comment Letter

B

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
michael@lozeaudrury.com

May 3, 2021 ***Via Email***

Leon Garcia, Mayor
Mark Joseph, Vice Mayor
Mariam Aboudamous
David Oro
Pierre Washington
American Canyon City Council
council@cityofamericancanyon.org

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Re: SDG Commerce 217 Distribution Center (PL20-0008) – Recirculated Mitigated Negative Declaration and Conditional Use Permit

Dear Mayor Garcia, Vice-Mayor Joseph, Council Members Aboudamous, Oro, and Washington and Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Recirculated Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). This comment letter supplements and incorporates by reference our previous written comments dated January 19, 2021 and February 25, 2021 (attached hereto as Exhibits C and D).

1 We have requested the assistance of Registered Professional Traffic Engineer Tom Brohard of Tom Brohard and Associates in reviewing the MND's discussion of the Project's increase in vehicle miles traveled ("VMT"), resulting transportation effects and the adequacy of the proposed mitigation measure. Tom Brohard and Associates Comments (April 30, 2021 (attached as Exhibit A.) Mr. Brohard prepared the attached expert comment regarding the Project's VMT analysis and identified numerous significant flaws in that analysis. Fundamentally, the claim that constructing an 800-foot bike lane would reduce VMT of commuters in nearby neighborhoods by 733 VMT daily is not supported by substantial evidence because it assumes that cyclists cannot currently ride on Commerce Avenue from Eucalyptus Drive to the existing bike lane adjacent to the SDG Commerce 330 building. Commuting cyclists already can ride without hindrance along that stretch of Commerce Avenue. As a result, the claimed VMT reductions of the new bike lane stretch are blatantly exaggerated by the Project and its consultant. As Mr. Brohard's analysis points out, a more realistic estimate of the VMT reductions based on guidance prepared on behalf of the California Air Resources Board ("CARB") would be a VMT reduction of 24 VMT. Using the methodology in the 2006 report

cited by the City's consultant – NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities" – Mr. Brohard calculates the bike lane would reduce VMT by 28 VMT. IN either case, the proposed 800-foot bike lane does not come close to mitigating the Project's increases in VMT. Because Mr. Brohard's expert comments are substantial evidence of a fair argument that the Project may have a significant transportation impact, the Council should elect not to approve the MND and instead instruct staff to prepare an environmental impact report ("EIR") for the Project.

1 (cont.)

A. The VMT Analysis Fails to Address the Numerous Non-commute Trips Generated by the Project.

The MND and Appendix F estimate that there will be 367 new daily trips generated by the Project, including "employee trips, visitor trips, delivery trips, and truck trips." (GHD Memorandum, p. 5 (March 21, 2021). GHD calculates that 37% of the total trips, i.e., 136 trips, are employee commute trips. (*Id*.) There is no information in the MND identifying which vehicle type the remaining 231 trips involve. The non-commute employee trips (e.g., lunch trips) as well as the delivery vehicle trips would all add additional VMTs to the project. As Mr. Brohard states, it is reasonable to estimate that up to half of those non-commute trips – 115 trips - are not semi-truck trips. (Brohard Comment, p. 2.) GHD states that the non-commute trip lengths are 23.8 miles. (GHD Memorandum, p. 18.) The VMTs associated with these non-commute Project trips may surpass the commute VMTs – 2,737 non-commute VMT vs. 2,214 commute VMT. (Brohard Comment, p. 2.) Those VMTs must be disclosed in order to evaluate the Project's VMT impacts and also for the City to consider how those trips should be factored into the VMT impact analysis. Because the MND omits any discussion of this transportation impact, it is insufficient as an informational document under CEQA.

2

B. Substantial Evidence of a Fair Argument Exists That the Project May Have a Significant Transportation Impacts.

As we noted in our prior comments, under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927, 931. "[I]t is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in original].) Likewise, as a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) Where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.)

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(3) (cont.) Traffic engineer Brohard's expert review and comment is substantial evidence. His thorough critique of the GHD methodology to assess the VMT benefits of the proposed bike lane as well as his application of CARB guidance demonstrate a fair argument that the Project may have significant transportation impacts.

a. The MND's assertion that the proposed 800-foot bike lane should be credited with benefits for an additional 1.7 miles of existing bike lane is arbitrary and capricious.

MND Appendix F states that "the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29…." (GHD Memorandum, p. 22 (March 21, 2021).) Appendix F also claims that "[t]he Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus." (*Id*.) Neither of these assertions are supported by any substantial evidence. There was no investigation by the City or applicant of bike usage of the Wetlands Edge bike path or the number of bike commuters using that path. More importantly, recent photos of the roadway from Eucalyptus Drive to the existing bike path adjacent to SDG Commerce 330 shows that the route is entirely accessible to commuting cyclists. Photos obtained from the Napa County Bicycle Coalition show a well-maintained road that extends from Eucalyptus to the existing bike path. (Brohard Comments, Attachments.) The entrance to the bike path is signed instructing bikes to yield to pedestrians – a clear indication that the route is used by cyclists. (*Id*.) There is no evidence supporting the claim that bikes must ride out to SR 29 to travel to the north side of the Project site.

(4) GHD and the MND rely upon the false notion that commuting cyclists cannot access the existing bike path in order to claim that the 800-foot length of bike path proposed by the Project should get to take credit for inducing commuting cyclists all along the 1.7 mile stretch of the Wetlands Edge Bike Path extending south of Eucalyptus Drive. Because the underlying premise that there is no connection to the existing bike path is incorrect, the entire exercise to inflate the VMT mitigation benefits is not supported by substantial evidence. Even if there was no connection as claimed, the analysis conducted to attribute half of the benefits of an existing 1.7 miles of bike lane to an 800-foot stretch is entirely random and unsupported by any rational basis. (Brohard Comments, p. 3.) Moreover, the analysis is inconsistent with the NCHRP Report GHD purports to follow. GHD adds a zone extending out from 1601 to 2400 meters from the existing Wetlands Edge Bike Path. As Mr. Brohard explains, "the NCHRP Report 552 does not provide a basis for calculating induced bike commuters from a zone extending from 1601 to 2400 m from the proposed bike path." (Brohard Comments, p. 4.) Likewise, Mr. Brohard notes the flaw in GHD randomly averaging VMT forecasts of a presumed 1.85 mile long bike path and the proposed 800-feet bike path. (Id., pp. 7-8.) Limiting the NCHRP Report 552 methodology to the 800-feet bike lane proposed by the applicant leads to an estimate of 28 new bike commuters induced by the new bike lane. (*See* GHD Memorandum, p. 23 (March 21, 2021).)

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b. The commuting bike trip lengths of 5.2 miles claimed by the MND and GHD's analysis is not supported by any substantial evidence.

The VMT reduction claimed for the proposed bike lane is based on an assumption that commuting cyclists originating from the residential neighborhood south and east of Eucalyptus Drive will on average bike 5.2 miles to their place of employment. (GHD Memorandum, pp. 9, 24 (March 21, 2021).) GHD's third iteration of its analysis includes an alternative figure of a 3.8 mile average bicycle commute. (*Id*.) This number is purportedly supported by an AASHTO report which is not available for sale or otherwise on-line. (Brohard Comments, pp. 1-2.) Contrary to either of these self-serving estimates, there is no evidence in the record that a cyclist could travel more than about 0.75 miles north of Eucalyptus Drive. (*Id*., p. 6. *See* Google Earth Image dated October 2020 attached as Exhibit B). It appears that, once a cyclist reaches Green Island Road, he/she then would have to travel out to SR 29 in order to proceed north to the airport and beyond. Ironically, this is the true disconnect – not Commerce Avenue – to bike commutes proceeding north of Green Island Road. As a result, any cycling commute trips induced by the proposed 800-foot bike lane logically must be limited to .75 miles in length. (Brohard Comments, p. 6.)

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c. Applying CARB methodology to estimating VMT reductions induced by a bike facility, the proposed bike lane would induce only bike commutes replacing 24 VMTs.

Mr. Brohard applies a methodology identified by CARB for estimating the number of bike trips induced by a new bike facility. (Brohard Comments, pp. 7-8.). Mr. Brohard's application of the CARB methodology estimates the proposed bike lane would induce new bike commuters that would reduce VMT from nearby neighborhoods by 24 VMT. Whether employing the VMT reduction of 729 VMT estimated by GHD or approximately 3,400 VMT after taking into account the other vehicle trips resulting from the Project, there is a fair argument that the VMT reduction based on new commuter cyclists on the proposed 800-foot bike lane does not come close to mitigating the Project's transportation impacts to a less than significant level.

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In addition to these potential transportation impacts, LIUNA also previously submitted substantial evidence of fair arguments that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to LIUNA's appeal and these comments.

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Tom Brohard and Associates

April 30, 2021

Mr. Michael Lozeau, Esq.
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Proposed Wine Distribution Center at 1075 Commerce Court in the City of American Canyon – Vehicle Miles Traveled (VMT) Issues

Dear Mr. Lozeau:

Tom Brohard, P.E., has reviewed the transportation aspects of the December 2020 Initial Study/Mitigated Negative Declaration (MND) to construct a 217,294 square foot wine distribution center at 1075 Commerce Court in the City of American Canyon. I also reviewed the February 21, 2021 Staff Report to the Planning Commission as well as the May 8, 2020 Traffic Impact Analysis Memorandum and the February 11, 2021 Focused Traffic Impact Analysis for Vehicle Miles Traveled (VMT) prepared by GHD. Various technical publications regarding VMT including NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities" published in 2006 by TRB, "Understanding and Measuring Bicycle Behavior: A Focus on Travel Time and Route Choice" published in December 2008 by the Oregon Transportation Research and Education Consortium, and "Quantification Methodology for California Climate Investments" published on November 1, 2019 by the California Air Resources Board were also reviewed.

From the February 21, 2021 Staff Report and Agenda Packet, the Proposed Wine Distribution Center will have 32 full-time and 18 part-time employees with 12 bicycle parking spaces on-site. Table 3.2 of the GHD Report calculates Project VMT for employees of the Proposed Project. According to the table, daily project trip generation will be 367 ADT including 136 employee trips (37%). The table then indicates the VMT reduction to meet the baseline threshold should be 729 VMT. Table 4.1 then summarizes GHD's conclusion that the Project's proposed 800-foot-long bike lane on Commerce Court would reduce VMT by commuters living in the residential areas to the south by 1,004 VMT by crediting the Project with 1.7 miles of already constructed bike facility to the south of Eucalyptus Avenue and an average one-way commuter bike trip length of 5.2 miles based on limited Oregon data, not California data.

Table 4.1 has now been revised again (Page 256 of the current Staff Report) to add a 3.8-mile bicycle commute which now results in a daily VMT reduction of 733. The 3.8-mile bicycle commute is footnoted to "Commuting in America 2013; Report 14. Bicycle and Walk Commute" AASHTO January 2015." This Report is not available from AASHTO for purchase or on their website. The revised conclusion for the VMT Reduction Analysis Findings (Page 257) then

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averages these additional calculations and erroneously concludes that "... using a blended average of the 'Minimum' and 'Maximum' assessment, which would result in a reduction in VMT of 733 to 1,004 vehicle trip miles, which is sufficient to reduce the total Project VMT to a value less than the threshold established in this memorandum." Averaging the averages is not appropriate.

The Focused VMT Analysis prepared by GHD upon which the recent Staff Report relies is fatally flawed. The estimate of VMT that will be generated by the Project is incomplete, leaving out the additional VMT that will be generated by non-commute, non-semi-truck trips that will result from the Project. In addition, excessive credit for an 800-foot-long bicycle path has been taken as the mitigation measure to reduce VMT for the Proposed Project. This letter points out various deficiencies, errors, and inconsistencies that must be addressed before the City of American Canyon considers the Wine Distribution Center Project at 1075 Commerce Court.

Education and Experience

Since receiving a Bachelor of Science in Engineering from Duke University in Durham, North Carolina in 1969, I have gained over 50 years of professional traffic engineering and transportation planning experience. I am licensed as a Professional Civil Engineer both in California and Hawaii and as a Professional Traffic Engineer in California. I formed Tom Brohard and Associates in 2000 and have served many diverse communities as the City Traffic Engineer and/or the Transportation Planner. During my career in both the public and private sectors, I have reviewed numerous environmental documents and traffic studies for various projects as shown in a short summary of my experience in the enclosed resume.

Vehicle Miles Traveled (VMT) Issues

Based on the information in the various documents, each of the following issues relating to calculation of VMT and proposed mitigation measures for the proposed Wine Distribution Center must be fully addressed and evaluated:

1) VMT Calculation Uses Only Employee Commute VMTs and Ignores Other Employee and Visitor VMTs

   As mentioned above, employee commute trips in Table 3.2 account for 37% of the daily project trip generation. This leaves 63% of the project trips as those generated by visitors or by employees outside of their commute trip. Each of these trips also generates VMT and represent more VMT than will be generated by just the employee commute trips. No mitigation measures have been proposed to reduce the majority of the VMT forecast for the Proposed Project.

There is no breakdown anywhere in the prior agenda packet of the percentage of semi-trucks versus passenger and light trucks that are expected to comprise the 231 daily non-commute trips expected at the facility. Assuming that half of those non-commute trips are non-automobile trips, the remaining 115 vehicle trips also must be included in the calculation of VMT to be added by the Project. GHD states that the average trip length for the non-commuter trips is 23.8 miles. Agenda Packet, p. 298 (Table A.3). Applying that average trip length, the Project's VMT for non-commute, non-semitruck trips amounts to 2,737 VMT. Assuming GHD's calculation of the Project's VMT generated by commuter trips is accurate the Project's total VMT would be 2,214 + 2,737 = 4,951 VMT. As a result, in order to achieve the baseline threshold of 1,485 VMT, the Project must reduce VMT in the relevant area by 3,466 VMT.

2) VMT Reduction Cannot Take Credit for Existing Bay Trail Bike Facility

GHD attempts to attribute VMT reductions to the Project for the Bay Trail bike facility that already is in place along Wetlands Edge Road extending south from Eucalyptus Drive. GHD claims that "The Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus." Feb. 25, 2021 Agenda Packet, p. 302. Likewise, GHD asserts that "the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable by only the most experienced and fearless riders." *Id.* Based on that assertion, GHD treats the proposed 800-foot-long bike facility as a 1.85-mile-long bike facility. *Id.* GHD then purports to apply the methodology for calculating facility benefits set forth in NCHRP Report 552 – "Guidelines for Analysis of Investments in Bicycle Facilities" (2006) for the 800-foot bike facility (the "Minimum" calculation) as well as a 1.85-mile-long facility (the "Maximum" calculation". *Id.,* pp. 301-304. GHD then asserts that "some commute benefit likely exists on the existing [Wetlands Edge] trail" and uses the average of the two calculations as the purported VMT increase that will result from the addition of the 800-foot-long bike path.

The NCHRP Report 552 is based upon data collected in 2000 in Minneapolis/Saint Paul, Minnesota. According to the report, a bicycle facility would have a statistically significant effect on persons living very close (less than 400 meters, ¼ mile) to the bicycle facility. In addition, those living within 400 and 800 meters, ¼ to ½ mile, would have increased, but not statistically significant, the odds of bicycle use.

GHD's analysis of the number of bike commuters on the proposed 800-foot-long bike facility on Commerce Court is flawed for a number of significant reasons as follows:

- First, there is no principled reason why a developer constructing a short length of bike trail should be able to take credit for VMT reductions resulting from 1.7 miles of already constructed bike path built by someone else (perhaps even with taxpayer funds). Even if it were true that, but for the 800-foot-long bike path, bike commuters on the existing path would increase exponentially, SDG should not receive VMT credits for other entities' work and expenditures.

- Second, GHD cites no evidence for its assertion that the stretch of road between Eucalyptus Drive and the SDG 330 Commerce bike path does not provide a bike connection and is not navigable by bike. Half of that distance will be a newly paved road adjacent to the elementary school for which construction is being completed this summer. The northern portion of this segment is a well-maintained, compacted dirt surface as it reaches the SDG 330 facility. The enclosed photos of this segment indicate that it is easily navigated by a bicyclist. As a result, the whole premise of GHD's analysis that it should get credit for other facilities beyond the proposed 800-foot-long facility because the stretch of Commerce Court is impassable or an obstruction to bike commuters is not supported by any evidence.

- Third, GHD's ad hoc calculations of new bike commuters from the 800-foot-long bike path are inconsistent with the methodology in NCHRP Report 552. The NCHRP Report 552 provides a basis for calculating potential new bike commuters from three zones which are employed in its equation. The three zones are zero to 400 meters from the facility, 401 to 800 meters from the facility, and 800 to 1600 meters from the facility. The NHRCP provides an equation employing "likelihood multipliers" it models for those three zones. NCHRP Report 552, pp. 38-39. For each zone, the equation to determine induced commuter cyclists is:

  New commuters = $\sum$(Existing Commuters * (L_d - 1))

  d = 400, 800, 1,600 and L_{400m} = 2.93, L_{800m} = 2.11, L_{1600m} = 1.39

  Existing commuters = 0 within 400; 9 from 401 to 800; 47 from 801 to 1,600 (number of existing commuters provided by GHD)

  New commuters = (0 * 1.93) + (9 * 1.11) + (47 * 0.39)
  New commuters = 0 + 10 + 18
  New commuters = 28

  Id., p. 39. Contrary to GHD's analysis, the NCHRP Report 552 does not provide a basis for calculating induced bike commuters from a zone extending from 1601 to 2400 m from the proposed bike path. There is no evidence of any subsequent updates or amendments to NCHRP Report

552 providing any basis for a likelihood multiplier for the additional extended zone added by GHD.

Applying the above NCHRP Report 552 equation for calculating induced bike commuters from the 800-foot-long bike facility proposed by SDG results in an estimated 28 new bike commuters induced by the facility.

3) Commuter Bike Trip Lengths Are Overstated by GHD

GHD assumes that commuter bicycle trip lengths from the neighborhoods to the south of the Project will be on average 5.2 miles in length each way. The premise of the proposed 800-foot bike facility is to facilitate bicycle riders commuting to businesses north of the Project.

a) Oregon Study Does Not Support Assumed 5.2-mile Commute Length

GHD relies on a report entitled "Understanding and Measuring Bicycle Behavior: A Focus on Travel Time and Route Choice", December 2008 to estimate bike commute trip lengths in American Canyon in the vicinity of the Project. The Oregon Transportation Research and Education Consortium published this report based upon data involving 164 adults collected in Portland between March and November 2007. The overall median trip distance was 2.8 miles with 25% of trips to/from work. Work trips had a median distance (middle number) of 3.8 miles and a mean distance (arithmetic average) of 5.2 miles. In describing limitations of this report, the Study itself states "One limitation is that the study was only conducted in one region. Caution must always be used when conclusions based upon data from one area are used to make recommendations for another area."

From the Portland, Oregon data, Table B.2, VMT Reduction Associated with Induced Demand/Bicycle Mode Shift, indicates the average one-way commute trip length will be 5.2 miles with the construction of the proposed 800' long bicycle connection. GHD does not explain or support why a relatively small sample of bicycle observations from 2007 in Portland should be used to forecast trip lengths in the City of American Canyon, California.

It is not appropriate to use outdated information and data from Portland, Oregon. to forecast possible VMT reductions associated with the 800-foot-long bicycle path proposed in American Canyon, California.

b) No Evidence Bike Commuters to Employment Could Travel 5.2 Miles

A large portion of the City's bike network plan between the Project and

the Napa Airport is not yet proposed, funded, or built that would connect Green Island Road to Devlin Road. Currently, that stretch of the City's bike path network is open fields and there is no indication that gap in the network will be constructed any time in the foreseeable future.

The City of American Canyon most recently updated its Bicycle Plan within the Circulation Element of its General Plan on February 4, 2020. The enclosed figure illustrates the City's current Bicycle Plan map.

At the February 21, 2021 Planning Commission meeting, the Project Applicant presented the enclosed graphic depicting a Commuter Bike Route through the area connecting the single-family residences to the south with the industrial development to the north of the Proposed Project. I have reviewed this route as shown on the most recent Google Earth aerial photos taken in 2019. Most of the bicycle facilities are not signed or marked in accordance with the accepted standards published by Caltrans in the latest edition of the 2014 Manual of Uniform Traffic Control Devices. The yellow line to the north of the Project site is the missing bike facility necessary to link Green Island Road to Devlin Road. Without this stretch, the farthest a typical bike commuter could travel to work north on Commerce Court would be to the businesses clustered at Green Island Road and Commerce Court.

While bicyclists can ride in streets where roadways and streets exist, they cannot ride through fields on private property where no roadway or bikeway facilities exist. As identified above, there is a significant missing link between Devlin Road and Green Island Road. This missing link restricts and essentially eliminates bicycle access to the industrial area north of Green Island Road. The residential area will only be connected to the very southern portion of the industrial area and will not connect to the Napa County Airport area. The average trip length to the accessible portions of the industrial area then drops to only 0.75 miles north of Eucalyptus Drive, significantly less than the 2.8 miles shown on the Applicant's Commuter Bike Route Map or the 5.2 miles it claims the average bike commuter would travel using the new 800-foot-long bike facility. When properly applying the NCHRP Report 552 or using the applicable CARB data and methodology as discussed below, the value of the connection in reducing VMT is much less than identified by GHD.

The bike commuter trip length for calculating the proposed 800-foot bike facility's VMT reductions from induced bike commutes should be limited to 0.75 miles - the actual physical limit on bike commute lengths to the north of the proposed bike path. Even if the bike facility link between Green Island Road and Devlin Road was foreseeable, the predicted bike commute trip length should either be based on data collected from

existing bike commuters in American Canyon or should rely on the value of 1.5 miles employed by CARB in its VMT methodology. "Quantification Methodology for California Climate Investments for the Affordable Housing and Sustainable Communities Program" (Nov. 1, 2019).

4) Induced Bike Facility VMT Does Not Mitigate the Project's VMT

The correct use of the NCHRP Report 552 calculation of induced bike commuters indicates that 28 additional bike commuters could be expected from the proposed 800-foot-long bike facility on Commerce Drive. An average bike commute of 0.75 miles to businesses north of the Project generates a displaced VMT of 42 (0.75 * 2 * 28) = bike commuter VMT). Using CARB's bike commute trip length of 1.5 miles would double to 84 VMT. That VMT reduction is far short of the necessary, though truncated, reduction calculated by GHD of 729 VMT. It also does not come close to the reduction of 3,466 VMT necessary to mitigate the Project's commuter trips as well as non-commuter automobile and light truck trips.

CARB's "Quantification Methodology for California Climate Investments for the Affordable Housing and Sustainable Communities Program" at Pages 18 and 19 (attached) provides a formula for VMT reductions from a new bicycle facility using the following equation:

VMT Displaced = D * ADT * (A + C) * L where:

D = Default annual days of use of new facility
ADT = Average two-way daily traffic on road parallel to facility
A = Adjustment factor for active transportation (from table)
C = Credit for key destinations near facility (see Table 6)
L = Average length of auto trip displaced (1.5 miles for cycling)

Applying this formula also establishes that the Project has not mitigated its significant VMT impacts. For consistency, I have also used 235 days per year for commuters which equates to 47 weeks of commuting. For ADT, I have assumed 20 vehicles per day on the portion of Commerce Boulevard parallel to the proposed 800-foot-long facility. This stretch of Commerce Boulevard is a dead end. The only cars would be associated with the existing paintball facility. When the new school opens this year, traffic would be limited to and from the student pick-up area on a portion of Commerce Boulevard near Eucalyptus Avenue. Absent any data provided by the City or applicant, it is reasonable to estimate about 20 vehicles per day driving this stretch of road parallel to the proposed bike facility. For the A value, I used 0.0019 from Table 5 and 0.0015 from Table 6. Putting the numbers into the formula for VMT displaced yields and solving the equation yields:

VMT Displaced = 235 * 20 * (0.0019 + 0.0015) * 1.5 = 24

Using the California Air Resources Board formula indicates that the proposed bicycle link will cause a shift of 24 VMT from auto trips to cycling on the proposed bicycle path. Even assuming 100 vehicles will travel on the adjacent stretch of Commerce Drive results in an estimated VMT reduction of 120 VMT using the CARB formula.

To be effective in offsetting VMT from the Proposed Project, at least 729 VMT need to be reduced according to GHD and as noted above, 3,466 VMT need to be reduced applying all of the VMTs induced by the Project. With only from 24 to 84 VMT forecast to be induced by the proper application of the NCHRP Report 552 methodology or the CARB equation, the 800-foot-long bike facility connection by itself is insufficient and additional mitigation measures are required.

5) Random Averaging of Minimum and Maximum VMT Forecasts Is Not Supported by Analysis or Facts

Without any meaningful explanation, GHD averages their minimum 800' actual bike facility length and maximum 1.85-mile combined bike facility length to forecast daily VMT reduction associated with the 800-foot-long bicycle path. The random decision to average the minimum and maximum VMT forecasts is not supported by any reasoned analysis or facts.

In their most recent report, GHD now averages the averages and concludes that the daily VMT reduction will be 733 VMT with a 3.8-mile bicycle commute from a publication that is not available from AASHTO or 1,004 VMT by using an unrealistically long average one-way trip length of 5.2 miles. Neither of these purported VMT reductions are supported by substantial evidence, and GHD continues to find "new" reports to support their incorrect conclusion that the total Project VMT will be less than the required threshold.

6) Additional VMT Mitigation Measures Are Required

GHD has failed to properly calculate VMT for the proposed bike lane. As demonstrated above, the Project exceeds the applicable VMT significance thresholds. Neither the applicant nor the City can categorically ignore the significant VMTs generated by the Project's visitors. Mitigation measures are required to also reduce these daily trips as Conditions of Approval. Further study must be undertaken, particularly regarding VMT, and more detailed information must be provided to properly identify and address mitigation measures for excessive and unmitigated VMT that will be created by the Proposed Project.

If you have questions regarding these comments, please contact me at your convenience.

Respectfully submitted,

Tom Brohard and Associates





Tom Brohard, PE
Principal

Enclosures
- Resume
- NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities"
- Photos Taken March 8, 2021 - Commerce Court south of SDG 330 Commerce Warehouse
- American Canyon Bicycle Plan, Adopted February 4, 2020
- Commuter Bike Route, SDG Commerce 217 Distribution Facility
- CARB Quantification of VMT Reduction for New Bicycle Facility

Tom Brohard, PE

Licenses: 1975 / Professional Engineer / California – Civil, No. 24577
1977 / Professional Engineer / California – Traffic, No. 724
2006 / Professional Engineer / Hawaii – Civil, No. 12321

Education: 1969 / BSE / Civil Engineering / Duke University

Experience: 50 Years

Memberships: 1977 / Institute of Transportation Engineers – Fellow, Life
1978 / Orange County Traffic Engineers Council - Chair 1982-1983
1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Big Bear Lake..... 2006 - 2015
- Indio..... 2005 - 2019
- Huntington Beach ..... 1998 - 2004
- Lawndale..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Fernando..... 2004 - 2019
- San Marcos..... 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $10 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

In his 14 years of service to the City of Indio, Tom accomplished the following:

- Oversaw preparation and adoption of the 2008 Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain conditions.

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street and on Monroe Street over I-10 as well as justifications for protected-permissive left turn phasing at I-10 on-ramps, the first such installations in Caltrans District 8 in Riverside County; reviewed plans and provided assistance during construction of both $2 million projects to install traffic signals and widen three of four ramps at these two interchanges under Caltrans encroachment permits.

- Reviewed traffic signal, signing, striping, and work area traffic control plans for the County's $45 million I-10 Interchange Improvement Project at Jefferson Street.

- Reviewed traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvements of the I-10 Interchanges at Jefferson Street, Monroe Street, Jackson Street and Golf Center Parkway.

- Oversaw preparation of plans, specifications, and contract documents and provided construction assistance for over 70 traffic signal installations and modifications.

- Reviewed and approved over 2,000 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects.

- Oversaw preparation of a City-wide traffic safety study of conditions at all schools.

- Obtained $47,000 grant from the California Office of Traffic Safety and implemented the City's Traffic Collision Database System. Annually reviews "Top 25" collision locations and provides traffic engineering recommendations to reduce collisions.

- Prepared over 1,500 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping.

- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 500 street segments.

- Reviewed and approved traffic impact studies for more than 35 major projects and special events including the annual Coachella and Stagecoach Music Festivals.

- Developed and implemented the City's Golf Cart Transportation Program.

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP REPORT 552

Guidelines for Analysis of Investments in Bicycle Facilities

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CHAPTER 4

BENEFIT-COST ANALYSIS OF BICYCLE FACILITIES

INTRODUCTION AND PURPOSE

Based on the research conducted for this project, the team crafted a set of guidelines to be used by transportation professionals and government agencies to better integrate the planning of bicycle facilities into the transportation planning process. The web-based guidelines will assist state DOTs and other state, regional, and local agencies in considering bicycling in all transportation projects. Additionally, the guidelines will support local agencies' review of bicycle projects as part of the transportation improvement plan.

Transportation planners will be able to use the guidelines for the following purposes:

- Estimating the likely cost of specific facilities based on type and on key characteristics,
- Estimating how a facility will impact the overall bicycling environment in an area, and implicitly how it will affect the amount of riding based on characteristics of the facility and of the surrounding area,
- If information is available for calibration, estimating the usage of a facility (and the change in usage of complementary and competing facilities), and
- Estimating the specific types of benefits and their relative sizes based on characteristics of the facility and of the surrounding area.

TRANSLATING DEMAND AND BENEFITS RESEARCH INTO GUIDELINES

Demand

Estimating the use of a new facility rests on two main assumptions. First, all existing commuter bicyclists near a new facility will shift from some other facility to the new one. Second, the new facility will induce new bicyclists as a function of the number of existing bicyclists. Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

Estimates of existing bicycling demand are based on U.S. census journey to work mode shares. Establish the number of residents within 400-, 800-, and 1,600-m buffers of the facility by multiplying the area of each buffer by a user-supplied population density. Multiply the number of residents in each buffer (R) by 0.4, assuming the national averages of 80% of residents are adults and 50% of adults are commuters, to calculate the number of daily commuters. Then multiply this number of commuters in each buffer by the region's bicycle commute share (C). Use the bicycle commute share for the Metropolitan Statistical Area (MSA) as the default value; the user has the option to enter a commute share for the specific area if it is known.

$$\text{Daily existing bicycle commuters} = R \cdot C \cdot 0.4$$

Adult commuters represent only a portion of adult bicyclists. The team compared U.S. census commute shares to NHTS data and found that the total adult bicycling rate ranges from the census commute rate at the low end to 0.6% plus three times the commute rate at the high end (Appendix A). This allows the use of readily available census commute shares to extrapolate total adult bicycling rates (T).

$$T_{\text{high}} = 0.6 + 3C$$

$$T_{\text{moderate}} = 0.4 + 1.2C$$

$$T_{\text{low}} = C$$

Multiply the estimated low, moderate, and high rates by the number of adults—estimated to be 80% of the population—in each buffer to arrive at the total number of daily adult cyclists.

$$\text{Total daily existing adult cyclists} = T_j \cdot R \cdot 0.8$$

Additional research (Appendix B) found that people who live near a facility are more likely to bike than those that do not; multipliers were developed to describe these probabilities. Multiplying the numbers of both commuters and total adult cyclists by the likelihood multipliers found in this research for various buffers around the proposed facility provides an estimated number of induced cyclists in each group.

$$\text{New commuters} = \sum\left(\text{Existing commuters} * \left(L_d - 1\right)\right)$$
$$d = 400,\ 800,\ 1{,}600$$
$$\text{New adult cyclists} = \sum\left(\text{Existing adult cyclists} * \left(L_d - 1\right)\right)$$
$$d = 400,\ 800,\ 1{,}600$$

Where

$L_{400m} = 2.93$
$L_{800m} = 2.11$
$L_{1600m} = 1.39$

Mobility Benefit

This research, based on stated preference analysis, found that bicycle commuters are willing to spend, on average 20.38 extra minutes per trip to travel on an off-street bicycle trail when the alternative is riding on a street with parked cars (*6*). Commuters are willing to spend 18.02 min (M) for an on-street bicycle lane without parking and 15.83 min for a lane with parking. Assuming an hourly value of time (V) of \$12, the per-trip benefit is \$4.08, \$3.60, and \$3.17, respectively. Multiply the per-trip benefit for the appropriate facility by the number of daily existing *and* induced commuters, then double it to include trips both to and from work. This results in a daily mobility benefit. Multiplying the daily benefit by 50 weeks per year and 5 days per week results in the following annual benefit:

$$\text{Annual mobility event} = M \cdot V/60 \cdot \left(\text{existing commuters} + \text{new commuters}\right) \cdot 50 \cdot 5 \cdot 2$$

It should be noted that this methodology assumes that no bicycle facility previously existed nearby, aside from streets with parking. In the this equation, V is divided by 60 because the M is in minutes and V is in hours; dividing V by 60 converts it to minutes so that the result can easily be multiplied by the minutes.

Health Benefit

An annual per-capita cost savings from physical activity of \$128 is determined by taking the median value of 10 studies (Appendix E). Then multiply \$128 by the total number of new bicyclists to arrive at an annual health benefit.

$$\text{Annual health benefit} = \text{total new cyclists} \cdot \$128$$

Recreation Benefit

The "typical" day involves about 1 hr of total bicycling activity, which is valued at \$10 (D), based on a wide variety of studies of outdoor recreational activities (Appendix G). From both NHTS and Twin Cities TBI, the average adult cycling day includes about 40 min of cycling. This is the amount used, plus some preparation and cleanup time. Multiply this by the number of new cyclists minus the number of new commuters. (The value of the facility to new commuters is counted in the mobility benefit.)

$$\text{Annual recreation benefit} = D \cdot 365 \cdot \left(\text{new cyclists} - \text{new commuters}\right)$$

Reduced Auto Use Benefits

These benefits apply only to commuter and other utilitarian travel, because it is assumed that recreational riding does not replace auto travel. These include reduced congestion, reduced air pollution, and user cost savings. Multiply the total benefit per mile by the number of new commuters, multiplied by the average round trip length from NHTS (L).

Then consider two offsetting adjustments that ultimately leave the total number unchanged. First, there are utilitarian riders in addition to commuters and some of these trips will replace auto trips. Second, not all new bike commuters and utilitarian riders would have made the trip by car; evidence from NHTS suggests that something less than half of bike commuters use driving as their secondary commuting mode. For simplicity, assume that these two factors offset each other, and thus the total amount of new bike commuter mileage is a reasonable number to use to represent the total amount of new bike riding substituting for driving.

The benefit per mile of replacing auto travel with bicycle travel is a function of location and the time of day. There will be no congestion-reduction benefits in places or at times when there is no congestion. Pollution-reduction benefits will be higher in more densely populated areas and lower elsewhere. User cost savings will be higher during peak periods when stop-and-go traffic increases the cost of driving.

Based on reasoning documented in Appendix G, congestion savings will be 0 to 5 cents per mile and pollution savings from 1 to 5 cents per mile depending on conditions. Assume the high end of this range in central city areas, the middle range in suburban areas, and the low end in small towns and rural areas. For simplicity, assume that all commuting and utilitarian trips are during congested periods. User cost savings were determined to be 3 cents per mile during congested peak periods and 0 otherwise; thus, these are scaled by location in the same way as congestion savings.

Overall, the savings per mile (S) is 13 cents in urban areas, 8 cents in suburban areas, and 1 cent in small towns and rural areas.

$$\text{Reduced auto use benefit} = \text{new commuters} \cdot L \cdot S \cdot 50 \cdot 5$$


NO MOTOR VEHICLES
CONSTRUCTION ZONE
NO
ACCESS


NO
MOTOR
VEHICLES
YIELD
TO
PEDS
PAINTBALL
JUNGLE
707-322-2439
Family Fun!
Kids Low Impact
Parties + Groups
Team Building



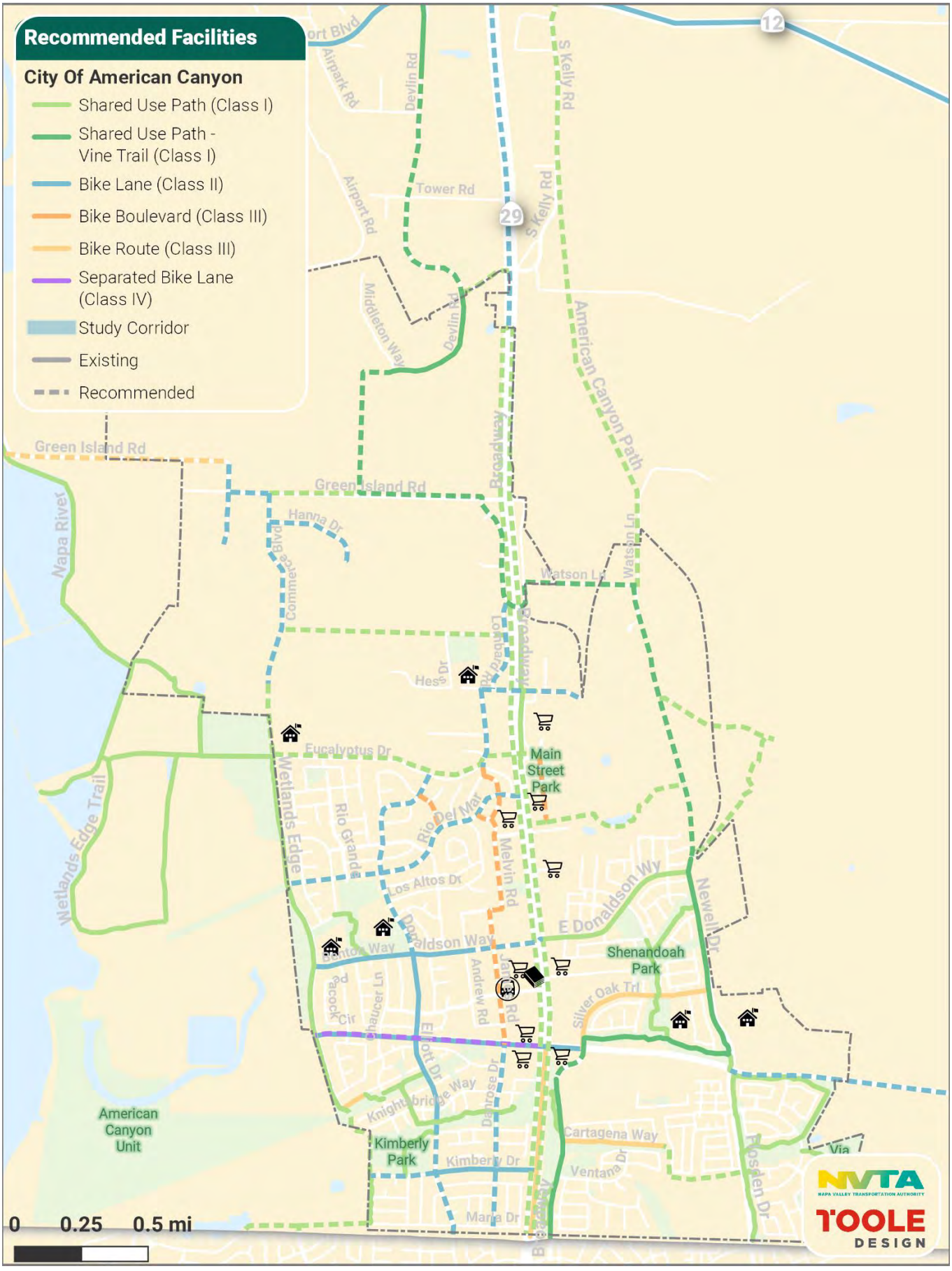
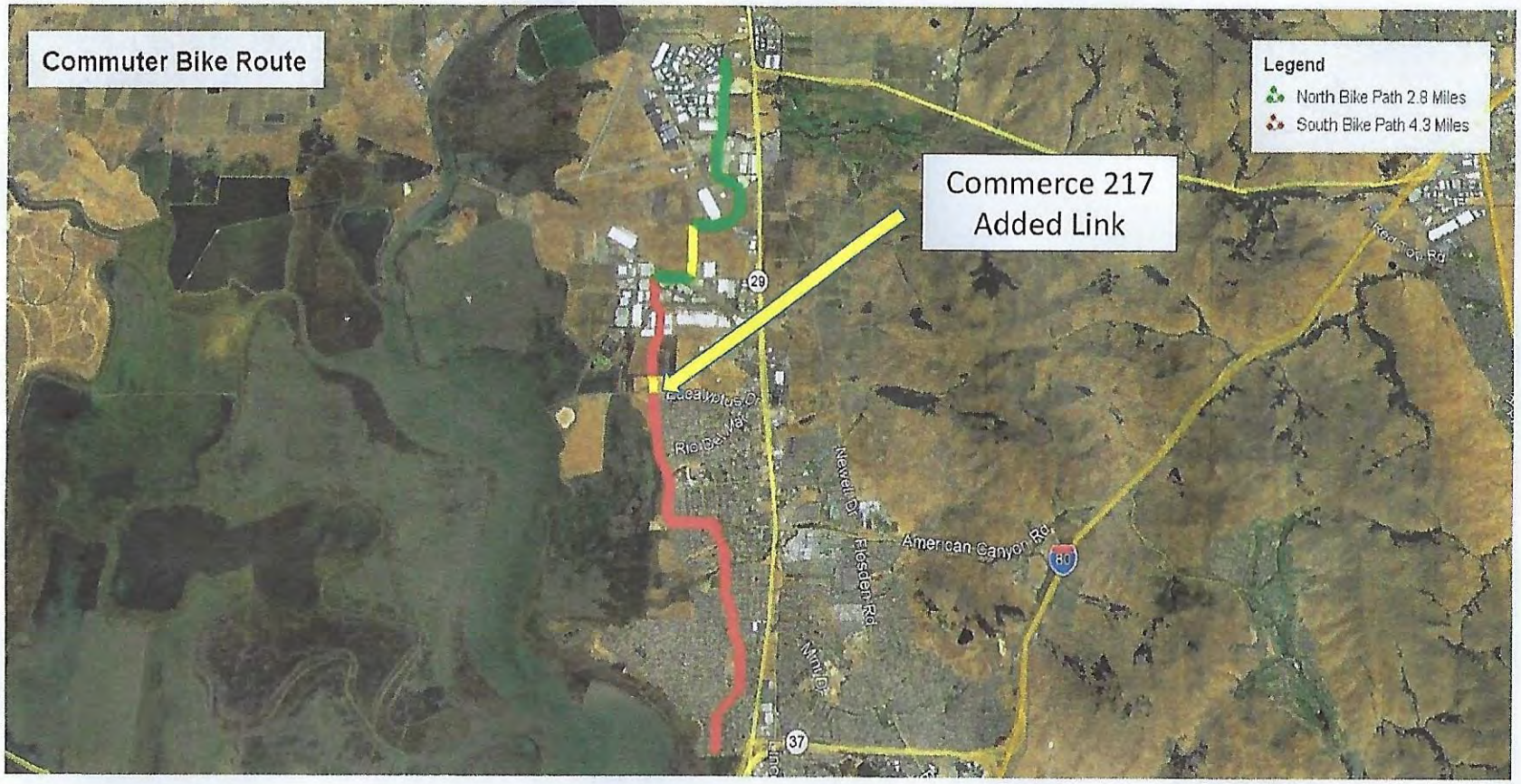


Figure AC.12. Proposed Bicycle Network



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Madera, CA 93637
(559) 674-0906

SDG COMMERCE 217 DISTRIBUTION CENTER

AMERICAN CANYON, CA

Ward Architects, Inc.
2948 Devita Drive
Napa, CA 94558
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California Air Resources Board

Quantification Methodology

Strategic Growth Council
Affordable Housing and Sustainable Communities Program

California Climate Investments

November 1, 2019

C. New Bicycle Facility or Walkway

The emission reductions from new bicycle facilities or walkways are calculated as the emission reductions from displaced autos.

Equation 22: VMT Reductions from Bicycle Facility or Walkway

$$VMT\ Displaced = D * ADT * (A + C) * L$$

Where,		Units
VMT Displaced	= Annual passenger VMT replaced by cycling or walking trips	miles/year
D	= Default annual days of use of new facility (200 days)	days/year
ADT	= Average two-way daily traffic on road parallel to facility	vehicle trips/day
A	= Adjustment factor for active transportation (see Table 5)	unitless
C	= Credit for Key Destinations near facility (see Table 6)	unitless
L	= Average length of auto trip replaced (1.5 miles for cycling; 0.3 miles for walking)	miles

Table 5. Active Transportation Adjustment Factors

Average Daily Traffic (vehicle trips per day)	One-way Facility Length[18] (miles)	Adjustment Factor for Population > 250,000 or Non-university Town with Population < 250,000	Adjustment Factor University Town with Population < 250,000
1 to 12,000	≤ 1	0.0019	0.0104
	1.01 to 2	0.0029	0.0155
	> 2	0.0038	0.0207
12,001 to 24,000	≤ 1	0.0014	0.0073
	1.01 to 2	0.0020	0.0109
	> 2	0.0027	0.0145
24,001 to 30,000	≤ 1	0.0010	0.0052
	1.01 to 2	0.0014	0.0078
	> 2	0.0019	0.0104

[18] The length of bicycle facilities and walkways should be measured in one direction because average daily traffic accounts for two-way traffic volume. Crosswalks should not be included in the length of sidewalks since they are accounted for as traffic calming measures.

Table 6. Key Destination Credits

Number of Key Destinations	Credit Within ½ Mile of Facility	Credit Within ¼ Mile of Facility
0 to 2	0	0
3	0.0005	0.001
4 to 6	0.0010	0.002
≥ 7	0.0015	0.003

Equation 23: Auto Emission Reductions from Bicycle Facility or Walkway

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bicycle facility or walkway	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips, from Equation 22	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of useful life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of useful life	g/mile
UL	=	Useful life of bicycle facility or walkway (20 years for Class I bike path or walkway; 15 years for Class II bike lane or Class IV separated bikeway)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

EXHIBIT B


Middleton Middleton
Devlin Rd
Henna Dr
Watson Ln
Napa Junction Napa Junction
Hess Rd
Commerce Blvd
Medeiros Ln
Eucalyptus Dr
29
Google Earth

EXHIBIT C

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February 25, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration (February 25, 2021 Planning Commission Meeting, Agenda Item No. 5.2

Dear Commissioners and Mr. He:

Please accept this brief comment on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). Thank you for the responses prepared to our earlier comments submitted to the Commission on January 17, 2021.

We appreciate the acknowledgement in the responses that the original VMT analysis was incorrect and employed bike trip lengths that could not be substantiated in fact or based on any effort to gather information on bike commuting in general or in the American Canyon area. It appears, however, that the City's consultant, in responding to those obvious shortcomings, has now embellished its VMT mitigation analysis with numerous other unsubstantiated claims and speculation. Rather than an objective analysis of the actual incremental VMT reductions that will

result from an 800-foot stretch of bike lane connecting two existing bike lanes, the effort seeks, without evidentiary basis, to achieve a desired outcome. The notion that an 800-foot connecting bike lane will, by itself, induce 96 new bike commuters to commute to jobs to the north of the Project and reduce VMTs by 1004 is farfetched. The only way the consultant generates such a number is by ignoring the terms of the federal guidance it claims to be applying, blatantly attempting to assign benefits of other parties' bike lane construction efforts to the applicant, and making believe that, without the connector bike lane, bike commuters from the neighborhood south of the Project heading north must ride on the shoulder of State Route 29. All of these efforts to invent a justification for not requiring sufficient VMT reductions to mitigate the Project's increases in VMT are not supported by the cited guidance or facts. These supplemental comments highlight this continued concern and the remaining fair argument that the Project may have significant environmental impacts from its unmitigated increase in VMTs.

1. GHD's analysis is inconsistent with the NCHRP guidelines it cites.

GHD claims to base its analysis of VMT reductions attributable to the bike lane connector on National Cooperative Highway Research Program Report 552, "Guidelines for Analysis of Investment in Bicycle Facilities." ("NCHRP Report"). The method set forth in the NCHRP Report for estimating induced bike commutes from a new bike facility relies on bike commuters from three buffer distances from a bike facility who would most likely use the facility. (NCHRP Report, p. 38.) These three buffers are less than 400 meters, 400 to 799 meters and 800 to 1599 meters. (*Id*., pp. 38, Appendix B, B-6.) As the NCHRP Report explains:

> Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

(*Id*.) The analysis identifies the population within each of those buffer areas and estimates the number of bike commuters in each buffer using the project region's "bicycle commute share." (*Id*.) The analysis also provides a method to calculate the total adult cyclists in the buffer areas. (*Id*.) The NCHRP Report developed "likelihood multipliers" for each of the three buffer zones to account for the fact that "people who live near a facility are more likely to bike than those that do not…." *Id*., pp. 38-39. A different likelihood multiplier is provided for each of the three NCHRP buffer zones.

Rather than abide by the NCHRP Report's methodology, GHD took the liberty of adding a buffer zone beyond 1600 meters – from 1600 to 2400 meters from the proposed bike lane. (Agenda Packet ("AP"), pp. 302-303.) Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and ***expert opinion supported by facts***." (CEQA Guidelines, § 15384(b) (emphasis added).) Because there is no justification based on the NCHRP Report to inflate induced bike commuter use by randomly expanding the buffers to include people living 1600 to 2400 meters away from a proposed bike lane, GHD's analysis is not based on substantial evidence.

The inconsistencies of GHD's analysis with the NCHRP Report do not however end there. In its analysis, GHD does not include the closest buffer zone identified in the NCHRP Report – 0 – 400 meters. Instead, it uses a 0 – 799 meter buffer, an 800 to 1599 meter buffer and its third made-up buffer from 1600 meters to 2400 meters. However, in calculating how many of the residents in each of these areas are induced to use the new bike lane, GHD then applies the NCHRP's "likelihood multipliers" for the original NCHRP buffer distances. GHD references the likelihood multipliers "[e]stablished by NCHRP 552 research; see Appendix B." AP, p. 304. However, the NCHRP Report and its Appendix B do not establish a likelihood multiplier for GHD's newly minted buffer zone from 1600 to 2400 meters from a facility. So, GHD could not have been applying a number from the NCHRP Report to that area. GHD does not explain which likelihood multipliers it applied to the three zones it selected. If GHD applied the three multipliers calculated by NCHRP for the 400, 800 and 1600 buffer zones to GHD's 800, 1600, and 2400 buffer zones, there would be no evidentiary basis for GHD's new, induced bike commuter computation. In any event, GHD provides no evidence supporting its application of a multiplier factor for the fictitious buffer it seeks to add surreptitiously to the NCHRP Report's methodology. GHD also does not provide evidence of which likelihood multipliers it applied to the 800 meter and 1600 meter zones in its analysis. Without this evidence, the analysis is not substantial evidence.

2. GHD's effort to credit the Project with mitigation for the already completed Bay Trail bike facility adjacent to Wetlands Edge Road is entirely arbitrary and is not supported by evidence that the bike lane gap along 800-feet of Commerce Court is "non-traversable."

GHD further attempts to inflate the VMTs attributable to the proposed 800 feet bike lane by claiming the VMT analysis should include all bike commuters induced by the 1.7 miles of Bay Trail bike access that was constructed along the western side of Wetlands Edge Road many years ago. (AP, pp. 290, 302.) According to GHD, the 800-feet stretch of Commerce Boulevard where it proposes to add bike lanes currently blocks or limits would-be bike commuters heading north from using the Bay Trail bike lanes to the west of Wetlands Edge Road.

First, there is no evidence that the 800-feet stretch of Commerce Boulevard currently blocks or will block any bike commuters from heading north towards the businesses clustered at the north end of Commerce Boulevard or even further north. The MND does not describe in any way the current condition of that road or, more importantly, the condition that will exist upon the completion of the Napa Junction Elementary School project at the corner of Commerce Boulevard and Eucalyptus. The elementary school is scheduled for occupancy this fall. (AP, p. 101.) Construction of the SDG Warehouse project is expected to be ongoing after the school is completed and open. (*Id*., p. 124.)

The school project includes reconstructing Commerce Boulevard alongside the school property. (*See* Napa Junction Elementary School Replacement Project Draft Environmental Impact Report, p. 10-28 [available at https://drive.google.com/open?id=13Ny2i9F6u2R6NFJBqlifGoNeUqaUoqTk]; *see also id*., p.

10-29 ("the proposed project would improve the roadway with asphalt concrete pavement and sidewalk"); Figures 3-5, 3-15 and 3-16 (plans showing bike lanes on Commerce Blvd.) Despite this brand new roadway running from Eucalyptus Avenue north to the existing SDG Commerce 330, GHD contends that this stretch of Commerce Boulevard is a "'non -traversable' gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices." (AP, p. 287.) Only from this premise does GHD then claim that bike commuters cannot get through this stretch of Commerce Boulevard and must instead head to State Route 29 "since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders." (AP, p. 302.) Contrary to GHD's assertions, a newly constructed stretch of Commerce Boulevard adjacent to the elementary school does not pose any barrier to bike commuters to travel between Eucalyptus Avenue and the bike path across from SDG Commerce 330. As a result, GHD's and the final MND's assertions that the proposed new bike lanes will unlock additional potential from the 1.7 miles of existing bikeway along Wetlands Edge Road is not supported by any substantial evidence. Well before the Project is completed, any commuting biker will be able to peddle unobstructed along the brand-new stretch of Commerce Boulevard whether the new bikeway is constructed or not.

Even if the stretch of Commerce Boulevard adjacent to the new elementary school did pose some limited impediment to bikers that required them to slow down for 800 feet does not justify GHD's random proposal to attribute half of the VMT reductions of an already completed 1.7 mile bikeway to the Project. This blatant effort to inflate the VMT benefits of the Project's proposed 800-foot bike lane has no basis in fact and is not a mitigation measure attributable to the Project.

Applying the NCHRP buffer zones that are actually included in that methodology (800 and 1600 meters) and the actual length of the bike facility proposed by the Project (800 feet), and assuming the rest of GHD's calculations are correct, the number of new bike commuters induced by the 800-foot bike lane is at most 22 cyclists. Assuming GHD's estimate of bike commute distance is reasonable, that amounts to, at most, a VMT reduction of 229 VMTs. As a result, substantial evidence of a fair argument exists that the Project's VMT increases may have a significant environmental impact.

3. GHD's estimate of commuter bike trip lengths does not eliminate the substantial evidence of a fair argument that average bike commute lengths in California are 1.5 miles as published by the California Air Resources Board.

GHD relies on a study of Portland, Oregon to borrow an estimated bike commute length for American Canyon. (AP, p. 290, citing "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC -RR -08 -03, December 2008.) GHD provides no rationale in its report why Portland bicycle commute lengths would be representative of American Canyon bicycle commute lengths. This is despite a CARB approved distance of 1.5 miles for bike trips used to calculate VMT reductions from bikeways. (AP, p. 684.) There is no substantial evidence to support the use of bike commute distances from a highly urbanized area like Portland versus a

more rural/suburban setting such as American Canyon. Using 1.5 miles as the lower end of a bike commute distance estimates yields a mere 33 VMT reduction form the 800-feet bike lane.

4. The inclusion of the new VMT calculations and efforts to justify the limited bike lane mitigation require the City to recirculate the MND for public review and comment.

The law is well-established that even if an EIR is not required, a revised negative declaration must be circulated for full public review if it adds new mitigation measures or identifies new impacts. *Gentry v. Murrieta*, 36 Cal.App.4th 1359, 1392, 1411, 1417. The MND's substantial 'changes to its VMT analysis and new mitigation proposals based on the so-called non-traversability of Commerce Boulevard are significant changes to the MND that should be recirculated to the public for review and comment.

Despite the responses to our earlier comments, substantial evidence of a fair argument still exists in the record that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comment, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to these supplemental comments.

Sincerely,



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Lozeau | Drury LLP

EXHIBIT D

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January 19, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration

Dear Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project").

After reviewing the MND prepared for the Project along with our experts, we believe there is a fair argument that the Project may have significant adverse environmental impacts and that an environmental impact report ("EIR") should therefore be prepared pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000, et seq.

LIUNA submits herewith the expert comments of wildlife ecologist Dr. Shawn Smallwood. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit A. LIUNA also submits herewith comments on the Project's air and greenhouse gas emissions from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comments and the resumes of their consultants are attached hereto as Exhibit B.

PROJECT DESCRIPTION

The Project proposes to issue a conditional use permit to construct and operate a 217,294 square foot wine distribution center on a 10.39-acre parcel in close proximity to the Napa River and an area identified by the Audubon Society as an "Important Bird Area." In addition to the 10.39 acre building site, the Project also involves excavation and operation of a borrow area

covering most of the adjacent 10.17 acre parcel immediately to the south of the building site. The proposed building would be bordered by 134 parking stalls on the north edge of the building parcel and 21 truck docking bays on the north side of the proposed building. The building would be heavily insulated and refrigerated. Grading and filling will occur throughout the Project site as well as most of the adjacent borrow area parcel. During construction, about 17,000 cubic yards of stockpiled soil will be transported and another 21,000 cubic yards of soil will be excavated from the adjacent site. Construction of the project would be done in a single phase lasting approximately 9.5 months. Types of heavy diesel equipment to be used to construct the facility will include a self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. Operation of the Project is estimated to generate a total of 367 daily project trips and, prior to mitigation, increase the daily vehicle miles travelled ("VMT") in the area by 2,355 VMT. The closest residence is about 500 feet from the Project's borrow area.

LEGAL STANDARDS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["*CBE v. SCAQMD*"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens,* 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors,* 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (Pub. Resources Code, § 21080(d); see also *Pocket Protectors,* 124 Cal.App.4th at 927.) In limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs., § 15371 ["CEQA Guidelines"]), only if there is not even a "fair

argument" that the project will have a significant environmental effect. (Pub. Resources Code, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Public Resources Code §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a *reasonable possibility* of a significant effect on the environment. (Pub. Resources Code, §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors,* 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in

original].)

As a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; see also CEQA Guidelines, § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.) In *Pocket Protectors*, the court explained how expert opinion is considered. The Court limited agencies and courts to weighing the admissibility of the evidence. (*Pocket Protectors,* 124 Cal.App.4th at 935.) In the context of reviewing a negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." (*Id*.) Where a disagreement arises regarding the validity of a negative declaration, the courts require an EIR. As the Court explained, "[i]t is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." (*Id*.)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines, § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ["*Save Our Peninsula*"].)

A threshold of significance may be useful to determine whether an environmental impact normally should be considered significant. (CEQA Guidelines, § 15064.7(a).) "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (*CBE v. California Resources* Agency, 103 Cal.App.4th at 111.)

"A threshold of significance is not conclusive, however, and does not relieve a public agency of the duty to consider the evidence under the fair argument standard." (*Mejia v. City of*

Los Angeles (2005) 130 Cal.App.4th 322, 342; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109; *CBE v. California Resources Agency*, 103 Cal.App.4th at 110-114; CEQA Guidelines, § 15064(b).) A public agency cannot, as the City does here, apply a threshold of significance or regulatory standard "in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect." (*CBE v. California Resources Agency*, 103 Cal.App.4th at 114.)

ANALYSIS

I. There is a Fair Argument That the Project May Have Significant Traffic and GHG Impacts Because the Purported Mitigation Measure for VMT is Not Supported by Substantial Evidence and Defies Common Sense.

The MND's analysis of the Project's VMT impacts is not based on substantial evidence because it relies upon entirely unrealistic assumptions about the distance a bike commuter would ride to and from work. The MND would have one believe that by constructing a 300 feet long Tier 1 bike lane down the street from the Project, 32 commuters would no longer drive an average of 34.6 miles to and from work, but would instead ***bike 34.6 miles*** to and from work. (MND, Appendix, GHD Draft Technical Memorandum, p. 6 (Nov. 19, 2020) ("VMT Memo").

The MND identifies a threshold of significance for assessing a Project's VMT-related impacts of requiring a 15 percent reduction in VMT for the Project "compared with current regional VMT generation for similar uses." (MND, p. 91.) Relying on an analysis conducted by GHD, the MND identifies that the "[c]ountywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT." (*Id*.) Based on these numbers, the MND states that the "average daily project trip length has been calculated to be 17.3 miles, with a total daily 2,355 VMT." (*Id*.) The MND identifies a baseline threshold of 1,354 VMT as the VMT level that is 15 percent less than the County's average VMT. (VMT Memo, p. 4.). Thus, in order to be consistent with the 15 percent reduction from the average VMT threshold, the MND states that the Project must reduce its estimated VMT of 2,355 by 1,001 VMT. (*Id*.)

GHD then recommends a single measure purporting to achieve this dramatic reduction in the Project's estimated VMT. GHD and the MND state that extending by a mere 300 feet the Class I bike path on Commerce Court, which currently runs past the existing SDG Commerce 330 warehouse, to connect to the northern driveway of the elementary school under construction would reduce the Project's VMT by 1,119 VMT. (*Id*., p. 6.) GHD's rationale for this assertion is based, in part, on an estimate of the number of new bike commuters that would be added to the City's bike network by the addition of the 300-foot connector lane. GHD estimates the new lane would entice 32 new bike commuters. (*Id*., p. 18.) GHD then claims that these 32 new bike commuters would take the place of 32 car commuters who otherwise would each have driven 34.6 miles to and from work. (*Id*.)

Assuming GHD's estimate of 32 new commuters biking to work as a result of constructing the 300-feet bike lane is correct, the car trip lengths that GHD claims those users' bike trips would replace are preposterous. There is no evidence that the new bike commuters

who would be enticed onto their bikes by the new 300-feet of bike lane would include any car commuter who currently travels 17.3 miles to and from their work. The 17.3 mile figure applied by GHD has nothing to do with the average length of bike commuter trips. Instead, that number is the average trip length for commuters traveling by ***automobile*** calculated for the project area. (*Id*., p. 4.)

The average length of a bike commuter trip is much lower than the average length of a commute by car. The California Air Resources Board ("CARB") has published a quantification methodology to estimate VMT reductions associated with bike facilities. (CARB, Quantification Methodology (Nov. 1, 2019) (attached as Exhibit C).) Equation 22 of that guidance provides a formula for estimating "VMT Reductions for Bicycle Facility or Walkway." (Id., p. 18.) GHD completely ignores this guidance in its analysis. Putting that aside, CARB's factors include its expert determination of the average bike trip length to be used in a VMT reduction calculation. CARB pins the "[a]verage length of auto trip replaced" at "1.5 miles for cycling." (*Id*. *See also* ITS Report, p. 5. *See id.*, p. 7 ("The trip length factor, L, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data") (attached as Exhibit D).)

Even assuming GHD's overly simplistic equation is otherwise correct, applying CARB's 1.5 mile average of auto trip replaced by a bike trip dramatically reduces the MND's inflated VMT reduction claim. Based on a realistic trip length for bicycles that would use the 300-feet lane, and according to GHD's truncated equation, the new 300-feet bike lane would only reduce VMT by 97.5 VMT (65 daily commute trips by new bike commuters x 1.5 bicycle trip length). Thus, GHD's claim that the 300-foot length of bike lane would miraculously remove 1,119 VMTs from Commerce Court is entirely without basis in evidence or common sense. Instead, that modest bike facility would only remove about 97.5 VMT, leaving the Project over 900 VMT short of the 15 percent reduction from the County average necessary to eliminate the Project's significant transportation impacts. As a result, the MND is inconsistent with the CEQA Guidelines, 14 Cal.Admin Code § 15064.3 which requires that "[a]ny assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project." Moreover, there is a fair argument that the Project may have significant transportation impacts requiring the preparation of a full EIR.

II. An EIR is Required because the Project will have Significant Impacts on Biological Resources.

A. THE MND Fails to Adequately Analyze Impacts to Biological Resources Because It Relies Upon an Incomplete Baseline and the Project May Have Adverse Impacts on Numerous Sensitive Species Currently Using the Site or Adjacent Areas.

On January 23, 2019 and January 5, 2021, Dr. Shawn Smallwood visited the site. (Smallwood Comments, p. 1.) His first-hand observations of wildlife at the site as well as his review of reliable bird sightings reported on eBird demonstrate that the MND relies upon a

truncated list of species present at the site and fails to address impacts on numerous sensitive species that currently use the site. Dr. Smallwood's observations and expert comments are substantial evidence that the Project may have significant biological impacts, including adverse impacts on bald eagles, northern harriers, peregrine falcons, Cooper's hawks, red-tailed hawks, great horned owls, Swainson's hawks, burrowing owls, Nuttall's woodpecker, and other bird species. (*Id*., p. 2.)

During his brief visit on January 23, 2019, Dr. Smallwood observed a bald eagle flying over and hunting the site and identified a northern harrier and Cooper's hawk foraging on the project site. (Smallwood Comments, pp. 2, 5.) He also observed numerous other bird species. (*Id*., pp. 2-9.) Many species were not just passing by the site but actively engaged in using the habitat available there. (*Id*., p. 2.) For example, Dr. Smallwood observed many species spending considerable time at the site and displaying courtship or territorial behaviors indicative of breeding. (*Id*.) Such species included red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. (*Id*.) He also observed a great-horned owl perched immediately adjacent to the site. (*Id*.)

Dr. Smallwood also has gathered information regarding numerous bird sightings in and around the site that are posted on a web-based service called eBird. (Smallwood Comments, pp. 13-16.) Dr. Smallwood's experience with this service indicates that it is reliable source of bird sighting information, being based on the observations of reputable birders. (*See id*., p. 16.) He also points out the limitations of the MND only relying upon the California Natural Diversity Data Base ("CNDDB") to document the potential presence of wildlife species at and around the Project site. (*Id*., pp. 11, 16.) Numerous additional sensitive species are identified near the site that are not addressed in the biological report or the MND, including the endangered Willow flycatcher and species of concern including the Oak titmouse, Loggerhead shrike, tricolored blackbirds and many others. (*Id*., pp. 13-15.)

As a result of the omission of numerous sensitive species using the site and evidence of even more additional species in the immediate vicinity of the site, the MND's evaluation of the project's biological impacts is not supported by substantial evidence. Dr. Smallwood's observations and expert comment is substantial evidence of a fair argument that the project may have an adverse impact on bald eagles, various hawks, and other species currently utilizing the site for courtship, foraging habitat and for movement.

The MND does mention a number of species, including Swainson's hawks and burrowing owls. However, the biological report fails to disclose information that these species have been observed much closer to the project site than is indicated in the MND or the biological report. (Smallwood Comments, p. 16.) For example, the MND indicates that Swainson's hawks and burrowing owls are, respectively, 2.5 and 2.6 miles away from the project site. However, Dr. Smallwood identifies sightings of these two species within 0.2 miles of the site. As he states, this indicates a high likelihood that these species are using this open foraging area as well.

The MND is particularly unreliable regarding its treatment of another species of special concern, the Northern harrier. As Dr. Smallwood explains:

> Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

(Smallwood Comments, p. 16.)

Regarding impacts to burrowing owls, the MND improperly downplays potential impacts by claiming that, although the site contains many ground squirrel burrows that are frequently relied upon by burrowing owls, their significance is downplayed because Monk & Associates claims they are of "recent origin." (Smallwood Comments, p. 12.) Dr. Smallwood, relying on his own studies of burrowing owls, refutes the relevance of the age of ground squirrel burrows to their likely use by burrowing owls. (*Id*.)

Likewise, the MND relies on a claim that because the site was cleared of eucalyptus trees in 2012, that somehow that activity over eight years ago continues to affect the site's use by wildlife. The MND asserts that "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat." (MND, p. 33.) Dr. Smallwood discusses the scientific problems with this assertion, concluding that "[t]he [MND] misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today." (Smallwood Comments, p. 12.)

Dr. Smallwood notes the likely presence of bats utilizing the site for foraging and movement. (Smallwood Comments, p. 16.) The MND claims that the Project will not impact bats because the Project site "contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." (MND. p. 34.) However, as Dr. Smallwood points out, "Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground." (Smallwood Comments, p. 16.)

Dr. Smallwood notes that the MND and accompanying biological report fail to provide the information necessary to corroborate the level of effort and adequacy of the reconnaissance level survey done by the City's consultant. As Dr. Smallwood explains:

> Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

(Smallwood Comments, p. 10.) This exacerbates the absence of substantial evidence to justify the MND's wildlife baseline.

Dr. Smallwood also debunks the MND's effort to bolster the cursory biological

assessment with a so-called peer review. As Dr. Smallwood notes, no description of the peer-review nor any responses to review comments is provided in the MND and the date of the peer review appears inconsistent with the date of Monk & Associates site visit. (Smallwood Comments, p. 10.)

The evidence of nearby sightings of numerous sensitive species and the flaws in the MND and accompanying biological report identified by Dr. Smallwood support a fair argument that the Project may have adverse impacts on their foraging and movement. For this reason and those discussed above, an EIR must be prepared to address impacts to these many sensitive bird and bat species.

B. The Project will have a Significant Impact on Wildlife Movement and Habitat Fragmentation.

The MND fails to adequately analyze the Project's impact on wildlife movement. Instead, the MND improperly dismisses the Project's potential to impact wildlife movement by claiming there needs to be a "corridor" on the site to effect wildlife movement, that other nearby areas are better movement areas, or otherwise asserting without evidence that this particular large warehouse would not disrupt wildlife movement. As Dr. Smallwood states:

> The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others.

(Smallwood Comments, p. 20.) Dr. Smallwood's direct observations and expert opinion are substantial evidence of a fair argument that the Project may have adverse impacts on wildlife movement at the site and in the vicinity.

C. The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders. (Smallwood Comments, p. 20-21.) Regardless of whether these species live on site, these and other special status species must cross roadways that will experience increased traffic volume as a result of the Project. (*Id.*)

As Dr. Smallwood explains, "[i]ncreased use of existing roads will increase wildlife

fatalities…." (*Id*., p. 20.)

> The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23January 2019I saw two road-killed striped skunks on American Canyon Drive, and on 15 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road–a road likely to be used by trucks and cars servicing the project. California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the [MND] is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (Ambystoma californiense), and American badgers (Taxidea taxus) that, regardless of whether they live on the site, mustcross roadways that will experience increased traffic volume caused by this project.

(*Id*.) Given the fair argument of a threat to wildlife posed by existing traffic and additional traffic from the Project, as discussed by Dr. Smallwood, an EIR is necessary to evaluate the direct and cumulative impacts of the Project's vehicle collisions with wildlife.

D. The MND Fails to Analyze the Project's Impacts from the use of Pest Control Measures.

The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse. As a wine storage distribution facility, there will likely be steps taken to abate pests. There are many businesses that provide services for controlling stored products pests, perching birds, and rodents and other mammal pests within and around distribution warehouses. (Smallwood, p. 21.) These businesses advertise exclusion strategies and fumigation for stored products pests, glue boards for rodents, and other measures including anticoagulant poisons and acute toxicants. "[T]he use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging." (*Id*.) "[P]est control involving toxicants can result in the spread of toxicants beyond the project site." (*Id*.)

An EIR is needed to analyze the potential impacts of animal damage control associated with the proposed Project. Anticipated animal control strategies at the Project should be detailed, and impacts mitigated.

E. The Project will have Cumulative Impacts on Biological Resources.

Dr. Smallwood concludes that the Project will have a significant cumulative impact on biological resources. (Smallwood Comments, p. 22.) An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well.

III. The IS Utilized Unsubstantiated Input and Output Parameters to Estimate Project Emissions.

A. The MND fails to explain how the City Calculated the Project's Average Daily Construction Emissions of ROGs and NOx.

The MND and Appendix B fail to provide sufficient information for a reviewer to understand and corroborate how the average daily emissions during construction were derived. As SWAPE explains, it is entirely unclear where the emissions estimates reported in the MND come from, because the estimates do not match those provided in any of the CalEEMod output files. (SWAPE Comments, pp. 2-3.) The MND provides the Project's emissions estimates in pounds per day. (MND, p. 22.) This indicates that the estimates should have come from either the winter or summer output file. (SWAPE Comments, pp. 2-3.) However, reviewing both the summer and winter output files and the emissions estimates, SWAPE's review could not match either. Insufficient details are provided in the MND either to inform the reader of the full extent of the air pollution and impacts that will result from the Project or how the insignificant determination was calculated and derived. The MND does not disclose a valid average daily emission calculation. For this reason, there is a fair argument that the Project may have significant air quality impacts.

B. The MND Used Improper Modeling Inputs, Including for Water Use for Parking and Solid Waste Generation.

Review of the Project's CalEEMod output files also demonstrates that the Project Applicant fails to adequately support substantial reductions in several air quality modelling inputs. In particular, the input for water use rate is decreased by almost 100 percent from the default value of 50,248,312.50 gallons per year ("gpy") to a mere 768 gpy. (SWAPE Comments, p. 8.) However, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gpd or 249,295 gpy. Thus, the model underestimates the Project's total yearly water demand by approximately 239,186 gpy.

SWAPE also points out the lack of justification for the reduction in modeling inputs for solid waste generation by the Project. It is not explained how the Project would have dramatically lower solid waste rates than other typical projects. (SWAPE Comments, pp. 7-8.) Likewise, further corroboration that there would not be any weekend trips occurring at the facility or the lack of any potential for natural gas use by the Project should be further corroborated and explained in the MND. (*Id*., pp. 5-7.) Lastly, the modelling relies on surface watering and limited vehicle speeds among other BMPs identified by BAAQMD. However, nothing in the MND sets forth these measures as mandatory BMPs or conditions of the Project. (*Id*., pp. 9-11; MND, p. 23.) Because of the uncertainty resulting from inadequate justifications or miscalculation of annual water use, the MND's reliance on the CalEEMod analysis is not supported by substantial evidence that eliminates a fair argument that the Project may have significant air quality impacts.

IV. SWAPE's CalEEMod Modeling Run Indicates a Fair Argument That the Project May Have a Significant Air Quality Impact.

SWAPE reran the CalEEMod run for the Project adjusting for the deficiencies in the inputs that it identified. (SWAPE Comments, p. 11.) The resulting model result indicates that the Project may exceed the BAAQGM daily emission threshold of 54 lbs/day. This is substantial evidence of a fair argument that the Project may have a significant air quality impact.

V. The IS Inadequately Evaluates Emissions of Diesel Particulate Matter.

Diesel particulate matter ("DPM") is a known human carcinogen. The MND attempts to piggy-back on a health risk assessment performed for the nearby SDG Commerce 330 warehouse. (MND, p. 26.) This effort to borrow the HRA performed for that other project is problematic for a number of reasons.

A. The HRA Fails to Account for the Fact That the Nearest Sensitive Receptor to the Project's Emissions is Located Only 500 Feet From the Soil Borrow Site.

Although the MND notes that there is "one residence about 1,000 feet east of the site (on the Couch property)," this is referring to the site of the proposed warehouse building. (MND, p. 74.) In fact, the closest receptor is only 500-feet from the borrow pit portion of the Project. (*Id*., p. 77 (Table Noise-4).) For the SDG Commerce 330 project, the sensitive receptor distance was about 900 feet. Because the closest receptor to the Project's affected area is only 500 feet, a new health risk assessment specific to the Project must be prepared. (SWAPE Comments, pp. 12-14.) Based on the current MND, there remains a fair argument that the Project may have a significant health risk impact on the nearest sensitive receptor.

B. SWAPE's Analysis Provides Substantial Evidence of a Fair Argument that the Project may have Significant Health Risk Impacts from its Emissions of Toxic Air Contaminants.

Based on the limited information provided by the MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to adults, infants, children and nearby residents over the course of a 30-year residential lifetime of, respectively, 11 in one million, 86 in one million, 73 in one million, and 180 in one million, all in excess of BAAQMD's threshold. (SWAPE Comment, pp. 14-18.) Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

VI. There is a Fair Argument That the Project May Have Significant GHG Impacts.

SWAPE also reviewed the MND's discussion of the Project's potential GHG impacts. In addition to the deficiencies in the air modelling discussed above, a number of glaring problems with the analysis demonstrates that a fair argument remains that the Project may have significant GHG impacts.

A. The MND's Reliance on the 1,100 MT CO2e Per Year Threshold is Only Designed to Achieve the GHG Reductions Required by 2020 and is Insufficient to Align the Project With the State's 2030 GHG Reduction Targets.

As the BAAQMD states in its 2017 CEQA guidelines, BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. (BAAQMD CEQA Guidelines, p. D-16 (available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.) The threshold referenced in the MND is a bright-line threshold of 1,100 MT CO2e. (*Id.*, p. D-21. *See* SWAPE Comments, pp. 19-20.) That threshold was only intended to ensure compliance with AB 32's reduction goals required by 2020. (*Id.*) The 2020 GHG reduction goals sought to reduce business as usual GHG emissions to 1990 levels. In 2018, the Air Resources Board established the subsequent GHG reduction goal to reduce 1990 levels by another 40 percent by 2030. (California's 2017 Climate Change Scoping Plan, Executive Summary (Nov. 2017) (available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017_es.pdf).) That is the current goal with which the Project must ensure consistency order to claim no fair argument of a potential GHG impact.

As SWAPE points out, the Association of Environmental Professionals ("AEP") has derived a threshold of significance that is consistent with achieving the 2030 GHG reduction goals for projects coming online after 2020. AEP and SWAPE identify a "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO2 equivalents per service population per year ("MT CO2e/SP/year") as a threshold of significance necessary for any specific project to be consistent with the 2030 reduction goals. As AEP states:

> Once the state has a full plan for 2030 (which is expected in 2017), and then a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target. A more conservative approach would be to apply a 2030 threshold based on SB 32 for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update.

(*Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016, p. 40 (available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf).)

Applying the Project's estimate that it will create 50 new jobs, SWAPE calculates the

2030 Land Use Efficiency Threshold for the project to be 11.80 MT CO2e/SP/year - well in excess of the calculated significance threshold of 2.6 MT CO2e/SP/year. (SWAPE Comments, pp. 20-21.) Based on this substantial evidence, there is a fair argument that the Project may have significant GHG impacts.

B. The Project's Failure to Reduce its Expected VMT and Its Levels of VMT Per Capita are Evidence of a Fair Argument That the Project May Have Significant GHG Emission Impacts.

In addition to failing to reduce its VMT by fifteen percent of the Project area average, as discussed above, the MND also is inconsistent with CARB's 2017 Scoping Plan's guidance on evaluating GHG impacts using a Project's VMT per capita calculations. CARB has provided County- and State-based VMT per capita baseline calculations and the necessary per capita reductions necessary to be consistent with the Scoping Plan's GHG reduction targets. (SWAPE Comments, p. 22, n. 44.) SWAPE has applied that guideline to calculate the Project's VMT per capita. (*Id.,* p. 22 & Attachment C.) Using the tables provided by CARB, SWAPE calculates that VMT per capita within Napa County must be reduced to 19.37 in order to be consistent with the 2030 GHG reduction target. (*Id*., p. 22.) SWAPE calculates the Project's daily VMT per capita to be 33.21, well in excess of the VMT per capita levels necessary to meet the State reduction goals for 2030. (*id*., p. 22.) As a result, the MND is incorrect in asserting that the Project is consistent with the 2017 Scoping Plan and AB 32. SWAPE's analysis is substantial evidence of a fair argument that the Project may have significant GHG emission impacts.

CONCLUSION

For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. LIUNA reserves the right to supplement these comments in advance of and during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). Thank you for your attention to these comments.

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Brent Cooper, Community Development Coordinator
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

14 January 2020

RE: SDG Commerce 217 Warehouse

Dear Mr. Cooper,

I write to comment on the biological resources study (Monk & Associates 2020) and Initial Study ("IS") (City of American Canyon 2020) prepared for the proposed SDG Commerce 217 Warehouse project at 1075 Commerce Court, which I understand would be 217,294 square feet of new distribution warehousing on 10.39 acres (11.23 acres according to 'For Sale' sign on property).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-five years, including at many proposed project sites. My CV is attached.

SITE VISIT

I visited the proposed project site on 5 January 2021 for 62 minutes starting at 08:23 hours. Prior to the construction of SDG Commerce 330, I had also visited the site on 23 January 2019 from 06:15 hours to 10:50 hours. Both times I walked along Commerce Way, the first time in cool, sunny weather and the second time in fog. During my first visit I detected 41 species of vertebrate wildlife within 155 minutes, and during my second visit I detected 9 species within 65 minutes (Table 1). I also walked a portion of the Napa River and Bay Trails south and west of the site for 125 minutes in 2021 and for an unrecorded time in 2019. At and near the site I detected 61 species of vertebrate wildlife between my two visits. Add my observations to those of Monk & Associates (2020), and the list grows to 86 vertebrate species of wildlife seen at or near the site

over only a few surveys in the last two years. The project area is rich in wildlife. Had I stayed longer, or had I visited during additional times of year and times of day, I would have seen many more species of wildlife. Given the abundance of roost sites amongst the surrounding eucalyptus groves, I expect multiple species of bats are present. An EIR needs to be prepared to address potential project impacts on wildlife.

In 2019, I saw a juvenile bald eagle fly over the project site (Photos 1 and 2). Bald eagles are protected by the Bald and Golden Eagle Protection Act and the California Endangered Species Act. In 2021, I saw a peregrine falcon just west of the project site, but it was too fast for me to photograph it. I saw a northern harrier (Photo 3) and Cooper's hawk (Photo 4) on the project site, both species of which have been assigned special-status in addition to the 'birds of prey' statute. I saw American kestrels (Photos 5 and 6), Anna's hummingbirds (Photo 7 and 8), pied-billed grebes (Photo 9), mourning doves (Photo 10), a house wren (Photo 11), golden-crowned sparrows (Photo 12), white-crowned sparrows (Photos 13 and 14), Say's phoebe (Photo 15), red-winged blackbirds (Photo 16), fox sparrows (Photo 17), and song sparrows (Photo 18).

Some animals flew over, including Canada geese, mallards, Herring gulls, ring-billed gulls, and swallows. Most, however, spent considerable time on and around the site. Some species displayed courtship or territorial behaviors indicative of breeding, including red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. In 2019, a juvenile bald eagle hunted the site by carefully using the Eucalyptus trees for cover, but numerous small birds raised a ruckus, alerting of the eagle's approach. Also foraging on site were the northern harrier and Cooper's hawk in 2019. In 2019, two American kestrels harassed a perched great-horned owl, who hooted for about 10 minutes after the kestrels relented.

PROJECT DESCRIPTION

The Napa River and Bay Trails wrap around the project from the south to the west. The site is next to an Audubon Society-designated Important Bird Area.

BASELINE ASSESSMENT

Project Description: The IS (page 6) did not reveal the nearness of Clark Ranch and Napa River and Bay Trails as surrounding land uses, instead attempting to cast the 300-foot distance as a mitigating buffer (*See, e.g.* IS, p. 34). Clark Ranch has been dedicated as open space. The Napa River and Bay Trails not only provide public access to wildlife viewing, but is also designated by Audubon Society as one of its Important Bird Areas ("IBA"). An EIR is needed to address project impacts on the IBA, Napa River and Bay Trails, and Clark Ranch.

Table 1. Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse. The offsite visit was made during my 2021 survey, and includes a walk along Napa River and Bay Trails just south and west of the project site.

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Canada goose	*Branta canadensis*		2019		
Mallard	*Anas platyrhynchos*		2019		
Northern shoveler	*Anas clypeata*				Yes
American coot	*Fulica americana*				Yes
Pied-billed grebe	*Podilymbus podiceps*				Yes
Black-necked stilt	*Himantopus mexicanus*				Yes
American avocet	*Recurvirostra americanus*				Yes
Long-billed dowitcher	*Limnodromus scolopaceus*				Yes
Least sandpiper	*Caladris minutilla*				Yes
California quail	*Callipepla californica*		2019		
Turkey vulture	*Cathartes aura*	FGC 3503.5			Yes
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, CE, CFP	2019		
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5	2019		
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5	2019	2021	Yes
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5			Yes
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	2019		Yes
American kestrel	*Falco sparverius*	FGC 3503.5.5	2019		Yes
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5			Yes
Herring gull	*Larus argentatus*		2019		Yes
Ring-billed gull	*Larus delawarensis*		2019		Yes
Mourning dove	*Zenaida macroura*		2019		Yes
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	2019		
Great-horned owl	*Bubo virginianus*	CDFW 3503.5	2019		
Black-chinned hummingbird	*Archilochus alexandri*		2019		
Anna's hummingbird	*Calypte anna*		2019	2021	Yes
Northern flicker	*Colaptes auratus*		2019	2021	Yes
Nuttall's woodpecker	*Picoides nuttallii*	BCC	2019		Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Say's phoebe	*Sayornis saya*		2019		Yes
Black phoebe	*Sayornis nigricans*		2019		Yes
Hutton's vireo	*Vireo huttoni*		2019		
Barn swallow	*Hirundo rustica*		2019		
Northern rough-winged swallow	*Stelgidopteryx serripennis*		2019		
Bushtit	*Psatriparus minimus*		2019	2021	
House wren	*Troglodytes aedon*		2019		
Marsh wren	*Cistothorus palustris*				Yes
California scrub-jay	*Aphelocoma californica*		2019		
Common raven	*Corvus corax*		2019		Yes
American crow	*Corvus brachyrhynchos*		2019	2021	
Western bluebird	*Sialia mexicana*		2019		
Northern mockingbird	*Mimus polyglottos*		2019		Yes
European starling	*Sturnus vulgaris*	Non-native	2019	2021	Yes
Yellow-rumped warbler	*Setophaga coronata*		2019	2021	Yes
California towhee	*Pipilo crissalis*		2019		Yes
Song sparrow	*Melospiza melodia*				Yes
Lincoln's sparrow	*Melospiza lincolnii*				Yes
White-crowned sparrow	*Zonotrichia leucophrys*		2019		Yes
Golden-crowned sparrow	*Zonotrichia atricapilla*		2019		Yes
Fox sparrow	*Passerella iliaca*				Yes
Dark-eyed junco	*Junco hyemalis*		2019	2021	Yes
Western meadowlark	*Sturnella neglecta*		2019		
Red-winged blackbird	*Agelaius phoeniceus*		2019		Yes
Brown-headed cowbird	*Molothrus ater*				Yes
Brewer's blackbird	*Euphagus cyanocephalus*		2019		Yes
American goldfinch	*Carduelis tristis*		2019		
Lesser goldfinch	*Carduelis psaltria*				Yes
House finch	*Carpodacus mexicanus*		2019		Yes
Sierran treefrog	*Pseudacris sierra*		2019		Yes
Botta's pocket gopher	*Thomomys bottae*				Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
California ground squirrel	*Otospermophilus beecheyi*				Yes
Raccoon	*Procyon lotor*			2021	

[1] Listed as BGEPA = federal Bald and Golden Eagle Protection Act, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), SSC3 = California Species of Special Concern priority level 3, TWL = Taxa to Watch List (Shuford and Gardali 2008).





Photos 1 and 2. A bald eagle flew along the eucalyptus trees surrounding the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area this winter.





Photos 3 and 4. Cooper's hawk (left) and northern harrier (right) fly over the project site, 23 January 2019.





Photos 5 and 6. American kestrel perches on a Eucalyptus branch on southern boundary of proposed project site, 23 January 2019 (left) and on a pole just south of the project site on 5 January 2021 (right).





Photos 7 and 8, right. Anna's hummingbird perched next to the site of the proposed project on a foggy day, 5 January 2021.





Photos 9 and 10. Pied-billed grebe (left) and mourning dove (right) next to the site of the proposed project, 5 January 2021.



Photo 11, left. House wren next to the site of the proposed project, 23 January 2019.



Photo 12, right. Golden-crowned sparrow next to the site of the proposed project, 5 January 2021.

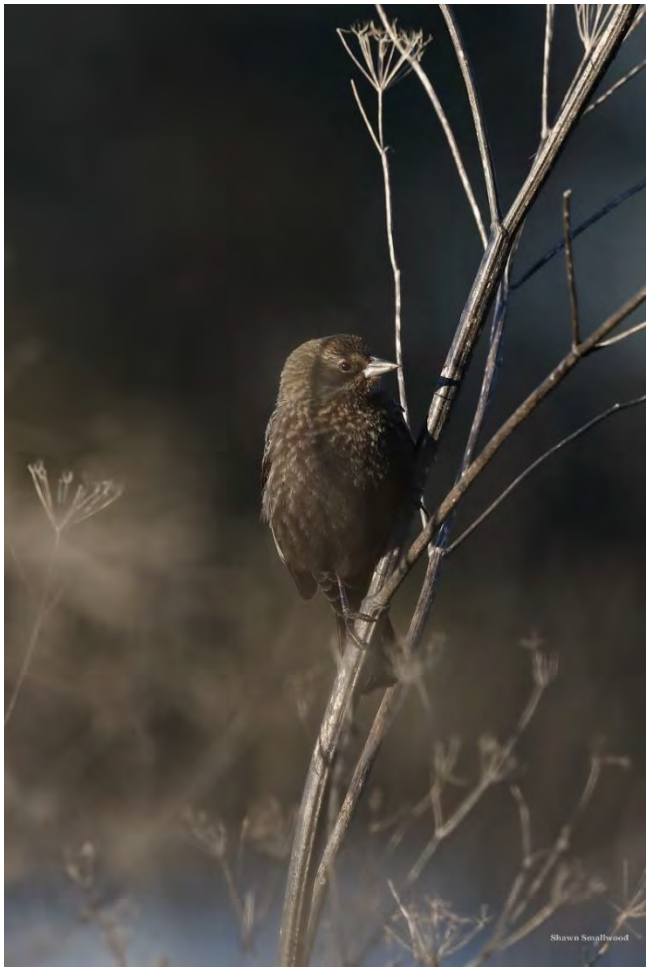




Photos 13 and 14. Male and female white-crowned sparrows next to the site of the proposed project, 5 January 2021.

Photos 15 and 16. Say's phoebe (left), triumphant after driving out a black phoebe, and red-winged blackbird (right) at the project site, 23 January 2019.









Photos 17 and 18. Fox sparrow (left) and song sparrow (right) next to the site of the proposed project, 5 January 2021.

Reconnaissance surveys: Monk & Associates (2020) performed surveys on the site on 19 and 27 December 2019. However, Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

Peer review: The IS (page 29) assures that Monk & Associates (2020) was peer reviewed. However, the date of the site visit in support of the peer review was 10 August 2018, which was prior to the Monk & Associates surveys of 2019. and prior to their 2020 report. If the date was correct for the peer-review site visit, then it is unclear what was peer-reviewed.

In claiming Monk & Associates (2020) was peer reviewed, the IS misapplies a process routinely used by scientists to improve their work. The purpose of peer review is to (1) improve the reporting of scientific research results, and (2) contribute to an editor's decision over whether to accept or reject a manuscript, or to require minor or major revisions before making the decision to accept or reject. The conclusions of peer reviewers are not necessarily right while the authors' conclusions are wrong. Peer review comments contribute to the scientific process by adding additional perspectives that the authors can use to improve their product, despite whether the product was rejected by the institution administering the peer review. Peer reviews also assess manuscripts according to scientific standards and to written guidelines maintained by the organization to which the manuscript was submitted. Peer review comments are supposed to be constructive. The important point here is that a "peer review" provided by Vollmar Natural Lands Consulting would have contributed nothing to Monk & Associates (2020) unless it resulted in constructive revisions to the report. Perhaps improvements were made to the report, but the reader cannot tell because the IS provides no report of the peer-review nor any responses to review comments.

To qualify as independent peer review, the administrator of the peer review as well as the reviewers themselves must not benefit financially or professionally from the outcome of the review. There must not be any hint of bias for a review to be considered independent. Another qualification is that the reviewers must be the authors' peers, meaning that reviewers possess sufficient experience performing research on the same or similar topic area as the authors, and that the reviewers understand the theoretical foundation of the topic at hand and the research challenges faced by the authors. In my experience, targeted reviews are prone to bias because the paid reviewer understands the desired outcome; it is in the reviewer's financial interest to review the client's work product favorably if the reviewer is to acquire repeat business. City of American Canyon needs to explain its relationship with Vollmar Natural Lands Consulting and between Vollmar Natural Lands Consulting and Monk & Associates.

Determinations of occurrence likelihoods: Monk & Associates (2020) mostly relied on California Natural Diversity Data Base (CNDDB) records to assess the likelihood of occurrence of special-status wildlife species whose geographic range maps

overlap the project site. Whereas consulting CNDDB is fine for confirming presence of a species, it is inappropriate for determining absence and hence narrowing a list of potentially occurring species. CNDDB is voluntary and not based on scientific sampling or equal access to properties. The limitations of CNDDB are well-known, and they are summarized in a warning presented by CDFW on the CNDDB web site (https://www.wildlife.ca.gov/Data/CNDDB/About): "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers*..." Therefore, the foundation of many conclusions in the is consists partly of a misapplication of CNDDB and needs to be replaced by a sound methodology in an EIR.

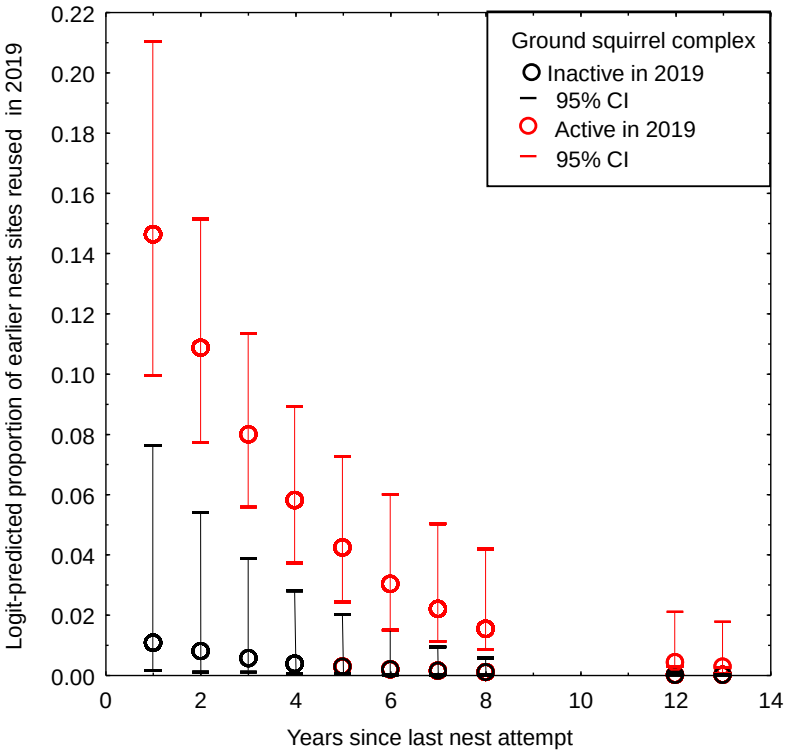
Consulting eBird reveals many sightings of special-status species near the project site (Table 2), many of which Monk & Associates (2020) conclude are less likely to occur at the site due to distant nearest-CNDDB records. My review of eBird and iNaturalist reveals 66 special-status species of vertebrate wildlife likely to rely on the site at one time or another, 15 of which have been confirmed at or near the site during surveys performed by Monk & Associates (2020) and myself (Table 2). The IS, on the other hand, identifies only 3 such species as unlikely to occur at the site, including northern harrier which I saw on site, and Swainson's hawk and burrowing owl which have both been reported nearby in eBird. The IS falls grossly short of a comprehensive and accurate assessment of occurrence likelihoods of special-status species.

The inadequacy of IS's assessment of species occurrences stems mostly from two fallacious arguments: (1) that the site is unsuitable for nesting, and (2) the site was previously disturbed by the removal of a eucalyptus grove. The first fallacy is that habitat can be divided distinctly by functionality. Specific to this project, the IS distinguishes nesting habitat as the only type of habitat to be concerned about. But no animals can breed without finding sufficient forage, cover and stopover opportunities; no species can breed without surviving both the breeding and nonbreeding seasons. There is no clear distinction between types of habitat, as every portion of an animal's habitat is critical to its survival and its productivity.

The second fallacy is that some previous disturbance – the removal of a eucalyptus grove in this case – diminishes or destroys habitat of a species today. CEQA reviews are supposed to be based on existing conditions, rather than to some past event that a project proponent can claim without evidence to have prevented the site from ever again being used by a species. This CEQA standard noted, I must add that the scientific literature is full of examples of wildlife populating places that have been severely disturbed, such as the slopes of Mount St. Helens following the 1980 eruption, and wildlife reinhabiting the forests surrounding Ukraine's Chernobyl Nuclear Plant since its meltdown and massive radioactive release. Multiple scientific journals focus on habitat restoration, which involves deliberate, major disturbances to generate new complexes of

vegetation intended to benefit wildlife. The IS misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today. The IS (page 32) further misleads that only ground squirrel burrows of ancient origin are useful to burrowing owls. Specifically, the IS claims burrowing owls are unlikely because "...ground squirrel burrows are few and of recent origin (Monk & Associates 2020)." The IS cites no evidence in support of this notion. It is also inconsistent with my research experience. For example, in a revisit to nearly 800 burrowing owl nest sites I had mapped over 9 years in the Altamont Pass Wind Resource Area, I found reuse of the nest sites in 2019 to have been much greater within actively used ground squirrel burrows previously used more recently (Figure 1). Further misleading is the IS's argument that "Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys." This is misleading because negative findings cannot be supported in the absence of detection surveys such as those recommended by CDFW (2012). It does not matter that Monk & Associates found no evidence of burrowing owls because they did not perform the appropriate detection surveys.

Figure 1. Proportion of revisited burrows that were either actively or inactively used by ground squirrels and where burrowing owls attempted re-nesting in 2019 declined quickly with years since the previous nest attempt.



The IS (page 33) claims that the loss of foraging habitat of northern harrier is "not considered substantial." However, the IS provides no evidence in support this conclusion. By what measure is the loss of foraging habitat judged substantial? Further, this conclusion neglects the possibility that the site is used by northern harrier for nesting as well as foraging. I saw a northern harrier fly over the site – the same site where the IS also says northern harriers would be unlikely to occur. The IS's analysis of potential impacts to northern harrier is flawed.

Table 2. Species reported on eBird (https://eBird.org) or iNaturalist on or near the proposed project site, where those in bold font were also seen on or near the site by myself or Monk & Associates (2020).

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Western pond turtle	*Actinemys marmorata*	SSC	None	Nearby
Pallid bat	*Antrozous pallidus*	SSC, WBWG H		Nearby
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG H		Nearby
Western red bat	*Lasiurus blossevillii*	SSC, WBWG H		In region
Fringed myotis	*Myotis thysanodes*	SSC, WBWG H		In region
Yuma myotis	*Myotis yumanensis*	SSC, WBWG LM		In region
Long-eared myotis	*Myotis evotis*	WBWG M		In region
Small-footed myotis	*Myotis cililabrum*	WBWG M		In region
American badger	*Taxidea taxus*	SSC		In region
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	TWL		Nearby
Redhead	*Aythya americana*	SSC2		Very close
American white pelican	*Pelecanus erythrorhynchos*	SSC1		Very close
Double-crested cormorant	*Phalacrocorax auritus*	TWL		Very close
White-faced ibis	*Plegadis chihi*	TWL		Very close
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC3		Very close
Marbled godwit	*Limosa fedua*	BCC		Very close
Snowy plover	*Charadrius alexandrinus*	SSC3		Very close
Long-billed curlew	*Numenius americanus*	BCC, TWL		Very close
Whimbrel	*Numenius phaeopus*	BCC		Very close
California gull	*Larus californicus*	TWL		Very close
Caspian tern	*Hydroprogne caspia*	TWL		Very close
Black tern	*Chlidonias niger*	SSC2		Nearby
California least tern	*Sterna antillarum browni*	FE, CE		Very close
Turkey vulture	*Cathartes aura*	FGC 3503.5		Very close
Osprey	*Pandion haliaetus*	TWL, FGC 3503.5		Very close
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE		Very close
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP		Very close

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5		Very close
Rough-legged hawk	*Buteo regalis*	FGC 3503.5		Nearby
Ferruginous hawk	*Buteo regalis*	TWL, FGC 3503.5	None	Very close
Swainson's hawk	*Buteo swainsoni*	BCC, CT, FGC 3503.5	Unlikely	Very close
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5		Very close
Sharp-shinned hawk	*Accipiter striatus*	TWL, FGC 3503.5		Very close
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5		Very close
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	Unlikely	Very close
White-tailed kite	*Elanus leucurus*	CFP, TWL		Very close
American kestrel	*Falco sparverius*	FGC 3503.5		Very close
Merlin	*Falco columbarius*	TWL, FGC 3503.5		Very close
Prairie falcon	*Falco mexicanus*	TWL, FGC 3503.5		Very close
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5	None	Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2	Unlikely	Nearby
Great-horned owl	*Bubo virginianus*	FGC 3503.5		Very close
Long-eared owl	*Asio otus*	SSC3, FGC 3503.5		Nearby
Short-eared owl	*Asio flammeus*	SSC3, FGC 3503.5		Nearby
Barn owl	*Tyto alba*	FGC 3503.5,		Very close
Western screech-owl	*Megascops kennicotti*	FGC 3503.5		Nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
Lewis's woodpecker	*Melanerpes lewis*	BCC		Nearby
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Vaux's swift	*Chaetura vauxi*	SCC2		Very close
Willow flycatcher	*Empidonax traillii extimus*	FE, CE		Very close
Olive-sided flycatcher	*Contopus cooperi*	SSC2		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2		Very close
Horned lark	*Eremophila alpestris*	TWL		Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		Nearby
Purple martin	*Progne subis*	SSC2		Nearby

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Yellow warbler	*Setophaga petechia*	SSC2		Very close
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3	None	Very close
Savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2		Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	None	Very close
Summer tanager	*Piranga rubra*	SSC1		Very close
Tricolored blackbird	*Agelaius tricolor*	CT	None	Very close
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close

[1] Listed as FT & FE = federal threatened and endangered, BGEPA = Bald and Golden Eagle Protection Act, BCC = U.S. Fish and Wildlife Service Bird species of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CT & CE = California threatened and endangered, CFP = California Fully Protected (FGC Code 3511), FGC 3503.5 = California Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008), WBWG = Western Bat Working Group with low, medium and high conservation priorities.

The IS (page 34) is also wrong in its conclusion of no impact to bats. The argument is that the site "...contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground.

By relying solely on CNDDB for determining occurrence likelihoods, the IS overlooks occurrences reported in other data bases. For example, whereas nearest CNDDB records have Swainson's hawks and burrowing owls 2.5 and 2.6 miles away from the project site, eBird records show these species much closer. According to eBird, a Swainson's hawk was seen only 0.2 miles from the project site. Given the space used by Swainson's hawks, there should be no doubt that a Swainson's hawk 0.2 miles away would have also used the project site. Burrowing owls were seen by multiple observers only 0.2 miles from the project site. One of the observers is a good bird observer with whom I have worked for many years; his observation was as trustworthy.

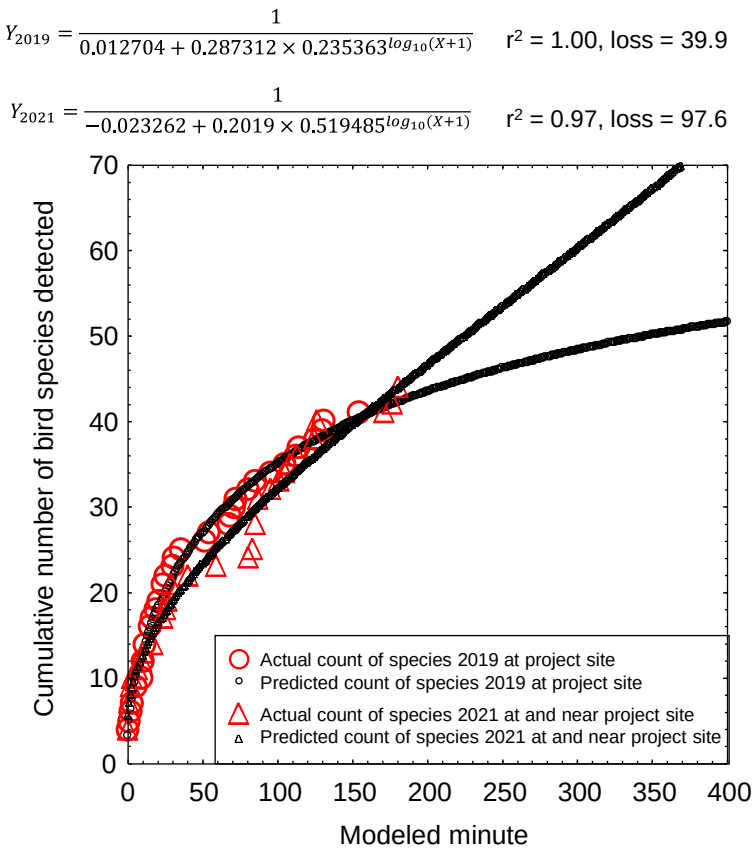
Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

Additional special-status species neglected by Monk & Associates include peregrine falcon and loggerhead shrike, both of which have been reported multiple times on eBird as having been seen near the project site. I saw a peregrine falcon right next to the site. And there are multiple others in addition to these species. I assert that Monk & Associates (2020) inadequately assessed potential project impacts to wildlife. Relying on CNDDB was inappropriate and inadequate. And after making multiple site visits, the number of wildlife species detected by Monk & Associates numbered only 25, whereas mine numbered more than twice as many.

That the environmental setting has yet to be accurately characterized is further supported by known trends in species detections with survey effort. Figure 2 shows my counts of species detected at the site with time into each of my two surveys – it simply shows the cumulative number of species detected with increasing survey time. Just as I have seen for many other survey efforts, nonlinear regression models fit the data very well, explaining 97% of the variation in the data in 2021 and nearly 100% of the variation in the data in 2019, and for both surveys they showed progress towards the inevitable asymptotes of the nonlinear prediction curve where the same survey methods will eventually detect no more species. I note that the 2019 count of species was specific to the project site, whereas my 2021 count of species included areas around the project site. One model shows that had I continued doing what I was doing on 23 January 2019, I would have eventually detected about 55 species of terrestrial vertebrate wildlife on the project site, or more than double the number detected by Monk & Associates (2020). The other model shows that had I continued doing what I was doing on 5 January 2021, I would eventually have detected hundreds of terrestrial vertebrate

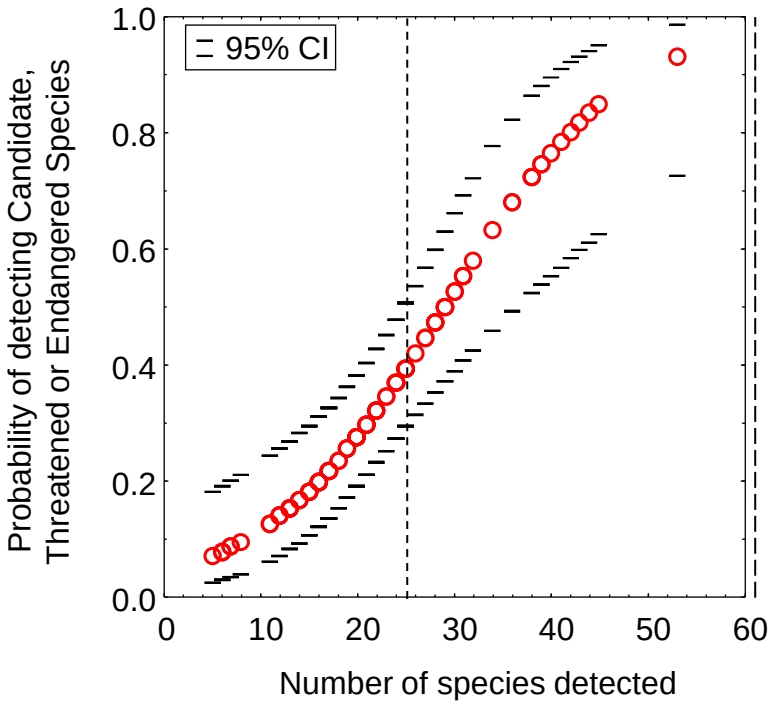
wildlife in the project area, confirming the wisdom of Audubon Society's designation of an IBA there.

Figure 2. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scan on 23 January 2019 and 5 January 2021. Note that the relationships would differ if the surveys were based on another method, another time of day, or during another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.



The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by the fact that special-status species tend to be rarer than common species. Special-status species also tend to be more cryptic, fossorial, or active during nocturnal periods when general biological surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of increasing number of vertebrate wildlife species detected (Figure 3). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As demonstrated in Figure 2, the number of species detected is a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected. The survey effort committed to the project site by City of American Canyon carried a 40% chance of detecting a listed species, whereas the effort committed by myself carried a nearly 100% chance of detecting a listed species. In fact, I detected 2 listed species, one on site and one just offsite, so my model prediction was accurate. Monk & Associates beat the odds by detecting white-tailed kite – a California Fully Protected species. Had we surveyed longer or using different methods, we would have detected more listed species. A fair argument can be made for the need to prepare an EIR to more comprehensive and more carefully analyze baseline conditions and potential project impacts to wildlife.

Figure 3. Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 106 site visits throughout California. The vertical short-dashed line represents the number of species detected by Monk & Associates (2020), whereas the vertical short-dashed line depicts the number I detected between two site visits.



Habitat Loss

A recent study documented a 29% decline in overall bird abundance across North America over the last 48 years – a decline driven by multiple factors including habitat loss and habitat fragmentation (Rosenberg et al. 2019). Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity. For example, studies in grassland/wetland/woodland complexes documented total bird nesting densities of 32.8 nests per acre (Young 1948) and 35.8 nests per acre (Yahner 1982), averaged at 34.3 nests per acre. Assuming the project site in the absence of wetlands immediately on site, would support a third of the total nesting density measured by Young (1948) and Yahner (1982), a density of 11.4 nests per acre multiplied against the project's take of 11.23 acres would predict the loss of 128 bird nest sites. After 100 years and further assuming an average bird generation time of 5 years, and assuming an average 2.9 chicks fledged per nest (Young 1948), the lost capacity of both breeders and annual fledgling production would total 42,240 {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years per generation)}. These predicted losses would be substantial, and would qualify as significant impacts that have yet to be addressed by City of American Canyon. A fair argument can be made for the need to prepare an EIR to analyze the impacts of habitat destruction.

Habitat fragmentation, which is the reduction of connectivity of remaining habitat patches on a landscape, can further diminish the productive capacity of a site

(Smallwood 2015). Habitat fragmentation is one of the cumulative effects of this project that needs to be analyzed in an EIR.

Wildlife Movement

The IS accurately defines the concept of a wildlife corridor as a connector between already-fragmented habitat patches (see Smallwood 2015), but then inaccurately asserts that significant impacts to wildlife movement in a region can only happen with the interference of an existing wildlife corridor. One problem with this assertion is that a finding of significance would first require that habitat in the project area had already been fragmented and then a corridor constructed to reduce the effects of fragmentation. The assertion precludes a finding of significance where habitat has not been fragmented and no corridor constructed. The IS asserts a false CEQA standard for determining whether a project would interfere with wildlife movement in the region.

The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The existence of a wildlife corridor is unnecessary for a project to interfere with wildlife movement in the region.

The IS (page 35) also speculates that the site's history of disturbance in the form of tree removal somehow precludes any possible project interference with wildlife movement. This speculation, however, is vulnerable to abuse, because it could be extended to any earlier site condition when terrestrial wildlife might not have been able to move across it, such as when it might have been under the sea. The site's use for movement by wildlife needs to be analyzed based on conditions existing at the time of the environmental review, consistent with CEQA's standard.

The IS (page 35) further speculates that wildlife movement in the region is prevented by "...continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south." Paint ball facilities do not prevent wildlife movement. I have recorded many wildlife observations at a paint ball facility near where I live, and have noticed no effect on bird activity. Northern harriers, white-tailed kites, American kestrels, Swanson's hawks, and many other species perch on site, using it for foraging, territory patrol and stopover habitat. The IS cites no evidence that paintball facilities interfere with wildlife movement or would do so on adjacent properties.

The IS (page 35) speculates even further by claiming, "The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife..." But without evidence that a eucalyptus grove is more valuable to wildlife movement, this claim is nothing more than

convenient speculation. I can agree that the marsh would be more valuable for wetland-adapted species, but not for all species.

The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others. A fair argument can be made for the need to prepare an EIR to analyze the project's impacts on wildlife movement in the region.

Traffic Impacts on Wildlife

According to City of American Canyon (2020:88), the project would generate 367 daily vehicle trips. No analysis is provided in the IS of this traffic's impacts to wildlife in the area. The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23 January 2019 I saw two road-killed striped skunks on American Canyon Drive, and on 5 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road – a road likely to be used by trucks and cars servicing the project. California red-legged frogs (*Rana draytonii*), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the IS is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*) that, regardless of whether they live on the site, must cross roadways that will experience increased traffic volume caused by this project.

Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

In a recent study of traffic-caused wildlife mortality, investigators found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches along a 2.5 mile stretch of Vasco Road in Contra Costa County, California (Mendelsohn et al. 2009). Using carcass detection trials performed on land immediately adjacent to the traffic mortality study (Brown et al. 2016) to adjust the found fatalities for the proportion of fatalities not found due to scavenger removal and searcher error, the

estimated traffic-caused fatalities was 12,187. This fatality estimate translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads to and from the project site would similarly result in intense local impacts on wildlife.

Wildlife roadkill is not randomly distributed, so can be predicted. Causal factors include types of roadway, human population density, and temperature (Chen and Wu 2014), as well as time of day and adjacency and extent of vegetation cover (Chen and Wu 2014, Bartonička et al. 2018), and intersections with streams and riparian vegetation (Bartonička et al. 2018). For example, species of mammalian Carnivora are killed by vehicle traffic within 0.1 miles of stream crossings >40 times other than expected (K. S. Smallwood, 1989-2018 unpublished data). These factors also point the way toward mitigation measures, which should be formulated in an EIR.

Pest Control and Target and Non-target Mortality

As I understand it, the proposed project would store and distribute wine. The Initial Study did not mention the likelihood that pest control would be needed to protect stored products. Because multiple businesses advertise their services on the internet for controlling stored products pests, perching birds, and rodent and other mammal pests within and around warehousing and food processing buildings (e.g., https://www.catseyepest.com/pest-control/ commercial-pest-control/warehouse-and-distribution-facilities, http://advancedipm .com /commercial/ commercial-pest-management-for-warehouses-and-distribution-centers/, https://www.terminix.com/blog/commercial/how-pests-impact-warehouses/, I assume pest control would be necessary. These types of businesses advertise exclusion strategies, as well as fumigation for stored products pests, glue boards for rodents, and 'other measures.' Having a background in animal damage control, I am familiar with 'other methods,' including the use of anticoagulant poisons and acute toxicants such as strychnine. In my experience, the use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging (also see Gabriel et al. 2012). In other words, pest control involving toxicants can result in the spread of toxicants beyond the project site.

I reviewed the scientific literature on animal damage control associated with distribution warehousing. Little to no serious scientific attention has been directed toward animal damage control in these settings. That businesses are advertising their animal damage control services in these settings indicates either an awareness or an assumption that damage from wildlife is an issue. It is important, therefore, that an EIR be prepared to address the potential impacts of animal damage control associated with this proposed project. Industry practices related to animal damage control should be detailed, as well as anticipated practices at this project. Potential impacts caused by these practices need to be assessed, and suitable mitigation measures formulated along with assurances that they will be implemented.

Cumulative Impacts

City of American Canyon (2019:97) concludes the project will result in no cumulative impacts because only one other new project is planned. The cumulative impacts analysis is flawed by considering only the single new project, and none of those under construction or already built. Had City of American Canyon listed all projects -- past, present and reasonably foreseeable projects -- then the need for a serious cumulative effects analysis would emerge as obvious. City of American Canyon has sprawled across nearly all of the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west, leaving a fragmented mosaic of fields and woodlots as stop-over habitat for use by birds and bats. The project would also obviously be seen as adding more traffic extending the project's and the region's impacts far beyond their respective footprints.

When it comes to wildlife, cumulative effects can often be interpreted as effects on the numerical capacity (Smallwood 2015), breeding success, genetic diversity, or other population performance metrics expressed at the regional scale. In the case of migrating birds, the project's cumulative effects could be measured as numerical reductions of breeding birds at far-off breeding sites, as migrating adults and next-year's recruits lose access to stop-over habitat. These effects could be predicted and measured. If birds were to lose all stop-over habitat across City of American Canyon, then the numerical capacity of migration might decline for multiple species. Unfortunately, little is known about stop-over habitat requirements, such as how often migrants lose their lives for lack of stop-over habitat. Nevertheless, crude assessments are possible and imperative.

An EIR needs to be prepared to appropriately analyze the project's contribution to cumulative impacts. It also needs to present mitigation measures to minimize impacts, or to compensate for cumulative impacts. An EIR should assess the combined impacts of all projects, including this one. An EIR is needed to formulate appropriate mitigation for cumulative traffic-caused wildlife mortality.

MITIGATION MEASURES

MM BIO-1 I concur that preconstruction surveys are needed for burrowing owls. However, a preconstruction survey cannot serve as a surrogate for detection surveys. Preconstruction surveys have a specific purpose, which is take-avoidance salvage of readily detectable individuals in immediate jeopardy of harm just prior to construction. The purposes of detection surveys are to detect the species if it is present, to support determinations of absence, and to inform the CEQA review, preconstruction surveys about where the species is likely to be found on the project site, and the formulation of mitigation. To be consistent with the CDFW (2012) guidelines on burrowing owl mitigation, detection surveys are needed for burrowing owls and they need to be performed according to the guidelines. After the detection surveys are completed, then an impacts analysis is needed, and so is the formulation of mitigation measures, which might include compensatory mitigation. Based on the outcome of

detection surveys, an EIR should be prepared to adequately address impacts and mitigation related to burrowing owls.

MM BIO-2 I concur that preconstruction surveys are needed for Swainson's hawks. However, detection surveys are also needed. It is already established on eBird that Swainson's hawks are in the area and that at minimum the project would remove foraging habitat. This impact needs to be analyzed in an EIR and mitigated.

MM BIO-3 I concur that preconstruction surveys are needed for nesting raptors. However, detection surveys are needed first. Preconstruction surveys are intended to buffer or salvage nests immediately threatened by the tractor blade, but they do not inform of how many nests will be taken. The magnitude of the impact must be known or estimated in order to formulate appropriate minimization and compensatory mitigation. Detection surveys are needed to inform an EIR, which is needed to analyze potential impacts to nesting raptors.

MM BIO-4 I concur that preconstruction surveys are needed for nesting passerine birds. However, detection surveys are needed first. The same issues apply here as those I raised in MM BIO-1 through MM BIO-3. I will add that additional bird species might nest on the project site other than raptors and passerines. Killdeer might nest there, in addition to others. Detection surveys are needed for nests of all species protected by both the California and federal Migratory Bird Treaty Acts.

Additional Comments on Mitigation

The IS provides no mitigation for adverse impacts on regional movement of wildlife, nor for cumulative impacts on wildlife or even for direct impacts. At a minimum, an EIR needs to include substantial compensatory mitigation in response to the project's impacts on habitat loss and wildlife movement, including impacts to birds using the site as stop-over or staging during migration.

Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding of research to identify fatality patterns and effective impact reduction measures.

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by the increased trip generation of cars and trucks. Many animals need treatment caused by collision injuries and an increasing number appear to be injured by the turbulence of passing trucks.

Mitigation measures are also needed for management of vertebrate pests on the project site. The project site is adjacent to Clark Ranch and to Napa River and Bay Trails, so any pest control on site needs to be prevented from spilling over into designated open spaces.

The IS (page 11) says, "The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation…" I suggest the building, if constructed, should include PV solar panels to the extent the roof can sustain. The project would use electrical energy, which if not generated on site will likely come from renewable energy sources. Utility-scale renewable energy is known to kill many members of many species of birds and bats. Onsite generation would kill many fewer birds and bats, if any (no fatalities have been documented to date as a result of collisions with rooftop solar).

Thank you for your attention,



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Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 665 professional publications, including:
- 88 peer reviewed publications
- 24 in non-reviewed proceedings
- 551 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science*, U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

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- Clawiter Road Industrial Project IS/MND, Hayward (2021; 18);
- Garnet Energy Center Stipulations, New York (2020);
- Heritage Wind Energy Project, New York (2020: 71);
- Ameresco Keller Canyon RNG Project IS/MND, Martinez (2020; 11);
- Cambria Hotel Project Staff Report, Dublin (2020; 19);
- Central Pointe Mixed-Use Staff Report, Santa Ana (2020; 20);
- Oak Valley Town Center EIR Addendum, Calimesa (2020; 23);

- Coachillin Specific Plan MND Amendment, Desert Hot Springs (2020; 26);
- Stockton Avenue Hotel and Condominiums Project Tiering to EIR, San Jose (2020; 19);
- Cityline Sub-block 3 South Staff Report, Sunyvale (2020; 22);
- Station East Residential/Mixed Use EIR, Union City (2020; 21);
- Multi-Sport Complex & Southeast Industrial Annexation Suppl. EIR, Elk Grove (2020; 24);
- Sun Lakes Village North EIR Amendment 5, Banning, Riverside County (2020; 27);
- 2nd comments on 1296 Lawrence Station Road, Sunnyvale (2020; 4);
- 1296 Lawrence Station Road, Sunnyvale (2020; 16);
- Mesa Wind Project EA, Desert Hot Springs (2020; 31);
- 11th Street Development Project IS/MND, City of Upland (2020; 17);
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- Replies on Wister Solar Energy Facility EIR, Imperial County (2020; 12);
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- 3440 Wilshire Project IS/MND, Los Angeles (2020; 19);
- Replies on 2400 Barranca Office Development Project EIR, Irvine (2020; 8);
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- Declaration on DDG Visalia Warehouse project (2020; 5);
- Terraces of Lafayette EIR Addendum (2020; 24);
- AMG Industrial Annex IS/MND, Los Banos (2020; 15);
- Replies to responses on Casmalia and Linden Warehouse (2020; 15);
- Clover Project MND, Petaluma (2020; 27);
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- Replies to responses on 3721 Mt. Diablo Boulevard Staff Report (2020; 5);
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- Steeno Warehouse IS/MND, Hesperia (2020; 19);
- UCSF Comprehensive Parnassus Heights Plan EIR (2020; 24);
- North Pointe Business Center MND, Fresno (2020; 14);
- Casmalia and Linden Warehouse IS, Fontana (2020; 15);
- Rubidoux Commerce Center Project IS/MND, Jurupa Valley (2020; 27);
- Haun and Holland Mixed Use Center MND, Menifee (2020; 23);
- First Industrial Logistics Center II, Moreno Valley IS/MND (2020; 23);
- GLP Store Warehouse Project Staff Report (2020; 15);
- Replies on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 29);
- 2nd comments on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 34);
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- Levine-Fricke Softball Field Improvement Addendum, UC Berkeley (2020; 16);
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- Humboldt Wind Energy Project DEIR (2019; 25);
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- 1700 Dell Avenue Office Project, Campbell (2019, 28);
- 1180 Main Street Office Project MND, Redwood City (2019; 19:
- Summit Ridge Wind Farm Request for Amendment 4, Oregon (2019; 46);
- Shafter Warehouse Staff Report (2019; 4);
- Park & Broadway Design Review, San Diego (2019; 19);
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- Hageman Warehouse IS/MND, Bakersfield (2019; 13);
- Oakley Logistics Center EIR, Antioch (2019; 22);
- 27 South First Street IS, San Jose (2019; 23);
- 2nd replies on Times Mirror Square Project EIR, Los Angeles (2020; 11);
- Replies on Times Mirror Square Project EIR, Los Angeles (2020; 13);
- Times Mirror Square Project EIR, Los Angeles (2019; 18);
- East Monte Vista & Aviator General Plan Amend EIR Addendum, Vacaville (2019; 22);
- Hillcrest LRDP EIR, La Jolla (2019; 36);
- 555 Portola Road CUP, Portola Valley (2019; 11);
- Johnson Drive Economic Development Zone SEIR, Pleasanton (2019; 27);
- 1750 Broadway Project CEQA Exemption, Oakland (2019; 19);
- Mor Furniture Project MND, Murietta Hot Springs (2019; 27);
- Harbor View Project EIR, Redwood City (2019; 26);
- Visalia Logistics Center (2019; 13);
- Cordelia Industrial Buildings MND (2019; 14);
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- Olympic Holdings Inland Center Warehouse Project MND, Rancho Cucamonga (2019; 14);
- Replies to responses on Lawrence Equipment Industrial Warehouse, Banning (2019; 19);
- PARS Global Storage MND, Murietta (2019; 13);
- Slover Warehouse EIR Addendum, Fontana (2019; 16);
- Seefried Warehouse Project IS/MND, Lathrop (2019; 19)
- World Logistics Center Site Visit, Moreno Valley (2019; 19);
- Merced Landfill Gas-To-Energy Project IS/MND (2019; 12);
- West Village Expansion FEIR, UC Davis (2019; 11);
- Site visit, Doheny Ocean Desalination EIR, Dana Point (2019; 11);
- Replies to responses on Avalon West Valley Expansion EIR, San Jose (2019; 10);
- Avalon West Valley Expansion EIR, San Jose (2019; 22);
- Sunroad – Otay 50 EIR Addendum, San Diego (2019; 26);

- Del Rey Pointe Residential Project IS/MND, Los Angeles (2019; 34);
- 1 AMD Redevelopment EIR, Sunnyvale (2019; 22);
- Lawrence Equipment Industrial Warehouse IS/MND, Banning (2019; 14);
- SDG Commerce 330 Warehouse IS, American Canyon (2019; 21);
- PAMA Business Center IS/MND, Moreno Valley (2019; 23);
- Cupertino Village Hotel IS (2019; 24);
- Lake House IS/ND, Lodi (2019; 33);
- Campo Wind Project DEIS, San Diego County (DEIS, (2019; 14);
- Stirling Warehouse MND site visit, Victorville (2019; 7);
- Green Valley II Mixed-Use Project EIR, Fairfield (2019; 36);
- We Be Jammin rezone MND, Fresno (2019; 14);
- Gray Whale Cove Pedestrian Crossing IS/ND, Pacifica (2019; 7);
- Visalia Logistics Center & DDG 697V Staff Report (2019; 9);
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- Del Hombre Apartments EIR, Walnut Creek (2019; 23);
- Otay Ranch Planning Area 12 EIR Addendum, Chula Vista (2019; 21);
- The Retreat at Sacramento IS/MND (2019; 26);
- Site visit to Sunroad – Centrum 6 EIR Addendum, San Diego (2019; 9);
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- Doheny Ocean Desalination EIR, Dana Point (2018; 15);
- Stirling Warehouse MND, Victorville (2018; 18);
- LDK Warehouse MND, Vacaville (2018; 30);
- Gateway Crossings FEIR, Santa Clara (2018; 23);
- South Hayward Development IS/MND (2018; 9);
- CBU Specific Plan Amendment, Riverside (2018; 27);
- 2nd replies to responses on Dove Hill Road Assisted Living Project MND (2018; 11);
- Replies to responses on Dove Hill Road Assisted Living Project MND (2018; 7);
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- Deer Ridge/Shadow Lakes Golf Course EIR, Brentwood (2018; 21);
- Pyramid Asphalt BLM Finding of No Significance, Imperial County (2018; 22);
- Amáre Apartments IS/MND, Martinez (2018; 15);
- Petaluma Hill Road Cannabis MND, Santa Rosa (2018; 21);
- 2nd comments on Zeiss Innovation Center IS/MND, Dublin (2018: 12);
- Zeiss Innovation Center IS/MND, Dublin (2018: 32);
- City of Hope Campus Plan EIR, Duarte (2018; 21);
- Palo Verde Center IS/MND, Blythe (2018; 14);
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- 750 Marlborough Avenue Warehouse MND, Riverside (2018; 14);
- Replies to responses on San Bernardino Logistics Center IS (2018; 12);
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- CUP2017-16, Costco IS/MND, Clovis (2018; 11);
- Desert Land Ventures Specific Plan EIR, Desert Hot Springs (2018; 18);
- Ventura Hilton IS/MND (2018; 30);
- North of California Street Master Plan Project IS, Mountain View (2018: 11);
- Tamarind Warehouse MND, Fontana (2018; 16);
- Lathrop Gateway Business Park EIR Addendum (2018; 23);
- Centerpointe Commerce Center IS, Moreno Valley (2019; 18);
- Amazon Warehouse Notice of Exemption, Bakersfield (2018; 13);
- CenterPoint Building 3 project Staff Report, Manteca (2018; 23);
- Cessna & Aviator Warehouse IS/MND, Vacaville (2018; 24);
- Napa Airport Corporate Center EIR, American Canyon (2018, 15);
- 800 Opal Warehouse Initial Study, Mentone, San Bernardino County (2018; 18);
- 2695 W. Winton Ave Industrial Project IS, Hayward (2018; 22);
- Trinity Cannabis Cultivation and Manufacturing Facility DEIR, Calexico (2018; 15);
- Shoe Palace Expansion IS/MND, Morgan Hill (2018; 21);
- Newark Warehouse at Morton Salt Plant Staff Report (2018; 15);
- Northlake Specific Plan FEIR "Peer Review", Los Angeles County (2018; 9);
- Replies to responses on Northlake Specific Plan SEIR, Los Angeles County (2018; 13);
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- Data Needed for Assessing Trail Management Impacts on Northern Spotted Owl, Marin County (2017; 5);
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- San Gorgonio Crossings EIR, Riverside County (2017; 22);
- Replies to responses on Jupiter Project IS and MND, Apple Valley (2017; 12);
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- PG&E Company Bay Area Operations and Maintenance HCP (2017; 45);
- Central SoMa Plan DEIR (2017; 14);
- Suggested mitigation for trail impacts on northern spotted owl, Marin County (2016; 5);
- Colony Commerce Center Specific Plan DEIR, Ontario (2016; 16);
- Fairway Trails Improvements MND, Marin County (2016; 13);
- Review of Avian-Solar Science Plan (2016; 28);
- Replies on Pyramid Asphalt IS, Imperial County (2016; 5);

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- Santa Anita Warehouse MND, Rancho Cucamonga (2016; 12);
- CapRock Distribution Center III DEIR, Rialto (2016: 12);
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- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9);
- Replies on 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6);
- Willow Springs Solar Photovoltaic Project DEIR, Rosamond (2015; 28);
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- World Logistic Center Specific Plan FEIR, Moreno Valley (2015, 12);
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- Bay Delta Conservation Plan EIR/EIS, Sacramento (2014, 21);
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- Addison and Rising Tree Wind Energy Project FEIR, Mojave (2014, 12);
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- Seven Mile Hill and Glenrock/Rolling Hills impacts + Addendum, Wyoming (2014; 105);
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- Declaration in opposition to BLM fracking (2013; 5);
- Blythe Energy Project (solar) CEC Staff Assessment (2013;16);
- Rosamond Solar Project EIR Addendum, Kern County (2013; 13);
- Pioneer Green Solar Project EIR, Bakersfield (2013; 13);
- Replies on Soccer Center Solar Project MND (2013; 6);
- Soccer Center Solar Project MND, Lancaster (2013; 10);
- Plainview Solar Works MND, Lancaster (2013; 10);
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- Replies on Imperial Valley Solar Company 2 Project (2013; 10);
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- Davidon Homes Tentative Subdivision Rezoning Project DEIR, Petaluma (2013; 9);
- Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10);
- Campo Verde Solar project FEIR, Imperial Valley (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8);
- North Steens Transmission Line FEIS, Oregon (Declaration) (2012; 62);
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- J&J Ranch, 24 Adobe Lane Environmental Review, Orinda (2012; 14);
- Replies on Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 8);
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- Beacon Photovoltaic Project DEIR, Kern County (2012; 5);
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- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16);
- City of Elk Grove Sphere of Influence EIR (2011; 28);
- Sutter Landing Park Solar Photovoltaic Project MND, Sacramento (2011; 9);

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- Route 84 Safety Improvement Project (Declaration) (2011; 7);
- Rebuttal on Whistling Ridge Wind Energy Power DEIS, Skamania County, (2010; 6);
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- Klickitat County's Decisions on Windy Flats West Wind Energy Project (2010; 17);
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- Rio del Oro Specific Plan Project FEIR, Rancho Cordova (2010;12);
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- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Second Declaration) (2008; 17);
- Draft 1A Summary Report to CAISO (2008; 10);
- Hilton Manor Project Categorical Exemption, County of Placer (2009; 9);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142);
- Delta Shores Project EIR, south Sacramento (2009; 11 + addendum 2);
- Declaration in Support of Care's Petition to Modify D.07-09-040 (2008; 3);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11);
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- Colusa Generating Station, California Energy Commission PSA (2007; 24);
- Rio del Oro Specific Plan Project Recirculated DEIR, Mather (2008: 66);
- Replies on Regional University Specific Plan EIR, Roseville (2008; 20);
- Regional University Specific Plan EIR, Roseville (2008: 33);
- Clark Precast, LLC's "Sugarland" project, ND, Woodland (2008: 15);
- Cape Wind Project DEIS, Nantucket (2008; 157);
- Yuba Highlands Specific Plan EIR, Spenceville, Yuba County (2006; 37);
- Replies to responses on North Table Mountain MND, Butte County (2006; 5);
- North Table Mountain MND, Butte County (2006; 15);
- Windy Point Wind Farm EIS (2006; 14 and Powerpoint slide replies);
- Shiloh I Wind Power Project EIR, Rio Vista (2005; 18);

- Buena Vista Wind Energy Project NOP, Byron (2004; 15);
- Callahan Estates Subdivision ND, Winters (2004; 11);
- Winters Highlands Subdivision IS/ND (2004; 9);
- Winters Highlands Subdivision IS/ND (2004; 13);
- Creekside Highlands Project, Tract 7270 ND (2004; 21);
- Petition to California Fish and Game Commission to list Burrowing Owl (2003; 10);
- Altamont Pass Wind Resource Area CUP renewals, Alameda County (2003; 41);
- UC Davis Long Range Development Plan: Neighborhood Master Plan (2003; 23);
- Anderson Marketplace Draft Environmental Impact Report (2003; 18);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003; 6);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002; 23);
- Replies on East Altamont Energy Center evidentiary hearing (2002; 9);
- Revised Draft Environmental Impact Report, The Promenade (2002; 7);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002; 3);
- UC Merced -- Declaration (2002; 5);
- Replies on Atwood Ranch Unit III Subdivision FEIR (2003; 22);
- Atwood Ranch Unit III Subdivision EIR (2002; 19);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002; 20);
- Silver Bend Apartments IS/MND, Placer County (2002; 13);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001; 26);
- Colusa County Power Plant IS, Maxwell (2001; 6);
- Dog Park at Catlin Park, Folsom, California (2001; 5);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000; 10);
- Metcalf Energy Center, California Energy Commission FSA (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000; 4);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9).
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Sunset Skyranch Airport Use Permit IS/MND (1999);
- Ballona West Bluffs Project Environmental Impact Report (1999; oral presentation);
- Draft Recovery Plan for Giant Garter Snake (Fed. Reg. 64(176): 49497-49498) (1999; 8);
- Draft Recovery Plan for Arroyo Southwestern Toad (1998);
- Pacific Lumber Co. (Headwaters) HCP & EIR, Fortuna (1998; 28);
- Natomas Basin HCP Permit Amendment, Sacramento (1998);
- San Diego Multi-Species Conservation Program FEIS/FEIR (1997; 10);

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8);
- Covell Village PEIR, Davis (2005; 19);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping (2003; 7.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Dog detections of bat and bird fatalities at wind farms in the Altamont Pass Wind Resource Area. East Bay Regional Park District 2019 Stewardship Seminar, Oakland, California, 13 November 2019.

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat

Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh,

Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19,

2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.

Journal	Journal
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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January 19, 2021

Michael R. Lozeau
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Subject: Comments on SDG Commerce 217 Distribution Center Project (SCH No. 2020120302)

Dear Mr. Lozeau,

We have reviewed the December 2020 Draft Initial Study/Mitigated Negative Declaration ("IS/MND") for the SDG Commerce 217 Distribution Center Project ("Project") located in the City of American Canyon ("City"). The Project proposes to construct a 217,294-SF wine distribution center, including 4,350-SF of office space, as well as 134 vehicle and 21 truck dock parking spaces, on the 10.39-acre site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Incorrect Analysis of Construction Emissions

The Bay Area Air Quality Management District ("BAAQMD") provides significance thresholds to evaluate air pollutant emissions in the form of pounds per day ("lbs/day") and tons per year ("tons/year"). CalEEMod provides three types of output files – winter, summer, and annual. Specifically, the CalEEMod User's Guide states:

> "CalEEMod provides a simple platform to calculate both construction emissions and operational emissions from a land use project. It can calculate both the *daily* maximum and *annual* average for criteria pollutants as well as annual greenhouse gas (GHG) emissions" (emphasis added).[1]

While the annual output files provide *annual* emissions in tons/year, both the winter and summer output files provide *daily* emissions estimates in lbs/day. As such, the IS/MND should have relied upon the emissions estimates provided by the Project's summer and winter output files in order to determine the significance of the Project's air quality impact. However, review of the IS/MND and CalEEMod output files, provided in Appendix B-3 to the IS/MND, demonstrates that the emissions estimates purported by the IS/MND are inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files.

Specifically, the IS/MND estimates that the Project would result in construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 13.6-, 24.6-, 1.0-, 0.9-, and 19.5-lbs/day, respectively (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, review of the "SDG Commerce 217 Wine Storage Project" winter output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.64-, 40.55-, 2.05-, 1.88-, and 22.64-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 72).

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1.

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6355	40.5472	22.6449	0.0540	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6355**	**40.5472**	**22.6449**	**0.0540**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

Similarly, review of the "SDG Commerce 217 Wine Storage Project" summer output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.63-, 40.54-, 2.05-, 1.88-, and 22.55-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 46).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As you can see in the excerpts above, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. This is incorrect, as CEQA requires disclosure of the full extent of a project's impacts prior to mitigation in order to accurately disclose the severity of an impact. By relying on incorrect and underestimated emissions estimates, the IS/MND's air quality analysis is incorrect, and the subsequent less-than-significant air quality impact conclusion should not be relied upon.

Failure to Identify Significant Air Quality Impact

The IS/MND concludes that the Project would not result in a significant impact due to mitigated construction-related ROG emissions (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, as previously discussed, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. As a result, in order to correctly evaluate the Project's estimated daily emissions based on the BAAQMD threshold in lbs/day, we reviewed the IS/MND's winter CalEEMod output file, which estimates *daily* ROG emissions of approximately 156 lbs/day (see excerpt below) (Appendix B-3, pp. 72).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As the above excerpt demonstrates, the *daily* construction-related ROG emissions estimate provided by the "SDG Commerce 217 Wine Storage Project" winter output file clearly exceeds the BAAQMD threshold of 54 lbs/day, contrary to what is stated in the IS/MND. Thus, the IS/MND's conclusion that the Project's construction-related ROG emissions would result in a less-than-significant air quality impact is incorrect. An EIR should be prepared to adequately evaluate and mitigate the Project's significant construction-related ROG emissions.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 22).[2] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project

[2] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[4]

When reviewing the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reductions to Saturday and Sunday Trip Rates

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default Saturday and Sunday operational vehicle trip rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00

As you can see in the excerpt above, the model assumes the Project's Saturday and Sunday operational vehicle trip rate would be zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Monday Thru Friday Operations" (Appendix B-3, pp. 14, 44, 70). However, the IS/MND fails to mention or substantiate the claim that the Project will only be operational Monday through Friday. Furthermore, the Air Quality Calculations ("AQ Calculations"), provided as Appendix B-2 to the IS/MND, state:

> "It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours *a day* during the peak season" (emphasis added) (Appendix B-2, pp. 10).

As the excerpt above demonstrates, the AQ Calculations fail to specify that Project operations will only occur on weekdays. As such, we cannot verify the revised Saturday and Sunday trip rates. These unsubstantiated reductions present an issue, as CalEEMod uses vehicle trip rates to calculate the

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.
[4] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.
[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

Project's emissions associated with operational motor vehicle emissions.[6] By including unsubstantiated reductions to the Project's Saturday and Sunday operational vehicle trip rates, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Energy Use Values

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default energy use values (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00

As you can see in the excerpt above, the lighting energy electricity ("LightingElect"), the non-Title 24 electricity energy intensity ("NT24E"), the non-Title 24 natural gas energy intensity ("NT24NG"), and the Title 24 natural gas energy intensity ("T24NG") values were each reduced to 0 kilowatt hours per land use size per year ("KWhr/size/year"). Furthermore, the Title 24 electricity energy intensity ("T24E") was increased to 3 KWhr/size/year. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[7] According to the User Entered Comments and Non-Default Data table, the justification provided for these changes is: "Energy use scaled down from SDG Commerce 330 Project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the AQ Calculations state:

> "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.
>
> CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices" (pp. 11).

However, these justifications are insufficient. The AQ Calculations cannot claim that "[t]he SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings" without providing sufficient calculations or an adequate source. Similarly, the AQ Calculations cannot simply state that natural gas usage was adjusted to zero without providing an adequate source or additional information. According to the CalEEMod User's Guide:

[6] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 28.
[7] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[8]

Here, however, the IS/MND fails to provide *substantial evidence* for the revised energy use values, and as a result, the changes are unsubstantiated.

These unsubstantiated reductions present an issue, as CalEEMod uses the energy use values to calculate the Project's emissions associated with building electricity and non-hearth natural gas usage.[9] By including unsubstantiated changes to the Project's energy use values, the model may underestimate the Project's energy-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Solid Waste Generation Rate

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes a manual reduction to the Project's default solid generation rate (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00

As you can see in the excerpt above, the solid waste generation rate is decreased by approximately 99%, from the default value of 204.25- to 2.00-tons per year ("tons/year"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "minimal solid waste generated" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon" (p. 100).

However, these justifications are insufficient for two reasons. First, while the IS/MND indicates that "[t]he warehouses project would produce small quantities solid waste," the IS/MND fails to provide an estimate of how much solid waste the warehouses would produce (p. 100). Second, the IS/MND fails to mention or provide a source for the 99% reduction to the solid waste generation rate. As such, we cannot verify the revised solid waste generation rate.

This unsubstantiated reduction presents an issue, as CalEEMod uses the solid waste generation rates to calculate the Project's operation greenhouse gas ("GHG") emissions associated with the disposal of solid

[8] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.
[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43
[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

waste into landfills.[11] Thus, by including an unsubstantiated reduction to the Project's solid waste generation rate, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Indoor Water Use Rate

Review of the CalEEMod output files demonstrates the "SDG Commerce 217 Wine Storage Project" model includes manual changes to the default indoor and outdoor water use rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

As you can see in the excerpt above, the indoor water use rate was decreased by nearly 100%, from the default value of 50,248,312.50- to 768-gallons per year ("gpy"), while the outdoor water use rate was increased by 9,341 gpy. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Water use scaled down from SDG Commerce 330 project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "[T]he proposed project is estimated to have an average potable *water daily demand of 142 gallons/day (gpd)*, and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. *In addition, it will use about 541 gpd of recycled water*" (emphasis added) (p. 100).

As the above excerpt demonstrates, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gallons per day ("gpd"),[13] or 249,295 gpy.[14] Thus, the model underestimates the Project's total daily water demand by approximately 239,186 gpy.[15] As a result, the indoor and outdoor water use rates inputted into the model are underestimated and inconsistent with the information provided by the IS/MND.

This underestimation presents an issue, as CalEEMod uses the water use rates to calculate the Project's GHG emissions associated with the supply and treatment of water.[16] Thus, by including underestimated

[11] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 46.
[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[13] Calculated by: (142 gallons per day) + (541 recycled gallons per day) = 683 total gpd.
[14] Calculated by: (683 gallons per day) * (365 days) = 249,295 gallons per year.
[15] (249,295 gallons per year) – (768 indoor gallons per year) – (9,341 outdoor gallons per year) = 239,186 gallons per year.
[16] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 44-45.

indoor and outdoor water use rates, the model underestimates the Project's operational emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes the following construction-related mitigation measures: "Water Exposed Area" and "Reduce Vehicle Speed on Unpaved Roads" (see excerpt below) (Appendix B-3, pp. 21, 51, 77).

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Furthermore, the model includes a 15 miles per hour ("MPH") vehicle speed (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[17] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "BAAQMD basic fugitive dust measures" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
> - All haul trucks transporting soil, sand, or other loose material off site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
> - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
> - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
> - A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency

[17] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

contact information shall also be visible to ensure compliance with applicable regulations…

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***" (p. 23).

However, these justifications are insufficient for three reasons.

First, simply because the IS/MND states the Project would implement the BAAQMD's best management practices ("BMPs") does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[18]

As you can see in the excerpt above, mitigation measures "are not part of the original project design" and are intended to go "above-and-beyond" existing regulatory requirements. As such, the inclusion of these measures, based on the Project's compliance with the BAAQMD's BMPs, is unsubstantiated.

Second, regarding these BMPs, BAAQMD guidance states:

> "For fugitive dust emissions, staff *recommends* following the current best management practices approach which has been a pragmatic and effective approach to the control of fugitive dust emissions" (emphasis added).[19]

As you can see in the excerpt above, while these BMPs are recommended, they are not explicitly required by the BAAQMD. As a result, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site.

Third, AEP guidance states:

> "While not 'mitigation', a good practice is *to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP)*. Often the

[18] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.
[19] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-47.

> MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, *it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact*" (emphasis added).[20]

As you can see in the excerpts above, *project design features are not mitigation measures and may be eliminated from the Project's design*. Thus, as the above-mentioned construction-related mitigation measures are not *formally* included as mitigation measures, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the above-mentioned construction-related mitigation measures is incorrect, and the model should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to determine the construction-related and operational emissions associated with the Project, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/MND. In our updated model, we omitted the unsubstantiated changes to the Saturday and Sunday operational vehicle trip rates, energy use values, and solid waste generation rates; corrected the indoor and outdoor water use rates; and excluded the unsubstantiated construction-related mitigation measures. Our updated analysis demonstrates that the NO_x emissions associated with Project construction exceed the 54-lbs/day threshold set by the BAAQMD, as referenced by Appendix B to the IS/MND (see table below) (Appendix B-1, pp. 7).

Construction Model	**NO_X**
SWAPE	61.54
IS/MND	40.55
% Increase	52%
BAAQMD Regional Threshold (lbs/day)	**54**
Threshold Exceeded?	***Yes***

As you can see in the excerpt above, when modeled correctly, the Project's construction-related NO_x emissions increase by approximately 52% and exceed the BAAQMD significance threshold. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/MND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

[20] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the proposed Project would result in a less-than-significant health risk impact, without conducting a quantified construction or operational health risk assessment ("HRA") (p. 26). Specifically, the IS/MND states:

> "Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD" (p. 26).

Furthermore, the IS/MND states:

> "A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation" (p. 26).

Finally, the IS/MND concludes:

> "The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***" (p. 26).

However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the IS/MND's claim that health risk impacts would be less than significant, because construction activities would be located approximately 1,500 feet from the nearest school, is incorrect. According to BAAQMD guidelines, "BAAQMD recommends that all receptors located within a 1,000 foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks or hazards from the proposed new source."[21] Here, the IS/MND states that there is "one residence about 1,000 feet east of the site" (p. 26). Moreover, further review of IS/MND demonstrates that the Project's borrow pit and stockpile hauling area is only 500 feet from the nearest residence (see excerpt below) (p. 77, Table Noise-4).

[21] "Assessing and Mitigating Local Community Risk and Hazard Impacts." BAAQMD, May 2011, *available at:* https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx, p. 5-7.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

As you can see in the excerpt above, the nearest sensitive receptor is only 500 feet from the Project. As such, pursuant to BAAQMD guidelines, the IS/MND should have prepared a quantified HRA evaluating the potential health risk impacts posed to nearby sensitive receptors.

Second, the IS/MND makes the qualitative claims that an HRA prepared for the SDG 330 project, which is "a larger project generating more vehicle trips than the proposed project," found a less-than-significant health risk impact, and "TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site" (p. 26). However, these qualitative claims are insufficient in justifying the omission of a construction and operational HRA. Simply because an HRA was prepared for a completely different project that found less-than-significant health risk impacts, does not guarantee that the health risk impacts posed by the proposed Project would be less than significant. Rather, construction of the Project will produce emissions of diesel particulate matter ("DPM"), a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 9.5 months (IS/MND, p. 12). Furthermore, the IS/MND indicates that Project operation would generate 367 daily weekday vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 45). As such, without making a reasonable effort to connect the Project's construction-related and operational TAC emissions and the potential health risks posed to nearby receptors, the IS/MND should not conclude that the Project's TAC emissions would be less than significant.

Third, by failing to prepare a construction HRA, the Project is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California. OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015.[22] This guidance document describes the types of projects that warrant the preparation of an HRA. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[23] As the Project's proposed 9.5-month construction duration vastly exceeds the 2-month requirement set forth by OEHHA, it is clear that the

[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html.
[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18.

Project meets the threshold requiring a quantified HRA under OEHHA guidance. Thus, we recommend that health risk impacts from Project construction be evaluated in an EIR, per OEHHA guidelines, in order to determine the nature and extent of the Project's health risk impacts.

Fourth, by failing to prepare an operational HRA, the Project is inconsistent with the most recent guidance published by OEHHA. Specifically, the OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[24] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent state health risk policies, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Fifth, by claiming that the Project would result in a less-than-significant health risk impact without conducting a quantified construction or operational HRA, the IS/MND fails to compare the Project's estimated excess cancer risk to the BAAQMD's specific numeric threshold of 10 in one million, as referenced by the IS/MND (p. 26).[25] Thus, the IS/MND cannot conclude that Project construction and operation would result in a less-than-significant health risk impact without quantifying the resulting cancer risk to compare to the proper threshold. As a result, the IS/MND's less-than-significant health risk impact conclusion should not be relied upon.

Screening-Level Analysis Demonstrates Significant Impacts

In an effort to demonstrate the potential health risk impacts posed by Project construction and operation to nearby, existing sensitive receptors utilizing site-specific emissions estimates, we prepared a screening-level HRA. The results of our assessment, as described below, demonstrate that the proposed Project may result in a significant impact not previously identified or addressed by the IS/MND.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the

[24] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

[25] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

[26] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

OEHHA[27] and the California Air Pollution Control Officers Associated ("CAPCOA")[28] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's incorrect and unsubstantiated air model. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The CalEEMod output files indicate that construction activities will generate 204 pounds of DPM over the 291-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{204\ lbs}{291\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00368\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.000368 grams per second ("g/s"). Subtracting the 291-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 29.2 years, approximately. The CalEEMod output files indicate that operational activities will generate 188 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{188\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00270\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00270 g/s. Construction and operational activity was simulated as a 10.39-acre rectangular area source in AERSCREEN with dimensions of 296 by 142 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

[27] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[28] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[29] According to the IS/MND, the nearest sensitive receptor is a single-family residence located approximately 500 feet, or approximately 152 meters, from the Project site (p. 77). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 3.827 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.3827 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 2.812 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2812 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule utilized in the IS/MND's CalEEMod model, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 0.55 years of the infantile stage of life (0 – 2 years). The annualized averaged concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remaining 1.45 years of the infantile stage of life, the entire child stage of life (2 – 16 years), and the entire adult stage of life (16 – 30 years).

Consistent with OEHHA, as recommended by SCAQMD, BAAQMD, and SJVAPCD guidance, and referenced by the IS/MND, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[30, 31, 32, 33] According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA,

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[29] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: https://www3.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 4-36.

[30] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[31] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[32] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[33] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

we used the 95th percentile breathing rates for infants.[34] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[35] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Closest Exposed Individual at an Existing Residential Receptor

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.3827	361	4.4E-07	10	4.4E-06
3rd Trimester Duration	***0.25***			***4.4E-07***	***3rd Trimester Exposure***	***4.4E-06***
Construction	0.55	0.3827	1090	2.9E-06	10	2.9E-05
Operation	1.45	0.2812	1090	5.7E-06	10	5.7E-05
Infant Exposure Duration	***2.00***			***8.6E-06***	***Infant Exposure***	***8.6E-05***
Operation	14.00	0.2812	572	2.4E-05	3	7.3E-05
Child Exposure Duration	***14.00***			***2.4E-05***	***Child Exposure***	***7.3E-05***
Operation	14.00	0.2812	261	1.1E-05	1	1.1E-05
Adult Exposure Duration	***14.00***			***1.1E-05***	***Adult Exposure***	***1.1E-05***
Lifetime Exposure Duration	**30.00**			**4.5E-05**	**Lifetime Exposure**	**1.8E-04**

* We, along with CARB and BAAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project operation, utilizing age sensitivity factors, are approximately 11, 73, 86, and 4.4 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 180 in one million. The infant, child, adult, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and reflects recommendations from the air district. Results without age sensitivity factors are presented in the table

[34] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[35] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 11, 24, 8.6, and 0.44 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), without age sensitivity factors, is approximately 45 in one million. The adult, child, and lifetime cancer risk, without age sensitivity factors, exceeds the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. While we recommend the use of age sensitivity factors, health risk impacts exceed the BAAQMD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [36] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare an EIR with an HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 590 metric tons of CO_2 equivalents per year ("MT CO_2e/year"), which would not exceed the BAAQMD threshold of 1,100 MT CO_2e/year (see excerpt below) (p. 52, Table GHG-1).

[36] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

Furthermore, the IS/MND states:

> "The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's Climate Change Scoping Plan and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant impact***" (p. 52).

As you can see in the excerpt above, the IS/MND relies upon qualitative analyses of the Project's consistency with the SB 32 and CARB's 2017 *Scoping Plan* to determine the significance of the Project's GHG impact (p. 52). However, the IS/MND'S GHG analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

(1) The IS/MND's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The IS/MND's GHG analysis relies upon an outdated threshold;
(3) The IS/MND fails to identify a potentially significant GHG impact; and
(4) The IS/MND fails to demonstrate that the Project would be consistent with CARB's *Scoping Plan*.

(1) Incorrect and Unsubstantiated Quantitative GHG Analysis

As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). However, the IS/MND's quantitative GHG analysis should not be relied upon, as it relies upon an unsubstantiated air model. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several of the values inputted into the model are not consistent with information disclosed in the IS/MND and associated documents. As a result, the model underestimates the Project's GHG emissions, and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

(2) Incorrect Reliance on an Outdated Threshold

As discussed above, the IS/MND relies upon the BAAQMD's bright-line threshold of 1,100 MT CO_2e/year. However, this threshold is outdated and inapplicable to the proposed Project, as it was developed for the air district's planned reductions for 2020, based on AB 32.[37] Thus, this threshold only applies to projects that will become operational by the year 2020. Given that it is January 2021, and the Project has not yet been approved, the Project will not become operational until *after the year 2020*. As such, the BAAQMD's 2020 bright-line threshold of 1,100 MT CO_2e/year is inapplicable to the proposed Project. Rather, we recommend that the Project apply the AEP "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO_2 equivalents per service population per year ("MT CO_2e/SP/year").[38] In support of this threshold for projects with a horizon year beyond 2020, AEP guidance states:

> "Once the state has a full plan for 2030 (which is expected in 2017), and then *a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target*. A more conservative approach would be to apply a 2030 threshold *based on SB 32* for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update" (emphasis added).[39]

As the California Air Resources Board ("CARB") adopted *California's 2017 Climate Change Scoping Plan* in November of 2017, the proposed Project "should be evaluated based on a threshold using the 2030 target," according to the relevant guidance referenced above. As such, we recommend that an EIR be prepared, including an updated air model and comparing the Project's estimated GHG emissions to the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year.

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[37] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-20 – D-22.

[38] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

[39] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

(3) Failure to Identify a Potentially Significant GHG Impact

The IS/MND's incorrect and unsubstantiated air model indicates a potentially significant GHG impact, when applying the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year. As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). Furthermore, according to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[40] The IS/MND estimates that the Project would employ approximately 50 people (p. 82). As the Project does not contain any residential land uses, we estimate a service population of 50 people.[41] Dividing the Project's GHG emissions, as estimated by the IS/MND, by a service population of 50 people, we find that the Project would emit approximately 11.80 MT CO_2e/SP/year (see table below).[42]

IS/MND Service Population Efficiency	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**590**
Service Population	50
Service Population Efficiency	**11.80**
Threshold	2.6
Exceed?	***Yes***

As demonstrated above, when we compare the Project's service population efficiency value to the AEP "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the IS/MND. Therefore, an EIR should be prepared and recirculated for the Project, and mitigation should be implemented where necessary.

(4) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the IS/MND relies upon the Project's consistency with CARB's 2017 *Scoping Plan* to determine Project GHG significance (p. 52). However, this is incorrect, as the IS/MND fails to consider performance-based measures proposed by CARB.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[43] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation

[40] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[41] Calculated: 50 employees + 0 residents = 50 people.
[42] Calculated: (590 MT CO_2e/year) / (50 service population) = (11.80 MT CO_2e/SP/year).
[43] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[44] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2022 (Project operational year), and 2030 (target years under SB 32) (see table below and Attachment B).

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

The below table compares the 2017 *Scoping Plan* daily VMT per capita values against the daily VMT per capita values for the Project based on the IS/MND's modeling (see table below and Attachment C).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**Project**
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

As shown above, the IS/MND's modeling shows that the Project exceeds the CARB 2017 *Scoping Plan* projections for 2010, 2022, and 2030. Because the exceeds the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the Project conflicts with the CARB 2017 *Scoping Plan* and SB 375. As such, the IS/MND's claim that the proposed Project would not conflict with the CARB 2017

[44] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

Scoping Plan is incorrect and unsubstantiated. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less than significant GHG impacts.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project's air quality, health risk, and GHG emissions may result in significant impacts and should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*.[45] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[46]
Measures – Energy
Building Energy Use
Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code)
Install Programmable Thermostat Timers
Obtain Third-party HVAC Commissioning and Verification of Energy Savings
Install Energy Efficient Appliances
Install Energy Efficient Boilers
Lighting
Install Higher Efficacy Public Street and Area Lighting
Limit Outdoor Lighting Requirements
Replace Traffic Lights with LED Traffic Lights
Alternative Energy Generation
Establish Onsite Renewable or Carbon-Neutral Energy Systems
Establish Onsite Renewable Energy System – Solar Power
Establish Onsite Renewable Energy System – Wind Power
Utilize a Combined Heat and Power System
Establish Methane Recovery in Landfills
Establish Methane Recovery in Wastewater Treatment Plants
Measures – Transportation
Land Use/Location
Increase Density
Increase Location Efficiency

[45] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[46] "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

Increase Diversity of Urban and Suburban Developments (Mixed Use)
Increase Destination Accessibility
Increase Transit Accessibility
Integrate Affordable and Below Market Rate Housing
Orient Project Toward Non-Auto Corridor
Locate Project near Bike Path/Bike Lane
Neighborhood/Site Enhancements
Provide Pedestrian Network Improvements, such as: • Compact, mixed-use communities • Interconnected street network • Narrower roadways and shorter block lengths • Sidewalks • Accessibility to transit and transit shelters • Traffic calming measures and street trees • Parks and public spaces • Minimize pedestrian barriers
Provide Traffic Calming Measures, such as: • Marked crosswalks • Count-down signal timers • Curb extensions • Speed tables • Raised crosswalks • Raised intersections • Median islands • Tight corner radii • Roundabouts or mini-circles • On-street parking • Planter strips with trees • Chicanes/chokers
Implement a Neighborhood Electric Vehicle (NEV) Network.
Create Urban Non-Motorized Zones
Incorporate Bike Lane Street Design (on-site)
Provide Bike Parking in Non-Residential Projects
Provide Bike Parking with Multi-Unit Residential Projects
Provide Electric Vehicle Parking
Dedicate Land for Bike Trails
Parking Policy/Pricing
Limit Parking Supply through: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements

• Provision of shared parking
Unbundle Parking Costs from Property Cost
Implement Market Price Public Parking (On-Street)
Require Residential Area Parking Permits
Commute Trip Reduction Programs
Implement Commute Trip Reduction (CTR) Program – Voluntary • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) • New employee orientation of trip reduction and alternative mode options • Event promotions and publications • Flexible work schedule for employees • Transit subsidies • Parking cash-out or priced parking • Shuttles • Emergency ride home
Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring • Established performance standards (e.g. trip reduction requirements) • Required implementation • Regular monitoring and reporting
Provide Ride-Sharing Programs • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement.
Implement Subsidized or Discounted Transit Program
Provide Ent of Trip Facilities, including: • Showers • Secure bicycle lockers • Changing spaces
Encourage Telecommuting and Alternative Work Schedules, such as: • Staggered starting times • Flexible schedules • Compressed work weeks
Implement Commute Trip Reduction Marketing, such as: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications

Implement Preferential Parking Permit Program
Implement Car-Sharing Program
Implement School Pool Program
Provide Employer-Sponsored Vanpool/Shuttle
Implement Bike-Sharing Programs
Implement School Bus Program
Price Workplace Parking, such as: • Explicitly charging for parking for its employees; • Implementing above market rate pricing; • Validating parking only for invited guests; • Not providing employee parking and transportation allowances; and • Educating employees about available alternatives.
Implement Employee Parking "Cash-Out"
Transit System Improvements
Transit System Improvements, including: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.
Implement Transit Access Improvements, such as: • Sidewalk/crosswalk safety enhancements • Bus shelter improvements
Expand Transit Network
Increase Transit Service Frequency/Speed
Provide Bike Parking Near Transit
Provide Local Shuttles
Road Pricing/Management
Implement Area or Cordon Pricing
Improve Traffic Flow, such as: • Signalization improvements to reduce delay; • Incident management to increase response time to breakdowns and collisions; • Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and

• Speed management to reduce high free-flow speeds.
Required Project Contributions to Transportation Infrastructure Improvement Projects
Install Park-and-Ride Lots
Vehicles
Electrify Loading Docs and/or Require Idling-Reduction Systems
Utilize Alternative Fueled Vehicles, such as: • Biodiesel (B20) • Liquefied Natural Gas (LNG) • Compressed Natural Gas (CNG)
Utilize Electric or Hybrid Vehicles
Measures – Water
Water Supply
Use Reclaimed Water
Use Gray Water
Use Locally Sourced Water Supply
Water Use
Install Low-Flow Water Fixtures
Adopt a Water Conservation strategy
Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as: • Reducing lawn sizes; • Planting vegetation with minimal water needs, such as native species; • Choosing vegetation appropriate for the climate of the project site; • Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.
Use Water-Efficient Landscape Irrigation Systems (“Smart” irrigation control systems)
Reduce Turf in Landscapes and Lawns
Plant Native or Drought-Resistant Trees and Vegetation
Measures – Area Landscaping
Landscaping Equipment
Prohibit Gas Powered Landscape Equipment
Implement Lawnmower Exchange Program
Electric Yard Equipment Compatibility
Measures – Solid Waste
Solid Waste
Institute Recycling and Composting Services
Recycle Demolished Construction Material

Measures – Vegetation
Vegetation
Urban Tree Planting
Create New Vegetated Open Space
Measures – Construction
Construction
Use Alternative Fuels for Construction Equipment
Urban Tree Planting
Use Electric and Hybrid Construction Equipment
Limit Construction Equipment Idling Beyond Regulation Requirements
Institute a Heavy-Duty Off-Road Vehicle Plan, including: • Construction vehicle inventory tracking system; • Requiring hour meters on equipment; • Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and • Daily logging of the operating hours of the equipment.
Implement a Construction Vehicle Inventory Tracking System
Measures – Miscellaneous
Miscellaneous
Establish a Carbon Sequestration Project, such as: • Geologic sequestration or carbon capture and storage techniques, in which CO_2 from point sources is captured and injected underground; • Terrestrial sequestration in which ecosystems are established or preserved to serve as CO_2 sinks; • Novel techniques involving advanced chemical or biological pathways; or • Technologies yet to be discovered.
Establish Off-Site Mitigation
Use Local and Sustainable Building Materials
Require best Management Practices in Agriculture and Animal Operations
Require Environmentally Responsible Purchasing, such as: • Purchasing products with sustainable packaging; • Purchasing post-consumer recycled copier paper, paper towels, and stationary; • Purchasing and stocking communal kitchens with reusable dishes and utensils; • Choosing sustainable cleaning supplies; • Leasing equipment from manufacturers who will recycle the components at their end of life; • Choosing ENERGY STAR appliances and Water Sense-certified water fixtures; • Choosing electronic appliances with built in sleep-mode timers; • Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and • Choosing locally-made and distributed products.
Implement an Innovative Strategy for GHG Mitigation

Measures – General Plans
General Plans
Fund Incentives for Energy Efficiency, such as: • Retrofitting or designing new buildings, parking lots, streets, and public areas with energy-efficient lighting; • Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances; • Retrofitting or purchasing new low-emissions equipment; • Purchasing electric or hybrid vehicles; • Investing in renewable energy systems
Establish a Local Farmer's Market
Establish Community Gardens
Plant Urban Shade Trees
Implement Strategies to Reduce Urban Heat-Island Effect, such as: • Planting urban shade trees; • Installing reflective roofs; and • Using light-colored or high-albedo pavements and surfaces.

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project from NEDC's *Diesel Emission Controls in Construction Projects.*[47] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

NEDC's *Diesel Emission Controls in Construction Projects*[48]
Measures – Diesel Emission Control Technology
a. Diesel Onroad Vehicles All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
b. Diesel Generators All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
c. Diesel Nonroad Construction Equipment i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site

[47] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

[48] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines 50hp and greater and by a minimum of 20% for engines less than 50hp.
d. Upon confirming that the diesel vehicle, construction equipment, or generator has either an engine meeting Tier 4 non road emission standards or emission control technology, as specified above, installed and functioning, the developer will issue a compliance sticker. All diesel vehicles, construction equipment, and generators on site shall display the compliance sticker in a visible, external location as designated by the developer.
e. Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[49] approved by the original engine manufacturer with sulfur content of 15 ppm or less.
Measures – Idling Requirements
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized and shall not exceed the time allowed under state and local laws.
Measures – Additional Diesel Requirements
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
Reporting

[49] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes: i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number. ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level. iii. The Certification Statement signed and printed on the contractor's letterhead.
b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date. ii. Any problems with the equipment or emission controls. iii. Certified copies of fuel deliveries for the time period that identify: 1. Source of supply 2. Quantity of fuel 3. Quality of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include an updated health risk and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachments A-C:	SWAPE GHG and VMT Calculations
Attachment D:	SWAPE Project CalEEMod Modeling
Attachment E:	SWAPE Project AERSCREEN Modeling
Attachment F:	Paul Rosenfeld CV
Attachment G:	Matt Hagemann CV

Attachment C: Lozeau Drury June 23, 2021 Comment Letter

C

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June 3, 2021 ***Via Email***

Leon Garcia, Mayor
Mark Joseph, Vice Mayor
Mariam Aboudamous
David Oro
Pierre Washington
American Canyon City Council
council@cityofamericancanyon.org

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
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American Canyon, CA 94503
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Re: SDG Commerce 217 Distribution Center (PL20-0008) – Recirculated Mitigated Negative Declaration and Conditional Use Permit

Dear Mayor Garcia, Vice-Mayor Joseph, Council Members Aboudamous, Oro, and Washington and Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Recirculated Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). This comment letter supplements and incorporates by reference our previous written comments dated January 19, 2021, February 25, 2021 and May 3, 2021.

1 In our May 3, 2021 comments, we criticized the use of an alternative figure claiming to represent the average length of bicycle commutes in the vicinity of the Project. Previously, the consultant GHD estimated the average bike trip length at 34.6 miles, then 5.2 miles. GHD now also mentions a third alternative figure of 3.8 mile for the average bicycle commute to be expected from cyclists using the proposed 800-foot bike lane. (GHD Memorandum, pp. 9, 24 (March 21, 2021).) Traffic Engineer Tom Brohard, PE, has now had an opportunity to review the January 2015 AASHTO publication "Brief 14. Bicycling and Walk Commuting in America 2013," referenced by GHD as the source of its 3.8 mile bike commute trip length. As Mr. Brohard explains, the footnote to the trip length number in the AASHTO report "indicates the bike commute distance is based on the Table 27 of the 2009 NHTS (National Household Travel Survey). Enclosed Table 27 does not break out trips or commute distances for bikes. The updated 2017 NHTS does not give bike commute distances either." (Comments of Tom Brohard, PE, dated June 1, 2021 [attached as Exhibit A].) Nor is there any explanation why this nation-wide figure would apply to the area in the vicinity of the Project. As pointed out in LIUNA's earlier comment, the furthest a commuting biker can travel north of the Project is 0.75 miles before they

would have to head east and ride on SR 29 which the MND claims does not happen due to safety concerns. (Recirculated MND, p. 22.) It is entirely arbitrary for the Project to imagine bike commutes extending 3.75 miles north through undeveloped fields. In addition, the 2013 report using 2009 data does not likely reflect 2020 or 2021 bicycle use in the vicinity of the Project. As a result, and for the many reasons identified in LIUNA's previous comments, the MND's estimate of VMT reductions that would result from the Project's proposed 800-foot bike lane are highly exaggerated. There is substantial evidence of a fair argument that the Project may have significant transportation impacts. This potentially significant impact requires the preparation of an environmental impact report.

1 (cont.)

For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you again for your attention to LIUNA's appeal and these comments.

2

Sincerely,



Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Tom Brohard and Associates

June 1, 2021

Mr. Michael Lozeau, Esq.
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Proposed Wine Distribution Center at 1075 Commerce Court in the City of American Canyon – VMT Supplemental Report

Dear Mr. Lozeau:

Item #5 in my April 30, 2021 letter to you expressed concerns about the calculation of vehicle miles traveled (VMT) by GHD. My report stated that "Without any meaningful explanation, GHD averages their minimum 800' actual bike facility length and maximum 1.85-mile combined bike facility length to forecast daily VMT reduction associated with the 800-foot-long bicycle path. The random decision to average the minimum and maximum VMT forecasts is not supported by any reasoned analysis or facts." Furthermore, I concluded that the GHD report "...now averages the averages and concludes that the daily VMT reduction will be 733 VMT with a 3.8-mile bicycle commute from a publication that is not available from AASHTO or 1,004 VMT by using an unrealistically long average one-way trip length of 5.2 miles."

I have now reviewed the January 2015 AASHTO publication "Brief 14. Bicycling and Walk Commuting in America 2013". Enclosed is Page 15 which shows the 3.8-mile average bike commute distance. The footnote indicates the bike commute distance is based on the Table 27 of the 2009 NHTS (National Household Travel Survey). Enclosed Table 27 does not break out trips or commute distances for bikes. The updated 2017 NHTS does not give bike commute distances either.

Neither of the purported VMT reductions are supported by substantial evidence. GHD continues to find "new" reports that are based on "old" or "non-existent" data to support their incorrect conclusion that the total Project VMT will be less than the required threshold. Additional study together with mitigation measures are required for the Proposed Project.

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal





Enclosures
AASHTO "Brief 14. Commuting in America 2013", January 2015
FHWA "2009 National Household Travel Survey"

81905 Mountain View Lane, La Quinta, California 92253-7611
Phone (760) 398-8885
Email tbrohard@earthlink.net

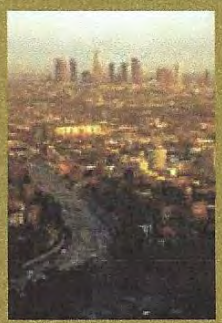
Commuting in America 2013

The National Report on Commuting Patterns and Trends

Brief 14. Bicycling and Walk Commuting









American Association of State Highway and Transportation Officials
AASHTO
The Voice of Transportation

CTPP

JANUARY 2015

Further Motorcycle, Bike, Walk Mode Detail

Motorcycle, bike, and walk modes have different characteristics than vehicle trips with respect to travel speed; hence, trip lengths and trip duration differ from those typical for vehicle trips. Motorcycle commuting is very comparable to private vehicle commuting, as might be expected. However, survey respondent data indicate that an average walk trip is approximately 1 mile, taking approximately 15 minutes. The derived walk speed of 3.7 mph is faster than the traditionally used 3 mph walk speed. This calculation is no doubt affected by the rounding that occurs when respondents tend to answer travel duration questions rounded to the nearest five minutes.

Bike travel speeds are similar to transit travel speeds, though the trip length is approximately 1/3 that of transit trips. Mode shares in this brief have been expressed in terms of percent of trips, as is normal practice. However, if one calculates mode share in terms of person miles of travel, the relative significance of bike and walk trips as a share of total commuting person miles of travel would be dramatically diminished.

Table 14-5. Average Duration, Distance, and Speed for Commuting Trips

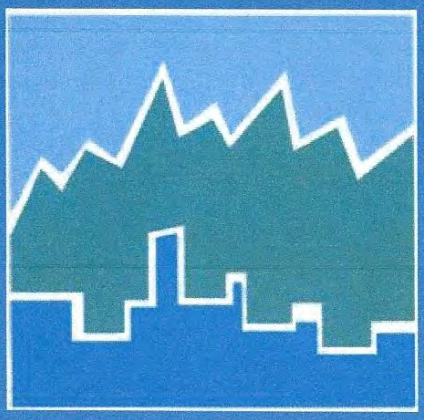
Mode	Duration (minutes)	Distance (miles)	Speed (mph)
Motorcycle	24.6	12.1	29.5
Bike	20.9	3.8	10.8
Walk	15.6	1.0	3.7
Private Vehicle	22.9	12.1	28.9
Public Transit	53.0	10.2	11.4

Source: 2009 NHTS online tool, using variable TRVL_MIN, calculated for trips with both time and distance data. Private vehicle and public transit data from NHTS 2009 summary of travel trends, Table 27.

Figure 14-10 provides the trip duration distribution for walk trips. As shown, 47.4 percent of walk trips are 10 minutes or less and an additional 20 percent are 10 to 14 minutes in duration. Even for trips of less than 10 minutes, walking only constitutes 1.4 percent of commuting trips.

Short commute trip distances for walk and bike modes result in these mode shares being far smaller if expressed in terms of person miles of travel.





SUMMARY OF TRAVEL TRENDS

2009 National Household Travel Survey

U.S. Department of Transportation
Federal Highway Administration



Table 27. General Commute Patterns by Mode of Transportation 1977, 1983, 1990, and 1995 NPTS, and 2001 and 2009 NHTS.

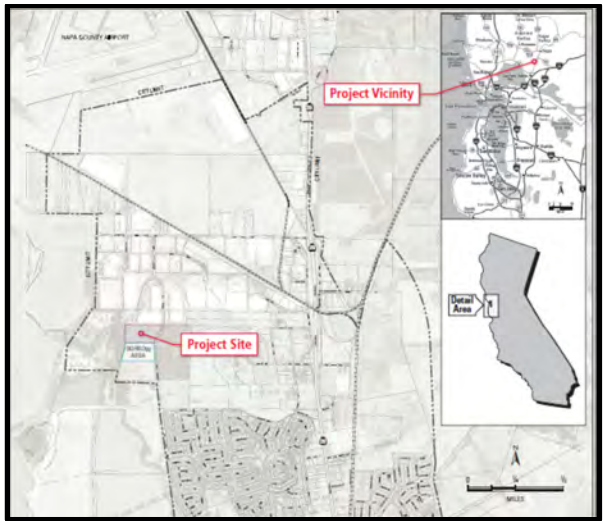
	1977	1983	1990	1995	2001	2009	95% CI
All	All Modes						
Average Commute Trip Length (miles)	9.06	8.54	10.65	11.63	12.11	11.79	0.29
Average Commute Travel Time (minutes)	19.23	18.20	19.60	20.65	23.32	23.85	0.35
Average Commute Speed (miles per hour)	34.72	26.84	33.35	34.67	32.23	27.50	0.33
Private Vehicle	Private Vehicle						
Average Commute Trip Length (miles)	9.61	8.86	11.02	11.84	12.10	12.09	0.25
Average Commute Travel Time (minutes)	18.95	17.62	19.05	20.10	22.49	22.85	0.34
Average Commute Speed (miles per hour)	37.50	27.78	31.49	35.18	32.27	28.87	0.31
Public Transit	Public Transit						
Average Commute Trip Length (miles)	7.48	9.00	12.75	12.88	11.73	10.18	1.54
Average Commute Travel Time (minutes)	37.59	37.79	41.10	41.95	55.50	52.98	4.19
Average Commute Speed (miles per hour)	12.58	15.44	18.02	18.22	12.96	11.42	0.99
Walk	Walk						
Average Commute Trip Length (miles)	-	-	0.83	0.74	0.91	0.98	0.23
Average Commute Travel Time (minutes)	-	-	9.79	10.86	14.06	16.15	2.28
Average Commute Speed (miles per hour)	-	-	4.99	3.58	3.18	4.77	0.51

Note:

- Trip miles and travel times were calculated using actual trips to and from work as reported in the travel day file.
- Average commute speed was calculated using only those trips with both trip mileage and travel time information present.
- Average commute trip length was calculated using only those records with trip mileage information present.
- In 2001 the mode "Bus" was divided into "Local Public Transit Bus," "Commuter Bus," "Charter/tour bus," and "City to city bus." Only "Local Public Transit Bus" and "Commuter Bus" are included in public transit calculations.
- Public transit includes local bus, commuter bus, commuter train, subway, trolley, and streetcar.
- Commute time for public transit includes total trip time in 2001 and 2009, including access and egress.
- NPTS is Nationwide Personal Transportation Survey. CI is Confidence Interval.

Attachment D: Health Risk Assessment

SDG Commerce 217 Distribution Center Project
Health Risk Assessment Technical Report



Prepared for:

City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503

Prepared by:

RCH GROUP
planning & environmental consulting

June 30, 2021

1.0 INTRODUCTION

This document presents results of a health risk assessment (HRA) associated with the American Canyon Commerce 217 Distribution Center in the City of American Canyon, California and evaluates the potential adverse health impacts associated with the project's construction and operational emissions. The supporting information, methodology and assumptions used in the air emission calculations and health risk assessment are provided in **Health Risk Assessment Methodology, Assumptions, and Detailed Results**.

The HRA focuses on health impacts on existing residences and school receptors from emissions of toxic air contaminants (TAC)[1] such as diesel particulate matter (DPM)[2] from diesel construction equipment and diesel delivery truck activities at loading docks and along roadways. The HRA was conducted to determine the health impacts, in terms of excess cancer risk and non-cancer hazards, using the significance levels identified by the Bay Area Air Quality Management District (BAAQMD)'s *CEQA Air Quality Guidelines*.[3] In accordance with the BAAQMD *CEQA Air Quality Guidelines*, this HRA also evaluated concentrations of particulate matter equal to or less than 2.5 micrometers (fine particulate or $PM_{2.5}$). The HRA was prepared based on the California Office of Environmental Health Hazard Assessment (OEHHA)'s *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[4] For existing residential receptors, the HRA indicates less-than-significant exposures to the health impacts from the proposed project construction activities and operations. For the Napa Junction Elementary School, the HRA indicates less-than-significant exposures to the health impacts from the proposed project construction activities and operations.

2.0 PROJECT OVERVIEW

The project would consist of a 217,294 square foot wine storage and distribution center on the 10.39-acre site. It is anticipated that the warehouse would be used for wine storage and other

[1] Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality. TAC are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., gasoline service stations, dry cleaners). TAC are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TAC are regulated at the regional, state, and Federal level.

[2] In 1998, the California Air Resources Board (CARB) classified diesel particulate matter (DPM) as a toxic air contaminant, citing its potential to cause cancer and other health problems. The US Environmental Protection Agency (USEPA) concluded that long-term exposure to diesel engine exhaust is likely to pose a lung cancer hazard to humans and can also contribute to other acute and chronic health effects.

[3] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[4] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015, http://oehha.ca.gov/air/hot_spots/hotspots2015.html

wine-related storage and warehousing activities (i.e. bottles, corks, barrels, etc.). A total of 134 car and 21 truck dock parking spaces would be provided. A peak daily weekday trip generation rate of 64 trucks per day (and an average daily weekday trip generation rate of 32 trucks per day) would occur; only three trucks per day would contain transport refrigeration units (TRU).[5] Most inbound trailers would not have TRU as they would only be hauling directly from the winery. Outbound long-haul trailers would not be running the refrigeration units while at the loading dock as they would initially be loaded. No trucks would be at the loading dock longer than 30 minutes. Trucks would not and cannot head south from the facility and pass by the Napa Junction Elementary School and residential land uses to the south of the project site as Commerce Court has a dead-end cul-de-sac. Project traffic would only travel along Commence Boulevard and Green Island Road to the north of the project site. Hours of operation would be 8 am to 4 pm; Monday thru Friday.

According to the requirements under the California Public Resources Code, Division 13, Environmental Quality (§21000 – §21189.57), proposed projects located within ¼ mile of a school that involve the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions, and that may impose a health or safety hazard to persons who would attend or would be employed at the school, must meet all requirements per CEQA Guidelines §15186 (b)(1)(2)[6]. The lead agency must consult with the affected school district or districts regarding the potential impact of the project on the school and notify the affected school district(s) of the project in writing, not less than 30 days prior to approval or certification of the negative declaration or environmental impact report. Napa Junction Elementary School is located with ¼ miles of the project site.

3.0 ANALYSIS METHODOLGY

Regulatory models used to estimate air quality and health impacts include:

- **California Emissions Estimator Model (CalEEMod) Version 2016.3.2[7] land use emissions model.** CalEEMod estimates emissions due to construction activities and operations.
- **California Air Resources Board's (CARB) EMFAC[8] emissions inventory model.** EMFAC is the latest emission inventory model that calculates emission inventories and

[5] Transport Refrigeration Units are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including truck vans, semi-truck trailers, shipping containers, and railcars.

[6] 2019 CEQA Statutes and Guidelines, http://resources.ca.gov/ceqa/docs/2019_CEQA_Statutes_and_Guidelines.pdf

[7] California Air Resources Board, *California Emissions Estimator Model User's Guide*, November 9, 2017, http://www.caleemod.com/

emission rates for motor vehicles operating on roads in California. This model reflects CARB's current understanding of how vehicles travel and how much they emit. EMFAC can be used to show how California motor vehicle emissions have changed over time and are projected to change in the future.

- **American Meteorological Society/USEPA Regulatory Model (AERMOD)**. AERMOD (Version 19191) is an atmospheric dispersion model which can simulate point, area, volume, and line emissions sources and has the capability to include simple, intermediate, and complex terrain along with meteorological conditions and multiple receptor locations.[9,10] AERMOD is commonly executed to yield 1-hour maximum and annual average concentrations (in $\mu g/m^3$) at each receptor. AERMOD is used to estimate air concentrations at nearby receptors resulting from the activities associated with an air emission source (such as construction equipment).

Threshold of Significance

The standards of significance applied to the analysis of potential health impacts are based on Appendix G of the *CEQA Guidelines* and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant health impacts if it were to expose sensitive receptors to substantial pollutant concentrations. The proposed project would have a significant project-level health impact if it would exceed the following BAAQMD thresholds:

- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TAC resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$).

Health Impact Evaluation

The BAAQMD *Air Quality Guidelines* requires an assessment of air toxics impacts on sensitive receptors. The BAAQMD *Air Quality Guidelines* also requires an assessment of $PM_{2.5}$ concentrations as a result of the proposed project construction exhaust emissions. The proposed project would constitute a new emission source of TAC (such as DPM) and $PM_{2.5}$ from

[8] California Air Resources Board, *EMFAC2017 User's Guide*, March 1, 2018, Accessed March 23, 2021, https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-i-users-guide.pdf and https://www.arb.ca.gov/emfac/2017/

[9] US Environmental Protection Agency Preferred/Recommended Models, *AERMOD Modeling System*, https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#aermod

[10] Title 40 CFR Part 51, *Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions; Final Rule*.

construction equipment and delivery trucks. Studies have demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.

The HRA was conducted following methodologies in OEHHA's *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[11] This was accomplished by applying the estimated DPM concentrations at nearby sensitive receptors analyzed to the established cancer risk estimates and acceptable reference concentrations for non-cancer health effects. The USEPA's AERMOD atmospheric dispersion model then calculates air concentrations (in micrograms per cubic meter, or $\mu g/m^3$) of DPM and $PM_{2.5}$ at the nearby sensitive receptors. The supporting methodology and assumptions used in this HRA are provided in **Health Risk Assessment Methodology and Assumptions**.

Both acute (short-term, such as one-hour) and chronic (long-term, such as annual) adverse health impacts unrelated to cancer were addressed and are measured against a hazard index (HI). The hazard index is defined as the ratio of the estimated air concentrations of DPM at the nearby sensitive receptors to a reference exposure level (REL) that could cause adverse health effects. The health impact is significant if the HI is greater than 1.0 (i.e., the estimated air concentrations of DPM is greater than the REL).

There is no acute REL for DPM. The chronic reference exposure level for DPM established by the California OEHHA is 5 $\mu g/m^3$. Thus, if the proposed project-related annual concentration of DPM exceed 5.0 $\mu g/m^3$, resulting in a chronic HI of greater than 1.0 (i.e., DPM annual concentration/5.0 $\mu g/m^3$), the chronic health impacts would be significant.

Proposed Project Construction and Operations Health Impacts on Existing Residences

The following describes the HRA results associated with existing residential receptors due to proposed project construction and operations. As shown in **Table 1**, the maximum total cancer risk from the proposed project emissions for a residential receptor would be 3.35 per million persons. The maximum concentrations would occur at a residential receptor (also known as the maximum exposed individual or MEI) to the southeast of the proposed project. Thus, the cancer risk due to construction activities and operations would be less than the BAAQMD significance threshold of 10 per million and would be ***a less than significant health impact on residential receptors.***

[11] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015, http://oehha.ca.gov/air/hot_spots/hotspots2015.html

Table 1: Estimated Construction and Operations Health Impacts for Existing Residences

Source	Cancer Risk	Hazard Impact	$PM_{2.5}$ Concentration
Total Proposed Project	**3.25**	**<0.01**	**0.02**
Significance Threshold	10	1.0	0.3
Potentially Significant (Yes or No)?	No	No	No

The chronic HI would be less than 0.01, based on a proposed project-related maximum annual diesel concentration of 0.005 μg/m^3 (per dispersion modeling analysis) and an REL for DPM of 5.0 μg/m^3. The resultant chronic HI is calculated as 0.005 μg/m^3/5.0 μg/m^3, which is less than 0.01. The chronic HI would be below the project-level threshold of 1.0 and would therefore be ***less than significant health impact on residential receptors***.

The proposed project's annual $PM_{2.5}$ concentration would be 0.02 μg/m^3. Thus, the annual $PM_{2.5}$ concentration due to project construction would be below the BAAQMD threshold of 0.3 μg/m^3 and would be considered ***less than significant health impact on residential receptors***.

Proposed Project Construction and Operations Health Impacts Associated with the Napa Junction Elementary School

The following describes the HRA results associated with school receptors (Napa Junction Elementary School) due to proposed project construction and operations. As shown in **Table 2**, the maximum cancer risk from the proposed project emissions for a school receptor would be 0.39 per million persons. Thus, the cancer risk due to operations would be less than the BAAQMD significance threshold of 10 per million and would be ***a less than significant health impact on school receptors.***

Table 2: Estimated Construction and Operations Health Impacts for Napa Junction Elementary School

Source	Cancer Risk	Hazard Impact	$PM_{2.5}$ Concentration
Total Proposed Project	**0.39**	**<0.01**	**0.02**
Significance Threshold	10	1.0	0.3
Potentially Significant (Yes or No)?	No	No	No

The chronic HI would be less than 0.01, based on a proposed project-related maximum annual diesel concentration of less than 0.01 μg/m^3 (per dispersion modeling analysis) and an REL for DPM of 5.0 μg/m^3. The resultant chronic HI is calculated as 0.003 μg/m^3/5.0 μg/m^3, which is less than 0.01. The chronic HI would be below the project-level threshold of 1.0 and would therefore be ***less than significant health impact on school receptors***.

The proposed project's annual $PM_{2.5}$ concentration would be 0.02 μg/m^3. Thus, the annual $PM_{2.5}$ concentration due to project construction would be below the BAAQMD threshold of 0.3 μg/m^3 and would be considered ***less than significant health impact on school receptors***.

Although the health impacts are less than signficant, the applicant would implement the following measures to further reduce construction-related exhaust emissions:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall have engines that meet or exceed either USEPA or CARB Tier 3 (or better) off-road emission standards and Level 3 Diesel Particulate Filters.[12]

As a result of these measures, the maximum total cancer risk from the proposed project emissions for a residential receptor would be 2.65 per million persons and the maximum cancer risk from the proposed project emissions for a school receptor would be 0.34 per million persons.

[12] USEPA and CARB have implemented regulations and a tiering system to reduce emissions from off-road equipment with increasing combustion efficiency (i.e., decreasing emissions) where Tier 1 is the least efficient (greatest emissions) and Tier 4 is the most efficient (least emissions). The regulations have been implemented over time such that Tier 1 was phased out in the 1990's and Tier 2 was required, followed by implementation of Tier 3 and Tier 4 by 2015 with a phase out of Tier 2.

Health Risk Assessment Methodology, Assumptions, and Detailed Results

A health risk assessment (HRA) is accomplished in four steps: 1) hazards identification, 2) exposure assessment, 3) toxicity assessment, and 4) risk characterization. These steps cover the estimation of air emissions, the estimation of the air concentrations resulting from a dispersion analysis, the incorporation of the toxicity of the pollutants emitted, and the characterization of the risk based on exposure parameters such as breathing rate, age adjustment factors, and exposure duration; each depending on receptor type (i.e., residence, school, daycare centers, hospitals, senior care facilities, recreational areas, adult, infant, child).

This HRA was conducted in accordance with technical guidelines developed by federal, state, and regional agencies, including U.S. Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*[1] and the Bay Area Air Quality Management District (BAAQMD) *Health Risk Screening Analysis Guidelines*.[2] This HRA addresses the emissions from construction activities including onsite equipment and haul trucks. Specific focus is on diesel particulate matter (DPM) and particulate matter equal to or less than 2.5 micrometers (fine particulate or $PM_{2.5}$) emissions.

According to CalEPA, a HRA should not be interpreted as the expected rates of cancer or other potential human health effects, but rather as estimates of potential risk or likelihood of adverse effects based on current knowledge, under a number of highly conservative assumptions and the best assessment tools currently available.

TERMS AND DEFINITIONS

As the practice of conducting a HRA is particularly complex and involves concepts that are not altogether familiar to most people, several terms and definitions are provided that are considered essential to the understanding of the approach, methodology and results:

> *Acute effect* – a health effect (non-cancer) produced within a short period of time (few minutes to several days) following an exposure to toxic air contaminants (TAC).
>
> *Cancer risk* – the probability of an individual contracting cancer from a lifetime (i.e., 70 year) with a 30-year exposure to TAC such as DPM in the ambient air.
>
> *Chronic effect* – a health effect (non-cancer) produced from a continuous exposure occurring over an extended period (weeks, months, years).

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[1] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, March 6, 2015. http://oehha.ca.gov/air/hot_spots/hotspots2015.html.

[2] Bay Area Air Quality Management District, *Health Risk Screening Analysis Guidelines*, January 2010 http://www.baaqmd.gov/~/media/Files/Engineering/Air%20Toxics%20Programs/hrsa_guidelines.ashx

Hazard Index (HI) – the unitless ratio of an exposure level over the acceptable reference dose. The HI can be applied to multiple compounds in an additive manner.

Hazard Quotient (HQ) – the unitless ratio of an exposure level over the acceptable reference dose. The HQ is applied to individual compounds.

Toxic Air Contaminants – any air pollutant that can cause short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). The current California list of TAC lists approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Human Health Effects - comprise disorders such as eye watering, respiratory or heart ailments, and other (i.e., non-cancer) related diseases.

Health Risk Assessment – an analysis designed to predict the generation and dispersion of TAC in the outdoor environment, evaluate the potential for exposure of human populations, and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure.

Incremental – under CEQA, the net difference (or change) in conditions or impacts when comparing the baseline to future year project conditions.

Maximum exposed individual (MEI) – an individual assumed to be located at the point where the highest concentrations of TAC, and therefore, health risks are predicted to occur.

Non-cancer risks – health risks such as eye watering, respiratory or heart ailments, and other non-cancer related diseases.

Receptors – the locations where potential health impacts or risks are predicted (i.e., schools, residences, and recreational sites).

LIMITATIONS AND UNCERTAINTIES

There are several important limitations and uncertainties commonly associated with a HRA due to the wide variability of human exposures to TAC, the extended timeframes over which the exposures are evaluated, and the inability to verify the results. Limitations and uncertainties associated with the HRA and identified by the CalEPA include: (a.) lack of reliable monitoring data; (b.) extrapolation of toxicity data in animals to humans; (c.) estimation errors in calculating TAC emissions; (d.) concentration prediction errors with dispersion models; and (e.) the variability in lifestyles, fitness and other confounding factors of the human population. This HRA was performed using the best available data and methodologies, notwithstanding the following uncertainties:

- There are uncertainties associated with the estimation of emissions from project activities. Where project-specific data, such as emission factors, are not available, default assumptions in emission models were used.
- The limitations of the air dispersion model provide a source of uncertainty in the estimation of exposure concentrations. According to USEPA, errors due to the limitation of the algorithms implemented in the air dispersion model in the highest estimated concentrations of +/- 10 percent to 40 percent are typical.[3]
- The source parameters used to model emission sources add uncertainty. For all emission sources, the source parameters used source-specific, recommended as defaults, or expected to produce more conservative results. Discrepancies might exist in actual emissions characteristics of an emission source and its representation in the dispersion model.
- The exposure duration estimates do not consider that people do not usually reside at the same location for 30 years and that other exposures (i.e., school children) are also of much shorter durations than was assumed in this HRA. This exposure duration is a highly conservative assumption, since most people do not remain at home all day and on average residents change residences every 11 to 12 years. In addition, this assumption adopts that residents are experiencing outdoor concentrations for the entire exposure period.
- For the risk and hazards calculations as well as the cumulative health impact, numerous assumptions must be made in order to estimate human exposure to pollutants. These assumptions include parameters such as breathing rates, exposure time and frequency, exposure duration, and human activity patterns. While a mean value derived from scientifically defensible studies is the best estimate of central tendency, most of the exposure variables used in this HRA are high-end estimates. The combination of several high-end estimates used as exposure parameters may substantially overestimate pollutant intake. The excess lifetime cancer risks calculated in this HRA are therefore likely to be higher than may be required to be protective of public health.
- The Cal/EPA cancer potency factor for DPM was used to estimate cancer risks associated with exposure to DPM emissions from construction activities. However, the cancer potency factor derived by Cal/EPA for DPM is highly uncertain in both the estimation of response and dose. In the past, due to inadequate animal test data and epidemiology data on diesel exhaust, the International Agency for Research on Cancer (IARC), a branch of the World Health Organization, had classified DPM as Probably Carcinogenic

[3] United States Environmental Protection Agency, *Guideline on Air Quality Models (Revised), 40 Code of Federal Regulations, Part 51, Appendix W,* November 2005.

to Humans (Group 2); the USEPA had also concluded that the existing data did not provide an adequate basis for quantitative risk assessment.[4] However, based on two recent scientific studies,[5] IARC recently re-classified DPM as Carcinogenic to Humans to Group 1,[6] which means that the agency has determined that there is "sufficient evidence of carcinogenicity" of a substance in humans and represents the strongest weight-of-evidence rating in IARC's carcinogen classification scheme. This determination by the IARC may provide additional impetus for the USEPA to identify a quantitative dose-response relationship between exposure to DPM and cancer.

In summary, the estimated health impacts are based primarily on a series of conservative assumptions related to predicted environmental concentrations, exposure, and chemical toxicity. The use of conservative assumptions tends to produce upper-bound estimates of risk. BAAQMD acknowledges this uncertainty by stating: "the methods used [to estimate risk] are conservative, meaning that the real risks from the source may be lower than the calculations, but it is unlikely that they will be higher." The USEPA notes that the conservative assumptions used in a HRA are intended to assure that the estimated risks do not underestimate the actual risks posed by a site and that the estimated risks do not necessarily represent actual risks experienced by populations at or near a site.[7]

HAZARDS IDENTIFICATION

California Air Resources Board (CARB) has developed a list of TAC, where a TAC is "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health (California Health and Safety Code Section 39655). All USEPA hazardous air pollutants are TAC. CARB administers the Air Toxics "Hot Spots" program under Assembly Bill 2588 "Hot Spots" Information and Assessment Act, which requires periodic local review of facilities which emit TAC. Local air agencies periodically must prioritize stationary sources of TAC and prepare health risk assessments for high-priority sources.

Diesel exhaust is a complex mixture of numerous individual gaseous and particulate compounds emitted from diesel-fueled combustion engines. Diesel particulate matter is formed

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[4] United States Environmental Protection Agency, *Health Assessment Document for Diesel Engine Exhaust*, May 2002. https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=29060

[5] Attfield MD, Schleiff PL, Lubin JH, Blair A, Stewart PA, Vermeulen R, Coble JB, Silverman DT, *The Diesel Exhaust in Miners Study: A Nested Case-Control Study of Lung Cancer and Diesel Exhaust*, June 2012. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3369553/

[6] International Agency for Research on Cancer, *Diesel Engine Exhaust Carcinogenic*, June 2012. https://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf

[7] United States Environmental Protection Agency, *Risk Assessment Guidance for Superfund Human Health Risk Assessment*, December 1989. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

primarily through the incomplete combustion of diesel fuel. DPM is removed from the atmosphere through physical processes including atmospheric fall-out and washout by rain. Humans can be exposed to airborne DPM by deposition on water, soil, and vegetation; although the main pathway of exposure is inhalation. Cal/EPA has concluded that potential cancer risk from inhalation exposure to whole diesel exhaust outweigh the multi-pathway cancer risk from the speciated components.

In August 1998, the CARB identified DPM as an air toxic. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel- Fueled Engines and Vehicles* and *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines* and approved these documents on September 28, 2000.[8,9] The documents represent proposals to reduce DPM emissions, with the goal of reducing emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The program aimed to require the use of state-of-the-art catalyzed DPM filters and ultra-low-sulfur diesel fuel.

In 2001, CARB assessed the state-wide health risks from exposure to diesel exhaust and to other toxic air contaminants. It is difficult to distinguish the health risks of diesel emissions from those of other air toxics, since diesel exhaust contains approximately 40 different TAC. The CARB study detected diesel exhaust by using ambient air carbon soot measurements as a surrogate for diesel emissions. The study reported that the state-wide cancer risk from exposure to diesel exhaust was about 540 per million population as compared to a total risk for exposure to all ambient air toxics of 760 per million. This estimate, which accounts for about 70 percent of the total risk from TAC, included both urban and rural areas in the state. The estimate can also be considered an average worst-case for the state, since it assumes constant exposure to outdoor concentrations of diesel exhaust and does not account for expected lower concentrations indoors, where most of time is spent. Based on 2012 estimates of statewide exposure, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime.[10]

Exposure to DPM results in a greater incidence of chronic non-cancer health effects, such as cough, labored breathing, chest tightness, wheezing, and bronchitis. Individuals particularly vulnerable to DPM are children, whose lung tissue is still developing, the elderly and people with illnesses who may have other serious health problems that can be aggravated by exposure to DPM. In general, children are more vulnerable than adults to air pollutants because they

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[8] California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf

[9] California Air Resources Board, *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*, October 2000. https://www.arb.ca.gov/diesel/documents/rmgFinal.pdf

[10] California Air Resources Board, *Summary: Diesel Particulate Matter Health Impacts*, April 12, 2016. https://www.arb.ca.gov/research/diesel/diesel-health_summ.htm

have higher inhalation rates, narrower airways, and less mature immune systems. In addition, children with allergies may have an enhanced allergic response when exposed to diesel exhaust).

COMMUNITY AIR RISK EVALUATION

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—diesel PM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). Overall, cancer risk from air toxics dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[11]

Cancer risks from air toxics in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Highest cancer risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. As a result, BAAQMD identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

[11] Bay Area Air Quality Management District, *Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program Retrospective & Path Forward (2004 – 2013)*, April 2014, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

The proposed project is within the city of American Canyon, which is not part of the seven impacted communities. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, are approximately 160 cancer risk per million persons. In American Canyon, including the project site, the health impacts are approximately 98 cancer risk per million persons.[12]

EXPOSURE ASSESSMENT

Dispersion is the process by which atmospheric pollutants disseminate due to wind and vertical stability. The results of a dispersion analysis are used to assess pollutant concentrations at or near an emission source. The results of an analysis allow predicted concentrations of pollutants to be compared directly to air quality standards and other criteria such as health risks based on modeled concentrations.

A rising pollutant plume reacts with the environment in several ways before it levels off. First, the plume's own turbulence interacts with atmospheric turbulence to entrain ambient air. This mixing process reduces and eventually eliminates the density and momentum differences that cause the plume to rise. Second, the wind transports the plume during its rise and entrainment process. Higher winds mix the plume more rapidly, resulting in a lower final rise. Third, the plume interacts with the vertical temperature stratification of the atmosphere, rising as a result of buoyancy in the unstable-to-neutrally stratified mixed layer. However, after the plume encounters the mixing lid and the stably stratified air above, its vertical motion is dampened.

Molecules of gas or small particles injected into the atmosphere will separate from each other as they are acted on by turbulent eddies. The Gaussian mathematical model such as AERMOD simulates the dispersion of the gas or particles within the atmosphere. The formulation of the Gaussian model is based on the following assumptions:

- The predictions are not time-dependent (all conditions remain unchanged with time)
- The wind speed and direction are uniform, both horizontally and vertically, throughout the region of concern
- The rate of diffusion is not a function of position
- Diffusion in the direction of the transporting wind is negligible when compared to the transport flow

[12] Bay Area Air Quality Management District, *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area*, March 2014, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Dispersion Modeling Approach

Air dispersion modeling was performed to estimate the downwind dispersion of DPM exhaust emissions resulting from construction activities. The following sections present the fundamental components of an air dispersion modeling analysis including air dispersion model selection and options, receptor locations, meteorological data, and source exhaust parameters.

Model Selection and Options

AERMOD (Version 19191)[13] was used for the dispersion analysis. AERMOD is the USEPA preferred atmospheric dispersion modeling system for general industrial sources. The model can simulate point, area, volume, and line sources. AERMOD is the appropriate model for this analysis based on the coverage of simple, intermediate, and complex terrain. It also predicts both short-term and long-term (annual) average concentrations. The model was executed using the regulatory default options (stack-tip downwash, buoyancy-induced dispersion, and final plume rise), default wind speed profile categories, default potential temperature gradients, and assuming no pollutant decay.

The selection of the appropriate dispersion coefficients depends on the land use within three kilometers (km) of the project site. The types of land use were based on the classification method defined by Auer (1978); using pertinent United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) topographic maps of the area. If the Auer land use types of heavy industrial, light-to-moderate industrial, commercial, and compact residential account for 50 percent or more of the total area, the USEPA *Guideline on Air Quality Models* recommends using urban dispersion coefficients; otherwise, the appropriate rural coefficients can be used. Based on observation of the area surrounding the project site, rural (urban is only designated within dense city centers such as downtown San Francisco) dispersion coefficients were applied within AERMOD.

Receptor Locations

Some receptors are considered more sensitive to air pollutants than others, because of preexisting health problems, proximity to the emissions source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are also considered sensitive to poor air quality because people in residential areas are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution because vigorous exercise associated with recreation places having a high demand on respiratory system function.

[13] United States Environmental Protection Agency, AERMOD Modeling System, https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

Sensitive receptors were placed at existing residences and schools to estimate health impacts due to proposed project construction and operations. A residential receptor is located, within 1,000 feet of the project site to the east. Sensitive receptors were also placed at the Napa Junction Elementary School and the residential neighborhood to the southeast of the project site. **Figure 1** displays the location of the sensitive receptors used in this HRA. **Figure 1** also shows the delivery truck route, loading dock, as well as the project site and borrow site. Additionally, existing residences are located along Green Island Road, the delivery truck route, and were also included in the HRA. Receptors were placed at a height of 1.8 meters (typical breathing height). Terrain elevations for receptor locations were used based on available USGS information for the area.

FIGURE 1
HEALTH RISK ASSESSMENT RECEPTORS



Meteorological Data

Hourly meteorological data from Napa County Airport (surface data), located approximately four miles to the northwest of the proposed project, and Oakland International Airport (upper air) were used in the dispersion modeling analysis. Meteorological data from 2010 through 2014 were used.[14] **Figure 2** displays the annual wind rose. Wind directions are predominately from the south-southwest with a moderate frequency of calm wind speed conditions (approximately 20 percent), as shown in **Figure 3**. The average annual wind speed is 7.7 miles per hour.

Source Release Characteristics

Construction equipment activities were treated as an area source. The release height of the off-road equipment exhaust was 3.05 meters and an initial vertical dimension of 4.15 meters. Delivery trucks were treated as a line source (i.e., volume sources placed at regular intervals) located along an access road. Delivery trucks were assigned a release height of 3.05 meters and an initial vertical dimension of 4.15 meters, which accounts for dispersion from the movement of vehicles.[15] Loading dock activities were also treated as an area source with a release height of 3.05 meters. Fugitive dust-generating activities were treated as an area source. The release height of the fugitive dust was 0.0 meters (0.0 feet) and an initial vertical dimension of 1.0 meter.[16]

Typically, construction activities and operations would occur between 8 a.m. and 5 p.m. (ten hours per day), on Monday through Friday. Terrain elevations for emission source locations were used based on available USGS DEM for the area. AERMAP (Version 18081)[17] was used to develop the terrain elevations.

---

[14] California Air Resources Board, Air Dispersion Modeling and Risk Tool Meteorological Files, October 5, 2015. https://www.arb.ca.gov/toxics/harp/metfiles2.htm

[15] While delivery truck emissions contribute to overall project emissions, they are spread over many miles. Hence, the portion of trucking emissions that would impact one receptor is much smaller than the emissions that the clustered off-road construction activity at the project site would impact a receptor near the site. For example, the DPM emissions from truck travel within 1,000 feet of the project are less than 1 percent of the total off-road DPM emissions.

[16] South Coast Air Quality Management District, Final Localized Significance Threshold Methodology. July 2008, http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

[17] United States Environmental Protection Agency, AERMAP. https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

FIGURE 2
WINDROSE FOR NAPA AIRPORT

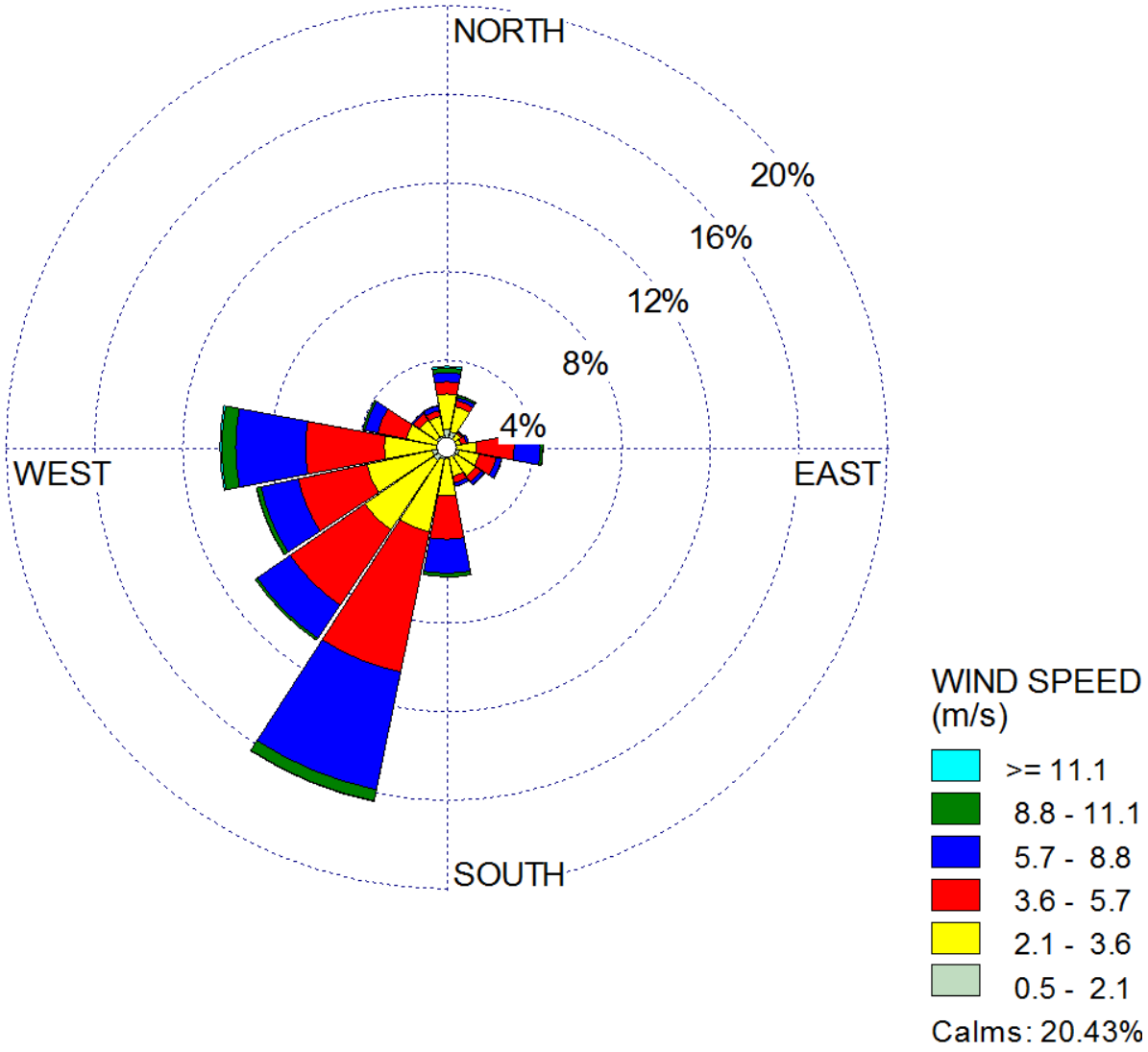
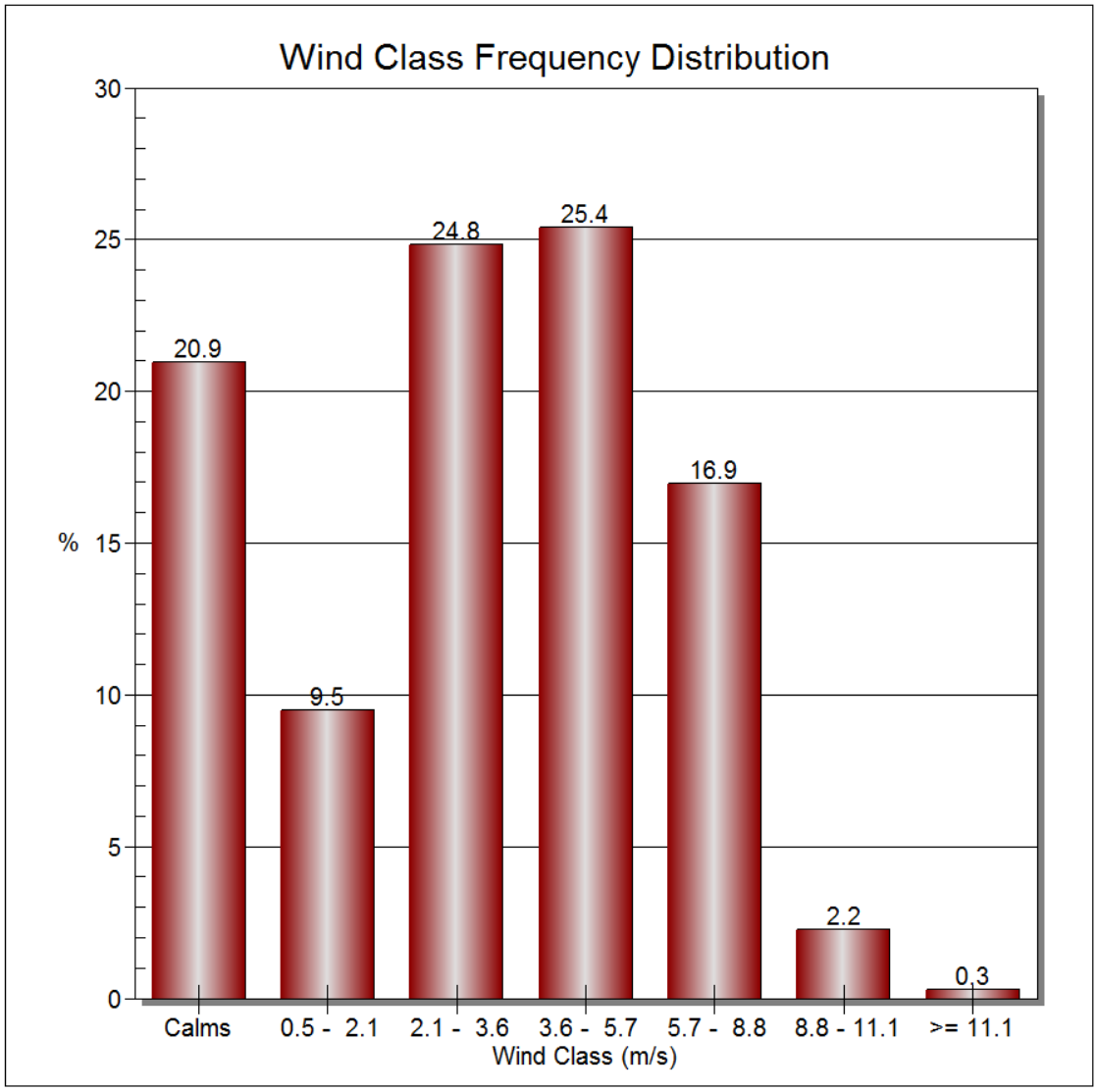


FIGURE 3
WIND SPEED DISTRIBUTION FOR NAPA AIRPORT



EXPOSURE PARAMETERS

This HRA was conducted following methodologies in OEHHA's *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[18] This was accomplished by applying the estimated concentrations at the receptors analyzed to the established cancer risk estimates and acceptable reference concentrations for non-cancer health effects.

OEHHA's revisions to its *Guidance Manual* were primarily designed to ensure that the greater sensitivity of children to cancer and other health risks is reflected in HRAs. For example, OEHHA now recommends that risks be analyzed separately for multiple age groups, focusing especially on young children and teenagers, rather than the past practice of analyzing risks to the general population, without distinction by age. OEHHA also now recommends that statistical "age sensitivity factors" be incorporated into a HRA, and that children's relatively high breathing rates be accounted for. On the other hand, the *Guidance Manual* revisions also include some changes that would reduce calculated health risks. For example, under the former guidance, OEHHA recommended that residential cancer risks be assessed by assuming 70 years of exposure at a residential receptor; under the *Guidance Manual*, this assumption is lessened to 30 years.

OEHHA has developed exposure factors (e.g., daily breathing rates) for six age groups including the last trimester to birth, birth to 2 years, 2 to 9 years, 2 to 16 years, 16 to 30 years, and 16 to 70 years. These age bins allow for more refined exposure information to be used when estimating exposure and the potential for developing cancer over a lifetime. This means that exposure variates are needed for the third trimester, ages zero to less than two, ages two to less than nine, ages two to less than 16, ages 16 to less than 30, and ages 16 to 70. Residential receptors utilize the 95th percentile breathing rate values. The breathing rates are age-specific and are 1,090 liters per kilogram-day for ages less than 2 years, 745 liters per kilogram-day for ages 2 to 16 years, 335 liters per kilogram-day for ages 16 to 30 years, and 290 liters per kilogram-day for ages 30 to 70 years. A school child breathing rate is 520 liters per kilogram-day and an off-site worker breathing rate is 230 liters per kilogram-day.

OEHHA developed age sensitivity factors (ASF) to consider the increased sensitivity to carcinogens during early-in-life exposures. OEHHA recommends that cancer risks be weighted by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures from 2 years through 15 years of age.

Based on OEHHA recommendations, the cancer risk to residential receptors assumes exposure occurs 24 hours per day for 350 days per year while accounting for a percentage of time at home. OEHHA evaluated information from activity pattern databases to estimate the fraction of

[18] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, March 6, 2015. http://oehha.ca.gov/air/hot_spots/hotspots2015.html

time at home (FAH) during the day. This information was used to adjust exposure duration and cancer risk based on the assumption that a person is not present at home continuously for 24 hours and therefore exposure to emissions is not occurring when a person is away from their home. In general, the FAH factors are age-specific and are 0.85 for ages less than 2 years, 0.72 for ages 2 to 16 years, and 0.73 for ages 30 to 70 years.

OEHHA has decreased the exposure duration currently being used for estimating cancer risk at the maximum exposed individual resident from 70 years to 30 years. This is based on studies showing that 30 years is a reasonable estimate of the 90th to 95th percentile of residency duration in the population.

Given the exposure durations of less than 24 hours, sensitive recreational receptors were evaluated for acute impacts only. Based on OEHHA recommendations, for children at school sites, exposure is assumed to occur 10 hours per day for 180 days (or 36 weeks) per year. Cancer risk estimates for children at school sites are calculated based on 9-year exposure duration. School sites also include teachers and other adult staff which are treated as off-site workers.

RISK CHARACTERIZATION

Cancer risk is defined as the lifetime probability of developing cancer from exposure to carcinogenic substances. Cancer risks are expressed as the chance in one million of getting cancer (i.e., number of cancer cases among one million people exposed). The cancer risks are assumed to occur exclusively through the inhalation pathway. The cancer risk can be estimated by using the cancer potency factor (milligrams per kilogram of body weight per day [mg/kg-day]), the 30-year annual average concentration (microgram per cubic meter [μg/m^3]), and the lifetime exposure adjustment.

Following guidelines established by OEHHA, the incremental cancer risks attributable to the proposed project were calculated by applying exposure parameters to modeled DPM concentrations in order to determine the inhalation dose (mg/kg-day) or the amount of pollutants inhaled per body weight mass per day. The cancer risks occur exclusively through the inhalation pathway; therefore, the cancer risks can be estimated from the following equation:

$$\text{Dose-inh} = \frac{C_{air} * \{DBR\} * A * ASF * FAH * EF * ED * 10^{-6}}{AT}$$

where:

Dose-inh = Dose of the toxic substance through inhalation in mg/kg-day

10^{-6} = Micrograms to milligrams conversion, Liters to cubic meters conversion

C_{air} = Concentration in air in microgram (μg)/cubic meter (m^3)

{DBR} = Daily breathing rate in liter (L)/kg body weight – day

A = Inhalation absorption factor, 1.0

ASF = Age Sensitivity Factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

FAH = Fraction of Time at Home

AT = Averaging time period over which exposure is averaged in days (25,550 days for a 70-year cancer risk)

To determine incremental cancer risk, the estimated inhalation dose attributed to the proposed project was multiplied by the cancer potency slope factor (cancer risk per mg/kg-day). The cancer potency slope factor is the upper bound on the increased cancer risk from a lifetime exposure to a pollutant. These slope factors are based on epidemiological studies and are different values for different pollutants. This allows the estimated inhalation dose to be equated to a cancer risk.

Non-cancer adverse health impacts, acute (short-term) and chronic (long-term), are measured against a hazard index (HI), which is defined as the ratio of the predicted incremental exposure concentration from the proposed project to a published reference exposure level (REL) that could cause adverse health effects as established by OEHHA. The ratio (referred to as the Hazard Quotient [HQ]) of each non-carcinogenic substance that affects a certain organ system is added to produce an overall HI for that organ system. The overall HI is calculated for each organ system. If the overall HI for the highest-impacted organ system is greater than one, then the impact is significant.

The HI is an expression used for the potential for non-cancer health effects. The relationship for the non-cancer health effects is given by the annual concentration (in $\mu g/m^3$) and the REL (in $\mu g/m^3$). The acute hazard index was determined using the "simple" concurrent maximum approach, which tends to be conservative (i.e., overpredicts).

The relationship for the non-cancer health effects is given by the following equation:

$$HI = C/REL$$

Where:

HI = Hazard index; an expression of the potential for non-cancer health effects.

C = Annual average concentration ($\mu g/m^3$) during the 70-year exposure period.

REL = Concentration at which no adverse health effects are anticipated.

The chronic REL for DPM was established by the California OEHHA as 5 μg/m^3.[19] There is no acute REL for DPM.

[19] Office of Environmental Health Hazards Assessment - Acute, 8-hour, and Chronic Reference Exposure Levels, June 2014. http://www.oehha.ca.gov/air/allrels.html

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM	
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM	
350	days per year	
25,550	days per lifetime	
1090	95th Percentile Daily Breathing Rates (L/kg-day)	0<2 Years
861	95th Percentile Daily Breathing Rates (L/kg-day)	2<9 Years
745	95th Percentile Daily Breathing Rates (L/kg-day)	2<16 Years
335	95th Percentile Daily Breathing Rates (L/kg-day)	16<30 Years
290	95th Percentile Daily Breathing Rates (L/kg-day)	30<70 Years
0.85	fraction of time at home	0<2 Years
0.72	fraction of time at home	2<16 Years
0.73	fraction of time at home	16<70 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Unmitigated
Receptor:	Existing Residence
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at home	Cancer Risk
1	2022	0.005	0.01	1,090	10.0	0.85	0.73
2	2023	0.005	0.02	1,090	10.0	0.85	0.64
3	2024	0.005	0.02	745	4.75	0.72	0.18
4	2025	0.005	0.02	745	3.00	0.72	0.11
5	2026	0.005	0.02	745	3.00	0.72	0.11
6	2027	0.005	0.02	745	3.00	0.72	0.11
7	2028	0.005	0.02	745	3.00	0.72	0.11
8	2029	0.005	0.02	745	3.00	0.72	0.11
9	2030	0.005	0.02	745	3.00	0.72	0.11
10	2031	0.005	0.02	745	3.00	0.72	0.11
11	2032	0.005	0.02	745	3.00	0.72	0.11
12	2033	0.005	0.02	745	3.00	0.72	0.11
13	2034	0.005	0.02	745	3.00	0.72	0.11
14	2035	0.005	0.02	745	3.00	0.72	0.11
15	2036	0.005	0.02	745	3.00	0.72	0.11
16	2037	0.005	0.02	745	3.00	0.72	0.11
17	2038	0.005	0.02	335	1.70	0.73	0.03
18	2039	0.005	0.02	335	1.00	0.73	0.02
19	2040	0.005	0.02	335	1.00	0.73	0.02
20	2041	0.005	0.02	335	1.00	0.73	0.02
21	2042	0.005	0.02	335	1.00	0.73	0.02
22	2043	0.005	0.02	335	1.00	0.73	0.02
23	2044	0.005	0.02	335	1.00	0.73	0.02
24	2045	0.005	0.02	335	1.00	0.73	0.02
25	2046	0.005	0.02	335	1.00	0.73	0.02
26	2047	0.005	0.02	335	1.00	0.73	0.02
27	2048	0.005	0.02	335	1.00	0.73	0.02
28	2049	0.005	0.02	335	1.00	0.73	0.02
29	2050	0.005	0.02	335	1.00	0.73	0.02
30	2051	0.005	0.02	335	1.00	0.73	0.02

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
2.22	Cancer Risk (Child)
10	Significance Threshold
No	Significant?
0.87	Cancer Risk (Adult)
10	Significance Threshold
No	Significant?
3.25	30-Year Exposure Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM	
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM	
350	days per year	
25,550	days per lifetime	
1090	95th Percentile Daily Breathing Rates (L/kg-day)	0<2 Years
861	95th Percentile Daily Breathing Rates (L/kg-day)	2<9 Years
745	95th Percentile Daily Breathing Rates (L/kg-day)	2<16 Years
335	95th Percentile Daily Breathing Rates (L/kg-day)	16<30 Years
290	95th Percentile Daily Breathing Rates (L/kg-day)	30<70 Years
0.85	fraction of time at home	0<2 Years
0.72	fraction of time at home	2<16 Years
0.73	fraction of time at home	16<70 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Mitigated
Receptor:	Existing Residence
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at home	Cancer Risk
1	2022	0.001	0.01	1,090	10.0	0.85	0.13
2	2023	0.005	0.02	1,090	10.0	0.85	0.64
3	2024	0.005	0.02	745	4.75	0.72	0.18
4	2025	0.005	0.02	745	3.00	0.72	0.11
5	2026	0.005	0.02	745	3.00	0.72	0.11
6	2027	0.005	0.02	745	3.00	0.72	0.11
7	2028	0.005	0.02	745	3.00	0.72	0.11
8	2029	0.005	0.02	745	3.00	0.72	0.11
9	2030	0.005	0.02	745	3.00	0.72	0.11
10	2031	0.005	0.02	745	3.00	0.72	0.11
11	2032	0.005	0.02	745	3.00	0.72	0.11
12	2033	0.005	0.02	745	3.00	0.72	0.11
13	2034	0.005	0.02	745	3.00	0.72	0.11
14	2035	0.005	0.02	745	3.00	0.72	0.11
15	2036	0.005	0.02	745	3.00	0.72	0.11
16	2037	0.005	0.02	745	3.00	0.72	0.11
17	2038	0.005	0.02	335	1.70	0.73	0.03
18	2039	0.005	0.02	335	1.00	0.73	0.02
19	2040	0.005	0.02	335	1.00	0.73	0.02
20	2041	0.005	0.02	335	1.00	0.73	0.02
21	2042	0.005	0.02	335	1.00	0.73	0.02
22	2043	0.005	0.02	335	1.00	0.73	0.02
23	2044	0.005	0.02	335	1.00	0.73	0.02
24	2045	0.005	0.02	335	1.00	0.73	0.02
25	2046	0.005	0.02	335	1.00	0.73	0.02
26	2047	0.005	0.02	335	1.00	0.73	0.02
27	2048	0.005	0.02	335	1.00	0.73	0.02
28	2049	0.005	0.02	335	1.00	0.73	0.02
29	2050	0.005	0.02	335	1.00	0.73	0.02
30	2051	0.005	0.02	335	1.00	0.73	0.02

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
1.62	Cancer Risk (Child)
10	Significance Threshold
No	Significant?
0.84	Cancer Risk (Adult)
10	Significance Threshold
No	Significant?
2.65	30-Year Exposure Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM
180	days per year
25,550	days per lifetime
581	98th Percentile Daily Breathing Rates (l 2<16 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Unmitigated
Receptor:	Napa Junction Elementary School
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at school	Cancer Risk
1	2022	0.005	0.015	581	3.00	0.83	0.05
2	2023	0.003	0.003	581	3.00	0.83	0.03
3	2024	0.003	0.003	581	3.00	0.83	0.03
4	2025	0.003	0.003	581	3.00	0.83	0.03
5	2026	0.003	0.003	581	3.00	0.83	0.03
6	2027	0.003	0.003	581	3.00	0.83	0.03
7	2028	0.003	0.003	581	3.00	0.83	0.03
8	2029	0.003	0.003	581	3.00	0.83	0.03
9	2030	0.003	0.003	581	3.00	0.83	0.03
10	2031	0.003	0.003	581	3.00	0.83	0.03
11	2032	0.003	0.003	581	3.00	0.83	0.03
12	2033	0.003	0.003	581	3.00	0.83	0.03

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
0.39	Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM
180	days per year
25,550	days per lifetime
581	98th Percentile Daily Breathing Rates (L 2<16 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Mitigated
Receptor:	Napa Junction Elementary School
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at school	Cancer Risk
1	2022	0.001	0.006	581	3.00	0.83	0.01
2	2023	0.003	0.003	581	3.00	0.83	0.03
3	2024	0.003	0.003	581	3.00	0.83	0.03
4	2025	0.003	0.003	581	3.00	0.83	0.03
5	2026	0.003	0.003	581	3.00	0.83	0.03
6	2027	0.003	0.003	581	3.00	0.83	0.03
7	2028	0.003	0.003	581	3.00	0.83	0.03
8	2029	0.003	0.003	581	3.00	0.83	0.03
9	2030	0.003	0.003	581	3.00	0.83	0.03
10	2031	0.003	0.003	581	3.00	0.83	0.03
11	2032	0.003	0.003	581	3.00	0.83	0.03
12	2033	0.003	0.003	581	3.00	0.83	0.03

0.01	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
0.34	Cancer Risk
10	Significance Threshold
No	Significant?

FINAL

RECIRCULATED

DRAFT INITIAL STUDY FOR THE SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT

(PL20-0008)

Prepared for:

Community Development Department
4381 Broadway, Ste. 201
American Canyon, CA 94503

Prepared by:

Grassetti Environmental Consulting

7008 Bristol Drive
Berkeley, CA 904705

Date: July 2021

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ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics	X	Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
	Air Quality		Land Use/Planning		Tribal Cultural Resources
X	Biological Resources		Mineral Resources	X	Transportation/ Traffic
X	Cultural Resources	X	Noise	X	Utilities/Service Systems
	Energy		Population/Housing		Wildfire Hazards
X	Geology/Soils			X	Mandatory Findings of Significance
	Greenhouse Gas Emissions		COVID-19		

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	**X**
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Brent Cooper, Community Development Director — **Date** 7/6/21

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A Lighting Study
B Air Quality Model Output Data
C Biological Resources Assessment
D Geologic Report
E Noise Appendices
F Traffic Memoranda
G Tribal Outreach Letters
H Will Serve Letters

I Draft COVID-19 Exposure Control Plan
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K State Clearinghouse Draft Recirculated IS Circulation Documents
L Comments Received on Draft Recirculated IS and Responses

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO2E	carbon dioxide equivalent
CWA	Clean Water Act
District	American Canyon Fire Protection District
DPR	California Department of Parks and Recreation
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MBTA	Migratory Bird Treaty Act
MDL	most likely descendant
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCALUCP	Napa County Airport Land Use Compatibility Plan
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
NWIC	Northwest Information Center
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SO_x	sulfur dioxide
SR-29	State Route 29
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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RECIRCULATED

DRAFT INITIAL STUDY FOR THE

SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT (PL20-0008)

The City of American Canyon circulated a Draft Initial Study (Draft IS) for a 30-day public review period starting on December 16, 2020. Upon receipt of comments on the Draft IS, a Final IS was completed and adopted at the City's February 25, 2021 Planning Commission meeting. At that meeting, additional comments on the Final IS were received. The Planning Commission's project approval was appealed on March 5, 2021. The City has elected to recirculate the Draft IS including modifications in response to comments received both during the initial public comment period and at the Planning Commission hearing.

This Recirculated Initial Study (IS) has been prepared by the City of American Canyon, Community Development Department, 4381 Broadway, Ste. 201, American Canyon, CA 94503, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations).

The Recirculated Draft Initial Study is circulated on April 1 2021 for a 30-day review period closing on May 3, 2021. Comments received on this document will be addressed in the Final Recirculated IS.

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I – SUMMARY: Provides summary background information about the project.

SECTION II – PROJECT DESCRIPTION: Includes project background and detailed description of the proposed project and required permits.

SECTION III – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION IV – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed project for potentially significant environmental effects, and identifies mitigation measures to reduce potentially significant impacts to less-than-significant levels, where feasible.

SECTION V – MANDATORY FINDINGS OF SIGNIFICANCE: Determines whether environmental effects associated with development of the proposed project are significant, including cumulative impacts.

SECTION VI – REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION VII – REPORT PREPARERS: Identifies persons preparing the study.

APPENDICES - Includes applicable technical studies, comments and responses on the Draft Initial Study, and Mitigation Monitoring and Reporting Program (MMRP).

I. SUMMARY

Project Name and File Number:	SDG Commerce 217 Distribution Center Project (Application PL20-0008)
Project Location:	Commerce Court in the City of American Canyon. APN 058-030-065 (partial**)**
Project Applicant:	SDG Commerce 217 LLC Brian Doswald, Project Manager 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 bdoswald@icc-stravinski.com
Project Planner:	William He, Associate Planner; Brent Cooper, AICP, Community Development Director City of American Canyon 4381 Broadway, Ste. 201 American Canyon, CA 94503 (707) 647-4336
Property Owner:	SDG Commerce 330 LLC 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 (phone) (559) 908-6363 (fax)
General Plan Designation:	Commercial Recreation (CR)
Zoning:	Recreation (REC)
Project Approvals:	Conditional Use Permit for 217,294 sq. ft. wine distribution center on a 10.39-acre parcel
Date Final Recirculated Initial Study Completed:	July 6, 2021

II. PROJECT DESCRIPTION

Project Location

The project site is located at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area (see Figure 1, Project Location Map). It is on the west side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the project site is from SR-29 via Green Island Road to Commerce Court.

The project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size; there are no current plans for development of that parcel.

Site Conditions

Since 1937 the site was occupied by a planted crop of trees and at some time after that but before the late 1950's a eucalyptus grove was planted. Until 2001 the site remained relatively unchanged. Then in 2001 until around 2012 the northwest corner of the site was used as a paintball field (Sherwood Forest Paintball Area) with the eucalyptus trees remaining in place. In 2004 a warehouse was built directly to the north of the site which included Commerce Court cul-de-sac road Improvements on the northeast corner of the site. Also in 2004, the City of American Canyon installed underground utilities and a rock-paved access road through the middle of the eucalyptus grove adjacent to the east side of this site. This work also included installation of a sanitary sewer force main that bisects the northeast corner of the site. In 2012 the site was cleared and grubbed of the eucalyptus trees and shrubs, and is currently a gently sloping open site covered primarily with ruderal vegetation. A new Wine Distribution Center Project (SDG Commerce 330 Distribution Center) with bike path improvements along the eastern frontage is nearing completion on the southerly Commerce Court parcel (15.24 acres).

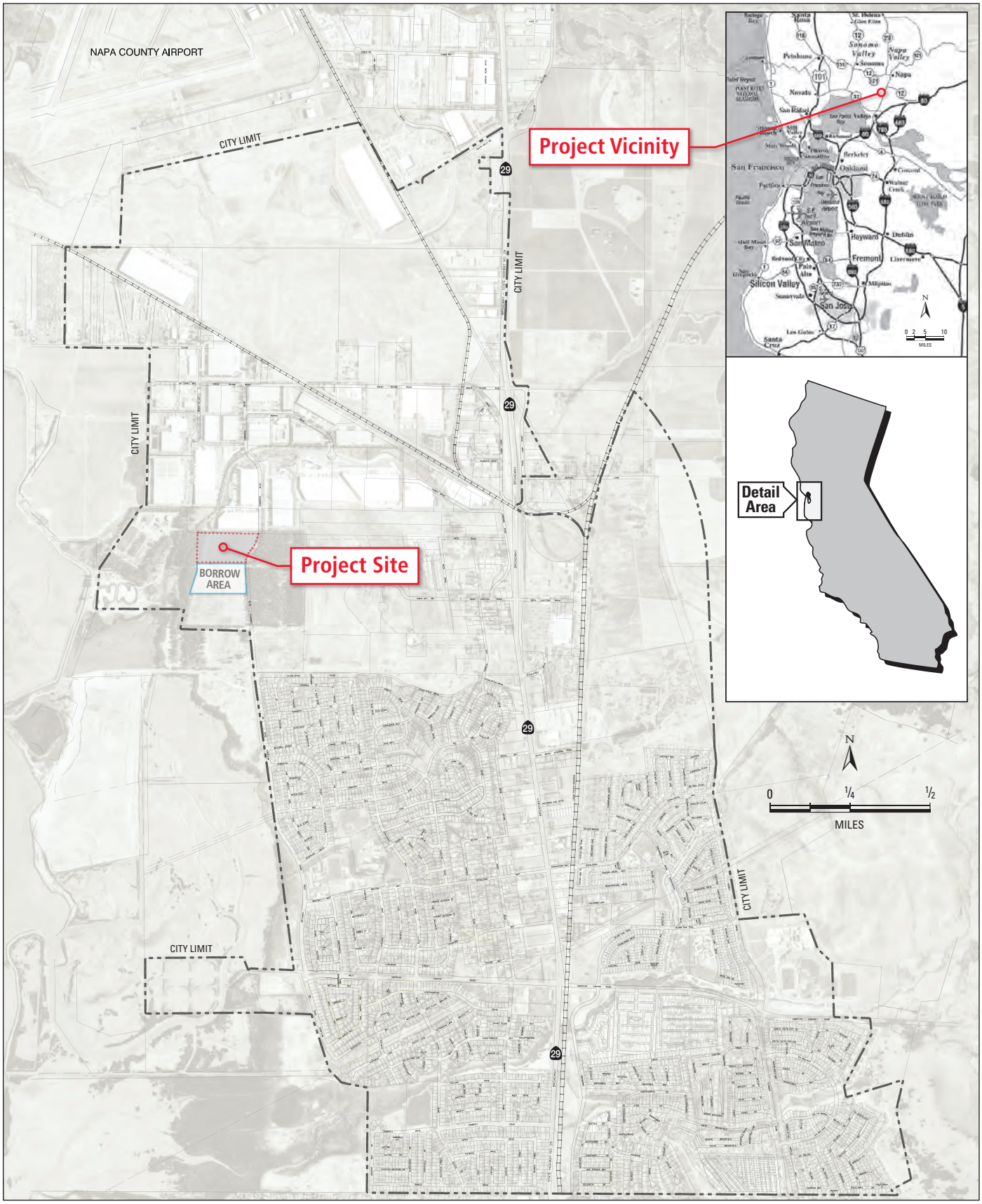

Figure 1

Project Location

Source: City of American Canyon General Plan

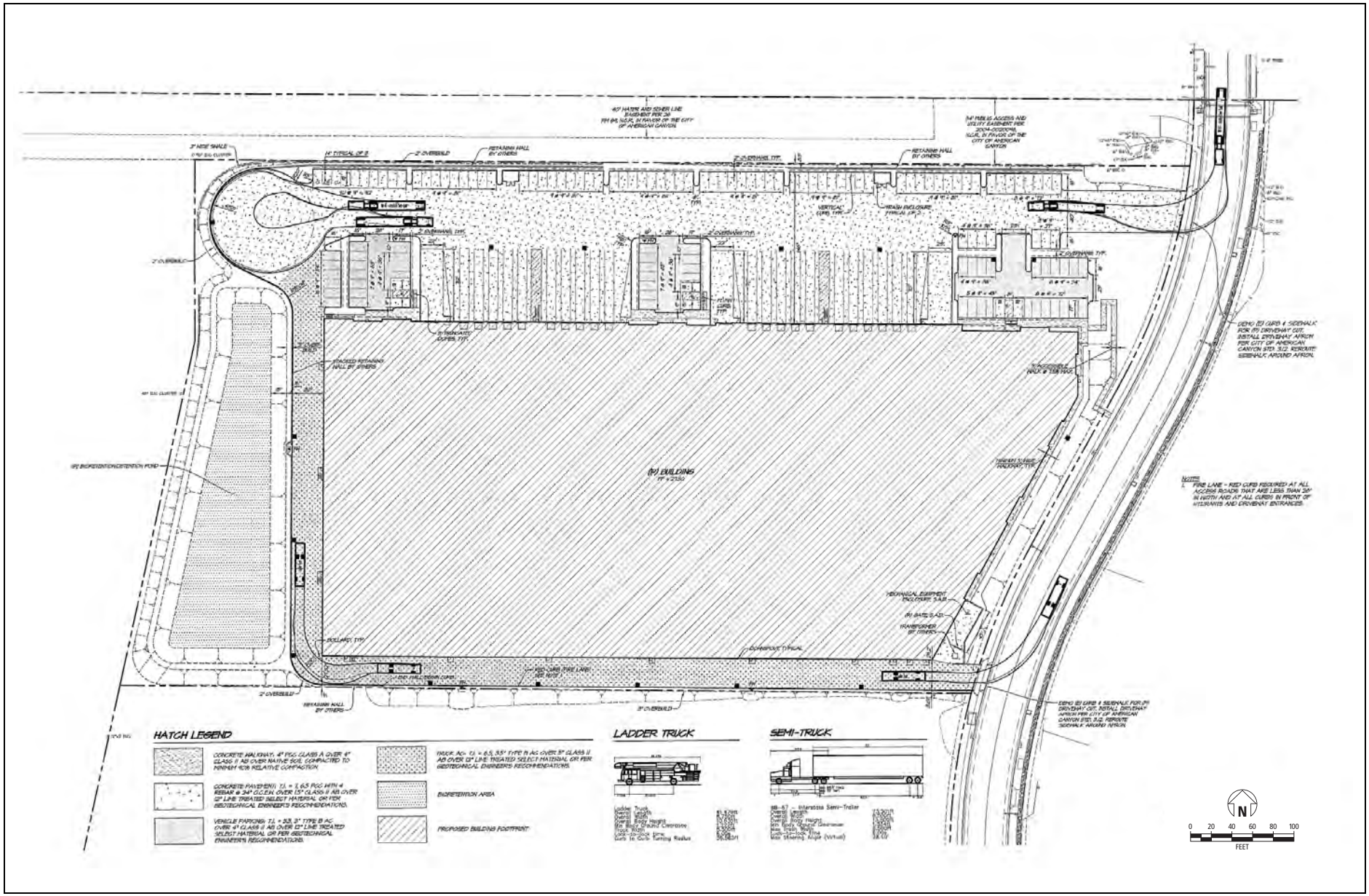

Figure 2

Site Plan

Source: RSA+ Consulting Civil Engineers

Surrounding Land Uses

The project is bounded on the north by a row of eucalyptus trees and the City Access Road within its Utility Access Easement. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus tree grove and a wire fence; on the south is a 10.17-acre unimproved parcel of native grasses; to the east is Commerce Court with underground sewer, water, reclaimed water, sewer force lines, and PG&E underground power with vaults. On each side of Commerce Court is a 5-foot-wide Public Utility Easement; to the east of this easement is a 40-acre parcel owned by the Couch Family which has a mobile home, dirt/gravel roads, accessory structures and wire fences.

Current Zoning and General Plan Designations

The General Plan designates the site as Commercial Recreation (CR) and the Zoning Map designates the site as Recreation (REC). The City's Municipal Code, Chapter 19.15.020 permits Wineries and non-winery uses with a conditional use permit in the Recreation Zoning District. A Conditional Use Permit is applied for in the attached Entitlement Application Form. It is anticipated that the distribution center would be used for "Winery" work in conjunction with viticulture related activities such as bottling, storage logistics, distribution, wine-packing, and wine related services.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Proposed Development

As discussed above, the project applicant proposes to develop a 217,294 sq. ft. wine distribution center on the northern 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR). The assumed 4,350 square feet of office space is an estimate as exact office build-outs would be determined in the future and reviewed by the City during the tenant-improvement phase of the project. The proposed development is described below. The proposed site plan is shown in Figure 3.

<u>Distribution Center Building</u>

The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. It would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings

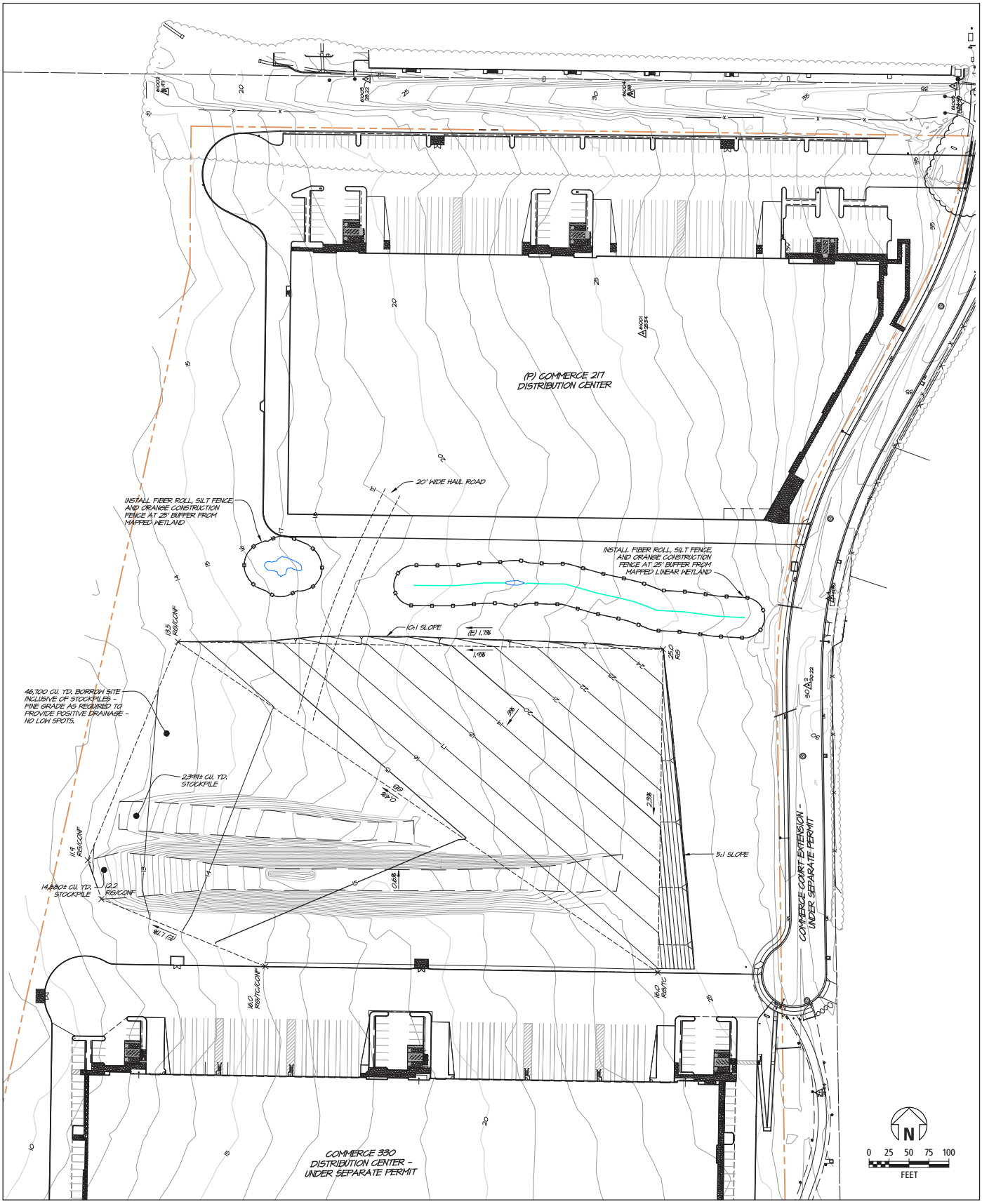

Figure 3

Project Site and Borrow Area

Source: RSA+ Consulting Civil Engineers

to provide additional modulation. The average roof height of the building would be approximately 35 feet and exterior walls would have various heights (33-37 feet) to provide architectural relief. The building would have earth-tone colors and style matching the SDG Commerce 330 Distribution Center building to the south. Building elevations are shown on Figure 4.

The building has the potential of accommodating multiple tenants with provisions for up to three offices. It is anticipated that the distribution center would be used for wine storage and other wine-related storage, distribution, and warehousing activities (i.e. bottles, corks, barrels, etc.).

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

Access, Parking, and Circulation

A total of 134 car and 21 truck dock parking spaces would be provided. Six of the parking stalls would be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building would have 21 truck loading docks. The developer would construct ADA accessible walkways between the ADA accessible stalls and the entrances to the offices to allow for pedestrian access on-site. Emergency ingress and egress would be provided around the full perimeter of the building. Site circulation has been evaluated including fire truck movements and in-bound/out-bound turning movements at the Commerce Court entrance. This is discussed in the Transportation section of this Initial Study.

The proposed distribution center would be accessed from Commerce Court. Commerce Court was recently extended this same length as a two-lane road (44 feet wide) with concrete curb and gutter on the east and west sides. A steel fire access gate has been installed just south the new cul-de-sac at the north end of the new Class 1 bike path improvements. Commerce Court has a 5-foot wide sidewalk and landscaping on the west side, and streetlights (both sides) in accordance with City Standards. The east and west sides of Commerce Court have a Class 1 bike path.

The proposed Project includes TDM features that are likely to result in reduced VMT per employee once operational. The TDM features included as part of the project are commensurate with measures included in



Figure 4

Building Elevations

Source: Ward Architects, Inc.

the California Air Pollution Control Officers Association (CAPCOA) publication *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). Specifically, the Project includes measures consistent with the "TRT-1: Implement Commute Trip Reduction Program – Voluntary" mitigation measure category in the CAPCOA report. The Project is committed to the continued provision of:

- Carpooling encouragement;
- Ride-matching assistance;
- Preferential carpool parking;
- Designated transportation coordinator;
- Vanpool assistance; and,
- Bicycle end-trip facilities (including indoor storage).

Bicycle Facilities

Each office within the building would have a bike rack to accommodate up to 4 bicycles, which totals 5 more than the required 7 bicycle stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements. Indoor storage for bicycles also would be included in the project.

Lighting

The proposed project would include exterior lighting on the building and on the north side parking lot poles. Parking lot lighting would meet City of American Canyon standards. The dimmable LED 30-foot "shoebox" light fixtures will reduce glare to surrounding properties by directing light toward the ground. A photometric study has been prepared to analyze the light pole spacing to maximize light coverage and eliminate off-site light spillage and is available for review at the City Community Development Department (See Appendix A).

Signage

One monument sign is proposed, (approximately 8-foot wide by 5 -foot tall) at the project entry from Commerce Court. The applicant would submit a separate Sign Permit application for City approval of the monument sign, as this proposed sign is not submitted with this application.

Grading and Drainage

Grading of the property would consist of cuts of approximately five feet and fills of approximately nine feet. Approximately 38,000 cubic yards of fill would be placed on the site, with about 17,000 cubic yards from an existing soil stockpile on the abutting parcel to the south, and about 21,000 cubic yards to be excavated from a borrow area on that adjacent parcel. The boundaries of this borrow area are shown on Figure 3. Grading on the adjacent parcel would avoid the mapped wetlands with a 25-foot buffer area from those wetlands.

Retaining walls that range in height from about 2 to 7 feet to accommodate the grade differential will be constructed along the north, west and partial south sides of the site. The precast-concrete-block system engineered walls would meet the California Building Code requirements. Excavations and fills to protect adjoining property would comply with Chapter 33 of the California Building Code. The Applicant would ensure adequate erosion protection (see Hydrology discussion).

As part of the proposed project, storm drain pipes would direct storm water runoff into a newly created detention/bioretention pond. The storm water detention/bioretention pond is designed to treat the storm water in conformance with federal, state, and regional requirements. Roof drains will connect to the proposed detention/bioretention pond. Down spouts on the exterior of the building would be painted to blend-in with the building façade.

Landscaping

The project would have approximately 62,000 square feet (+/- 1.42 acres) of landscaping. Landscaping will be provided around the site perimeter building setbacks and in parking islands. Mechanical equipment will be placed on the east side of the building. behind a landscaped 6' high color slatted chain link fence. The irrigation system will use reclaimed water thus eliminating potable water for landscape purposes.

Utilities

Major utility services (sewer, water, electricity, phone, etc.) are available from Commerce Court. The building would have a 6" domestic sewer service stubbed to each office and a sewer pump lift station near the middle office parking area that ties into the existing City sewer main line in Commerce Court.

Domestic water service, fire water service and reclaimed water service would be brought to the east side of the building from existing City mains in Commerce Court. Gas service can be tied into the existing gas stub in the Commerce Court to the north. Electric and telephone service are available along the project frontage on the Commerce Court. Electric and telephone service would be extended underground within the subject property to the southeast corner of the building.

Building Energy Efficiency

The building will be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand.

Interior lighting would meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the building would be promoted. Features such as motion-sensor

lighting would be installed for areas within the building. This reduces heat generate inside, further reducing the energy demands to cool the building. The most current Marin Clean Energy incentives would be investigated and all attempts to incorporate them into the design would be made.

The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation, all in compliance with applicable codes. The building tenants would be responsible for paying for all of their electrical energy consump8on have the option and may elect to install solar power facilities to offset their electrical usage.

Construction Activities and Schedule

Construction of the proposed project would occur in one phase. This includes site grading and underground utilities stubbed to the building pad. The detention/bioretention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during initial construction phases. It is anticipated that approximately 9.5 months would occur from commencement of initial grading start on March 1, 2021 to building construction completion. The grading component would be about 9 weeks.

Project construction hours would occur from 7:00am to 6:00pm Monday through Friday except for the concrete building slab pour, wall panel and large concrete paving pours. These are required during nighttime hours starting no earlier than 12:00am. Pre-notification of these night pour dates and times will be provided to the City and nearby residents that expressed concerns during the SDG 330 nighttime concrete pours, as well as all property owners within 300 feet of the project site. The project is anticipated to have approximately 5 concrete night pours for the building slab, 4 for the large concrete paving, and 6 for the tilt-up walls. Pours would start between 12am - 2am and continue into daytime hours. Maximum noise levels at the nearest residential receptor would be less than 53 dBA (See section XIII, Noise, for a complete discussion of concrete pour noise impacts). Nighttime pours are not optional due to cooler ambient nighttime temperatures, volume of concrete poured, morning traffic congestion that can prevent concrete trucks from arriving at the site on time, and concrete vendor conflict with other customers needing concrete during the day.

Typical construction equipment used at the site include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, it is typical for 12 to 24 workers on- site but can equal up to 80 workers, and a minimum of one worker.

Proposed Building Uses

It is anticipated that the building will operate 12-18 hours per day in up to 3 overlapping shifts during the peak

season. During this time, up to 32 full-time employees and 18 part-time employees may work on-site at the same time. The employment estimates are approximations as there is no specific user identified with the application; however, they are substantiated with similar uses. The proposed uses for the building can be estimated that approximately 2 to 4 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The building is designed to accommodate three tenants. Office space within the building is incidental to the distribution center operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal months, typically June through November.

Proposed Access Improvements

The Project would be accessed from the recently completed Commerce Court off of Green Island Road. Commerce Court has landscaping on the west side and street lights (both sides) in accordance with City Standards. The east side of Commerce Court has a five-foot wide sidewalk to match Commerce Boulevard to the north, and a Class 2 bike path in the roadway. The east side frontage to the south of the *cul-de-sac* has a class 1 bike path on the west side, with the widened rock maintenance road.

Land Use Entitlements and other Agency Approvals

City of American Canyon

The applicant is requesting a Conditional Use Permit and Design Permit approval from the City of American Canyon for the project.

Other Agency Approvals

The project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Stormwater Pollution Prevention Plan and Permit.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Background

The project site is undeveloped open land covered with sparse, weedy vegetation (see Figures 5 and 6). The project is bounded on the north by the developed Green Island Industrial Park, containing large warehouses with parking lots aesthetically similar to the proposed building. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove. To the south is an open field and, beyond, the Commerce 330 Distribution Center (See Figure 5), which is a warehouse similar in general character to the buildings to the north. Further south is a row of mature eucalyptus trees and beyond that is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space. To the east is a 40-acre parcel owned by the Couch Family including a mobile home and various accessory buildings, and a large commercial recreational paintball facility known as American Canyon Paintball Jungle.

The site is visible from Commerce Court, the Bike Path improvement area, as well as from the Couch property and the Paintball Jungle facility. Distant views of the site may be accessed from the crest of the Oat Hill. There are no views of the site from nearby residential neighborhoods as the property is screened from views by a dense stand of eucalyptus trees Clarke Ranch northern property frontage, and is further screened by the Commerce 330 Building and the landscaped bicycle path to the east of the Commerce 330 Building.

Figure 5- View of the Site Looking South towards Commerce 330 Building.



Figure 6 – View from the Northeast Corner of the Site looking Southwest.



Discussion

a, c) The proposed project would replace the existing view of relatively level, undeveloped grassland with views of a new distribution center warehouse and parking area. The project constitutes a visual extension of the existing warehouses on Commerce Boulevard. Overall, the project would change the visual character of the site from one of a large, undeveloped field to a new landscaped warehouse with articulated walls, parapets and earth tone wall colors. While this change would be substantial, the number of viewers affected would be small. Views from the residential area from the south would be obstructed by the Commerce 330 building and intervening trees and vegetation. Therefore, the proposed project would not substantially degrade the visual character of the project site or its surroundings. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

b) The project site is located in the City of American Canyon, west of SR-29. Highway SR-29 is designated as an Eligible State Scenic Highway by Caltrans. The City's General Plan specifies that the SR-29 corridor provides opportunities for enhancing the City's visual quality and includes a policy to preserve significant views from areas along major arterial roadways (City of American Canyon 1994, as amended through July 2020). The project site is about 5,000 feet west of the SR-29 highway and is fully shielded from any views by intervening hillside terrain.

Because the proposed project would not be visible in views from that highway, it would have ***no impact*** to vistas from a state scenic highway.

The project would not remove any existing trees, historic buildings or rock outcroppings that would be considered scenic resources. Because there are no city-designated scenic vistas or scenic resources on this site or nearby that the project could adversely affect, development of this site would result in ***no impact*** on these resources.

d) The proposed project includes exterior lighting. Project lighting would include building lights and lights in the parking lot areas which would increase artificial light in the project area and potentially generate glare. On-site lighting would be shielded and designed to cast light downward, thereby reducing spillover light and glare on adjacent properties. The applicant has prepared a photometric plan showing that project lighting spillover beyond the project site would be minimal (Bosley Electric, 2020). The lighting would be required to adhere to the City of American Canyon's performance standards for street lighting and glare. In reviewing the Conditional Use Permit application for the proposed project, the City would consider the proposed outdoor lighting prior to approval. The building design would not introduce a source of glare associated with large expanses of glass. Therefore, impacts from light or glare would be ***less than significant***.

The project would include an approximately 5-foot by 8-foot entry sign. The applicant would be required to submit a sign program (indicating location of any lighted signs) to the City for review and approval. The project applicant would be required to implement the sign program, as approved by the City. Visual impact from signage would be ***less than significant***.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

Discussion

a-e) The project site is undeveloped and located adjacent to a developed area of the City of American Canyon. The site has been rough graded and stripped of trees. It is designated Recreation in the City's General Plan. Although portions of the site may have historically been used for small-scale agriculture, no such uses have occurred since at least the 1950s, when the site was planted with a eucalyptus grove. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. The most recent California Department of Conservation Important Farmland Maps for Napa County designates the site as Urban and Built

Up Land (California Department of Conservation, California Important Farmland Finder, accessed July 23, 2020 https://maps.conservation.ca.gov/DLRP/CIFF/). In addition, this site is located within the municipal boundaries of the City of American Canyon. There are no Williamson Act lands on the site. The proposed project would not involve any changes that could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use or loss of forest land.

There are no forest lands on the site, nor is the site designated or zoned for timberland resources. Therefore, implementation of the project would not involve the loss of any forest land.

Therefore, there would be ***no impact*** to agricultural or forestry resources.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Background

An air quality analysis was performed using methodologies and assumptions recommended in the Bay Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (May 2017). This section describes existing air quality, and air pollutant construction and operational impacts.

Air pollutants evaluated are carbon monoxide (CO), reactive organic compounds (ROG), nitrogen oxides (NO_x), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5). Greenhouse gas (GHG) emissions are addressed in GHG Emissions section of this Initial Study.

The project site is located in the San Francisco Bay Area Air Basin (Air Basin), which is under the jurisdiction of the BAAQMD. The BAAQMD is the agency responsible for the administration and enforcement of state and federal air quality regulations for the Air Basin. The Air Basin is designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Air Basin is designated "attainment" or "unclassifiable"

with respect to the other ambient air pollutant standards. Additional information regarding the existing air quality setting is found in Appendix B.

Discussion

a) The BAAQMD's Clean Air Plan (2017 CAP) is the regional air quality plan for the Air Basin. The 2017 CAP updates the 2010 CAP, pursuant to air quality planning requirements defined in the California Health and Safety Code. The 2017 CAP provides a comprehensive strategy to improve air quality, protect public health, and protect the climate, utilizing all the tools and resources available to the BAAQMD. The BAAQMD recommends that the agency approving a project where a CAP consistency determination is required analyze a project with respect to the following questions. If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Air Basin. Thus, the following criteria are used for determining the proposed project's consistency with the 2017 CAP:

Criterion 1: Does the proposed project support the primary goals of the 2017 CAP?

The primary goals of the 2017 CAP are to:

- Protect air quality and health at the regional and local scale
- Protect the climate

As discussed in this section and the GHG Emissions section of this Initial Study, all air quality and GHG emissions impacts would be less than significant after implementation of MM AQ-1 through AQ-2. Therefore, the proposed project supports the primary goals of the 2017 CAP.

Criterion 2: Does the proposed project include applicable control measures from the 2017 CAP?

The 2017 CAP's control strategy includes 85 control measures designed to reduce ozone precursors in order to fulfill ozone planning requirements, protect public health by reducing emissions of ozone precursors, particulate matter and toxic air contaminants, and to serve as a regional climate protection strategy by reducing GHG emissions across a full range of economic sectors. The proposed project would include features that support applicable control measures such as water conservation, green buildings, and bicycle access/facilities. Therefore, the proposed project includes applicable control measures from the 2017 CAP.

Criterion 3: Does the proposed project disrupt or hinder implementation of any 2017 CAP control measures?

The BAAQMD provides examples of how a project may cause the disruption or delay of control measures. Examples include a project that precludes an extension of a transit line or bike path, or

proposes excessive parking requirements. The proposed project would not cause a disruption or delay of the 2017 CAP's control measures.

The proposed project with mitigation measures would support the primary goals of the 2017 CAP and would be consistent with applicable 2017 CAP control measures, and would not disrupt or hinder implementation of any 2017 CAP control measures. Therefore, the proposed project would have a ***less than significant impact***.

b) Construction activities were assumed to commence in the first quarter of 2021 with site preparation and grading. Paving, building construction, and architectural coating would follow and construction would be complete at the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately 9.5 months.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. Air quality calculation details and CalEEMod output worksheets are included in Appendix B.

Table AQ-1 provides the estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's thresholds for construction exhaust emissions. As the construction phases (i.e., grading, paving, building construction, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. All construction-related emissions would be below the BAAQMD significance thresholds. The air quality analysis includes use of paint compliant with BAAQMD Regulation 8, Rule 3 for architectural coatings. Regulation 8, Rule 3 limits the VOC content of the paint.

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM10 and PM2.5. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local meteorological conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. Nearby receptors could be adversely affected by dust generated during construction activities.

The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.

The following measures also are required by regulation:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***.

Following the completion of construction activities, the proposed project would generate air pollutant emissions from mobile and stationary sources, including on-road vehicles, and area sources (space heating, water heating, maintenance of the buildings and landscaping). Complete details of the emissions calculations are provided in Appendix B[1].

Estimated maximum daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and AQ-3 and are compared to BAAQMD's thresholds of significance. As indicated, the estimated operational emissions that would be associated with the proposed project would be below the BAAQMD's significance thresholds and would be ***less than significant***.

Table AQ-2. Estimated Daily Operational Emissions (pounds/day)

Condition	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Summer	6.0	3.6	2.3	0.6	7.7
Winter	5.9	3.8	2.3	0.6	7.9
Maximum Proposed Project	**5.9**	**3.8**	**2.3**	**0.6**	**7.9**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

[1] Note, the Draft IS CalEEMod model calculated exhaust emissions for the project's electric forklifts which is incorrect, thus electric forklift emissions have been subtracted from the emissions estimates in the CalEEMod outputs (provided in Appendix B) for displaying estimated daily and annual operational emissions in Tables AQ-2 and AQ-3 in this Final IS/MND.

Table AQ-3. Estimated Annual Operational Emissions (tons/year)					
	ROG	**NO_x**	**PM10**	**PM2.5**	**CO**
Proposed Project Emissions					
Area	1.0	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.5	0.3	0.1	1.0
Off-Road Equipment (Forklifts)	0	0	0	0	0
Total Proposed Project	**1.1**	**0.5**	**0.3**	**0.1**	**1.0**
BAAQMD Significance Threshold	*10*	*10*	*15*	*10*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD has identified preliminary screening criteria for determining whether CO emissions would be exceeded. The screening criteria provide a conservative indication of whether the implementation of a project would result in CO emissions that are potentially significant. This methodology includes the following:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on the size of the proposed project (367 trips per day) and the anticipated resultant traffic volumes, the additional traffic would be well below the screening criteria. Therefore, impacts that would be associated with long-term operational CO exhaust emissions would be ***less than significant***.

The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the BAAQMD's mass daily and annual significance thresholds. As shown in Tables AQ-1 through AQ-3, proposed project-related emissions would be below the thresholds. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be ***less than significant***.

c) The significance of impacts to sensitive receptors is dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) such as DPM or of having adverse health effects from exposure to non-carcinogenic TACs. A project is considered to be significant if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project site. There is one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

Construction activities would occur intermittently for approximately 9.5 months and the vast majority of construction activities would be well beyond 1,000 feet from the nearest residence and 1,500 feet from the school. Some construction activities during the approximately nine weeks of site preparation and grading for the project could be within 1,000 feet of the school property boundary, however, site preparation and grading activities are planned for March 2021 and the school is set to begin instruction in Fall 2021. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD.

A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation.

The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***.

d) The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project[2]. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant

[2] The confirmation process for odor complaints involves odor testing with a dynamic olfactometer. The BAAQMD considers if the odor is still detectable when diluted with 4 parts of odor-free air. "Minimal" odors are less than the 4 dilution/threshold (D/T) standard used in BAAAQMD Rule 7-301 (General Limit on Odorous Substances)

impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect the residential neighborhood or the school under construction to the southeast of the site (scheduled to open in Fall 2021). Post-construction odors would be solely from truck exhausts, and would not be perceptible to nearby sensitive receptors. Therefore, odor impacts associated with construction and operation of the proposed project would be ***less than significant***.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		**X**		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			**X**	
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			**X**	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				**X**

Background

A Biological Resource Analysis (BRA) was prepared by Monk & Associates (Monk & Associates 2020) that provides a description of existing biological resources on the project site and identifies potentially significant impacts that could occur to sensitive biological resources from the construction of the proposed project site.

An addendum memo was prepared by Monk & Associates to address potential impacts to the adjacent parcel to the south from the proposed grading activities associated with the proposed soil borrow. The reports are included as Appendix C to this IS. Biologist Jake Schweitzer of Vollmar Natural Lands Consulting (VNLC) peer-reviewed the Monk & Associates reports and conducted a site visit on August 10, 2018 to confirm the biological conditions of the project site as described in the biological documentation prepared for the project.

The approximately 10-acre project site is approximately 1000 feet northwest of a large eucalyptus grove with a mobile home and accessory structures, as well as the "Paintball Jungle" recreation area. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The Couch Family owns an approximate 10-acre parcel with eucalyptus trees to the west. Further west, is the American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is nearing completion immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, are further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive.

The 10.39-acre project site and the adjacent borrow pit area to the south are part of a larger 35.85-acre parcel that is comprised of a highly disturbed, ruderal (weedy) plant community, that was graded and leveled after removal of a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees in 2012.

The project site and the borrow excavation area on the adjacent site to the south are dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native coyote brush (*Baccharis pilularis*), a plant that responds to land disturbances, such as have occurred on the project site, is also common on the parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Redshouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus*

polyglottos), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

Discussion

a) Special-status plant species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 7. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of eight special-status plant species are known to occur in the region of the project site (Monk & Associates 2020). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Bark and leaf debris collect on the ground beneath the trees, and very few plants will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018, and 2019, special-status plants are not likely to be found onsite (Monk & Associates 2020). Therefore, impacts to special-status plants would be ***less-than-significant***.

Special-status wildlife species documented by the California Natural Diversity Database (CNDDB 2020) within approximately 3 miles of the project site are shown in Figure 7. No special-status wildlife records have been mapped on or adjacent to the project site. However, a total of 18 special-status wildlife species are known to occur in the region of the project site (Monk & Associates 2020). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status wildlife species occurring onsite (Monk & Associates 2020). However, due to the sensitivity of four of the special-status wildlife species known to occur in the area and/or potential habitat on the site, these species are further discussed below. Additional information regarding these special-status species, as well as species known from the region but for which no suitable habitat occurs on or in areas to be impacted by the proposed project, is provided in Table 4 from the Biological Resource Analysis prepared for the project site by Monk & Associates (2020); (Appendix C).

California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a state species of special concern. The project site is located outside USFWS designated critical habitat for the species, but designated critical habitat occurs approximately 1.7 miles to the east. In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located.

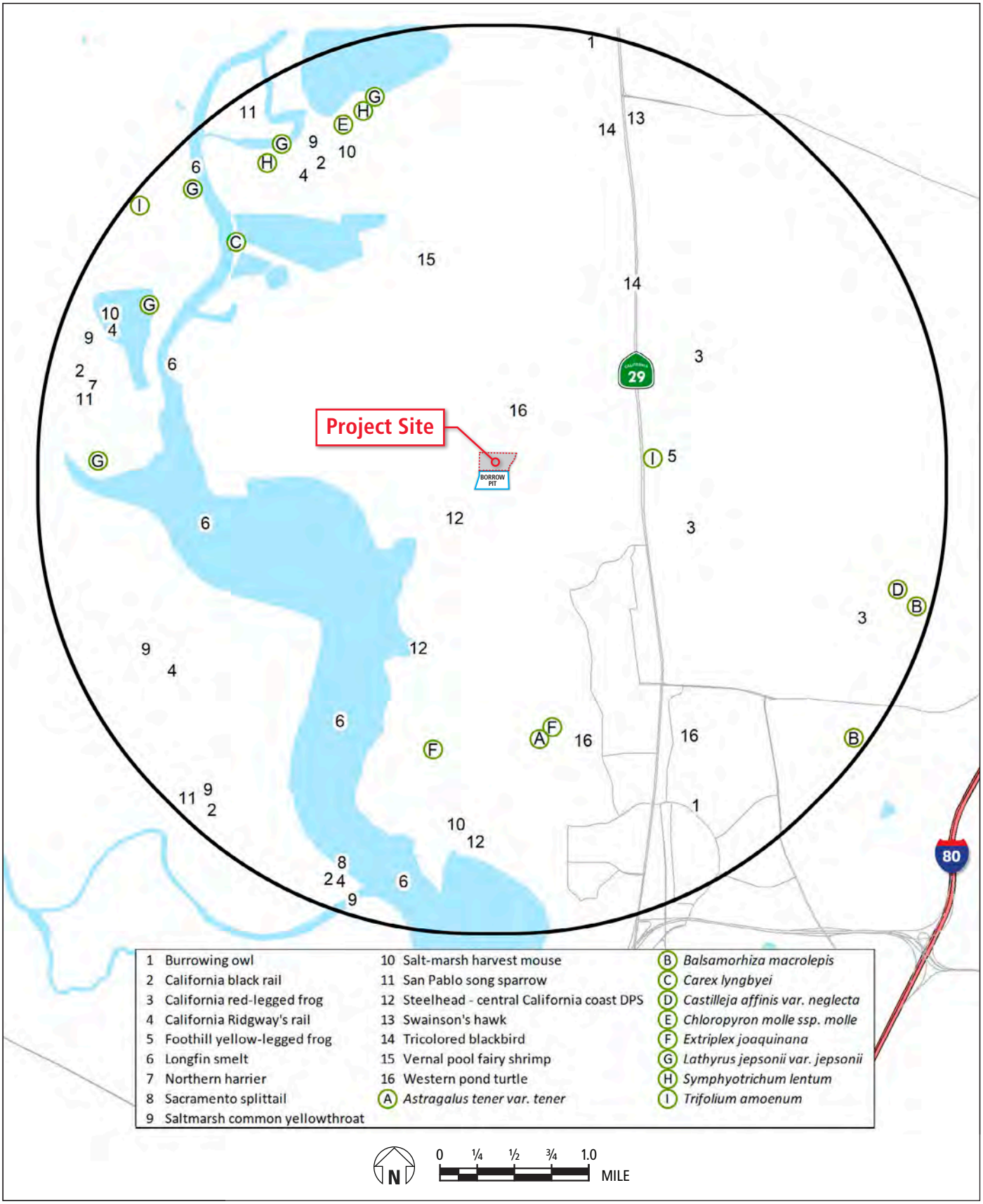

Figure 7

CNDDB Special Status Species within 3 miles of Project Site

Source: Monk & Associates

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes a geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site (Monk & Associates 2020). There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. The highly disturbed conditions on the project site (due to prior grading and tree removal activities) and the other factors discussed above, result in this species being unlikely to occur on the project site. Therefore, impacts to California red-legged frog would be ***less-than-significant***.

The western pond turtle (*Emys marmorata*) is a California "species of special concern." In April of 2015, the USFWS issued a 90-day finding on a petition to list this species under FESA. In September 2016, M&A spoke with USFWS' Sacramento Field Office and was told that they "hope to finish a 12-month finding in the fiscal year of 2021" (G. Tarr, USFWS, Sacramento Field Office, pers. comm. with S. Lynch of M&A, September 21, 2016). Until the western pond turtle is formally listed it is not afforded the protections of FESA.

The western pond turtle is a habitat generalist, inhabiting a wide range of fresh and brackish, permanent and intermittent water bodies from sea level to about 4,500 feet above sea level (USFWS 1992). Typically, this species is found in ponds, marshes, ditches, streams, and rivers that have rocky or muddy bottoms. This turtle is most often found in aquatic environments with plant communities dominated by watercress, cattail, and other aquatic vegetation. It is a truly aquatic turtle that usually only leaves the aquatic site to reproduce and to overwinter. Recent field work has demonstrated that western pond turtles may overwinter on land or in water, or may remain active in water during the winter season; this pattern may vary considerably with latitude, water temperature, and habitat type and remains poorly understood (Jennings and Hayes 1994).

The pond turtle also requires upland areas for burrowing habitat where it digs nests and buries its eggs. These nests can extend from 52 feet to 1,219 feet from watercourses (Jennings and Hayes 1992), however most pond turtles nest in uplands within 250 meters of water (Bury, unpublished). Upland nest sites are usually found in areas with sparse vegetation. Sunny, barren, and undisturbed (not disked) land provides optimal habitat, while shady riparian habitat and planted agricultural fields do not provide suitable habitat (op. cit.). Eggs are typically laid from March to August (Zeiner et. al. 1988), with most eggs being laid in May and June. Hatchlings will stay in the nest until the following April (Bury, unpublished). Predators of juvenile pond turtles include the non-native bullfrog

(*Lithobates catesbeiana*) and Centrarchid fish (sunfish). This turtle is most visible between April and July when it can be observed basking in the sun. In areas where the water is very warm during these months, however, it will bask in the warm water and will be more difficult to observe. It eats plants, insects, worms, fish and carrion (Stebbins 2003).

According to the CDFW's CNDDB there is a 2002 record of this turtle in North Slough approximately 0.28-mile to 0.45-mile north of the project site. There is no aquatic habitat onsite and the upland habitat onsite appears to be most unsuitable for nesting turtles as it is a former eucalyptus forest that now, though devoid of trees, has undulating topography from past land disturbance including from eucalyptus tree removal that took place in 2012. While it appears to be a most unlikely area for turtles to haul out and nest, in an abundance of caution that there is a possibility of turtles nesting onsite, impacts to western pond turtle from the proposed project are considered ***potentially significant***. Mitigation Measure BIO-5 would reduce this impact to a ***less-than-significant*** level.

Western burrowing owl (*Athene cunicularia*) is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; ground squirrel burrows are few and of recent origin (Monk & Associates 2020). The mobility of the western burrowing owl enables the species to colonize the recent burrows. Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys. However, the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be ***potentially significant***. Mitigation Measure BIO-1 would reduce this impact to a ***less-than-significant*** level.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species afforded protection pursuant to the California Endangered Species Act (CESA). While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800). The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near the project site in future years and that nesting could be disturbed by construction activities.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code.

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be ***potentially significant***. Implementation of Mitigation Measure BIO-2 (preconstruction surveys and buffers) would ensure that any potentially significant impacts are reduced to a ***less-than-significant*** level.

The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.

Northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. However, the project site provides marginal nesting habitat for the northern harrier (Monk & Associates 2020). Should northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be ***potentially significant***. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a ***less-than-significant*** level.

White-tailed kite (*Elanus leucurus*) is a state Fully Protected species. It inhabits grasslands, agriculture fields, oak woodlands, savanna and riparian habitats in rural and urban areas. The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a ***less-than-significant*** level.

Other Raptors and Passerine Birds. In addition to the above special-status bird species, construction of the proposed project has the potential to affect species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (§3503), such as tree or ground nesting raptors or nesting passerine birds. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project could cause nest abandonment and death of eggs or young.

Passerine birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Similar to the raptors, construction activities could disturb or directly affect passerine birds, their eggs, and/or young. Therefore, impacts to nesting raptors and passerines are potentially significant, and Mitigation Measures BIO-3 and BIO-4 would reduce the impact to a ***less-than-significant*** level.

Special-status bats. Although there are several species of special-status bats in the project area, the project site contains no roosting or besting habitat because it has no trees, rock faces, structures, or cliffs. Therefore, there would ***no impact*** from the project to special-status bat species.

b) There is no riparian habitat at the project site, and no Streambed Alteration Agreement from CDFW would be necessary. Additionally, there are no sensitive plant communities on the project site. The project site is separated from the Napa River and associated marsh habitats by greater than 300 feet and by a dense eucalyptus grove. Therefore, related impacts are ***less than significant***. Wetlands are discussed below under c).

c) A formal wetland delineation for the larger 35-acre parcel of which the project site is the northern 10.39 acres was performed by Monk & Associates in in 2016, and was verified by the Army Corps of Engineers (Corps) on May 16, 2018. Based on the verified wetland delineation, there are no wetland features under the jurisdiction of the Corps on the 10.39-acre project parcel. There are two wetland features on the parcel to the south that is proposed for soil borrow. However, the proposed grading for the borrow area would avoid these two features and incorporate a 25-foot buffer area from these wetlands. These buffers, along with sediment-control measures identified in the geology and

hydrology sections of this IS/MND, would eliminate the potential for the project to affect these wetlands. Therefore, the project would have ***no impacts*** to wetlands or waters of the US.

d) Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated. All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project would not substantially interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife, and these areas would not be impacted by the proposed project. Therefore, the proposed project would not substantially affect wildlife movement and related impacts would be ***less than significant***

e) The City of American Canyon's Tree Ordinance (Ord. 18.40.110) specifies that:

> A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.
>
> B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

The mature eucalyptus trees along the northern and western project boundaries would not be removed by the project. The site itself does not support any trees. Therefore, the project would have ***no impacts*** to protected trees***.***

f) There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans that include the proposed project site. Therefore, the project would have ***no impact*** to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

Mitigation Measure BIO-1: A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:

• From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.

• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.

• No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.

3) If a nesting season survey or wintering season survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

Mitigation Measure BIO-2: If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site.

2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the

nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

This mitigation measure would reduce impacts to nesting raptors to a less than significant level because it meets or exceeds all standard resource agency requirements for nesting raptors, and is consistent with professionally accepted approaches to mitigating impacts to nesting raptors.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.

Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle with detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities. The nest site plus a 50-foot buffer around the nest site and a no-disturbance corridor between the nest site and North Slough shall be fenced with orange construction fence until eggs hatch and young turtles disperse along the protected no-disturbance corridor to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area and no-disturbance corridor shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of formal cemeteries?		**X**		

Background

A cultural resources investigation of the project area was undertaken by Solano Archaeological Services (SAS) which consisted of a record search conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System, a field survey, outreach to the Native American community, and study documentation (SAS, Cultural Resources Technical Memorandum, SDG Commerce 217 Distribution Center Project, September 1, 2020). The NWIC research indicates that sixteen previous cultural resources investigations were conducted within or in the vicinity of the project area between 1975, and 2009, and in 2018 as part of the Commerce 330 project. None of these studies or other research identified any prehistoric or historic-era sites, features, or artifacts within the project area. One site (CA-NAP-727H), a historic period ranch complex, was identified approximately 200 meters south of the project area. Additional archival research and a field survey conducted by SAS also did not identify the locations of any potential cultural or historical resources in the project area.

The field survey encountered an historic-era dispersed trash disposal area comprised mostly of glass fragments, on the northwest corner of the project site. This was evaluated by the SAS archaeologists and determined not to eligible for the California Register of Historic Resources (SAS 2020).

The Native American Heritage Commission (NAHC) conducted a search of Sacred Lands File the results of which indicate that no Native American historical resources or other culturally sensitive properties are known to be present within or near the project area. Outreach to tribal organizations and individual representatives in August 2020 per a contacts list provided by the NAHC also did not result in the identification of properties or locations possessing cultural significance to the Native American community.

Archival research, outreach to the Native American community, and a field survey did not identify the present of any historical resources within the project area. However, field surveys cannot always identify the presence of sub-surface cultural remains that could be significant per CEQA criteria. As a result, presently unidentified historical resources could be present within the project area.

Discussion

a) As described above, project grading and land disturbance could affect unknown cultural resources. This impact is ***potentially significant***. Mitigation Measure CUL-1, below, would reduce any impacts to presently unidentified historical resources to a ***less-than-significant*** level.

b) As described in a), above, an NWIC record search, archival research, NAHC and Native American community input, and a field survey did not identify any prehistoric or historic-era cultural sites, features, artifacts, or culturally significant properties within the project area. However, there remains a possibility that project ground-disturbing activities could uncover evidence of Native American or early historic period use and/or occupation of the project area. Mitigation Measure CUL-1, below, would reduce any impacts to such resources to a ***less-than-significant*** level.

c) Archival research, Native American community outreach, an NWIC record search, and a field survey did result in the documentation of any known human remains within the project area However, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Mitigation Measure CUL-2 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures

***Mitigation Measure CUL-1*:** Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation

in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

VI. Energy

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Background

SB 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety. The *2019 Integrated Energy Policy Report* (CEC,2020) is the most recent update. The State's energy system includes energy extraction, transport, conversion (such as combusting natural gas in power plants to generate electricity or producing gasoline and diesel from crude oil in refineries), and consumption for services (such as electricity for lighting, natural gas use in homes and buildings for space and water heating, pumping water to communities and crops, and gasoline and diesel to fuel cars and trucks), as well as electricity from out-of-State plants serving California.

California's electricity generation capacity is composed of multiple fuel sources, including coal, hydroelectric, natural gas, nuclear, oil, petroleum coke, waste heat, biomass, geothermal, solar photovoltaic, solar thermal, and wind. In 2019, the State system generated 200,475 gigawatt hours (GWh) of electrical power. Renewable resources accounted for approximately 34 percent of the State's electricity used in 2018 (CEC, 2020). In 2018, the State consumed approximately 15.5 billion gallons of ethanol and gasoline and approximately 3.7 billion gallons of diesel.

The City of American Canyon adopted an *Energy Efficiency Climate Action Plan (EECAP)* in 2013 (City of American Canyon, 2013). The *EECAP* provides feasible strategies to cost-effectively reduce energy use

and energy-related GHG emissions both in municipal operations and in the community. Successful implementation of the plan will reduce utility bills, reduce water usage, increase home and building values and support local jobs.

Discussion

a) Construction of the proposed project would require consumption of gasoline and diesel fuel by construction worker vehicles travelling to and from the site, by haul trucks delivering construction materials and supplies to the site, and by onsite construction equipment. Once the construction is completed and the proposed project is occupied, gasoline and diesel fuel would continue to be consumed by motor vehicles from employees, deliveries and visitors. Electricity would be consumed for lighting, space and water heating, and landscape maintenance (i.e., electricity to control irrigation equipment), as well as the operation of typical office and warehouse equipment such as computers and electric forklifts.

The air quality modeling (CalEEMod) described in detail in the air quality section of this Initial Study, utilized standard fuel consumption estimates to determine that project construction activities would require approximately 42,500 gallons of diesel fuel.[3] For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. Natural gas would not be used during construction.

During construction of the proposed project, the building contractor would be required by Mitigation Measure AQ-2 (see air quality section) to limit idling time of equipment and vehicles to 5 minutes or less and maintain construction equipment and vehicles in optimal working condition. These requirements would benefit air quality and would also prevent wasteful or inefficient consumption of fuel during project construction. The building contractor would also be required to comply with the 2019 California Green Building Standards Code (codified in Title 24 of the California Code of Regulations (CCR)) Section 5.408 Construction Waste Reduction, Disposal and Recycling, which requires the recycling or salvaging for reuse of a minimum of 65 percent of the nonhazardous construction and demolition waste. Compliance with the 2019 California Green Building Standards Code would reduce consumption of energy associated with transport, processing, and disposal of solid waste at landfills.

[3]Fuel usage is estimated using the CalEEMod output for CO_2, and a $kgCO_2$/gallon conversion factor, as cited in the *U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program* https://www.eia.gov/environment/pdfpages/0608s(2009)index.php.

The proposed project's electricity consumption was based upon actual electricity usage from two nearby and almost identical warehouse buildings and was estimated to be approximately 652,000 kilowatt-hours (kWh) of electricity per year (See Appendix B for details). The proposed project would not require the use of natural gas. The daily weekday vehicle trip rate of 1.69 weekday trips per 1,000 square feet was used to estimate mobile vehicle emissions (367 weekday vehicle trips). Based on air quality modeling (CalEEMod), the estimated annual vehicle miles traveled for the proposed project would be approximately 765,788 miles, requiring approximately 35,000 gallons of gasoline per year. Additional information regarding the energy calculation details are found in Appendix B.

The Project would not result in wasteful, inefficient, or unnecessary consumption of energy, because it would include several energy efficiency features. The building would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process. The energy-saving climate feature is one of the reasons the project is located in the City of American Canyon.

Interior lighting would be designed to meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the distribution center would be promoted. Features such as motion-sensor lighting would be installed for areas within the building. This reduces heat generated inside, further reducing the energy demands to cool the building. The most current PG&E incentives would be investigated and all attempts to incorporate them into the design would be made. Furthermore, the proposed project would be required to comply with the 2019 California Green Building Standards Code codified in Title 24. Therefore, this impact would be **less than significant.**

The proposed project would not conflict with or obstruct the City's EECAP. Therefore, the project would not conflict with a local plan for energy efficiency

b) Because the CEC's *2019 Integrated Energy Policy Report* is intended to reduce GHG emissions by transitioning the State's energy portfolio to more renewable energy sources, it can also be viewed as a plan for renewable energy and energy efficiency on the Statewide level. As discussed in a) above, the proposed project would be required to comply with a variety of building and appliance energy efficiency standards, which would maximize its energy efficiency. Therefore, the project would not conflict with a State plan for energy efficiency. Therefore, this impact would be **less than significant.**

VII. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?			X	

Background

A Geotechnical Investigation of the project site was prepared by Krazan and Associates, Inc. (Krazan 2019), included as Appendix D in this IS. Krazan's geologists performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 24 borings to depths ranging from about 10 to 50 feet, followed by laboratory testing. Results of the Krazan study are summarized in responses to specific checklist questions below. The full report is available for review at the City Community Development Department.

Discussion

a.i, ii, iii, iv) The project site is located in a seismically active region associated with the San Andreas Fault System. It is in close proximity to several major faults including the West Napa, Green Valley, Hayward-Rogers Creek, Mount Diablo Thrust, Calaveras, and San Andreas Faults (see Table GEO-1). Data presented by the Working Group on California Earthquake Probabilities (2008) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region between 2007 and 2036 to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It would be necessary to design and construct the proposed distribution center and parking lot in strict adherence with current standards for earthquake-resistant construction.

Although the site is in close proximity to several faults, it is not within the mapped California Earthquake Fault Zone or Alquist-Priolo Earthquake Fault Zone (Krazan 2019). It is approximately 3,200 feet west of the West Napa fault and 600 feet west of the California Earthquake Fault Zone for the West Napa Fault zone. Therefore, the risk of fault rupture at the site is low.

Table GEO-1. Active Fault Proximity to the Project Site

Fault	Direction from Site	Distance from Site (miles)
San Andreas	W	30
Hayward-Rogers Creek	W	11
Mt. Diablo Thrust	S	24
Green Valley	E	8
West Napa	W	0.6
Calaveras	NW	29

For the West Napa Fault, the maximum credible earthquake on this fault is approximately 6.5 moment magnitude[4] based on empirical data and the length of the fault. The 2014 South Napa earthquake was located to the south of Napa and to the northwest of American Canyon on the West Napa Fault. It had a magnitude of 6.0 on the moment magnitude scale, and with a maximum Mercalli intensity of VIII (Severe); the event was the largest in the San Francisco Bay Area since the 1989 Loma Prieta earthquake.

Liquefaction is a 'liquefying' of the ground under strong seismic shaking. Liquefaction occurs in water-saturated, loose, granular soils (such as sandy soils). Because of active faults near the site and high acceleration the site may be subject to liquefaction hazards. Krazan evaluated the site's liquefaction potential and determined that soils above a depth of 9 feet below the ground surface have no liquefaction potential because of an absence of groundwater; soils below 9 feet below the ground surface were determined to have a slight to very low liquefaction potential due to predominantly dense/stiff top very dense/hard clayey soils. Total and differential seismic-induced ground settlement were calculated not to exceed 1 inch and 0.66-inch, respectively (Krazan 2019). This level of settlement would be addressed in the foundation design.

Lateral spreading (or lurching) is another type of ground failure that is generally caused by liquefaction. It involves movement of large surficial blocks of soil as a result of subsurface liquefaction. Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, the potential for liquefaction-induced lateral spreading at the site is low.

Impacts associated with seismic shaking and associated ground failure issues can be reduced to a ***less-than-significant*** level by proper engineering and construction in accordance with the provisions of the Uniform Building Code and with other site stabilization, drainage, and, foundation design methods, as detailed in the Krazan report.

The project site is nearly flat, so landslide hazards would be minimal.

b) The proposed project would require site stripping, grading and excavation/re-compaction of soils on the site and on the adjacent parcel to the south (for borrow pit construction and stockpile removal), therefore, construction of the proposed project could result in soil erosion or loss of topsoil. All construction practices would be in accordance with the State of California UBC Title 24, and measures to control soil erosion found in the general construction activities non-point source storm-water

[4] "The **moment magnitude scale** (a successor to the Richter scale), is used by seismologists to compare the energy released by earthquakes. The constants in the equation are chosen so that estimates of moment magnitude roughly agree with estimates using other scales such as the Richter magnitude scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes. The USGS does not use this scale for earthquakes with a magnitude of less than 3.5. (Wikipedia, 2015)

permit (See Hydrology section of this IS). The RWQCB requires that Best Management Practices be incorporated into projects to reduce wind and water erosion (see Mitigation Measure GEO-2). This impact would be reduced to ***less than significant with mitigation***.

c) See responses to items aii, iii, and iv, above.

d) The upper soils on the site are alternating layers of silty clays, clayey sands, and sandy clays. The clayey soils have a moderate-to-high potential for expansion. Mitigation Measure GEO-3, below, would reduce hazards associated with potentially expansive soils to a level that is ***less than significant***.

e) The project would not use septic tanks or other on-site land disposal systems. ***No impac***t would occur.

f) A review of the University of California Museum of Paleontology (UCMP) on-line database indicates that very few paleontological specimens have been collected from Napa County. Only one specimen, an example of *Magnoliposida* (a flowering plant) was found in the general vicinity (City of Napa) approximately six miles north of the project area (UCMP 2018). In addition, according to the Geologic Map of the Cuttings Wharf 7.5' Quadrangle (Bezore et al. 2002), the project area is located solely within late Quaternary alluvial fan deposits. Quaternary alluvium is often devoid of fossil remains due to its high-energy depositional regime, and the subaerial nature of that deposition which generally precludes rapid burial. Organic remains are left exposed to the elements and degrade rapidly before they can be buried. Given the lack of previous paleontological discoveries in and near the project area and the low sensitivity of the landform, it is unlikely that significant paleontological remains or unique geological features would be encountered during project ground-disturbing activities. Therefore, this impact would be ***less than significant.***

Mitigation Measures

Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention

Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile
- Establishment of a single destination "wash-out" for construction subcontractors
- Use of siltation fences
- Use of sediment basins

Mitigation Measure GEO-3: **T**he applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).

VIII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Background

The BAAQMD *CEQA Air Quality Guidelines* identify a project specific threshold of either 1,100 metric tons of carbon dioxide-equivalents[5] (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development) as resulting in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion. Additional information regarding the existing GHG emissions setting is found in Appendix B.

Discussion

a) GHG emissions are associated with proposed project construction activities, as well as long-term operations associated with energy usage, area sources (landscape maintenance), water/wastewater conveyance, solid waste collection, off-road mobile equipment (forklifts) and motor vehicles. GHG emissions calculation details are found in Appendix B.

The estimated construction GHG emissions are 431 metric tons of CO_2e in 2021 (see Table GHG-1). The BAAQMD does not recommend a threshold for GHG emissions from construction, so this analysis (similar to many other analyses prepared in the Air Basin) amortizes the construction emissions over the lifetime of the proposed project (30 years) and adds amortized construction emissions to the

[5] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

annual operational emissions. The 30-year amortized annual construction related GHG emissions would be approximately 14 metric tons of CO_2e.

Table GHG-1 also provides the estimated operational GHG emissions that would be associated with the proposed project. The GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a ***less-than significant*** impact.

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

b) The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's *Climate Change Scoping Plan* and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant*** impact.

IX. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Background

A Phase I environmental site assessment (ESA) was conducted by ATC in June 2018 (ATC 2018). That ESA

summarized the previous ESA's on the property conducted by Environmental Science Associates (October 2004), Kleinfelder (July 2005; December 2009), and ICES (April 2010). Those previous reports focused on the larger 106-acre Couch Property, of which the proposed development site of about 10.39 acres. The 2018 ATC study also conducted additional site interviews, database reviews, and a new site reconnaissance. ATC subsequently prepared a Limited Phase II ESA to address potential impacts of underground storage tanks on the larger property (March 25, 2019). The results of the two ATC studies are summarized in responses to Item d), below.

Discussion

a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials. Therefore***, no significant impacts*** would occur during construction activities.

The site was historically used for agricultural purposes and was occupied by a crop of planted Eucalyptus trees since sometime before circa late 1950's. Up until 2001 the site remained relatively unchanged. From 2001 until around 2012 the northwest corner of the site was used recreationally as a paintball field with the eucalyptus trees remaining in place. In 2012 the property was cleared and grubbed of the eucalyptus trees and shrubs.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of warehousing and distribution center land use. Small quantities of these hazardous materials would likely be used on site, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, chlorine (pool), and fertilizers. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

The City of American Canyon Fire Protection District and Napa County Sheriff would be the first responders in the event of a train derailment or spill. Fire and police are trained in how to address

hazardous materials spills or fires and in emergency evacuation procedures in the event of a major emergency.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be ***less than significant.***

c) The proposed project site is located approximately 0.8 miles from existing Napa Junction Elementary School. That school is proposed to be relocated to a new campus south of Commerce Court, approximately 0.34 miles southeast of the site. This new school is under construction and scheduled for occupancy in the fall of 2021[6]. Implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant*.**

d) Given the historical use of the property for agricultural purposes, it may have been subject to past use of pesticides, herbicides and fertilizers. If these materials were stored, used and applied according to industry standards, they should not have significantly impacted the property. Evidence of large-scale use or disposal of pesticides, herbicides or fertilizers, such as mixing tanks, chemical storage areas, sprayers, etc. was not observed on the property. Evidence for the overuse of these materials, such as stressed vegetation or soil discoloration was not observed. The property has not been used for agricultural purposes since sometime prior to 2012. Therefore, ATC concluded that the historical use of the property for agricultural purposes and any potential residual pesticides, herbicides and fertilizers in the property soil does not represent a recognized environmental condition to the property (ATC 2018).

The eastern portion of the overall Couch property, to the east of the project site, where some past contamination had been noted, is buffered from the project parcel by the paved extension of Commerce Court. and about 70 feet of utility easements. The ATC report noted that contaminant generating land uses operated in the past in the eucalyptus groves in the area of the Couch Property. These uses generate hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. The ATC report did not note any stressed vegetation or soil staining at the 10-acre site of proposed development that would indicate a potential environmental condition from these chemicals of concern.

[6] (http://www.njes-nvusd-ca.schoolloop.com/cms/public_news?d=x&group_id=1295706633895&news_group_id=1295706633895&return_url=1302484043084)

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a recognized environmental condition to the property.

The property is not listed within the Napa County Leaking Underground Storage Tank (LUST) database, and was not found in further database searches. However, a Site Assessment was performed by Napa County in 1990 and the presence of underground storage tanks (USTs) was recorded (ATC 2018). The USTs are on the Eastern 40-acre parcel owned by the Couch Family. The property was reported to have three USTs sitting on the top of the ground in 2004, in an assessment by Environmental Science Associates. A Phase II soil investigation was conducted by Kleinfelder in July 2005, but groundwater sampling was not administered. The soil investigation found no hazards in concentrations above 2005 environmental screening levels except chromium. The 130 milligrams per kilogram chromium concentration is within new standards set by February 2016 environmental screening levels and thus constitutes a historical recognized environmental concern (ATC 2018).

ATC subsequently conducted a limited phase II soil investigation (ATC March 25, 2019). Two borings were conducted and soils and groundwater were sampled for total petroleum hydrocarbons and volatile organic compounds, as well as a suite of heavy metals.

The results of the analysis of the soil samples indicated the following:

- Concentrations of TPH as gasoline, diesel, and motor oil were not detected above the laboratory method detection limits.
- Concentrations of VOCs were not detected above the laboratory method detection limits.
- Arsenic was detected at a maximum concentration of 11 milligrams per kilogram (mg/kg) which is above the ESL of 0.067 mg/kg. It should be noted that the maximum concentration of background levels of arsenic in California soils is 11 mg/kg as indicated in a study entitled Background Concentrations of Trace and Major Elements in California Soils by Bradford dated March 1996.
- The remaining metals were either detected at concentrations below the ESLs or below the laboratory method detection limits.

The report concluded that in order for potential impacts from the Couch property to impact the subsurface of the subject property the following conditions would have to be satisfied:

1. The potential contaminants would have to be released and the release would have to migrate to the subsurface,
2. The impacts would then have to travel through the soil column to groundwater which is at a depth below 40 feet bgs,
3. The contaminants would then have to migrate in the groundwater in the direction of the subject property, and
4. The contaminants would have to arrive beneath the property in sufficient concentrations to be a concern.

Although a degree of uncertainty exists, ATC concluded that, based on these enumerated factors taken altogether, it is unlikely that contamination from the Couch property could impact the subject property. Therefore, this impact is considered ***less than significant***.

e) The Napa County Airport is located approximately 1.5 miles mile to the north of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the General Plan, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan, with a small part of the southern end of the site potentially in Zone E. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine distribution center would be an acceptable use with appropriate easement, which has been granted by the County. Zone E is less restrictive, and allows all of the uses allowed in Zone D, plus certain additional uses.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Therefore, the proposed project would not create aviation safety hazards for persons residing or working in the project vicinity, and impacts would be ***less than significant***.

f) The project is not located in the vicinity of a private airstrip. Therefore, there would ***be no impact*** associated with safety hazards from such airstrips.

g) The development of a wine distribution center on a 10.39-acre site on Commerce Court does not include any facilities or uses that would interfere with the City's emergency response or evacuation plans. The roadway extension has been developed per City standards. The project would be designed to facilitate emergency traffic through and around the site, in accordance with the City's Fire Protection District development standards. During construction, emergency routes would remain open and emergency response plans would not be affected. The impact would be ***less than significant*.**

h) The project site is surrounded by parcels containing industrial and warehouse development, and open spaces with ruderal (weedy) vegetation, with marshlands to the south and west. These areas are not subject to wildlands fires. Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

There is a potential for the dry vegetation on this undeveloped site to catch fire during grading. Equipment could create sparks that would ignite vegetation. Standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire to a ***less-than-significant*** level.

The American Canyon Fire Protection District would provide fire protection to the proposed project. The District indicated in an email that mitigation fees would cover needs for fire services or facilities to serve the proposed project (Weeks 2020). Therefore, the proposed project would not create or expose people or structures to significant wildland fire risks, and impacts would *be* ***less than significant***.

X. Hydrology and Water Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?		X		
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Background

A Hydrology Report, and a Stormwater Control Plan were prepared for the proposed project by RSA+ (2019a; 2019b). The project site is relatively flat with gentle slopes draining toward the west. Runoff from the property flows over the surface of the site to the western property line, then continues westward, where is ultimately conveyed to the Napa River (RSA+ 2019a). Downstream, the Napa River discharges into the San Pablo Bay through the Napa- Sonoma Marsh.

Discussion

a, c, e) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) Stormwater program to control Stormwater discharges, including those associated with construction activities. Authority for NPDES permitting has been delegated by the federal government to the California State Water Resources Control Board (SWRCB), which has nine regional boards; the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the project area, which is in Napa County. The NPDES Stormwater permitting program regulates Stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009DWQ).

Development of the proposed project would require clearing ruderal vegetation and grading of the approximately 10.39-acre proposed development site as well as clearing and excavation a major portion of the parcel to the south for soil stockpile transfer to the site, as well as for creation of a borrow pit to provide additional fills for the proposed project. In addition, a new distribution center building, and associated paved areas would be constructed; landscaping would be installed; and bioretention facilities would be created.

During construction activities there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's Stormwater system and local waterways. Soil erosion may occur on the project site and parcel to the south (soil stockpile and borrow pit areas) during construction. Small quantities of pollutants have the potential to be washed into the storm drainage system, ultimately entering the Napa River, thereby potentially degrading water quality.

Construction of the proposed project also would require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. On-site portable toilets could leak or tip over and spill, releasing sanitary waste, bacteria, solids, nutrients, and pathogens. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would exceed the NPDES one-acre threshold; therefore, the project proponents would be required to comply with the CGP. The project applicant would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a less-than-significant level, as described in Mitigation Measure HYD-1, below.

As required under State Water Resources Control Board Order No. 2013-001 DWQ, the City of American Canyon requires regulated projects, such as this one to prepare a Stormwater Management Program (NPDES Permit No. CAS 612007). As one element of the program, the City requires regulated projects to address post-construction stormwater quality. More specifically, the City of American Canyon requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP) in accordance with the Bay Area Stormwater Management Agencies Associated Post-Construction Manual. The SWPC must include post-construction stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWMP must also address ongoing maintenance of those facilities.

The project site and adjacent soils stockpile and borrow area have no impervious surfaces. Development of the proposed project would increase impervious surface coverage on the project site through construction of the distribution center building, parking areas, internal roadways and driveways, and sidewalks. The increase in impervious surface coverage would create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff

transported to receiving waters. Runoff from the proposed landscaped areas may also contain residual pesticides and nutrients.

A Stormwater Control Plan has been prepared for the proposed project in accordance with the Bay Area Stormwater Management Agencies Association's (BAASMA) Post Construction Manual. The proposed project would incorporate low-impact development design strategies. An approximately 21,000 sq. ft. bioretention pond would be designed with biotreatment and constructed on the western side of project site (that would treat runoff from much of the project site as well as a small portion of Commerce Court). A pervious area would be installed along the east side of the proposed building, which would allow infiltration/treatment of additional runoff (RSA+ 2019b).

The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. Potential impacts related to compliance with post-construction runoff would be would be reduced to ***less-than-significant*** with implementation of Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, below, which assure proper design, construction, and long-term maintenance of the stormwater facilities.

The project proposes to use recycled water for landscape irrigation. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. The City, as the purveyor of recycled water, is required to comply with the State Water Resources Control Board's (SWRCB) General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water. Coverage under the State's General Waste Discharge Requirements (WDRs) for Recycled Water Use (Water Quality Order 2009-006-DWQ) is limited to treated municipal wastewater for non-potable uses. The General Permit establishes requirements to manage recycled water for landscape irrigation uses in a manner that is protective of public health and the environment. The City is responsible for overseeing the recycled water system and compliance with specific BMPs set forth by the SWRCB which include implementation of operations and a management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 1,000 gallons; proper design and operation of sprinkler heads; refraining from application during precipitation events; and management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater. In the event of an unauthorized discharge, the Executive Officer of the appropriate Regional Water Board shall be notified. In addition, as part of the site maintenance, the recycled water system is inspected monthly to verify there are no leaks

or runoff from the landscaped area. The recycled water is managed by the City of American Canyon, and use of the recycled water by the proposed project would be a ***less-than-significant*** impact.

b) The proposed project would be served with potable water supplied by the City of American Canyon, and no new groundwater wells or other groundwater supplies would be required. Therefore, the proposed project would not contribute to depletion of groundwater supplies. The project's on-site drainage systems would consist of a detention pond and a vegetated detention swale. These features of the development would contribute to replenishing the groundwater supply. Therefore, the development of the proposed project would not interfere with groundwater recharge. As such, impacts would be ***less than significant***.

d) The Federal Emergency Management Agency's Flood Insurance Rate Map No. 06055C0617F, Panel 617 out of 650 indicates that the project site is not located within a 100-year flood hazard area and is in an area of minimal flood hazard. The project site is not located in a dam failure inundation zone, as depicted in the American Canyon General Plan (City of American Canyon 1994, as amended through January 2018). The project site is east of the Conn and Miliken Dams, Rector Reservoir, and Summit Reservoir inundation areas. The project site is not protected by any levees. These conditions preclude the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. Seiches and tsunamis are seismically induced large waves of water. The project site is distant from any water bodies that could result in a seiche or tsunami. Similarly, mudflows are not a concern in this area of the City.

Therefore, the proposed project would have ***no impact*** to water quality from inundation by flooding, dam failure, seiche, tsunami or mudflow.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall address both

the project site and adjacent parcel where soils stockpiles would be removed and the borrow pit would be created to provide fill for the project site. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

Mitigation Measure HYD-2**:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site and the soils stockpile and borrow pit areas on the parcel immediately south of the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to

the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

Mitigation Measure HYD-5: The proposed bio-retention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

XI. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Discussion

a) The project site is undeveloped open land covered mostly with ruderal vegetation, with some small wetland areas. The project is bounded on the north by existing warehouse uses. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove; on the south is the under-construction Commerce 330 distribution Center building and, beyond that, the City-owned 24-acre Clarke Ranch West Open Space, which is partially covered eucalyptus trees, and includes horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 64-foot wide City Public Access and Utility Easement; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement; to the east of these easements is a 40-acre parcel owned by the Couch Family including a mobile home and accessory structures, and a large commercial recreation facility (Paintball Jungle). Farther north on Commerce Blvd. are other warehouses similar to the proposed project. South of Eucalyptus Drive is a residential neighborhood. A public school is under construction just southeast of the site, to the south of the paintball center, at the northeast corner of Eucalyptus Drive and Wetlands Edge Road. The nearest established residential community is south of Commerce Court, which is not accessible by motor vehicle. Therefore, the project would have no potential to divide any such community and there would be ***no impact*****.**

b) The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). The General Plan describes typical permitted used in the

CR land use category as: *Recreation vehicle parks, interpretative nature centers and conference facilities, and similar uses*. (General Plan Land Use Element, Land Use Schedule Table, p. 1-9). The City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan (email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018).

A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries as a conditionally permitted use. The Zoning Ordinance defines "Winery" as including viticulture-related activities such as bottling, storage, logistics, distribution, wine packing, and wine-related services. Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19th, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit". The project complies with the City's Zoning Code standards, with approval of a minor variation to height standards to allow a 37-foot height.

The following City General Plan land use policies applicable to the project are noted below.

Policy 1.2.2: Establish as a priority the development of projects that are contiguous with and infill the existing pattern of development, avoiding leap-frog development, except for large scale master-planned projects that are linked to and planned to be extensions of existing development and for which infrastructure and services are in place or funded.

> **Consistent:** The proposed project would be adjacent to, and become part of, the developed existing Green Island industrial/warehouse area. Therefore, the project would be generally consistent with this policy.

Policy 1.3.4: Limit the total additional new development that can be accommodated in the City and its Urban Limit Line to the following provided that the highway improvements stipulated by the Circulation Element are implemented. Industrial development within the City is limited to 1,560,195 sq. ft., and within the Urban Limit Line the limit would be 5,778,500 sq. ft.

Policy 1.3.5 of the GP provides some flexibility in implementing Policy 1.3.4: Consider increases in development capacity when it can be demonstrated that additional transportation improvements have been implemented or are funded, or demands have been reduced (based on highway level of service and vehicle trips), and such increases are consistent with community needs and desires. (I 1.9 and I 1.10)

Consistent: The project would contribute its fair share to traffic improvements that would assure that appropriate transportation improvements would be implemented. See Transportation/Traffic section of this IS for additional discussion.

Policy 1.22.3: 1.22.3 Permit development according to the following standards:

a. Labor-intensive uses: a maximum floor area ratio of 0.5.

b. Low labor uses (such as warehousing): a maximum floor area ratio of 0.7.

Consistent: The proposed project would have a floor area ratio of 0.48.

Policy 1.22.4: Require that development be designed to achieve a high level of quality and compatibility with existing uses including the consideration of the following:

1. architectural treatment of all building elevations;
2. use of extensive landscape along the primary street frontages and parking lots; and
3. enclosure of storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements. (I 1.1, I 1.4-I 1.7, I 1.11, and I 1.14)

Consistent: The project includes architectural treatments consistent with nearby warehouse developments. It includes a landscape plan for the street frontage, site perimeter, and storage areas.

Policy 1.27.1: Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Plan (ALUP).

Consistent: The project site is located within ALUP Compatibility Zone D. The proposed project use (warehousing/distribution) would comply with the conditions of the ALUP. Therefore, the project would be consistent with this policy.

Policy 1.27.2: Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.

Consistent: The proposed project site is mostly located within Zone D; a small part of the site may be in Zone E. Wine distribution uses are permitted in these zones. In addition, the applicant has obtained an Avigation Easement for the property. Therefore, the project would be consistent with this policy.

Policy 1.32.1: Require adherence to the *Design and Development Principles* prescribed in the General Plan and the City's Design Review Guidelines, which shall be updated periodically.

Consistent: The project has been designed to adhere to the *Design and Development Principles* prescribed in the General Plan as well as the City's Design Review Guidelines. Therefore, the project would be consistent with this policy.

Policy 1.32.2: Require that development projects subject to discretionary review submit and implement a landscape plan.

Consistent: Landscaping would be provided throughout the parking lot areas and along project site boundaries. Therefore, the project would be consistent with this policy.

Policy 1.32.4: Require developers to incorporate mature and specimen trees and other significant vegetation, which may exist on a site into the design of a development project for that site.

Consistent: The project includes a landscaping plan, which includes trees and other plants. There are no mature or specimen trees on the project site that can be incorporated as part of the project.

Policy 1.32.5: Require the use of drought-tolerant species in landscape design in accordance with the provisions of the Water Conservation and Landscape Act.

Consistent: Vegetative species included in the project landscape plan are generally native to California and are drought-tolerant where appropriate. Therefore, the project would be consistent with this policy.

Policy 1.32.6: Require that commercial, industrial, and multi-family residential development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.

Consistent: The proposed project would incorporate drought-conscious irrigation systems and maintain the health of the landscape consistent with Policy 1.32.6. Therefore, the project would be consistent with this policy.

Policy 1.32.7: Require that all commercial, industrial, multi-family, and common area landscape be adequately irrigated with automatic irrigation systems.

Consistent: The proposed project would include the use of automatic irrigation systems. Therefore, the project would be consistent with this policy.

Policy 1.32.8: Promote the use of reclaimed water for the irrigation of public and private landscape, as available.

> **Consistent:** The proposed project would include an on-site irrigation system that would use recycled irrigation water. Therefore, the project would be consistent with this policy.

Policy 1.33.1: Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings.

> **Consistent:** The proposed project would be constructed in accordance with the City's building and other pertinent codes. Therefore, implementation of the proposed project would be consistent with this policy.

Policy 1.33.3: Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, and other pertinent elements.

> **Consistent:** The project would provide sufficient space for access, parking, and open space consistent with Policy 1.33.1. Therefore, the project would be consistent with this policy.

Policy 4.9.3: Require that sufficient and secure bicycle parking be provided in all parking areas.

> **Consistent:** Bicycle parking in excess of City requirements is provided as part of the project. Therefore, the project would be consistent with this policy.

Policy 5.5: In order to reduce light and glare, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) is designed using City engineering standards and/or Best Management Practices to prevent artificial lighting from illuminating adjacent private property in residential neighborhoods and/or natural areas. If isolated areas are identified as having excessive spillover post construction, specific mitigations shall be implemented, e.g. installation of glare shields.

> **Consistent:** The proposed project includes lights in the parking lot and on the building. The lighting has been designed to minimize spillover light, per City requirements. A lighting study has been prepared by the applicant's lighting engineers showing minimal spillover lighting.

Policy 6.4.1: Continue to implement an ordinance requiring built-in fire protection for most building types, including single- and multi-family residential, to:

- minimize the potential for loss of life and property
- allow for the provision of a high level of fire protection services while reducing the needs for additional staff and equipment.

Consistent: The proposed project would be constructed to meet City and State fire code requirements. The proposed project would not require additional fire staff or equipment.

Policy 6.9.2: Require that landscaping in proximity to commercial, industrial, multi-family, and public structures be sited to allow for security surveillance.

Consistent: Landscaping would be planted in accordance with City standards to allow for security surveillance.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

- Site Design
  - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
  - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
  - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
  - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas;
  - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels; and,
  - All truck docks and truck traffic noise on the north side facing away from south residential areas.

Consistent: The proposed project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise).

Napa County Airport

The Napa County Airport Land Use Commission regulates land use around the Napa County Airport by requiring compliance with the Napa County Airport Land Use Compatibility Plan (NCALUCP). The City of American Canyon's General Plan and Zoning Ordinance were found to be consistent with the

NCALUCP. The project is consistent with the City's General Plan. The project site is located in Zones D and E of the Airport's land use compatibility map, which permit development of warehouse/distribution center uses. Please see a comprehensive discussion of this issue in response to Item VIII e), above.

The project has been designed consistent with all applicable City land use and planning documents adopted to avoid or mitigate an environmental effect, as discussed throughout this Initial Study. Therefore, the impact is ***less than significant*.**

c) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be ***no impact***.

XII. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Discussion

a, b) The project site is designated Commercial Recreation in the City's General Plan and consists of a vacant parcel. The site and adjacent borrow area site to the south are not identified in the City's General Plan as a site containing locally important mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources. The project does not propose to excavate the site for mineral resources; therefore, no impacts related to mineral resources would result from construction of the project. The project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources.

XIII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project within the vicinity of a private airstrip, or within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Background

Existing Noise Levels and Sensitive Receptors

Noise-sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) include residential developments, schools, health care facilities, and libraries. Noise-sensitive receptors in the project vicinity include one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

To quantify existing ambient noise levels at the project site and surrounding area, one long-term (72-hour) and several short-term (10-minute) noise measurements were conducted at and near the project site. The long-term meter was placed on the row of eucalyptus trees at the northern project site boundary and measured existing 24-hour noise levels. The short-term measurements were conducted at several locations on the project site to measure traffic noise from Commerce Court and Highway 29, and noise from adjacent properties.

The main source of noise in the project vicinity is aircraft noise from Napa County Airport. Secondary noise sources included traffic on Commerce Court, construction noise and pedestrians flying drones in the project

vicinity. The noise measurements are summarized in Table Noise-1, below. The Noise Appendix (Appendix E) includes noise measurement site locations, 24-hour noise plots and additional sound level data.

Table Noise-1: Existing Noise Levels in the Project Area[7]

Location	Time Period	Noise Levels (dB[8])	Noise Sources
Site 1. North property line of the project site along Eucalyptus grove.	Tuesday August 4, 12:00 a.m. through Thursday August 6, 11:59 p.m., 2020 72-hour measurement	Hourly Leq[9]s ranged from: 44-54 Ldn[10] s: 53, 52, 52 Hourly Lmax[11]s ranged from: 44-76	Unattended noise measurements do not specifically identify noise sources
Site 1. North property line of the project site along Eucalyptus grove.	Monday August 3, 2020 11:47-11:57 a.m.	5-minute Leqs: 58, 45 5 minute Lmaxs: 75, 60	Jet overhead was 74 dB. Quieter noises included traffic, winds, & distant construction.
Site 2. North area of the project site.	Monday August 3, 2020 12:01-12:10 p.m.	5-minute Leqs: 43, 45 5 minute Lmaxs: 52, 60	Distant construction was 45 dB. Traffic on Commerce Blvd was 43 dB. Quieter noises included wind & birds.
Site 3. Northwest edge of the project site.	Monday August 3, 2020 12:14-12:24 p.m.	5-minute Leqs: 43, 42 5 minute Lmaxs: 54, 50	Drones flying in north area of the project site was 50 dB. Quieter noises included birds, wind & distant construction.
Site 4. Southeast edge of the project site.	Monday August 3, 2020 12:26-12:36 p.m.	5-minute Leqs: 41, 44 5 minute Lmaxs: 55, 57	Distant aircraft was 55 dB. Quieter noises birds, wind & distant construction.
Site 5. Western edge of the project site, 50 feet east of centerline of Commerce Court.	Monday August 3, 2020 11:21-11:31 a.m.	5-minute Leqs: 59, 52 5 minute Lmaxs: 75, 64	Large delivery trucks up to 65 dB. Quieter noises included distant construction & horns.

[7] Source: RCH Group, 2020

[8] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report would be A-weighted unless noted otherwise.

[9] The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[10] Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[11] Lmax is the instantaneous maximum noise level for a specified period of time.

Regulatory Framework

The City of American Canyon addresses construction noise in Section 8.12.080 of the American Canyon Municipal Code. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties would not exceed those listed in Table Noise-2.

Policy 11.7.1 of the City's General Plan Noise Element limits construction activities adjacent to noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m. The Noise Element also requires construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses (Policy 11.7.2). Policy 11.2.4 of The Noise Element requires new industrial, commercial and related land uses to demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65dB in areas containing housing, schools, health care facilities, or other noise-sensitive land uses.

Table Noise-2: Noise Limits for Construction Activities (Lmax)

Timeframe	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dB	80 dB	85 dB
Daily: 7 p.m. to 7 a.m.	60 dB	65 dB	70 dB

Source: American Canyon Municipal Code, Chapter 8.12

Discussion

a) Construction and operational noise impacts are addressed below.

Construction Noise

The project could result in temporary, short-term increases in noise levels during project construction. Noise-sensitive receptors near the project site include single-family residences (to the southeast). Residents in those homes could experience short-term increases in noise levels during construction of the project.

The maximum noise levels for various types of construction equipment that would be required to build the project are provided in Table Noise-3, below. Maximum noise levels generated by construction equipment used for the project would range from 74 to 85 dB at a distance of 50 feet. Table Noise-4 shows the maximum estimated noise levels at the nearest residence that could occur during construction.

As shown in Table Noise-4, site preparation, grading and paving activities for the warehouse would take place approximately 1,000 feet from the nearest residence and would generate

maximum noise levels of approximately 53 dB. Hauling of stockpile material and grading of the borrow area within the parcel to the south would take place approximately 500 feet from the nearest residence and would generate maximum noise levels of approximately 60 dB. The construction of the warehouse would take place approximately 1,100 feet from the nearest residence and would generate maximum noise levels of approximately 52 dB. Noise levels would be lower than these estimates most of the time, and maximum levels would only occur for a short duration when the construction equipment is at its closest point to the residence. Thus, noise levels resulting from project construction would be far below the 75 dB daytime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code.

Table Noise-3: Typical Noise Levels from Construction Equipment (Lmax)

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Auger Drill Rig	84
Backhoe	78
Bulldozer	82
Compactor (ground)	83
Crane	81
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Slurry Trenching Machine	80
Tractor	84
Welder/Torch	74

Source: *Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide,* 2006.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

Note: Noise levels were estimated using a reference noise level of 85 dB at 50 feet and attenuation rate of 7.5 dB per doubling of distance due to soft-site conditions at the project site.
Source: RCH Group 2020

Project construction would require approximately 15 days of nighttime construction activities for pouring concrete for the building slab, wall panel, and additional large paving due to the scale of the pour requiring that the plant and trucks being dedicated to it for the pour duration. Previous nighttime concrete pours occurred for the construction of the SDG Commerce 330 Distribution Center building approximately 1,000 feet south of the project. The City received a few calls from the residents to the southeast (the neighborhood southeast of the Eucalyptus Drive/ Wetlands Edge Road intersection) inquiring about nighttime construction noise. Once the pre-notification of nighttime construction dates and times were submitted to the City, the residents to the southeast were notified and understood the nature and timing of nighttime construction and submitted no further noise inquiries (Doswald, 2020). The concrete pours would occur during nighttime hours starting no earlier than 12:00 a.m.

Concrete pouring activities would occur approximately 1,000 feet from the existing residence and 2,300 feet from the residential neighborhood. In addition, the existing SDG Commerce 330 Distribution Center building to the south would work as a noise barrier to the residences approximately 2,300 to the southeast. As shown in Table Noise-4, the maximum noise levels generated at 1,000 feet would be approximately 53 dB. This would be below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code. Similar to previous construction for the SDG Commerce 330 Distribution Center building, pre-notification of these night pour dates and times would be provided to the City of American Canyon and to residents that expressed concern with nighttime noise during the Commerce 330 Distribution Center construction.

A portion of the project construction activities could occur when the new elementary school that is currently under construction is in-session. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would not exceed any noise standards.

The implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce potentially significant impacts from temporary construction noise to ***less than significant***.

Operational Noise

Operational noise from the project would include automobile and truck traffic travel to and from the site, loading dock activities, and parking lot activities. All truck and automobile activity would be on the north side of the building, so that the building would shield residential areas to the south from that noise. The warehouse building's cooling system would bring in cool night air with intake louvers and fans. Cooling equipment would be located greater than 1,000 feet from the nearest residence to

the southeast and the noise from the operation of mechanical equipment would not be audible at the residence over ambient noise levels in the project vicinity.

Noise from parking lot activities would occur at the project site intermittently when warehouse employees arrive at the beginning of a shift and leave at the end of a shift. Representative parking activities such as employees conversing and doors slamming generate maximum noise levels of 60-70 dB at 50 feet (LSA Associates, 2012). The project includes parking spaces on the north side of the project. Parking spaces would be approximately 1,400 feet from the nearest residence to the east and, given this distance, parking lot noise would attenuate to a level below ambient noise levels before reaching the nearest residence.

The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Court and Green Island Road. The existing average traffic noise levels measured at Commerce Court (Site 5) were 52 to 59 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 367 trips per day during weekdays with 35 AM peak-hour trips and 28 PM peak-hour trips, which would be less than one trip per minute during the peak hour traffic (GHD, 2020). Project traffic would not result in a doubling of traffic and would have a less than 3 dB increase and would have a minimal effect upon ambient noise levels in the project vicinity.

Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.

The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).

Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be ***less than significant***.

b) Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table 4 of the Noise Appendix. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry building (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers). Project construction would involve the use of a roller and a bulldozer, which could produce vibration levels of 0.210 and 0.089 ppv at 25 feet. Ground vibration generated by construction operations would be primarily associated with on-site trucks and excavation equipment and would result in vibration levels of less than 0.1 ppv at 25 feet. Construction activities would occur as close as approximately 1,000 feet from the nearest structure and the predicted vibration levels at the nearest structure would not exceed the 0.5 ppv threshold for residential and commercial structures. Therefore, vibrational impacts would be ***less than significant***.

c) The project site is not located within the vicinity of a private airstrip. There are no private airstrips located in the City of American Canyon or near the city limits. The project site is located in Zone D of the Napa County Airport Land Use Compatibility Plan. Warehousing is listed in the American Canyon General Plan Noise Element as one of the uses that is normally acceptable in this zone. The project would not exceed the maximum density specified in the General Plan for Zone D and would be consistent with the land use designation in the Airport Land Use Plan and the General Plan's airport vicinity land use compatibility criteria. The project would not expose people working on the project site to excessive noise levels. This impact would be considered ***less than significant***.

Mitigation Measures

Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All

property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City also shall be pre-notified of nighttime construction.

Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

XIV. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

a) The proposed warehouse development would not directly increase the population because there is no housing component, but it would introduce new businesses to the area. As part of the Commerce 330 project, infrastructure at the site was expanded. This infrastructure includes Commerce Court, which is an approximately 1100-foot-long paved roadway extension and widening of an existing rock-surfaced road, water and sewer main tie-ins, a sewer lift station, gas line extension, storm drainage facilities, and recycled water service. These improvements serve the proposed project, the Commerce 330 project, and, if developed in the future, the intervening parcel. The project could induce similar warehouse development on the remaining undeveloped parcel between it and the Commerce 330 development. However, the number of new employees at that facility would be similar to the project's employment (32 full-time employees and up to 18 part-time employees). Therefore, this impact would be considered ***less than significant***.

b, c) The project site is vacant and development of the proposed project would not displace existing housing or people. Therefore, there would be ***no impact*** associated with displacements.

XV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?			**X**	
d) Parks?				**X**
e) Other public facilities?				**X**

Discussion

a) As a light industrial/warehouse/distribution center development, the proposed project would not directly increase the residential population of the City of American Canyon. The General Plan for the City evaluated impacts related to increased industrial development (City of American Canyon. 1994, as amended through June 2020).

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The ACFPD's goal is to respond to 90 percent of their calls in five minutes or less. The response time from this fire station is around five minutes, but may be longer depending on traffic and other variables. In 2019, the ACFPD responded to 72 incidents in the Green Island Industrial area. In 30 percent of the incidents, response time of the first fire vehicle was within five minutes to this area. Therefore, the proposed development may exceed the District's target response time.

The City provides fire service and facilities through two different fees. The first fee, a Fire Mitigation Fee is a one-time assessment of new development, which is $0.5474 per square foot for industrial properties. The second fee is the Fire Service Fee, which is an annual assessment for each parcel based on a formula which includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. The ACFPD may need additional resources to address increased call volume and fire flow needed for the proposed project in the form of additional facilities, apparatus, and staffing. With payment of the required Fire Service Fee, this impact would be reduced to a ***less-than-significant*** level (email from Chief Glen Weeks, July 23, 2020).

b) The City of American Canyon contracts with the Napa County Sheriff's Office for staffing the American Canyon Police Department to provide police services. The California Highway Patrol is responsible for traffic related enforcement. The police headquarters are located at 911 Donaldson Way East, which is the same location as the fire district, approximately 2.1 miles from the project site. The Police Department has a force of 24 full-time sworn officers, two police technicians, and an administrative clerk. Additionally, the Napa County Sheriff's Office investigations Bureau has a Lieutenant, a Sergeant, and 7 Detectives. These Detectives carry a significant ACPD case load for follow-up investigations. (City of American Canyon Police Department 2019 Annual Report).

Staff and equipment required to provide service to the proposed project would depend on the occupants of the building. The Police Department generally does not require additional police personnel for warehouse projects. Such businesses typically provide some self-monitoring, such as video cameras in parking lots, which reduces police calls. The applicant would be responsible for mitigation/impact fees for the police station in accordance with the City of American Canyon's Mitigation Impact Fee schedule. With payment of the Mitigation Fee, the project would result in a ***less-than-significant impact*** on the City's police services.

c) The City of American Canyon is within the Napa Valley Unified School District (NVUSD). The proposed project would not affect schools, parks or other public facilities because this warehouse project would not directly increase the population. However, industrial developments in the City of American Canyon are required to pay school fees and a Civic Facilities Fee, in accordance with the City's Master Fee Schedule. With payment of the mitigation fees this potential impact would *be **less than significant***.

d) The proposed industrial project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. Pursuant to the City's General Plan Policy 7.1.1, the City has a minimum parkland standard of 5.0 acres per 1,000 residents. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore, the project would have ***no impacts*** to parks and recreation facilities**.**

e) No other public facilities would be required by the proposed project. Therefore, the project would have ***no impacts*** to any such facilities**.**

XVI. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Discussion

a, b) The proposed distribution center project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. The project would be on land designated for recreation, but would not affect any such uses or facilities. Therefore the project would have ***no impact*** to recreational facilities.

XVII. Transportation/Traffic.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadways, pedestrian and bicycle facilities?				**X**
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				**X**
c) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				**X**
d) Result in inadequate emergency access?				**X**

Background

A traffic impact analysis (TIA) was conducted for the project by GHD (May 8, 2020), included as Appendix F to this IS. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[12] The TIA addressed the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

The following study intersection was identified and analyzed for this project:

[12] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this intersection:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road.

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the heavy vehicles (trucks) traffic was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

The Green Island Road/Commerce Boulevard intersection is operating at acceptable LOS during both peak hours (LOS A and B in AM and PM Peak Hours, respectively).

An updated Vehicle Miles Traveled (VMT) analysis was conducted for the project by GHD (GHD March 2021, see Traffic Appendix). GHD reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority, the City of American Canyon, and other relevant sources to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from available data sources. The site is undeveloped so generates no VMT at the present time.

Discussion

a) Although CEQA no longer considers traffic congestion, by itself, to be a potentially significant impact, the City of American Canyon established the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

Trip Generation and Distribution

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak-hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[13] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities.

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

The average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf, respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak-hour the average rates for the two-day counts were 0.12 trips/ksf

[13] Omni-Means, Ltd., Trip Generation Rates--Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

and 0.13 trips/ksf resulting in an overall average PM peak-hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily trip generation would be 367 trips, with 35 AM peak-hour trips (21 in and 14 out) and 28 PM peak-hour trips (10 in and 18 out).

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

Existing Plus Approved Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects, including the Commerce 330 distribution center. That report projected a small increase in delay with no change in LOS in either the AM peak hour (LOS A) or PM peak hour (LOS B). The intersection would continue to operate acceptably.

Existing Plus Approved Plus Project Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects plus the proposed project. That report projected a small increase in delay with a reduction in the AM peak hour from LOS A to LOS B. There was no change in the PM peak hour (LOS B). The intersection would continue to operate acceptably.

Cumulative Conditions with Project

The GHD report evaluated LOS for the intersection of Commerce and Green Island Road for cumulative projects plus the proposed project. That report projected a reduction in the AM peak hour to LOS C. The PM peak-hour LOS would decline from LOS B to LOS D. These would be the same with both cumulative baseline conditions and cumulative-plus-project conditions. The City's target LOS is D, so the intersection would continue to operate acceptably.

Signal Warrant Analysis

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include "8-hour volumes" (Warrant 1), "4-hour volumes" (Warrant 2), and "peak hour volumes" (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. At the Green Island Road/Commerce Boulevard intersection during the AM and PM peak periods a maximum of two pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

The crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve-month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three-year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location does not warrant signalization for safety reasons.

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak-hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips. Mitigation TRA-1, which recommends installation of a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under Existing Plus Project and Cumulative Plus Project conditions during the PM peak hour (worst case). Therefore all intersection impacts would be reduced to a ***less-than-significant level with mitigation***.

b) As noted above, an updated VMT analysis was completed for the project to determine consistency with CEQA Guidelines Section 15064.3, subdivision (b), which requires a 15% reduction in VMT compared with current regional VMT generation for similar uses (GHD, February 11, 2021). This updated analysis is included as part of Appendix F in this IS. GHD reviewed its analytical basis for establishing average trip lengths in Napa County and for the Project Area, and in turn the basis for establishing a trip length baseline and threshold (15% below baseline) and the basis for establishing an average commute length for the proposed Project. Upon further review of data provided by the applicant, indicating a roughly 11-mile one-way commute length, GHD revisited the available sources and found compelling evidence for using an average of three data sources (Streetlight Data, Census Longitudinal Employer-Household Dynamics, and the California Statewide Travel Demand Model). This additional analysis and supporting evidence for using an average of the available data sources, is provided in GHD's updated memorandum (Section 3),

which is included in the Traffic Appendices. Based on the refined analysis, the proposed Project's net VMT over the calculated threshold level was determined to be 729 daily VMT. The VMT analysis determined that completing the bike path from the current terminus at 330 Commerce Court, to connect with Eucalyptus Drive and Wetlands Edge Road, would achieve a reduction of 733 daily VMT, and thus reduce this impact to a ***less-than-significant level with mitigation***. The bike path extension is described in Mitigation Measure TRA-2, below.

As summarized in the Project Description, the project also would include TDM features that are likely to result in reduced VMT per employee once operational. These TDM features were not quantified as part of the VMT analysis, above, but would serve to further reduce the number of individual commute trips generated by the project site, and to encourage commute modes other than single-occupancy vehicle trips. The TDM features included as part of the project are commensurate with measures included in the California Air Pollution Control Officers Association (CAPCOA) publication *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). Specifically, the Project includes measures consistent with the "TRT-1: Implement Commute Trip Reduction Program – Voluntary" mitigation measure category in the CAPCOA report. The project would provide:

- Carpooling encouragement;
- Ride-matching assistance;
- Preferential carpool parking;
- Designated transportation coordinator;
- Vanpool assistance; and,
- Bicycle end-trip facilities (including indoor storage).

The provision of these measures is documented to reduce employee VMT by an additional 1% to 6.2%.

c) The Napa County Airport is located approximately one mile northwest of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over-flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the ALUCP, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are

normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. A small portion of the site may be in Zone E, which is less restrictive than Zone D, and would allow the proposed project use.

An Avigation and Hazard Easement Deed extending over the whole of the property has been approved by the Napa County Board of Supervisors.

Therefore, the proposed project would not create aviation safety hazards for air traffic. Impacts would be ***less than significant***.

d, e) The project circulation plan complies with standard traffic design standards and would not present any traffic hazards. The project's location on Commerce Court assures that traffic into and out of the site would not conflict with any other traffic movements. Internal circulation within the proposed project's parking and loading dock areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. A truck turn-around area is included in the internal circulation plan. The project design does not include any features that would create a hazardous condition. A sidewalk exists along the project site's Commerce Court frontage. Impacts of the proposed project would be ***less than significant***.

The circulation plan has been designed to allow 40-foot fire trucks to access all sides of the building. The access point to the project site from Commerce Court would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

A total of 134 car and 21 truck dock parking spaces will be provided for the building. Of these parking stalls, 6 will be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building will have a total of 21 truck loading docks. The developer will construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress will be provided around the full perimeter of the building.

CSG Consultants, contractor to the City of American Canyon Fire Protection District, who conducts plan check and inspection has reviewed and approved the single access design. Semi-trucks would not be allowed on the east, west and south sides of the Building. Only cars and Fire trucks would be allowed. Signage and the truck turnaround at the west end of the truck docks would assure these limitations on truck access are implemented. The Public Works Engineering Division has also reviewed the single access design with the applicant and has no comments.

f) The City of American Canyon and Napa County adopted a Bicycle Plan into its General Plan in 2020 (City of American Canyon and Napa County Transportation Authority, American Canyon Bicycle Plan, January 2020). That plan (p. 222) shows a proposed Class I Bicycle Route on Green

Island Road connecting to other areas of the City to the east and wetland and open space areas to the west and south.

The proposed project has been designed to encourage and support public transit as well as bicycle and pedestrian access to the site. Each of the three office areas would have a bike rack to accommodate up to 4 bicycles, 5 more bicycles than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

The site plan and nearby off-site improvements appear to be compatible with walking, bicycling, and transit use and do not appear to create additional conflicts with intersections, streets, and highways near the site. Therefore, the project would not conflict with any adopted plans, policies or programs that address alternative transportation and this impact would be ***less than significant***.

Mitigation Measures

Mitigation Measure TRA-1: As described above, Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.

Mitigation Measure TRA-2: The applicant had previously proposed a 300-foot bicycle trail project to help reduce VMT in the project area by inducing existing and future employee commutes using bicycles instead of automobiles. The bicycle trail provides significant ancillary benefits outside the question of VMT reduction, including closing a significant gap in the regional bicycle network. Since preparing the 2020 Draft Initial Study, the City has been informed that a previously-assumed bike trail along the frontage of a new school, south of the proposed project, is no longer being constructed as part of the school project. Thus, the applicant has proposed to close the bicycle network gap by funding the construction of the bike trail along the school's frontage as well, extending the length of the proposed bike trail from about 300 to about 800 feet. This bike trail will close the gap between the Class II bikeways on Commerce Court and the existing bike trail along Wetlands Edge Road that currently terminates at Eucalyptus Drive.

The project shall construct a Class I bike path to fill in the gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.

XVIII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) I, ii. A Sacred Lands File search and SB-52 contact information request was forwarded to the Native American Heritage Commission (NAHC) on behalf of the City. The NAHC stated that there were no Tribal Cultural Resources (TCRs) or other potentially significant properties known to be present within or in the vicinity of the project area.

SAS emailed a letter and a map depicting the SDG Commerce 330 Warehouse Project area to the Native American Heritage Commission (NAHC) on July 29, 2020. On behalf of the City of

American Canyon, the letter requested a Sacred Land File (SLF) search of the project area, and a list of Native American community representatives who should be contacted about the Project under AB-52. On July 30, 2020, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied in an emailed letter that the Sacred Lands File search was completed with positive results and specifically noted the Mishewal-Wappo Tribe of Alexander as the main point-of-contact regarding this finding. Ms. Fonseca also provided a list of local Native American contacts. On August 3, 2020, SAS mailed letters to the following Native American representatives identified by the NAHC (see Appendix G):

- Charlie Wright, Chair - Cortina Rancheria – Klestal Dehe Band of Wintun Indians
- Jose Simon III, Chair - Middletown Rancheria of Pomo Indians
- Merlene Sanchez, Chair - Guidiville Indian Rancheria
- Scott Gabaldon, Chair - Mishewal-Wappo Tribe of Alexander Valley
- Anthony Roberts, Chair - Yocha Dehe Wintun Nation

On August 17, 2020, SAS contacted each of the above-listed individuals by phone and/or email as provided by the NAHC. On August 17, Sally Peterson from Middletown Rancheria emailed SAS stating that the information request would be forwarded to the THPO department and provided updated contact information which SAS forwarded to the NAHC. On August 22, SAS received an email from Mr. Ryan Peterson, Admin and Projects Coordinator of Guideville Indian Rancheria, stating that the project area was outside the Rancheria's area of concern and suggested that SAS contact Mr. Scott Gabaldon of the Mishewal Wappo. SAS contacted Mr. Gabaldon as part of the August 17 emails and phone calls but no responses have been received as of this report. If any other substantive contacts are made with the Native American community regarding the proposed project, an addendum to this report may be developed.

Archival research, coordination with the NAHC, an archaeological field survey, and outreach to the Native American community did not result in the identification of any TCRs within or near the project area. Consequently, the project would have ***no impact*** on Tribal Cultural Resources

XIX. Utilities and Service Systems

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the waste water treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Background

This analysis is based on the City of American Canyon Will Serve Water Application for the project dated April 17, 2020 (See Appendix H).

Discussion

a, b, c) *Wastewater:* The City of American Canyon would provide wastewater collection, treatment, and disposal services for the proposed project. Wastewater from the City's service area is treated at the American Canyon Wastewater Treatment Plant on Mezzetta Court. This secondary/tertiary treatment plant handles domestic and industrial wastewater flows, and employs a Membrane Bio Reactor and ultraviolet light disinfection to produce a very high- quality effluent exceeding the standards set by the discharge permit (City of American Canyon 2017, 2018c). The facility, which was commissioned in 2002, has the capacity to treat 2.5 mgd with a 5.0 mgd wet weather peak flow. American Canyon's current average dry and wet weather daily flows are estimated at 1.3 and 2.7 million gallons, respectively. These daily flow amounts represent 52 percent and 54 percent of the treatment plant's design capacities (Ambrose, email communication). Based on the calculations for the Commerce 330 Distribution Center project, the proposed project would have an estimated domestic sewer demand of about 0.35 AFY (270 gallons/day average), or peak sewer demand of about 9,000 gallons per day, which would be less than 0.7% of plant capacity. The domestic sewer demand exceeds potable water demand because a portion of the wastewater would be reclaimed water used for toilets and urinals.

To the south of the treatment plant, 20 acres of constructed wetlands hold effluent from the wastewater plant prior to discharge into the Napa River, which has been designated by the Regional Water Quality Control Board (RWQCB) as an impaired waterway. During the wet season from November 1 through April 30, effluent is discharged to North Slough, a tributary to the Napa River. Effluent can be discharged to constructed freshwater wetlands all year round, which eventually overflows to the North Slough. Year round, a portion of the effluent is available as recycled water for industrial, agricultural, landscaping, and other uses. Currently approximately 17% of total City inflow, (282 AFY) is recycled, and the rate of use of recycled water is increasing. There were no water quality violations from the reclaimed water system in 2019[14]. The Wastewater Treatment Plant complies with the California Department of Public Health requirements for tertiary recycled water.

A six-inch sanitary sewer line will connect the office locations within the distribution center to a sewer-pump lift-station located near the northeast corner of the building tying into the existing City sewer main line in Commerce Court.

The proposed project's domestic discharge (no industrial discharge is proposed) would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater treatment facilities or expansion or upsizing of existing facilities. Therefore this impact would be ***less than significant.***

[14] City of American Canyon, Recycled Water Annual Report 2019, March 18, 2020

Stormwater: Stormwater runoff from the project site would be directed into a bioretention pond that would be constructed as part of the proposed project. The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. New storm drainage facilities are described in the Hydrology and Water Quality section based on a Hydrology Report (RSA 2019a), and Stormwater Control Plan (RSA 2019b) prepared for the proposed project. With the project's proposed storm drainage/detention facilities and Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, the impact to storm water facilities would be reduced to a ***less-than-significant*** level.

Water supply infrastructure is adequate to serve project needs, as discussed in Item b, below.

b) The City of American Canyon would provide water service to the site. The City receives water from the following sources:

- State Water Project (SWP);
- Permit (raw) water from the City of Vallejo;
- Treated water from the City of Vallejo;
- Emergency (raw) water from the City of Vallejo, and
- Recycled water from the City of American Canyon's wastewater treatment plant and Napa Sanitation District (City of American Canyon 2016a).

The amount of water delivered to the City of American Canyon from each of these sources can vary from year to year. For instance, deliveries from the SWP have varied between five percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount (City of American Canyon 2016a).

The City of American Canyon has two water treatment plants: a conventional sedimentation and filtration plant that was commissioned in 1976 and a membrane filtration plant, which has pores small enough to filter out contaminants, such as microorganisms, and that has been in use since 2004 (City of American Canyon 2020). Together the two plants produce up to 5.5 million gallons of potable water per year. The proposed project's net water demand of less than 1.2 acre-feet of water per year (AFY) could be supplied by the existing water treatment plants.

California Water Code requires that water purveyors, such as the City of American Canyon, develop an Urban Water Management Plan (UWMP) and update it every five years. The City's 2015 UWMP estimated an available year 2020 water supply of 5287 AFY, and a demand of 4412 AFY (City of American Canyon 2015). The City's 2020 UWMP is not yet available.

The Public Works Department of the City of American Canyon manages the City's water supply. As required by the City, the applicant has submitted a Will-Serve Water Application to the Public Works Department for the proposed project.[15] As part of that application, a Water Supply Report has been prepared for the proposed project in accordance with the City's Methodology for Determining Zero Water Footprint and Developing Water Supply Reports. the proposed project is estimated to have an average potable water daily demand of 142 gallons/day (gpd), and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. In addition, it will use about 541 gpd of recycled water. (Stravinski Development Group 2020). Implementation of mitigation measures UTIL-1 through UTIL-5, below would reduce the project impacts to *a **less-than-significant*** level.

d, e) During project construction and operation, the project would generate solid waste requiring disposal. Recology American Canyon provides solid waste and recycling collection services to the commercial and residential customers in American Canyon. Solid waste from American Canyon is delivered by Recology American Canyon to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. The transfer station is permitted to receive 1,440 tons of waste per day. From the Devlin Road Transfer Station, solid waste is sent to Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill has a maximum daily throughput of 3,500 tons/day and remaining capacity of 63.4 million cubic yards, which is 84 percent of the landfill's maximum permitted capacity. The anticipated closure date for the landfill is 2030 (CalRecycle 2020[16]). Construction and demolition waste accepted at Keller Canyon Landfill is sorted for recyclable material, such as wood, plastics, and metal, which further helps to alleviate the amount of solid waste going to the landfill.

The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon.

Green waste from landscape maintenance is minimal because there are no cultivated grass areas that would need to be mowed. Green wastes would be removed from the site. Natural areas would be left in their native state. If required for fire abatement purposes, high weeds would be cut and left to decompose on-site. Solid waste impacts would be ***less than significant***.

[15] Richard Kaufman, Public Works Director, City of American Canyon, letter to Peter Stravinski, SDG, April 17, 2020.
[16] https://www2.calrecycle.ca.gov/swfacilities/Directory/07-AA-0032

Mitigation Measures

Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

- Reducing existing potable water demands onsite
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
- Purchase new water supplies from other water providers

The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.

Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.

Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

- Drought-resistant vegetation
- Irrigation systems employing the following features:
  - Drip irrigation

  - Low-precipitation-rate sprinklers
  - Bubbler/soaker systems
  - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
  - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
  - Conservative sprinkler spacings that minimize overspray onto paved surfaces
  - Hydrozones that keep plants with similar water needs in the same irrigation zone
- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

XX. Wildfire Hazards

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors,exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				**X**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

Background

California PRC 4201 - 4204 and Govt. Code 51175-89 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires. CAL FIRE is remapping Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRA) to provide updated map zones,

based on new data, science, and technology. The Project site and surrounding area are classified Local Responsibility Areas and are mapped as in a "non-very high fire hazard zone[17].

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The Project would not require the provision of or need for new or physically altered facilities to continue to serve the Project site.

Discussion

a, b, c) The Project would construct a large warehouse-style building and paved parking on the grassy site in a non-very-high-fire-hazard area. The building would be constructed in accordance with current fire codes. No expansion of fire response facilities is required. Therefore, the Project would have a **less-than-significant impact** with respect to wildfire hazards, associated hazards, and equipment/infrastructure needs.

[17] https://osfm.fire.ca.gov/media/6732/fhszl_map28.pdf

XXI. COVID-19 Hazards

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially affect the spread of Covid-19			**X**	

Discussion

On March 4, 2020, Governor Gavin Newsom proclaimed a State of Emergency to exist in California as a result of the threat of the COVID-19. Governor Newsom and other state and local agencies have issued various orders, directives, and policies to address the COVID-19 pandemic and the health, safety and welfare of California residents, including a stay at home mandate and provisions intended to provide for the continued delivery of necessary goods and services.

Executive Order N-33-20, which includes the stay at home mandate, provided that residents working in 13 critical infrastructure sectors identified by the federal government may continue working, because of the importance of these sectors to California's health and well-being. The State Public Health Officer has identified the following sectors as essential critical infrastructure with essential workers who should continue reporting to work as normal: communications and information technology; chemical; critical manufacturing; defense industrial base; emergency services; energy; financial services; food and agriculture; hazardous materials; healthcare/public health; community-based government operations and essential functions; transportation and logistics; and water and wastewater. These sectors have been identified as critical infrastructure to allow state, local, tribal, and industry partners to work to protect communities and ensure continuity of functions critical to public health and safety as well as economic and national security.

Under this Order, local governments, including the City of American Canyon and Napa County, have continued to provide critical functions and services to the public. Many critical workers are allowed to continue working under the Order. These functions and services include, among others, law enforcement, fire protection, public safety, emergency management, emergency medical technicians, public works, health care, and transportation. Additionally, local government agencies have emergency plans that provide appropriate procedures and actions to implement during emergency situations such as the COVID-19 pandemic. These plans address many of the concerns associated with the consequences of the pandemic, such as the continued provision of emergency and essential services.

Private sector businesses also continue to provide critical infrastructure functions and services such as food and transportation among many others. Firms that enable logistics operations, including cooling storage, packaging and distributing products for wholesale or retail sale or use are identified as essential. Roadways are considered part of the essential transportation system sector.

The COVID-19 pandemic and the related orders and policies have resulted in certain social and economic impacts. Whether these social and economic impacts will result in any significant, adverse physical environmental impacts has not been documented and it would be speculative to make such determinations as there is no valid, reliable evidence available to the City at this time. A number of federal, state, and local programs (e.g., state unemployment, expansion of workers covered by the unemployment program, the federal supplement for unemployment benefits, the CARE Act, pandemic relief for migrant workers, and various locally-enacted residential and commercial rent relief) are available to assist individuals and businesses with funding to offset the economic impacts of the stay at home mandate.

Certain physical impacts resulting from the stay at home Order have been beneficial, including a substantial reduction in traffic and related impacts such as noise reduction and vehicle air quality and greenhouse gas emission reductions. Additionally, the continued provision of critical infrastructure functions and services, including emergency services, ensure that no significant adverse impacts would occur from the COVID-19 pandemic with respect to public services, safety, or utilities. The COVID-19 pandemic and stay at home Order would not adversely affect resources related to geology, hydrology, hazards, cultural resources, aesthetics, land use, biology, energy, and other topics, because the pandemic has not necessitated significant construction activities.

Since September, the state and local jurisdictions have been implementing phased reopening plans for certain employment and recreation sectors subject to implementation of appropriate protocols to reduce the potential for spreading the virus. It is expected that a COVID-19 vaccine will be available in the foreseeable future. Buildout of the Project and full occupancy of the site is not expected until after the current state of emergency has expired.

If construction is initiated prior to the availability of a COVID-19 vaccine, construction activities would be subject to various safety measures necessary to reduce the potential for the spread of the virus. These measures will be addressed in a project construction site safety plan and could include, among other measures, social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The applicant has prepared a draft Covid-19 Exposure Control Plan, which is included as Appendix I to this Initial Study. With implementation of this plan, potential impacts would be less than significant.

XXII. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

a) The proposed project could affect special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. Although the site does not contain any known historic resources or prehistoric resources, unknown resources could potentially be affected by project implementation, as discussed above in Section V. Cultural Resources. Compliance with the mitigation measures for the unearthing of any unknown cultural resources as well as mitigation required for biological resources would ensure all potential impacts associated with biological and cultural resources would be reduced to ***less than significant with mitigation***.

b) A number of cumulative projects are proposed or under construction in the project area (City of American Canyon, Active Planning Projects, July 2020[18]. The 330,000 sq. ft. Commerce 330 Distribution Center building is just south of the proposed project site. Copart Auto applied for a Conditional Use Permit to store vehicles at 1578 and 1660 Green Island Road. A new elementary school is under construction just southeast of the site at Commerce Blvd. and Eucalyptus Road. The only other large project planned is an approximately 200,000 sq. ft. logistics center at 300 Boone Drive, near the Napa Airport, about a mile north of the site. It is unlikely that impacts of those projects other than the school would overlap those of this project, with the exception of regional air quality (addressed in this IS) and traffic along SR 29, which is addressed in the City's General Plan. It is possible that construction impacts from the new school could overlap those of the proposed project, however they are likely to be accessed from opposite ends of Commerce Court, so overlap of noise and traffic would be minimal. Construction on the Commerce 330 Distribution Center has been completed, so construction impacts would not overlap with those of the 217 Commerce project. The cumulative effects of the proposed project would therefore be ***less than significant*.**

With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.

Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

It is possible that the remaining parcel between the project site and the Commerce 330 site would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, biological resources, and air quality impacts of the proposed

[18] https://www.cityofamericancanyon.org/government/community-development/projects

project, as with the project impacts. No projects are currently proposed for that site, therefore assessment of those impacts would be speculative at this time. Environmental review of that project would be required to also consider the proposed project, if approved.

c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. Hazards associated with any soil contamination would be mitigated on site. The project's hazards would be less than significant, as described in this IS. The impact is considered ***less than significant*.**

IV. REPORT PREPARERS

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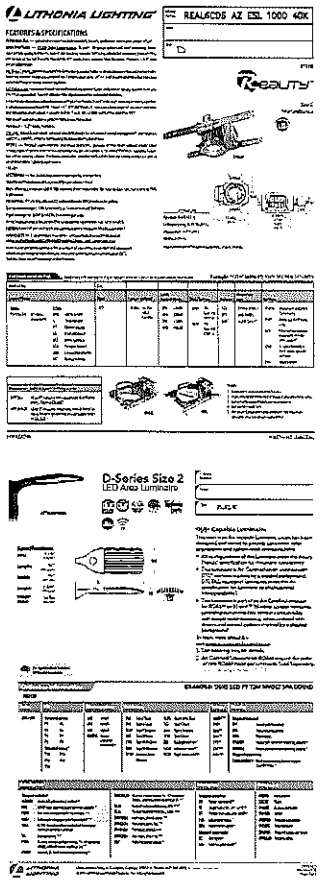
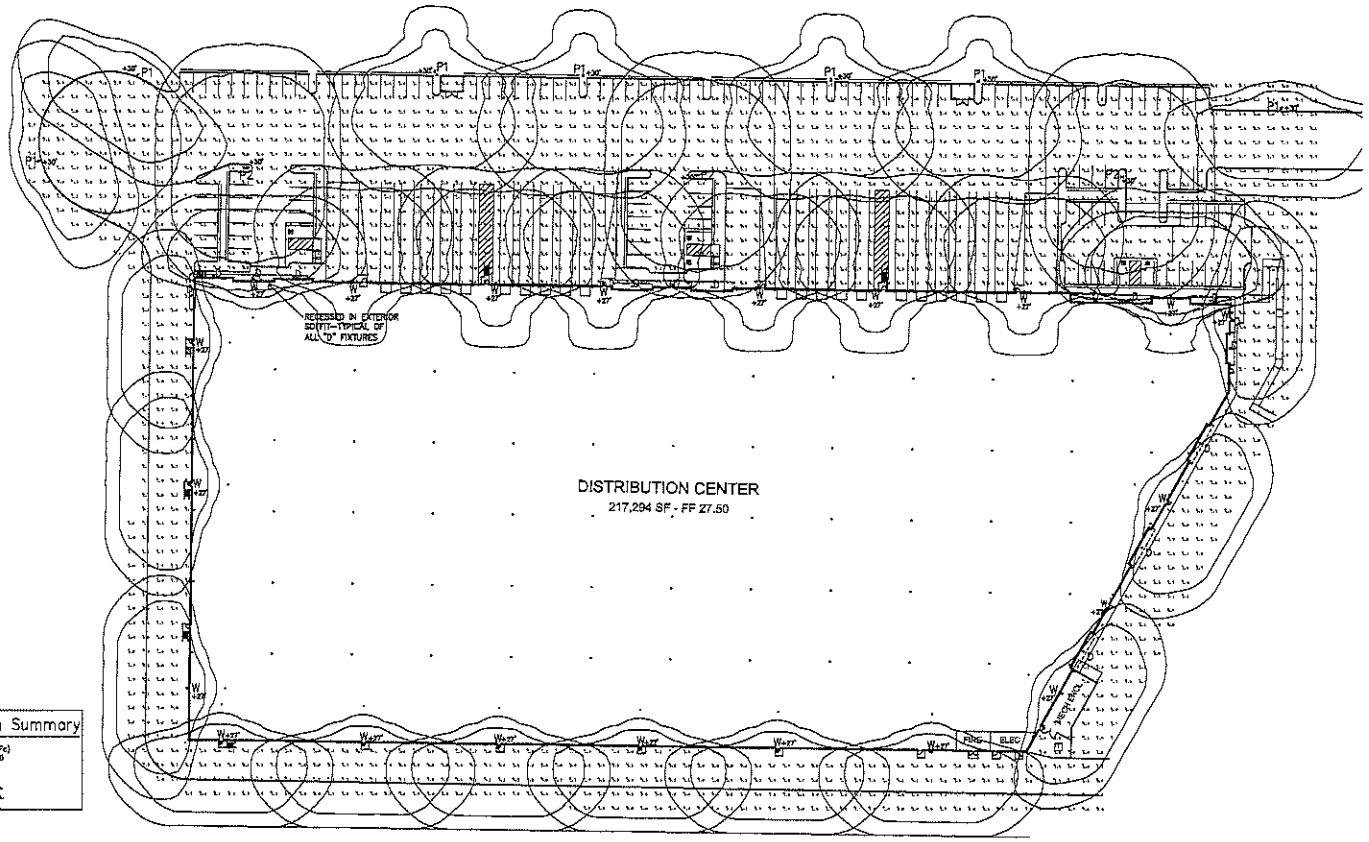
Appendix A

Lighting Studies





Summary by Label	
Label	Total
D —recessed	13
W —wall mount	21
P1 —pole mount	7
P2 —pole mount	3

Calculation Summary

Illuminance (Fc)
Average: 2.50
Maximum: 6.4
Minimum: 0.0
Avg/Min: N.A.
Max/Min: N.A.

SITE PHOTOMETRIC

SCALE: 1" = 40'-0"

Bosley Electric COMPANY

COMMERCIAL AND INDUSTRIAL SERVICE AND CONTRACTING

BOSLEY ELECTRIC COMPANY
CLASSIFICATION B C-10 C-36
LICENSE NO. 378245
STATE OF CALIFORNIA

THESE PLANS HAVE BEEN PREPARED BY BOSLEY ELECTRIC FOR THEIR EXCLUSIVE USE IN ACCORDANCE WITH SECTION 8727.5 OF THE PROFESSIONAL ENGINEERS ACT AND ARE NOT TO BE USED FOR THE PURPOSE OF BIDDING OR INSTALLATION BY ANY OTHER CONTRACTOR.

Project
SDG COMMERCE 217
DISTRIBUTION CENTER
AMERICAN CANYON, CA

No.	Revision	Date

Client

Sheet title
SITE PHOTOMETRIC

Date: 12-12-19
Project No.
Drawn by: KC
Sheet No.
Checked by
E-1.1

Appendix B

Air Quality Model Output Data

Attachment E

Revised Air Quality Modeling

CalEEMod Version 2016.3.2 Output Files

- Annual
- Summer
- Winter

SDG Commerce 217 Wine Storage Project

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	206	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Fleet Mix - Increased MHD trips to account for 25 MHD trucks or 50 trips per day

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblFleetMix	LDA	0.59	0.48
tblFleetMix	MHD	0.02	0.14
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25

tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.2583	2.3090	1.9787	4.7400e-003	0.3293	0.0849	0.4143	0.1404	0.0793	0.2197	0.0000	426.0365	426.0365	0.0731	0.0000	427.8628
Maximum	**1.2583**	**2.3090**	**1.9787**	**4.7400e-003**	**0.3293**	**0.0849**	**0.4143**	**0.1404**	**0.0793**	**0.2197**	**0.0000**	**426.0365**	**426.0365**	**0.0731**	**0.0000**	**427.8628**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.1521	2.0446	2.1856	4.7400e-003	0.2095	0.0140	0.2236	0.0798	0.0140	0.0938	0.0000	426.0362	426.0362	0.0731	0.0000	427.8625
Maximum	**1.1521**	**2.0446**	**2.1856**	**4.7400e-003**	**0.2095**	**0.0140**	**0.2236**	**0.0798**	**0.0140**	**0.0938**	**0.0000**	**426.0362**	**426.0362**	**0.0731**	**0.0000**	**427.8625**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.44**	**11.45**	**-10.45**	**0.00**	**36.38**	**83.47**	**46.03**	**43.15**	**82.40**	**57.32**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2022	5-31-2022	0.9372	0.7247
2	6-1-2022	8-31-2022	0.8045	0.7249
3	9-1-2022	9-30-2022	0.2623	0.2364
		Highest	0.9372	0.7249

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9617	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	62.9395	62.9395	8.8600e-003	1.8300e-003	63.7073
Mobile	0.0781	0.6677	0.9431	4.1800e-003	0.2950	2.7900e-003	0.2978	0.0807	2.6200e-003	0.0833	0.0000	388.4233	388.4233	0.0120	0.0000	388.7240
Waste						0.0000	0.0000		0.0000	0.0000	0.4060	0.0000	0.4060	0.0240	0.0000	1.0058
Water						0.0000	0.0000		0.0000	0.0000	2.4000e-004	3.4400e-003	3.6900e-003	3.0000e-005	0.0000	4.5300e-003
Total	**1.0397**	**0.6677**	**0.9473**	**4.1800e-003**	**0.2950**	**2.8100e-003**	**0.2978**	**0.0807**	**2.6400e-003**	**0.0833**	**0.4062**	**451.3745**	**451.7808**	**0.0449**	**1.8300e-003**	**453.4504**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9617	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	62.9395	62.9395	8.8600e-003	1.8300e-003	63.7073
Mobile	0.0781	0.6677	0.9431	4.1800e-003	0.2950	2.7900e-003	0.2978	0.0807	2.6200e-003	0.0833	0.0000	388.4233	388.4233	0.0120	0.0000	388.7240
Waste						0.0000	0.0000		0.0000	0.0000	0.4060	0.0000	0.4060	0.0240	0.0000	1.0058
Water						0.0000	0.0000		0.0000	0.0000	2.4000e-004	3.4400e-003	3.6900e-003	3.0000e-005	0.0000	4.5300e-003
Total	**1.0397**	**0.6677**	**0.9473**	**4.1800e-003**	**0.2950**	**2.8100e-003**	**0.2978**	**0.0807**	**2.6400e-003**	**0.0833**	**0.4062**	**451.3745**	**451.7808**	**0.0449**	**1.8300e-003**	**453.4504**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2022	3/14/2022	5	10	
2	Grading	Grading	3/15/2022	5/2/2022	5	35	
3	Paving	Paving	5/3/2022	5/30/2022	5	20	
4	Building Construction	Building Construction	5/31/2022	11/28/2022	5	130	
5	Architectural Coating	Architectural Coating	11/29/2022	12/19/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0994**	**8.0600e-003**	**0.1074**	**0.0506**	**7.4200e-003**	**0.0581**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.0000e-004	2.1600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5713	0.5713	1.0000e-005	0.0000	0.5717
Total	**3.0000e-004**	**2.0000e-004**	**2.1600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5713**	**0.5713**	**1.0000e-005**	**0.0000**	**0.5717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0447	0.0000	0.0447	0.0228	0.0000	0.0228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0447**	**7.1000e-004**	**0.0454**	**0.0228**	**7.1000e-004**	**0.0235**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.0000e-004	2.1600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5713	0.5713	1.0000e-005	0.0000	0.5717
Total	**3.0000e-004**	**2.0000e-004**	**2.1600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5713**	**0.5713**	**1.0000e-005**	**0.0000**	**0.5717**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1185	0.0000	0.1185	0.0595	0.0000	0.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0341	0.3650	0.2673	5.2000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	45.5958	45.5958	0.0148	0.0000	45.9645
Total	**0.0341**	**0.3650**	**0.2673**	**5.2000e-004**	**0.1185**	**0.0165**	**0.1349**	**0.0595**	**0.0152**	**0.0747**	**0.0000**	**45.5958**	**45.5958**	**0.0148**	**0.0000**	**45.9645**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8500e-003	0.2142	0.0290	2.4000e-004	5.5000e-004	1.2000e-004	6.7000e-004	1.6000e-004	1.2000e-004	2.7000e-004	0.0000	23.0256	23.0256	3.5200e-003	0.0000	23.1137
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	5.9000e-004	6.2900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6664	1.6664	4.0000e-005	0.0000	1.6674
Total	**4.7200e-003**	**0.2148**	**0.0353**	**2.6000e-004**	**2.6200e-003**	**1.3000e-004**	**2.7600e-003**	**7.1000e-004**	**1.3000e-004**	**8.3000e-004**	**0.0000**	**24.6920**	**24.6920**	**3.5600e-003**	**0.0000**	**24.7811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0533	0.0000	0.0533	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.2597	0.3323	5.2000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	45.5958	45.5958	0.0148	0.0000	45.9645
Total	**0.0127**	**0.2597**	**0.3323**	**5.2000e-004**	**0.0533**	**1.9800e-003**	**0.0553**	**0.0268**	**1.9800e-003**	**0.0288**	**0.0000**	**45.5958**	**45.5958**	**0.0148**	**0.0000**	**45.9645**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8500e-003	0.2142	0.0290	2.4000e-004	5.5000e-004	1.2000e-004	6.7000e-004	1.6000e-004	1.2000e-004	2.7000e-004	0.0000	23.0256	23.0256	3.5200e-003	0.0000	23.1137
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	5.9000e-004	6.2900e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6664	1.6664	4.0000e-005	0.0000	1.6674
Total	**4.7200e-003**	**0.2148**	**0.0353**	**2.6000e-004**	**2.6200e-003**	**1.3000e-004**	**2.7600e-003**	**7.1000e-004**	**1.3000e-004**	**8.3000e-004**	**0.0000**	**24.6920**	**24.6920**	**3.5600e-003**	**0.0000**	**24.7811**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	4.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0101**	**0.1130**	**0.1730**	**2.3000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.6000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9522	0.9522	2.0000e-005	0.0000	0.9528
Total	**5.0000e-004**	**3.4000e-004**	**3.6000e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9522**	**0.9522**	**2.0000e-005**	**0.0000**	**0.9528**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6214	150.6214	0.0361	0.0000	151.5235
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6214**	**150.6214**	**0.0361**	**0.0000**	**151.5235**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0123	0.4034	0.1018	1.0400e-003	0.0256	8.4000e-004	0.0264	7.3900e-003	8.0000e-004	8.1900e-003	0.0000	99.5088	99.5088	5.0300e-003	0.0000	99.6345
Worker	0.0335	0.0225	0.2415	7.1000e-004	0.0796	5.2000e-004	0.0801	0.0212	4.8000e-004	0.0217	0.0000	63.9568	63.9568	1.5500e-003	0.0000	63.9955
Total	**0.0458**	**0.4259**	**0.3433**	**1.7500e-003**	**0.1052**	**1.3600e-003**	**0.1065**	**0.0286**	**1.2800e-003**	**0.0299**	**0.0000**	**163.4656**	**163.4656**	**6.5800e-003**	**0.0000**	**163.6300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0438	0.9247	1.1618	1.7500e-003		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	150.6212	150.6212	0.0361	0.0000	151.5233
Total	**0.0438**	**0.9247**	**1.1618**	**1.7500e-003**		**8.8100e-003**	**8.8100e-003**		**8.8100e-003**	**8.8100e-003**	**0.0000**	**150.6212**	**150.6212**	**0.0361**	**0.0000**	**151.5233**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0123	0.4034	0.1018	1.0400e-003	0.0256	8.4000e-004	0.0264	7.3900e-003	8.0000e-004	8.1900e-003	0.0000	99.5088	99.5088	5.0300e-003	0.0000	99.6345
Worker	0.0335	0.0225	0.2415	7.1000e-004	0.0796	5.2000e-004	0.0801	0.0212	4.8000e-004	0.0217	0.0000	63.9568	63.9568	1.5500e-003	0.0000	63.9955
Total	**0.0458**	**0.4259**	**0.3433**	**1.7500e-003**	**0.1052**	**1.3600e-003**	**0.1065**	**0.0286**	**1.2800e-003**	**0.0299**	**0.0000**	**163.4656**	**163.4656**	**6.5800e-003**	**0.0000**	**163.6300**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0283					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.0298**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0283					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	0.0102	0.0137	2.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**1.0287**	**0.0102**	**0.0137**	**2.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.2000e-004	5.5700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4759	1.4759	4.0000e-005	0.0000	1.4768
Total	**7.7000e-004**	**5.2000e-004**	**5.5700e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4759**	**1.4759**	**4.0000e-005**	**0.0000**	**1.4768**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0781	0.6677	0.9431	4.1800e-003	0.2950	2.7900e-003	0.2978	0.0807	2.6200e-003	0.0833	0.0000	388.4233	388.4233	0.0120	0.0000	388.7240
Unmitigated	0.0781	0.6677	0.9431	4.1800e-003	0.2950	2.7900e-003	0.2978	0.0807	2.6200e-003	0.0833	0.0000	388.4233	388.4233	0.0120	0.0000	388.7240

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Parking Lot	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Refrigerated Warehouse-No Rail	0.475775	0.035302	0.167493	0.109091	0.021115	0.005747	0.135000	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	62.9395	62.9395	8.8600e-003	1.8300e-003	63.7073
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	62.9395	62.9395	8.8600e-003	1.8300e-003	63.7073
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.0277	2.9000e-004	6.0000e-005	2.0524
Refrigerated Warehouse-No Rail	651882	60.9119	8.5700e-003	1.7700e-003	61.6549
Total		**62.9395**	**8.8600e-003**	**1.8300e-003**	**63.7073**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	21700	2.0277	2.9000e-004	6.0000e-005	2.0524
Refrigerated Warehouse-No Rail	651882	60.9119	8.5700e-003	1.7700e-003	61.6549
Total		**62.9395**	**8.8600e-003**	**1.8300e-003**	**63.7073**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9617	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Unmitigated	0.9617	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1028					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9617**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1028					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**0.9617**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.6900e-003	3.0000e-005	0.0000	4.5300e-003
Unmitigated	3.6900e-003	3.0000e-005	0.0000	4.5300e-003

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.000768 / 0.009341	3.6900e-003	3.0000e-005	0.0000	4.5300e-003
Total		**3.6900e-003**	**3.0000e-005**	**0.0000**	**4.5300e-003**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.000768 / 0.009341	3.6900e-003	3.0000e-005	0.0000	4.5300e-003
Total		**3.6900e-003**	**3.0000e-005**	**0.0000**	**4.5300e-003**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4060	0.0240	0.0000	1.0058
Unmitigated	0.4060	0.0240	0.0000	1.0058

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2	0.4060	0.0240	0.0000	1.0058
Total		**0.4060**	**0.0240**	**0.0000**	**1.0058**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2	0.4060	0.0240	0.0000	1.0058
Total		**0.4060**	**0.0240**	**0.0000**	**1.0058**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	206	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Fleet Mix - Increased MHD trips to account for 25 MHD trucks or 50 trips per day

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblFleetMix	LDA	0.59	0.48
tblFleetMix	MHD	0.02	0.14
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25

tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	137.4141	33.2940	21.8358	0.0547	20.0170	1.6135	21.6305	10.1646	1.4844	11.6490	0.0000	5,419.1831	5,419.1831	1.1954	0.0000	5,437.2328
Maximum	**137.4141**	**33.2940**	**21.8358**	**0.0547**	**20.0170**	**1.6135**	**21.6305**	**10.1646**	**1.4844**	**11.6490**	**0.0000**	**5,419.1831**	**5,419.1831**	**1.1954**	**0.0000**	**5,437.2328**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	137.2690	27.2786	23.4252	0.0547	9.0890	0.1563	9.2318	4.5956	0.1551	4.7384	0.0000	5,419.1831	5,419.1831	1.1954	0.0000	5,437.2328
Maximum	**137.2690**	**27.2786**	**23.4252**	**0.0547**	**9.0890**	**0.1563**	**9.2318**	**4.5956**	**0.1551**	**4.7384**	**0.0000**	**5,419.1831**	**5,419.1831**	**1.1954**	**0.0000**	**5,437.2328**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.11**	**18.07**	**-7.28**	**0.00**	**54.59**	**90.31**	**57.32**	**54.79**	**89.55**	**59.32**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6659	4.9979	7.4369	0.0333	2.3546	0.0214	2.3760	0.6414	0.0201	0.6615		3,410.6988	3,410.6988	0.1018		3,413.2426
Total	**5.9376**	**4.9983**	**7.4841**	**0.0333**	**2.3546**	**0.0216**	**2.3762**	**0.6414**	**0.0203**	**0.6617**		**3,410.7999**	**3,410.7999**	**0.1020**	**0.0000**	**3,413.3503**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6659	4.9979	7.4369	0.0333	2.3546	0.0214	2.3760	0.6414	0.0201	0.6615		3,410.6988	3,410.6988	0.1018		3,413.2426
Total	**5.9376**	**4.9983**	**7.4841**	**0.0333**	**2.3546**	**0.0216**	**2.3762**	**0.6414**	**0.0203**	**0.6617**		**3,410.7999**	**3,410.7999**	**0.1020**	**0.0000**	**3,413.3503**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2022	3/14/2022	5	10	
2	Grading	Grading	3/15/2022	5/2/2022	5	35	
3	Paving	Paving	5/3/2022	5/30/2022	5	20	
4	Building Construction	Building Construction	5/31/2022	11/28/2022	5	130	
5	Architectural Coating	Architectural Coating	11/29/2022	12/19/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.8691**	**1.6126**	**21.4817**	**10.1254**	**1.4836**	**11.6089**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0354	0.4652	1.3500e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		134.6983	134.6983	3.2400e-003		134.7793
Total	**0.0628**	**0.0354**	**0.4652**	**1.3500e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**134.6983**	**134.6983**	**3.2400e-003**		**134.7793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9411	0.0000	8.9411	4.5564	0.0000	4.5564			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.9411**	**0.1419**	**9.0830**	**4.5564**	**0.1419**	**4.6983**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0354	0.4652	1.3500e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		134.6983	134.6983	3.2400e-003		134.7793
Total	**0.0628**	**0.0354**	**0.4652**	**1.3500e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**134.6983**	**134.6983**	**3.2400e-003**		**134.7793**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.7701**	**0.9409**	**7.7109**	**3.4011**	**0.8656**	**4.2667**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2079	12.4094	1.3888	0.0143	0.0324	6.1900e-003	0.0386	9.1200e-003	5.9200e-003	0.0150		1,526.1230	1,526.1230	0.2091		1,531.3511
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.2602**	**12.4389**	**1.7764**	**0.0154**	**0.1556**	**6.9600e-003**	**0.1626**	**0.0418**	**6.6300e-003**	**0.0484**		**1,638.3716**	**1,638.3716**	**0.2118**		**1,643.6672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0465	0.0000	3.0465	1.5305	0.0000	1.5305			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.1133	0.1133		0.1133	0.1133	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**0.7263**	**14.8397**	**18.9906**	**0.0297**	**3.0465**	**0.1133**	**3.1599**	**1.5305**	**0.1133**	**1.6438**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2079	12.4094	1.3888	0.0143	0.0324	6.1900e-003	0.0386	9.1200e-003	5.9200e-003	0.0150		1,526.1230	1,526.1230	0.2091		1,531.3511
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.2602**	**12.4389**	**1.7764**	**0.0154**	**0.1556**	**6.9600e-003**	**0.1626**	**0.0418**	**6.6300e-003**	**0.0484**		**1,638.3716**	**1,638.3716**	**0.2118**		**1,643.6672**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0129**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0295	0.3877	1.1300e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		112.2486	112.2486	2.7000e-003		112.3160
Total	**0.0523**	**0.0295**	**0.3877**	**1.1300e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**112.2486**	**112.2486**	**2.7000e-003**		**112.3160**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1851	6.1332	1.4667	0.0161	0.4058	0.0127	0.4185	0.1168	0.0122	0.1290		1,704.9474	1,704.9474	0.0822		1,707.0015
Worker	0.5407	0.3044	4.0057	0.0116	1.2733	8.0000e-003	1.2813	0.3377	7.3700e-003	0.3451		1,159.9021	1,159.9021	0.0279		1,160.5991
Total	**0.7259**	**6.4376**	**5.4724**	**0.0277**	**1.6791**	**0.0207**	**1.6998**	**0.4545**	**0.0196**	**0.4741**		**2,864.8495**	**2,864.8495**	**0.1100**		**2,867.6006**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1851	6.1332	1.4667	0.0161	0.4058	0.0127	0.4185	0.1168	0.0122	0.1290		1,704.9474	1,704.9474	0.0822		1,707.0015
Worker	0.5407	0.3044	4.0057	0.0116	1.2733	8.0000e-003	1.2813	0.3377	7.3700e-003	0.3451		1,159.9021	1,159.9021	0.0279		1,160.5991
Total	**0.7259**	**6.4376**	**5.4724**	**0.0277**	**1.6791**	**0.0207**	**1.6998**	**0.4545**	**0.0196**	**0.4741**		**2,864.8495**	**2,864.8495**	**0.1100**		**2,867.6006**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	137.1015					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**137.3060**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	137.1015					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**137.1609**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1082	0.0609	0.8012	2.3300e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		231.9804	231.9804	5.5800e-003		232.1198
Total	**0.1082**	**0.0609**	**0.8012**	**2.3300e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**231.9804**	**231.9804**	**5.5800e-003**		**232.1198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6659	4.9979	7.4369	0.0333	2.3546	0.0214	2.3760	0.6414	0.0201	0.6615		3,410.6988	3,410.6988	0.1018		3,413.2426
Unmitigated	0.6659	4.9979	7.4369	0.0333	2.3546	0.0214	2.3760	0.6414	0.0201	0.6615		3,410.6988	3,410.6988	0.1018		3,413.2426

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Parking Lot	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Refrigerated Warehouse-No Rail	0.475775	0.035302	0.167493	0.109091	0.021115	0.005747	0.135000	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3700e-003	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.2717**	**4.3000e-004**	**0.0472**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3700e-003	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.2717**	**4.3000e-004**	**0.0472**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG Commerce 217 Wine Storage Project

Napa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	217.29	1000sqft	4.99	217,294.00	0
Other Asphalt Surfaces	89.77	1000sqft	2.06	89,768.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	206	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Fleet Mix - Increased MHD trips to account for 25 MHD trucks or 50 trips per day

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	35.00
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00
tblFleetMix	LDA	0.59	0.48
tblFleetMix	MHD	0.02	0.14
tblGrading	AcresOfGrading	17.50	17.00
tblGrading	AcresOfGrading	0.00	17.00
tblGrading	MaterialImported	0.00	38,000.00
tblLandUse	LandUseSquareFeet	217,290.00	217,294.00
tblLandUse	LandUseSquareFeet	89,770.00	89,768.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25

tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.69
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	137.4196	33.1284	21.9071	0.0534	20.0170	1.6135	21.6305	10.1646	1.4844	11.6490	0.0000	5,290.7023	5,290.7023	1.1952	0.0000	5,308.8929
Maximum	**137.4196**	**33.1284**	**21.9071**	**0.0534**	**20.0170**	**1.6135**	**21.6305**	**10.1646**	**1.4844**	**11.6490**	**0.0000**	**5,290.7023**	**5,290.7023**	**1.1952**	**0.0000**	**5,308.8929**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	137.2745	26.8686	23.4174	0.0534	9.0890	0.1567	9.2318	4.5956	0.1555	4.7384	0.0000	5,290.7023	5,290.7023	1.1952	0.0000	5,308.8929
Maximum	**137.2745**	**26.8686**	**23.4174**	**0.0534**	**9.0890**	**0.1567**	**9.2318**	**4.5956**	**0.1555**	**4.7384**	**0.0000**	**5,290.7023**	**5,290.7023**	**1.1952**	**0.0000**	**5,308.8929**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.11**	**18.90**	**-6.89**	**0.00**	**54.59**	**90.29**	**57.32**	**54.79**	**89.52**	**59.32**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5952	5.2227	7.6613	0.0319	2.3546	0.0215	2.3761	0.6414	0.0202	0.6616		3,269.2846	3,269.2846	0.1050		3,271.9107
Total	**5.8669**	**5.2231**	**7.7084**	**0.0319**	**2.3546**	**0.0217**	**2.3763**	**0.6414**	**0.0204**	**0.6618**		**3,269.3857**	**3,269.3857**	**0.1053**	**0.0000**	**3,272.0184**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5952	5.2227	7.6613	0.0319	2.3546	0.0215	2.3761	0.6414	0.0202	0.6616		3,269.2846	3,269.2846	0.1050		3,271.9107
Total	**5.8669**	**5.2231**	**7.7084**	**0.0319**	**2.3546**	**0.0217**	**2.3763**	**0.6414**	**0.0204**	**0.6618**		**3,269.3857**	**3,269.3857**	**0.1053**	**0.0000**	**3,272.0184**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2022	3/14/2022	5	10	
2	Grading	Grading	3/15/2022	5/2/2022	5	35	
3	Paving	Paving	5/3/2022	5/30/2022	5	20	
4	Building Construction	Building Construction	5/31/2022	11/28/2022	5	130	
5	Architectural Coating	Architectural Coating	11/29/2022	12/19/2022	5	15	

Acres of Grading (Site Preparation Phase): 17

Acres of Grading (Grading Phase): 17

Acres of Paving: 3.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 325,941; Non-Residential Outdoor: 108,647; Striped Parking Area: 9,106 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,750.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Building Construction	9	155.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8691	0.0000	19.8691	10.1254	0.0000	10.1254			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.8691**	**1.6126**	**21.4817**	**10.1254**	**1.4836**	**11.6089**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.0449	0.4473	1.2500e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		124.5908	124.5908	3.0600e-003		124.6674
Total	**0.0660**	**0.0449**	**0.4473**	**1.2500e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**124.5908**	**124.5908**	**3.0600e-003**		**124.6674**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9411	0.0000	8.9411	4.5564	0.0000	4.5564			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.9411**	**0.1419**	**9.0830**	**4.5564**	**0.1419**	**4.6983**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.0449	0.4473	1.2500e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		124.5908	124.5908	3.0600e-003		124.6674
Total	**0.0660**	**0.0449**	**0.4473**	**1.2500e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**124.5908**	**124.5908**	**3.0600e-003**		**124.6674**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7701	0.0000	6.7701	3.4011	0.0000	3.4011			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.7701**	**0.9409**	**7.7109**	**3.4011**	**0.8656**	**4.2667**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2357	11.9914	2.0072	0.0126	0.0324	8.0900e-003	0.0405	9.1200e-003	7.7400e-003	0.0169		1,345.7465	1,345.7465	0.2388		1,351.7164
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.2907**	**12.0288**	**2.3799**	**0.0137**	**0.1556**	**8.8600e-003**	**0.1645**	**0.0418**	**8.4500e-003**	**0.0503**		**1,449.5722**	**1,449.5722**	**0.2414**		**1,455.6060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0465	0.0000	3.0465	1.5305	0.0000	1.5305			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.1133	0.1133		0.1133	0.1133	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**0.7263**	**14.8397**	**18.9906**	**0.0297**	**3.0465**	**0.1133**	**3.1599**	**1.5305**	**0.1133**	**1.6438**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2357	11.9914	2.0072	0.0126	0.0324	8.0900e-003	0.0405	9.1200e-003	7.7400e-003	0.0169		1,345.7465	1,345.7465	0.2388		1,351.7164
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.2907**	**12.0288**	**2.3799**	**0.0137**	**0.1556**	**8.8600e-003**	**0.1645**	**0.0418**	**8.4500e-003**	**0.0503**		**1,449.5722**	**1,449.5722**	**0.2414**		**1,455.6060**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5548**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0129**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0374	0.3727	1.0400e-003	0.1232	7.7000e-004	0.1240	0.0327	7.1000e-004	0.0334		103.8257	103.8257	2.5500e-003		103.8895
Total	**0.0550**	**0.0374**	**0.3727**	**1.0400e-003**	**0.1232**	**7.7000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**103.8257**	**103.8257**	**2.5500e-003**		**103.8895**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1965	6.1972	1.6920	0.0157	0.4058	0.0132	0.4190	0.1168	0.0126	0.1294		1,663.5032	1,663.5032	0.0893		1,665.7358
Worker	0.5682	0.3864	3.8517	0.0108	1.2733	8.0000e-003	1.2813	0.3377	7.3700e-003	0.3451		1,072.8655	1,072.8655	0.0264		1,073.5250
Total	**0.7647**	**6.5836**	**5.5437**	**0.0265**	**1.6791**	**0.0212**	**1.7002**	**0.4545**	**0.0200**	**0.4745**		**2,736.3687**	**2,736.3687**	**0.1157**		**2,739.2607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1965	6.1972	1.6920	0.0157	0.4058	0.0132	0.4190	0.1168	0.0126	0.1294		1,663.5032	1,663.5032	0.0893		1,665.7358
Worker	0.5682	0.3864	3.8517	0.0108	1.2733	8.0000e-003	1.2813	0.3377	7.3700e-003	0.3451		1,072.8655	1,072.8655	0.0264		1,073.5250
Total	**0.7647**	**6.5836**	**5.5437**	**0.0265**	**1.6791**	**0.0212**	**1.7002**	**0.4545**	**0.0200**	**0.4745**		**2,736.3687**	**2,736.3687**	**0.1157**		**2,739.2607**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	137.1015					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**137.3060**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	137.1015					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**137.1609**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1136	0.0773	0.7703	2.1500e-003	0.2547	1.6000e-003	0.2563	0.0676	1.4700e-003	0.0690		214.5731	214.5731	5.2800e-003		214.7050
Total	**0.1136**	**0.0773**	**0.7703**	**2.1500e-003**	**0.2547**	**1.6000e-003**	**0.2563**	**0.0676**	**1.4700e-003**	**0.0690**		**214.5731**	**214.5731**	**5.2800e-003**		**214.7050**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5952	5.2227	7.6613	0.0319	2.3546	0.0215	2.3761	0.6414	0.0202	0.6616		3,269.2846	3,269.2846	0.1050		3,271.9107
Unmitigated	0.5952	5.2227	7.6613	0.0319	2.3546	0.0215	2.3761	0.6414	0.0202	0.6616		3,269.2846	3,269.2846	0.1050		3,271.9107

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	367.22	0.00	0.00	765,788	765,788
Total	367.22	0.00	0.00	765,788	765,788

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Parking Lot	0.593730	0.035302	0.167493	0.109091	0.021115	0.005747	0.017044	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929
Refrigerated Warehouse-No Rail	0.475775	0.035302	0.167493	0.109091	0.021115	0.005747	0.135000	0.037455	0.003901	0.001761	0.005404	0.001027	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Unmitigated	5.2717	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3700e-003	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.2717**	**4.3000e-004**	**0.0472**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3700e-003	4.3000e-004	0.0472	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1011	0.1011	2.7000e-004		0.1078
Total	**5.2717**	**4.3000e-004**	**0.0472**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1011**	**0.1011**	**2.7000e-004**		**0.1078**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C

Biological Resources Reports

Revised
BIOLOGICAL RESOURCE ANALYSIS
SDG COMMERCE 217 DISTRIBUTION CENTER
CITY OF AMERICAN CANYON, CALIFORNIA

March 2, 2020

Prepared for

SDG Commerce 217, LLC
413 W. Yosemite Ave. Suite 105
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Prepared by

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Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017.

Sheet UP4. Utility Plan for the SDG Commerce 217 Distribution Center, prepared by RSA, dated January 2020.

Storm Drain Level Spreader Detail, prepared by RSA, dated January 7, 2020.

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resource analysis for the proposed SDG Commerce 217 Distribution Center project site (herein referred to as the project site) located in the City of American Canyon, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from the construction of a distribution center and associated parking on the project site.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW. Our analysis includes a formal delineation of "waters of the U.S." that was confirmed in 2012 and reverified by the Corps in 2017.

This biological resources analysis also provides mitigation measures for "potentially significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of American Canyon for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The approximately 10-acre project site is located at 1075 Commerce Court, American Canyon, Napa County, California (Figures 1 and 2). The project site is bordered to the southeast by Jungle Paintball, a 40-acre paintball park. To the east is located a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is currently under construction occurs immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, occur further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive. Figure 3 provides an aerial photograph that shows the project site features and the surrounding land use.

The 10.39-acre project site is part of a larger 35.85-acre parcel (formerly known as Lot 3) that is comprised of a highly disturbed, ruderal (weedy) plant community, that was recently graded and leveled. This site formerly was occupied by a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees that were removed in 2012.

3. PROPOSED PROJECT

The applicant proposes to construct a 217,294-square foot distribution center with associated parking areas and a detention/bioretention pond on the 10.39-acre project site. Access to the distribution center will be provided by the Commerce Court extension, as illustrated on the Preliminary Site Plan (see attached Sheet A1).

4. ANALYSIS METHODS

Prior to preparing this biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. The Corps Confirmed Reverification of Aquatic Resources Delineation Map is provided as Sheet 2.

During the site surveys and wetland delineations, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The results of our literature research and field reconnaissance are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography

The project site is relatively flat with elevations ranging from 8 to 20 feet above sea level. The ground is undulating due to past land use disturbances including eucalyptus tree removal in 2012. The site slopes gently to the west towards North Slough and the Napa River.

5.2 Hydrology

There are no drainages on the project site. There are no indicators of hydrology on the 10-acre project site (Sheet 2).

5.3 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website (http://ucjeps.berkeley.edu/interchange/index.html). Table 2 is a list of wildlife species observed on the project site during multiple years of surveys at the project site. Nomenclature for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (CDFW 2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

5.3.1 RUDERAL HERBACEOUS VEGETATION

A complete list of plant species observed within the project site is presented in Table 1. The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, such as is found on the project site, is also common on this parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

5.4 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible

to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paintball facility located immediately to the southeast and construction of the SDG Commerce 330 Distribution Center distribution center to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq*.; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);

- plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2017). The California Department of Fish and Wildlife (CDFW) recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001) (CNPS 2017). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);

- animals that are designated as "species of special concern" by CDFW (2018);

- Animal species that are “fully protected” in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

- Bat Species that are designated on the Western Bat Working Group’s (WBWG) Regional Bat Species Priority Matrix as: “RED OR HIGH.” This priority is justified by the WBWG as follows: “Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.”

In the paragraphs below we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized “take” (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a Federal listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the state Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized “take” (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to “take” a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the “take.”

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered “rare.” Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a “significant effect on the environment” (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an “Inventory” of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern, and are reviewed by CDFW and maintained on "watch lists."

Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)";
- .2 is "fairly endangered in California (20-80% of occurrences threatened)";
- .3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

6.2 Potential Special-Status Plants on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB, a total of eight special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris accumulate on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018 and 2019, special-status plants are not likely to be found onsite and mitigation for special-status plants should not be warranted.

6.3 Potential Special-Status Animals in the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within three miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animal records have ever been mapped on or adjacent to the project site. However, a total of 18 special-status animal species are known to occur in the region of the project site (Table 4). Due to the disturbed nature of the project site and its history as a eucalyptus grove, there is a very low likelihood of special-status species occurring onsite. Regardless, due to the sensitivity of four of the special-status wildlife species known to occur in the area, we further discuss these species below.

6.3.1 California red-legged frog

The California red-legged frog (*Rana draytonii*) was federally-listed as threatened on May 23, 1996 (Federal Register 61: 25813-25833) and as such is protected pursuant to the Federal Endangered Species Act. On March 16, 2010 the USFWS issued the final designation for California red-legged frog Critical Habitat (USFWS 2010). *The project site does not fall within mapped critical habitat, although it is adjacent* (see Figure 5).

The California red-legged frog is also a state "species of special concern." While the state designation "species of special concern" does not provide any legally mandated protection, species of special concern must be considered in any project undergoing a CEQA review.

The California red-legged frog is typically found in ponds, slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. This frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. Populations probably cannot be maintained if all surface water disappears (i.e., no available surface water for egg laying and larval development habitat). Larval California red-legged frogs require 11-20 weeks of permanent water to reach metamorphosis (i.e., to change from a tadpole into a frog), in water depths of 10 to 20 inches (USFWS 2002). Riparian vegetation such as willows and emergent vegetation such as cattails are preferred red-legged frog habitats, though not necessary for this species to be present. Populations of California red-legged frog will be reduced in size or eliminated from ponds supporting non-native species such as bullfrog, Centrarchid fish species (such as sunfish, bluegill, or large-mouth bass), and signal and red swamp crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*, respectively), all of which are known California red-legged frog predators. However, the presence of these non-native species does not preclude the presence of the California red-legged frog.

California red-legged frogs also use upland habitats for migration and dispersal. The USFWS *Recovery Plan for the California Red-Legged Frog* states that frog overland excursions via uplands can vary between 0.25-mile up to 3 miles during the wet season, and that frogs "have been observed to make long-distance movements that are straight-line, point to point migrations rather than using corridors for moving in between habitats" (USFWS 2002). The information presented in the USFWS' Recovery Plan was taken from a publication by Bulger et al. (2003) that recounts a study in coastal redwoods in Santa Cruz area. M&A believes that such overland straight-line migrations are primarily limited to periods of heavy rainfall or during periods when ambient conditions exhibit high moisture levels such as in fog belts along the coast. Working in

Point Reyes National Seashore on the coast of California, Fellers and Kleeman (2007) found approximately 31 percent of California red-legged frogs moved more than 30 meters from their breeding sites and about 69 percent moved less than 30 meters from their breeding site during seasonal movement periods. Similarly, Bulger et al. (2003) found that 60 percent of their radio tagged frogs stayed within 30 meters of their breeding sites.

In locations that are characterized by hot and seasonally dry climates, the California red-legged frog is inclined to stay closer to its aquatic environments or will not migrate. Tatarian (2005) who studied an inland population of California red-legged frogs in eastern Contra Costa County where the climate is far drier than the coastal environment, found that all movements started after the first 0.5 cm of rain in the fall, with more terrestrial movements being made in the fall pre-breeding season (57%) than in the winter breeding season (32%) or spring post-breeding season (11%). Tatarian (op. cit.) also found that California red-legged frogs moved greater average distances aquatically (84.6 m) than terrestrially (27.7 m). Greater terrestrial distances were moved in the pre-breeding season (35.2 m) than in the breeding season (15.5 m) or post-breeding season (16.3 m) with the majority of movements occurring for only one of the 3-4 day survey periods. The majority of frogs (57%) were position faithful within a pool, indicating they did not migrate at all. These data suggest that long forays across the landscape found in coastal populations are less likely in dry inland locations.

The USFWS *Recovery Plan for the California Red-Legged Frog* states that populations are "most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal." "The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat" (USFWS 2002).

In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. *Therefore, the proposed project will not impact the California red-legged frog and mitigation should not be warranted.*

6.3.2 SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their active nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986). It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall (Schmutz et. al. 1984). Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads (Palmer 1988). Swainson's hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). They have also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded (CDFG 1994). The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats due to larger prey populations. In addition, agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase foraging success of Swainson's hawks by flushing prey (personal observations of G. Monk). During the nesting season Swainson's hawks usually forage within two miles of the nest. Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially, therefore it can occupy habitats with few or no perches except the nest tree (James 1992).

Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late-spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and the Swainson's hawk population appears to be dramatically responding in California. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round in the Davis area and in the Sacramento River Delta, resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since insecticide use over Argentinian wintering grounds was halted (G. Monk, personal observations). For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently.

The closest known record for nesting Swainson's hawk is 2.6 miles northeast of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near this project site in future years. *Hence, prior to earth-disturbance or construction, nesting surveys must be conducted that confirm or negate this species' presence as a nesting bird on or adjacent to the project site. Accordingly, impacts to Swainson's hawk are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.3 WESTERN BURROWING OWL

The western burrowing owl (*Athene cunicularia hypugaea*) is a California "species of special concern." Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Otospermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin. The mobility of the western burrowing owl enables the species to colonize the recent burrows. M&A did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys.

Regardless, the project site provides marginal nesting habitat for the western burrowing owl. *In order to confirm or negate the presence of western burrowing owls on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to western burrowing owl are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.4 NORTHERN HARRIER

The northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. This species is particularly vulnerable to ground predators such as coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and various snake species. Ground nesting birds in general are also subject to disturbance by agricultural practices. Northern harriers may forage over the project site and may nest in the open ruderal habitats onsite that provide suitable nesting habitat for this species. Hence, the proposed project could result in impacts to nesting northern harriers.

The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. Regardless, the project site provides marginal nesting habitat for the northern harrier. *In order to confirm or negate the presence of northern harriers on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to northern harrier are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

7. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the U.S. Fish and Wildlife Service and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the USFWS can no longer require mitigation based on the probability that the species could use the site. Rather they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain a incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the

geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion, it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an "incidental take" permit that allows applicants to "take" federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 Responsible Agency

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

7.1.2 Applicability to the Proposed Project

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank

adjacent to a large quarry pond that supported bullfrogs. State Route 29 is located between the closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity along any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. Therefore, the proposed project will not impact the California red-legged frog.

No other federally listed species are expected to occur on the project site. The project site does not provide fisheries habitat as it consists entirely of upland communities. *Therefore, it can be stated with confidence that the proposed project would not impact federally listed plant, animal, or fish species.*

7.2 Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to "take" (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

7.2.1 Applicability to The Proposed Project

Western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk, and red-tailed hawk (*Buteo jamaicensis*), among other raptors (birds of prey) could nest in the eucalyptus grove in the immediate vicinity of the project site. These raptors would be protected by the Migratory Bird Treaty Act. Also, the common songbirds that could forage on the site would be protected pursuant to this Act. As long as there is no direct mortality of species protected pursuant to this Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations section below.

7.3 California Endangered Species Act

7.3.1 Section 2081 of the California Endangered Species Act

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a provision for "harm" (see discussion of FESA, above),

CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state-listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFW will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity;
2) the impacts of the authorized take are minimized and fully mitigated;
3) measures required to minimize and fully mitigate the impacts of the authorized take:
    a) are roughly proportional in extent to the impact of the taking on the species;
    b) maintain the project applicant's objectives to the greatest extent possible; and,
    c) capable of successful implementation; and,
4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." *See* Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy*"* federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent

with state law, and that all state-listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state-listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 Applicability to The Proposed Project

No state-listed plant species would likely occur on the project site due to an absence of habitat. The project site does not support any trees and does not provide nesting habitat for the Swainson's hawk. Suitable nesting habitat for this hawk exists in the eucalyptus trees on the adjacent properties; thus, preconstruction nesting surveys will be necessary to ensure that earth-work or construction does not occur while this raptor is nesting nearby or that if it does, it does not disturb the nesting birds. If the proposed project follows the proposed mitigation measures as detailed in the Impacts and Mitigation section below, *an Incidental Take Permit (ITP) from the CDFW should not be necessary for this project.*

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.4.1 Applicability to the Proposed Project

Raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these birds including their eggs, or young. Any active nests that were found during preconstruction surveys

would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. More specifics on the size of buffers are provided below in the Impacts and Mitigations section.

7.5 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

7.5.1 Goal 8, Objective 8.1 and Policies 8.1.1 and 8.1.4

- **Goal 8:** Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.
- **Objective 8.1:** Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.
- **Policy 8.1.1:** Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
- **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

7.5.2 Applicability to the Proposed Project

Consistent with General Plan Policies 8.1.1 and 8.1.4, this report provides a detailed assessment of the biological resources present on the project site.

7.5.3 Objective 8.2 and Policy 8.2.1

- **Objective 8.2:** Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.
- **Policy 8.2.1:** Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

7.5.4 Applicability to the Proposed Project

Consistent with General Plan Policy 8.2.1, the project site has been evaluated for the presence of sensitive biological resources. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the project site.

7.5.5 Objective 8.3 and Policy 8.3.1

- **Objective 8.3:** Protect natural drainages and riparian corridors within the American Canyon Planning Area.
- **Policy 8.3.1:** Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:
    a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

7.5.6 Applicability to the Proposed Project

No wetland, natural drainages or riparian habitats are proposed to be impacted, as there are none present on the 10-acre project site.

7.5.7 Policy 8.3.1 b

- **Policy 8.3.1 b:** Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).

7.5.8 Applicability to the Proposed Project

Proposed development on the project site does not impact watercourses, riparian habitat, vernal pools or wetlands.

7.5.9 Policy 8.3.1 e

- **Policy 8.3.1 e:** Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

7.5.10 Applicability to the Proposed Project

Previous disturbance on the project site prohibits presence of land linkages, corridors, or habitat areas. Similarly, because creation of a mitigation site is not necessary for this site, there will be no habitat area or otherwise natural space in need of buffering.

7.5.11 Policy 8.3.1 f

- **Policy 8.3.1 f:** Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

7.5.12 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.f, and Policy 8.3.1.g roads and utilities have been designed to avoid conflicts with biological resources on the project site.

7.5.13 POLICY 8.3.1 G

- **Policy 8.3.1 g:** Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

7.5.14 POLICIES 8.3.5 AND 8.3.6

- **Policy 8.3.5:** Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.
- **Policy 8.3.6:** Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

7.5.15 APPLICABILITY TO THE PROPOSED PROJECT

There are no drainages on the project site or significant biological habitats onsite; hence, these policies do not apply to the proposed project.

8. CITY OF AMERICAN CANYON –ORDINANCES

8.1 Trees (Ord. 18.40.110)

> A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.
>
> B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

8.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site does not support any trees.

9. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFW to determine those areas within a project area that would be subject to their regulation.

9.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

9.1.1 SECTION 404 OF THE CLEAN WATER ACT

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(1) Extends to the mean high tide line, or
(2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
(2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
(3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

9.1.1.1 Significant Nexus of Tributaries

On December 2, 2008, the Corps and the Environmental Protection Agency (EPA) issued joint guidance on implementing the U.S. Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act. In this joint guidance these agencies provide guidance on where they will assert jurisdiction over waters of the U.S.

The EPA and Corps will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (for example, typically three months).
- Wetlands that directly abut such tributaries.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and

- Significant nexus includes consideration of hydrologic and ecologic factors.

9.1.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas

that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

9.1.1.3 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the United States. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to "waters of the United States."

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of "waters of the United States" found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g. a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of "no net loss" of wetlands (waters of the United States) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., if a

stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 Applicability to the Proposed Project

M&A originally prepared a preliminary wetland delineation map of the 35 acre parcel in 2006; however, this map was never submitted to the Corps. In 2011, a formal wetland delineation was conducted on July 14th and July 20th by M&A biologists Ms. Hope Kingma and Mr. Tim O'Donnell. The wetland delineation report and map were submitted to the Corps on August 22, 2011, requesting confirmation of the extent of Corps jurisdiction at the American Canyon Flat Lands site. In a letter dated January 31, 2012 the extent of Corps jurisdiction was confirmed, based on a field investigation on September 21, 2011. That jurisdictional determination expired five (5) years from the date of that letter.

M&A biologists Ms. Hope Kingma and Mr. Devin Jokerst conducted another wetland delineation of the entire 35.85-acre parcel (known as Lot 3), which includes this project site, on November 16, 2016 to re-verify the extent of jurisdictional areas on the site. M&A used the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the *Regional Supplement for the Arid West Region*. The jurisdictional determination request and the Draft Aquatic Resources Delineation Map (Sheet 2) were submitted to the Corps in December 2016. Mr. Bryan Matsumoto of the Corps conducted a site verification visit on May 18, 2017. On May 16, 2018 the Corps issued the jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the 35.43-acre parcel. The confirmed Jurisdictional Delineation Map (Sheet 2) and letter are attached. None of the jurisdictional features on that map occur on the 10-acre project site that is the subject of this report. *As such there will be no impacts to the waters of the U.S. for this project.*

9.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

9.2.1 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in "waters of the State" (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is an NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific

certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

9.2.2 Applicability to the Proposed Project

The Corps' Confirmed Reverification Aquatic Resources Delineation Map dated May 22, 2017 is provided as Sheet 2. The proposed project will not impact any waters of the State. *Therefore Section 401 of the Clean Water Act is not necessary for this project.*

9.3 California Department of Fish and Wildlife Protections

9.3.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
   (A) A detailed description of the project's location and a map.
   (B) The name, if any, of the river, stream, or lake affected.
   (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
   (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
   (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
   (F) Any other information required by CDFW" (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

9.3.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would be regulated by CDFW. *Hence, an SBAA with CDFW would not be necessary for this project*.

10. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

10.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs). It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

<u>Types of Construction Activity Covered by the Construction General Permit</u>

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several "post-construction" requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This "runoff reduction" approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development ("LID") design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA's 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

[1] CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

10.1.1 APPLICABILITY TO THE PROPOSED PROJECT

To obtain coverage under the SWRCB administered Construction General Permit, the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify Best Management Practices (BMPs) for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015).

10.2 RWQCB Municipal Storm Water Permitting Programs

The federal Clean Water Act (CWA) was amended in 1987 to address urban stormwater runoff pollution of the nation's waters. In 1990, the U.S. Environmental Protection Agency (USEPA) promulgated rules establishing Phase 1 of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase 1 program for Municipal Separate Storm Sewer System (MS4s) requires operators that serve populations of 100,000 or greater to implement a stormwater management program to control polluted discharges from these MS4s. While Phase 1 of the municipal stormwater program has focused on large urban areas, Phase 2 of the municipal stormwater program was promulgated by the USEPA for smaller urban areas including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

MS4 permits require the discharger (or dischargers that are permitted by the MS4 permittees) to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

10.2.1 NPDES C.3 REQUIREMENTS

The NPDES C.3 requirements went into effect for any project (public or private) that is "deemed complete" by the City or County (Lead Agency) on or after February 15, 2005, and which will result in the creation or replacement (other than normal maintenance) of at least 10,000 square feet of impervious surface area (roofs, streets, patios, parking lots, etc. Provision C.3 requires the onsite treatment of stormwater prior to its discharge into downstream receiving waters. Note that these requirements are in addition to the existing NPDES requirements for erosion and

sedimentation controls during project construction that are typically addressed through acquisition of coverage under the SWRCB administered Construction General Permit. The C.3 requirements are typically required to be implemented by MS4 permittees (and their constituencies).

Projects subject to Provision C3 must include the capture and onsite treatment of all stormwater from the site prior to its discharge, including rainwater falling on building rooftops. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable.* While the Clean Water Act does not define "maximum extent practicable," the Stormwater Quality Management Plans required as a condition of the municipal NPDES permits identify control measures (known as Best Management Plans, or BMPs) and, where applicable, performance standards, to establish the level of effort required to satisfy the maximum extent practicable criterion. It is ultimately up to the professional judgment of the reviewing municipal staff in the individual jurisdictions to determine whether a project's proposed stormwater controls will satisfy the maximum extent practicable criterion. However, there are numeric criteria used to ensure that treatment BMPs have been adequately sized to accommodate and treat a site's stormwater. The C3 requirements are quite extensive, and their complete explanation is not provided here. However, the following are minimums that should be understood and adhered to:

- The applicant must provide a detailed and realistic site design *and impervious surface area calculations*. This site design *and calculations* will be used by the Lead Agency (County or City) to determine/*verify* the amount of impervious surface area that is being created or replaced. It should include all proposed buildings, roads, walkways, parking lots, landscape areas, etc., that are being created or redeveloped. If large (greater than 10,000 square feet) lots are being created an effort will need to be made to determine the total impervious surface area that could be created on that parcel. For example, if only a portion of the lot is shown as a "building envelope" then the lead agency will need to consider that a driveway will have to be constructed to access the envelope and that the envelope will then be developed as shown. If the C.3 thresholds are met (creation/redevelopment of 10,000 square feet of impervious surface area), a Stormwater Control Plan (SWCP) (if required by the Lead Agency, or whatever steps for compliance with Provision C3 are required locally) must accompany the application.

- If a SWCP is required by the Lead Agency for the project it must be stamped by a Licensed Civil Engineer, Architect, or Landscape Architect.

10.2.2 Applicability to the Proposed Project

The Water Board issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s. On November 19, 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies. Permittees in the San Francisco Bay area are included in a Municipal Regional Permit (MRP), issued to 76 cities, counties and

flood control districts in 2009 and revised in 2015. Each of the Permittee's must file an Annual Report that is comprised of three parts: regional, countywide, and individual. Some requirements of the MRP are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all the MRP Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs have submitted Annual Report elements on the regional and countywide collaborative tasks, respectively, on behalf of the MRP Permittees and the individual MRP Permittees have also submitted Annual Report elements on the Permit Provisions they have implemented individually.

It is the applicant's responsibility to ensure that the project civil engineer prepares all required Storm Water Planning documents for submittal to the City of American Canyon to comply with its MS4 permit requirements. In addition, if the project includes a requirement to obtain a Clean Water Act Section 401 permit from the RWQCB, the Storm Water Management Plan (or equivalent plan) must be submitted to the RWQCB with the application package submitted for acquisition of a Section 401 permit (aka "water quality certification").

The applicant is proposing to treat all stormwater falling on impervious surfaces in the detention/bioretention basin located on the western edge of the project site (see Sheet UP4). Once treated, stormwater would be conveyed to "level spreader outfalls" that will be installed along the western project site boundary. The level spreader outfalls consist of perforated pipe set on contour that will discharge flows uniformly across a gradual slope covered by riprap, which will mimic sheet flow conditions similar to current project site runoff (see Storm Drain Level Spreader Detail). Accordingly, the project will not violate any water quality standards.

11. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are "Categorical Exemptions" that apply to the proposed activity; thus, the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a "Negative Declaration." If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a "Mitigated Negative Declaration" is typically prepared by the lead agency. Finally, those projects that may have significant effects on the environment, or that have impacts that can't be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact

Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. "Rare" species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

This report has been prepared as a Biology section that is suitable for incorporation into a Mitigated Negative Declaration. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA and can be incorporated by the CEQA lead agency (in this case City of American Canyon) into an initial study or higher levels of CEQA review including incorporation into the biology section of an Environmental Impact Report.

12. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

12.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other Federal, State, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers including riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources, including special-status wildlife species. We follow each impact with a mitigation prescription that when

implemented would reduce impacts to the greatest extent possible. This impact analysis is based on the Preliminary Site Plan (Sheet A-1).

13.1 Impact BIO-1. Development of the Project Could Have a Potentially Significant Impact on Nesting Swainson's hawks (Potentially Significant)

The Swainson's hawk is a state listed threatened species. While the Swainson's hawk has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's multiple project site surveys; however, the nesting population appears to be increasing throughout its nesting range in northern California and thus, it could conceivably nest in trees near the project site in the future.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (CDFG v. ACID, 8 CA App. 4, 41554) (CDFG 1994).

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be *potentially significant pursuant to CEQA.* This impact could be mitigated to a level considered less than significant pursuant to CEQA.

The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). There are extensive foraging opportunities both around the closest nesting location and between this nesting location and the project site. Considering that the entire project site consisted of a eucalyptus grove until 2012, it did not historically provide potential foraging habitat. Also, as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks. Furthermore, M&A has confirmed that the project site has a low rodent population, therefore development of the project site will not have a significant impact on Swainson's hawk foraging habitat. Therefore, no mitigation for the loss of foraging habitat is warranted for this project.

13.2 Mitigation Measure BIO-1. Mitigation for Potential Impacts to Nesting Swainson's Hawk

Preconstruction surveys shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to the project's initiation. The survey period timing and methodology shall be conducted in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 1994), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW will be required. The size of the nest protection buffer will be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of this mitigation measure would reduce potential impacts to nesting Swainson's hawk to a level considered less than significant pursuant to CEQA.

13.3 Impact BIO-2. Development of the Project Could Have a Potentially Significant Impact on Western Burrowing Owl (Potentially Significant)

The western burrowing owl is a California Species of Special Concern. This raptor (that is, bird of prey) is also protected under the Migratory Bird Treaty Act (50 CFR 10.13) and its nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5. While western burrowing owls have not been observed on the project site and their likelihood of presence on the project site is considered to be low, limited suitable nesting habitat occurs on the project site. Since the western burrowing owl is a mobile species that could move onto the project site prior to development, preconstruction surveys would be necessary to determine its presence. Thus, the project may result in impacts to the western burrowing owl; this would be a *potentially significant impact pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure BIO-2. Mitigation for Potential Impacts to Western Burrowing Owl

Based on the presence of this species in the project vicinity and the potential habitat found on the project site, a preconstruction survey for burrowing owls should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

a. Burrowing owl surveys should be conducted by walking the entire project site. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be 7 meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility.

Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approximately 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows should be avoided during all seasons.

b. If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per CDFW's Staff Report (2012).

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- From October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.

Implementation of these mitigation measures would reduce potential impacts to burrowing owls to a level considered less than significant pursuant to CEQA.

13.5 Impact BIO-3: Development of the Project Would Have a Potentially Significant Impact on Tree or Ground Nesting Raptors (Potentially Significant)

Tree or ground nesting raptors that could be affected by the project include northern harrier, white-tailed kites, red-shouldered hawk and red-tailed hawk. Nesting raptors are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13). All nesting raptors, their eggs and young are protected pursuant to California Fish and Game Code §3503.5. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project may impact nesting raptors which could result in nest abandonment and death of eggs or young. Therefore, impacts to nesting raptors are regarded as *potentially significant pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.6 Mitigation Measure BIO-3: Mitigation for Potential Impacts to Tree or Ground Nesting Raptors

To ensure that impacts to tree or ground nesting raptors are avoided or offset, the following mitigation measures will be implemented:

a. In order to avoid impacts to nesting raptors, a preconstruction nesting survey will be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey should be

conducted within the 30 day period prior to site disturbance. The raptor nesting surveys will include examination of all trees and ruderal habitat within 200 feet of the project site.

b. If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site must be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site must be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer should be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist should prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity should occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers should be maintained in place through the month of August and work within the buffer can commence on September 1st.

c. If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) should be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer should remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey should be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer should remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Implementation of these mitigation measures would reduce potential impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

13.7 Impact BIO-4: Development of the Project Would Have a Potentially Significant Impact on Nesting Passerine Birds. (Potentially Significant)

Nesting passerine birds (i.e., perching birds) are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13) and by California Fish and Game Code §3503 and §3503.5 which protects nesting birds, their eggs and young. These birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Accordingly, impacts to nesting passerine birds, their eggs, and/or young resulting from the proposed project are considered potentially significant. *This impact could be mitigated to a level considered less than significant pursuant to CEQA.*

13.8 Mitigation Measure BIO-4: Mitigation for Potential Impacts to Nesting Passerine Birds.

To ensure that impacts to nesting passerine birds are avoided or offset, a nesting survey shall be conducted 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before August 1st.

Implementation of this mitigation measure would reduce potential impacts nesting passerine birds to a level considered less than significant pursuant to CEQA.

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Figure 1. SDG 217 Commerce Distribution Center
Project Site Regional Map
City of American Canyon, California

County: Napa
Map Preparation Date: December



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Figure 2. SDG 217 Commerce Distribution Center
Project Site Location Map
City of American Canyon, California

38.185626, -122.274079
Section: 23, T4N R4W
7.5-Minute Cuttings Wharf quadrangle
HUC08 Watershed CA: San Pablo Bay
Aerial Photograph Source: ESRI
Map Preparation Date: December



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Figure 3. SDG 217 Commerce Project Site
Aerial Photograph
City of American Canyon, California

Aerial Photograph Source: ESRI
Map Preparation Date: December 3771

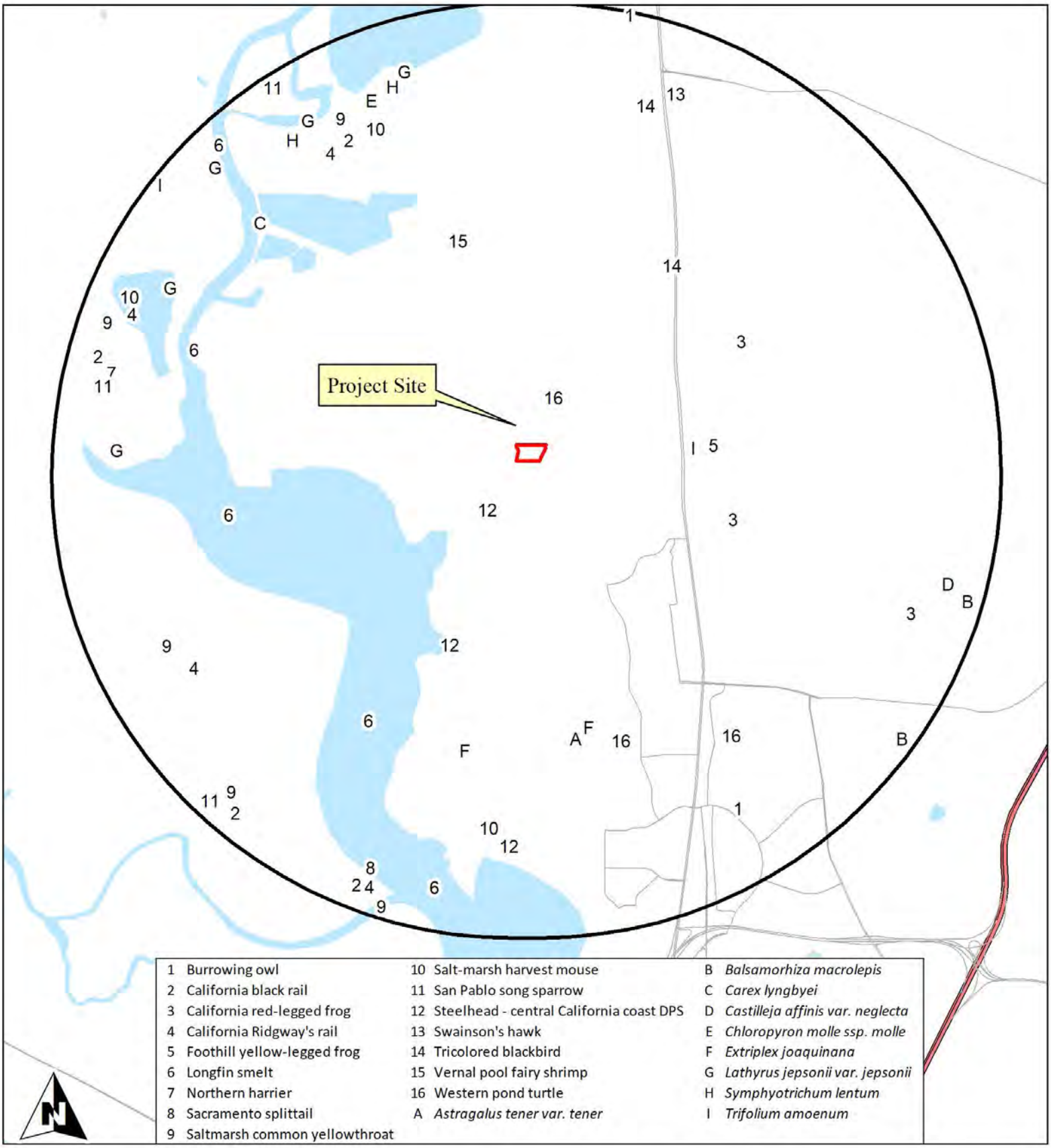

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Figure 4. Known CNDDB Records for Special-Status Species Within 3 Miles of the SDG 217 Commerce Project Site

Map Preparation Date:
December 3, 2019
3-Mile Radius
Source: CDFW, California Natural Diversity Data Bas

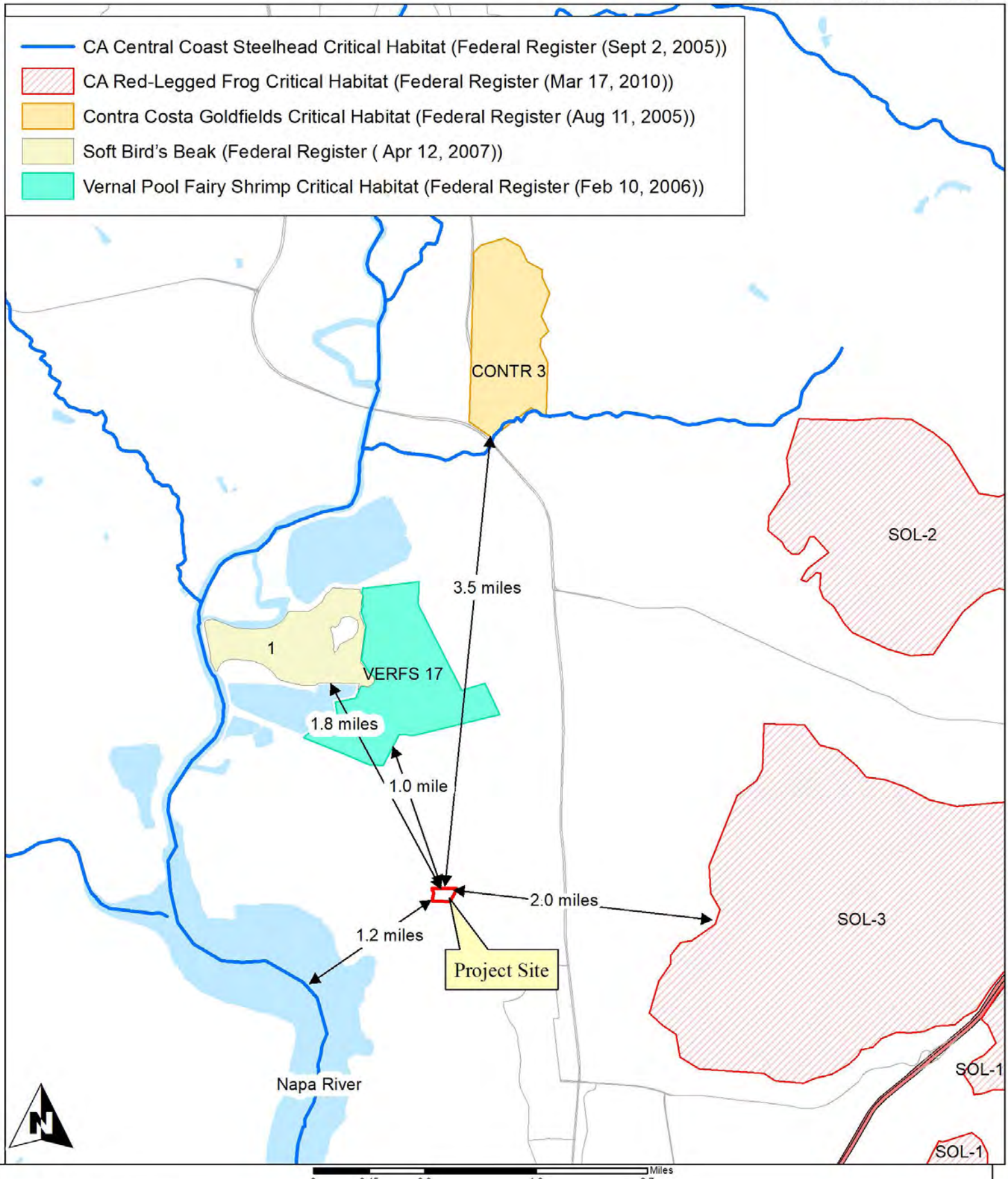

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Figure 5. USFWS Critical Habitat
in the Vicinity of the
SDG 217 Commerce Distribution Center

Source: USFWS
Map Preparation Date: December 2(

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms - Dicots

Apiaceae

Torilis sp.	sock destroyer

Asteraceae

Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
**Hypochaeris radicata*	Rough cat's-ear
**Sonchus asper subsp. asper*	Prickly sow-thistle

Brassicaceae

**Hirschfeldia incana*	Short-podded mustard
**Sinapis alba*	White mustard

Caryophyllaceae

**Stellaria media*	Common chickweed

Convolvulaceae

**Convolvulus arvensis*	Bindweed

Fabaceae

**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch

Geraniaceae

**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium

Montiaceae

Claytonia perfoliata	Miner's lettuce

Myrsinaceae

**Lysimachia arvensis*	Scarlet pimpernel

Orobanchaceae

**Parentucellia viscosa*	Yellow glandweed

Papaveraceae

**Fumaria parviflora*	Fumaria

Plantaginaceae

**Plantago lanceolata*	English plantain

Polygonaceae

**Rumex crispus*	Curly dock

Ranunculaceae

**Ranunculus muricatus*	Spiny-fruit buttercup

Rubiaceae

Galium aparine	Goose grass

* Indicates a non-native species

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms -Monocots

Iridaceae

Sisyrinchium californicum	Golden-eyed-grass

Juncaceae

Juncus occidentalis	Slender rush

Poaceae

**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Elymus triticoides	Creeping wildrye
**Festuca perennis*	perennial ryegrass
**Hordeum murinum*	Wall barley
Phalaris angusta	Canary timothy grass

* Indicates a non-native species

Table 2
Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*
Birds	
Northern flicker	*Colaptes auratus*
Great blue heron	*Ardea herodias*
Turkey vulture	*Cathartes aura*
Canada goose	*Branta canadensis*
Osprey	*Pandion haliaetus*
White-tailed kite	*Elanus leucurus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Ring-necked pheasant	*Phasianus colchicus*
Wild turkey	*Meleagris gallopavo*
California quail	*Callipepla californica*
Virginia rail	*Rallus limicola*
Eurasian collared-dove	*Streptopelia decaocto*
Mourning dove	*Zenaida macroura*
Barn owl	*Tyto alba*
Anna's hummingbird	*Calypte anna*
Belted kingfisher	*Megaceryle alcyon*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
California scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Common raven	*Corvus corax*
Tree swallow	*Tachycineta bicolor*
Cliff swallow	*Petrochelidon pyrrhonota*
Barn swallow	*Hirundo rustica*
Chestnut-backed chickadee	*Poecile rufescens*
Bushtit	*Psaltriparus minimus*
Brown creeper	*Certhia americana*
Bewick's wren	*Thryomanes bewickii*
Marsh wren	*Cistothorus palustris*
Ruby-crowned kinglet	*Regulus calendula*
Western bluebird	*Sialia mexicana*
American robin	*Turdus migratorius*
Wrentit	*Chamaea fasciata*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Yellow-rumped warbler	*Setophaga coronata*
Spotted towhee	*Pipilo maculatus*

Table 2
Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

California towhee	*Pipilo crissalis*
Savannah sparrow	*Passerculus sandwichensis*
Song sparrow	*Melospiza melodia*
White-crowned sparrow	*Zonotrichia leucophrys*
Dark-eyed junco	*Junco hyemalis*
Red-winged blackbird	*Agelaius phoeniceus*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown-headed cowbird	*Molothrus ater*
Bullock's oriole	*Icterus bullockii*
House finch	*Haemorhous mexicanus*
Lesser goldfinch	*Spinus psaltria*
House sparrow	*Passer domesticus*

Mammals

Western gray squirrel	*Sciurus griseus*
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Otospermophilus beecheyi*
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*
Coyote	*Canis latrans*
Raccoon	*Procyon lotor*
Feral cat	*Felis catus*

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; chaparral; valley and foothill grassland; [sometimes serpentinite]. 90 - 1555 meters	Closest record is from 2011 and is 3.0 miles east of the project site (Occurrence No. 7).	None. The project site is highly disturbed. No suitable habitat on the project site.
Symphyotrichum lentum Suisun Marsh aster	Fed: - State: - CNPS: Rank 1B.2	August-November	Marshes and swamps (brackish and fresh water)	Closest record is from 1993 and is 2.5 miles northwest of the project site (Occurrence No. 128).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chenopodiaceae					
Extriplex joaquinana San Joaquin spearscale	Fed: - State: - CNPS: Rank 1B.2	April-October	Chenopod scrub; meadows; valley and foothill grassland; [alkaline].	Closest record is from and is 1.8 miles south of the project site (Occurrence No. 58).	None. The project site is highly disturbed. No suitable habitat on the project site.
Cyperaceae					
Carex lyngbyei Lyngbye's sedge	Fed: - State: - CNPS: Rank 2	May-August	Marshes or swamps (brackish or freshwater)	Closest record is from 2008 and is 2.3 miles northwest of the project site (Occurrence No. 28).	None. The project site is highly disturbed. No suitable habitat on the project site.
Fabaceae					
Astragalus tener tener Alkali milkvetch	Fed: - State: - CNPS: Rank 1B.2	March-June	Playas; mesic grasslands (adobe clay), vernal pools (alkaline).	Closest record is from 1993 and is 1.8 miles south of the project site (Occurrence No. 50).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Lathyrus jepsonii jepsonii Delta tule pea	Fed: - State: - CNPS: Rank 1B.2	May-September	Marshes and swamps (freshwater and brackish).	Closest record is from 1978 and is 2.6 miles northwest of the project site (Occurrence No. 13).	None. The project site is highly disturbed. No suitable habitat on the project site.
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: Rank 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	Closest record is from 1952 and is 1.2 miles east of the project site (Occurrence No. 23).	None. The project site is highly disturbed. No suitable habitat on the project site.
Orobanchaceae					
Castilleja affinis neglecta Tiburon paintbrush	Fed: FE State: CT CNPS: Rank 1B.2	April-June	Valley and foothill grassland [serpentinite]	Closest record is from 2013 and is 3.0 miles east of the project site (Occurrence No. 5).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chloropyron molle molle Soft bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	July-September	Marshes and swamps (coastal salt).	Closest record is from 2010 and is 2.3 miles north of the project site (Occurrence No. 3).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern

CNPS:
Rank 1A - Presumed extinct in California
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other:	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabit static rain-filled/vernal pools, small, clear water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression	Closest record is from 2003 and is 1.5 miles north of the project site (Occurrence No. 232).	None. No suitable habitat on the project site.
Fish				
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Closest record is from 2000 and is 0.39 miles southwest of the project site (Occurrence No. 4).	None. No suitable habitat on the project site.
Longfin smelt *Spirinichus thaleichthys*	Fed: -- State: CT Other:	Endemic to the Sacramento-San Joaquin River system. Inhabits open waters in the Delta and Suisun Bay. After spawning, larvae are carried downstream to brackish nursery areas.	Closest record is from 2012 and is1.2 miles west of the project site (Occurrence No. 26).	None. No suitable habitat on the project site.
Sacramento splittail *Pogonichthys macrolepidotus*	Fed: State: CSC Other:	Endemic to the lakes and rivers of the Central Valley; now confined to the delta, Suisun Bay, and associated marshes. Inhabits slow moving river sections and dead-end sloughs. Needs flooded vegetation for spawning.	Closest record is from 2001 and is 2.9 miles southwest of the project site (Occurrence No. 12).	None. No suitable habitat on the project site.
Amphibians				
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Closest record is from 2006 and is 1.4 miles east of the project site (Occurrence No. 896).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Foothill yellow-legged frog *Rana boylii*	Fed: -- State: CC Other:	Found in partially shaded, shallow streams with rocky substrates. Requires perenial pools or flowing water. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Closest record is from 193X and is 1.2 miles east of the project site (Occurrence No. 2341).	None. No suitable habitat on the project site.
Reptiles				
Western pond turtle ** *Emys marmorata*	Fed: - State: CSC Other:	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County.	Closest record is from 2002 and is 0.45 miles northeast of the project site (Occurrence No. 552).	None. No suitable habitat on or adjacent to the project site.
Birds				
Northern harrier *Circus cyaneus*	Fed: - State: CSC Other:	Nests on the ground or in shrubby vegetation typically in grasslands, fallow farm lands, near freshwater and salt water marshes.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 29).	Unlikely to nest onsite. Preconstruction surveys will be conducted.
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other:	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging.	Closest record is from 2013 and is 2.6 miles northeast of the project site (Occurrence No. 2744).	Unlikely to nest adjacent to project site. Preconstruction surveys will be conducted.
Ferruginous hawk *Buteo regalis*	Fed: -- State: WL Other:	Winter migrant to California where they prefer grasslands, cultivated fields and arid areas with an abundance of prey species, such as pocket gophers, black-tailed hares, and cottontails.	Closest record is from 1988 and is 3.0 miles north of the project site (Occurrence No. 28).	None. Does not nest in California.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Peregrine falcon *Falco peregrinus*	Fed: - State: - Other:	Nests on high cliffs near wetlands, lakes, rivers, or other water; also nests on human-made structures. Nest consists of a scrape on a depression or ledge in an open site. Was formerly state and federally listed but delisted due to species recovery.	Closest record is from 2015 and is 3.0 miles east of the project site (Occurrence No. 42).	None. No suitable nesting habitat on or near the project site.
California black rail *Laterallus jamaicensis coturniculus*	Fed: -- State: CT Other:	Inhabits salt marshes bordering larger bays. Prefers tidal salt marshes of pickleweed.	Closest record is from 2011 and is 2.5 miles northwest of the project site (Occurrence No. 31).	None. No suitable habitat on the project site.
California Ridgway's rail *Rallus obsoletus obsoletus*	Fed: FE State: CE Other:	Inhabits salt water and brackish marshes with tidal sloughs in San Francisco Bay. Prefers dense pickleweed for cover, but forages for invertebrates along mud-bottomed sloughs.	Closest record is from 1989 and is 2.4 miles northwest of the project site (Occurrence No. 16).	None. No suitable habitat on the project site.
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Closest record is from 1989 and is 2.6 miles southeast of the project site (Occurrence No. 109).	Unlikely to nest on the project site. Preconstruction surveys will be conducted.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	Fed: - State: CSC Other:	Resident of freshwater and salt water marshes in the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	Closest record is from 2004 and is 2.5 miles northwest of the project site (Occurrence No. 37).	None. No suitable habitat on the project site.
San Pablo song sparrow *Melospiza melodia samuelis*	Fed: -- State: CSC Other:	More properly known as Samuels Song Sparrow. Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the California marshes; nests in grindelia bordering slough channels.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 17).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CC Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Closest record is from 2014 and is 1.6 miles northeast of the project site (Occurrence No. 243).	None. No suitable nesting habitat on the project site.
Mammals				
Salt marsh harvest mouse *Reithrodontomys raviventris*	Fed: FE State: CE Other:	Inhabits saline marshes in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	Closest record is from 1989 and is 2.4 miles south of the project site (Occurrence No. 150).	None. No suitable habitat on the project site.

***Status**

Federal:	State:
FE - Federal Endangered	CE - California Endangered
FT - Federal Threatened	CT - California Threatened
FPE - Federal Proposed Endangered	CR - California Rare
FPT - Federal Proposed Threatened	CC - California Candidate
FC - Federal Candidate	CSC - California Species of Special Concern
FPD - Federally Proposed for delisting	FP - Fully Protected
	WL - Watch List. Not protected pursuant to CEQA

**The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.

- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
- Plastic Pipe
- RCP
- Control Points
- Delineation Area: Lot 3 (35.8 Acres)

Wetland #	Sq. Ft.	Acres	Linear Wetland #	Lin. Ft.	Sq. Ft.	Acres
W 1	601	0.014	LW 1	113	339	0.008
W 2	93	0.002	LW 2	276	828	0.019

Isolated Wetland #	Sq. Ft.	Acres
IW 1	874	0.020

Approved Jurisdictional Determination, pursuant to Section 404 Clean Water Act

U.S. Army Corps of Engineers
San Francisco District
Regulatory Division

American Canyon Flat Lands
American Canyon, Napa County, California
(APNs: 058-030-067 and 058-030-065)

Accurate as depicted in legend

Section 404 jurisdiction verified only within the designated Delineation Area. Construction-related and isolated wetlands are not subject to Section 404 jurisdiction.

File ID. **2011-00322** Date: **March 6, 2018** Sheet 2 of 2

38.187836 -122.271692 Decimal Degrees

38.183213 -122.276052 Decimal Degrees

W 1
LW 1
W2
LW2
IW 1
3'
3'

0 50 100 200 300 400 500 Feet Scale: 1 inch = 100 feet

Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

September 3, 2020

Industrial and Commercial Contractors, LP
403 W. Yosemite Avenue, Suite 105
Madera, California 93637

Attention: Mr. Brian Doswald

RE: Addendum Letter to CEQA Biology Report Discussing Proposed Borrow Site
SDG Commerce 217 Distribution Center, Napa, California
APN: 058-030-065-000

Dear Mr. Doswald:

1. INTRODUCTION

Monk & Associates, Inc., (M&A) has prepared this Addendum to our March 2, 2020, *Revised Biological Resource Analysis* (biology report) for the SDG Commerce 217 Distribution Center located in the City of American Canyon, California (the "project site"). Since the time M&A prepared our biology report for the project site, it has been determined that it will be necessary to acquire soil from the adjacent parcel to the south (the "borrow area parcel") and transport this soil for use as clean fill on the project site. M&A has prepared this Addendum to our biology report to address the transportation of soil from the offsite borrow area parcel onto the project site and to analyze any affects this activity could have on mapped jurisdictional waters of the United States/State that lie inbetween the project site and the adjacent borrow area parcel. Mapped waters of the United States are shown on the attached exhibits.

2. DESCRIPTION OF THE PROJECT SITE AND ADJACENT BORROW AREA PARCEL

The project site and the adjacent borrow area parcel were once part of a contiguous approximately 35-acre project site that M&A conducted surveys on over multiple years dating between 2006 and 2018. Both the project site and adjacent borrow area parcel are dominated by ruderal (weedy) vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). These non-native, weedy species provide little habitat value to wildlife and they do not constitute a native plant community. Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, is also common on the 35 acres. Ruderal vegetation is the only vegetation community found on the project site. The adjacent borrow area parcel, however, in addition to supporting a ruderal herbaceous community also supports waters of the United States, as described below.

On May 16, 2018, the U.S. Army Corps of Engineers issued a jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the approximately 35-acre

parcel that comprises the project site, the adjacent borrow area parcel, and another property now known as 330 Commerce Center (see attached exhibits). The entire 0.043-acre of waters of the U.S. confirmed by the Corps is found on the adjacent borrow area parcel as shown on the attached exhibit "Borrow Site Rough Grading," Sheet 1 prepared by RSA on August 21, 2020. There are no waters of the United States or State on the project site.

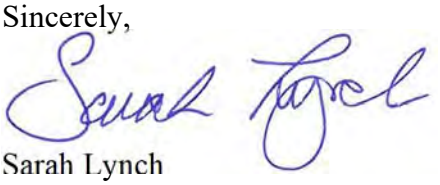
3. DISCUSSION OF PROPOSED ACTIVITIES AND AVOIDANCE OF IMPACTS TO MAPPED WATERS OF THE UNITED STATES

The project applicant intends to rough grade the borrow area parcel and transport soil from that parcel onto the project site for use in development of the project site. In order to protect the waters of the United States/State that occur in between the project site and the borrow area parcel, a 25-foot buffer area around the outside edge of the wetlands will be staked and protected with fiber roll, silt fencing and high visibility orange construction fencing to prevent equipment from driving into the wetlands during hauling activities. See the attached exhibit.

With these protection measures in place, as shown on the attached Borrow Site Rough Grading exhibit, Sheet 1, attached, *there are no expected impacts to waters of the U.S./State from the transport of soil/materials from the borrow area parcel to the project site*.

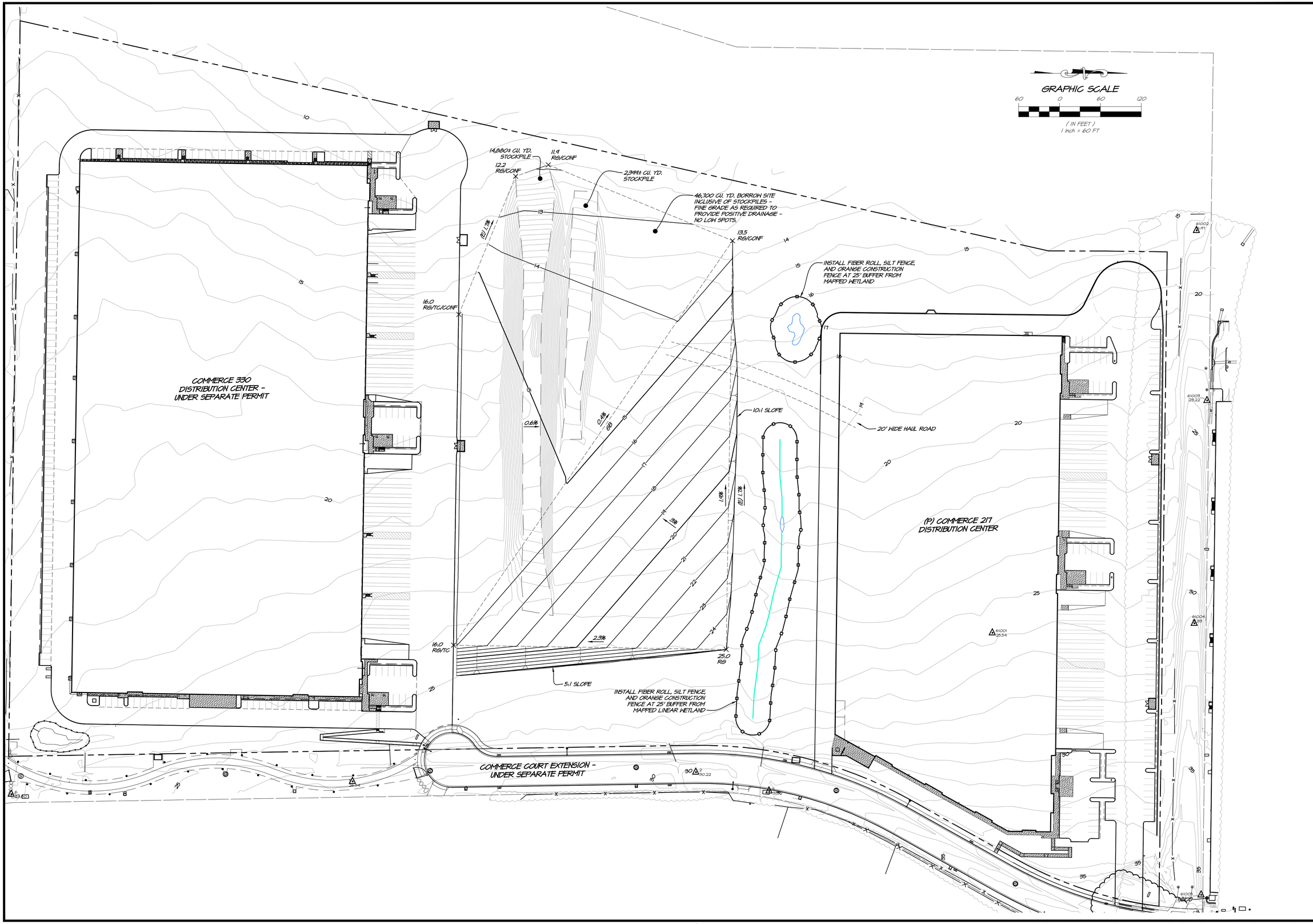
This concludes our addendum to our biology report. If you have any questions or require additional information, please do not hesitate to contact me at (925) 323-4850 or Sarah@monkassociates.com. Thank you.

Sincerely,



Sarah Lynch
Senior Associate Biologist

Attachments: U.S. Army Corps of Engineers Confirmed Aquatic Resources Delineation Map;
Sheet 1, Borrow Site Rough Grading prepared by RSA, August 21, 2020



NO.	DATE	REVISIONS	BY	APPD

RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS + 1980

1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE [707] 252.3301
+ www.RSAcivil.com +

SDG COMMERCE 217 DISTRIBUTION CENTER
BORROW SITE ROUGH GRADING
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNOCK
No. 82758
Exp. 9-30-20
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	AUG. 21, 2020
DRAWN	DRL
DESIGNED	DRL
CHECKED	PSW
JOB NO.	4119037.0
SHEET NO.	1
	1 OF 1 SHEETS

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PRELIMINARY - NOT FOR CONSTRUCTION

3788

- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
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- Delineation Area: Lot 3 (35.8 Acres)

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Approved Jurisdictional Determination, pursuant to Section 404 Clean Water Act

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American Canyon Flat Lands
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File ID. **2011-00322** Date: **March 6, 2018** Sheet 2 of 2

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Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
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City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

Appendix D

Geologic Report

ICC, LP
JAN 09 2020
RECEIVED

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217
DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

PROJECT NO. 032-19032
DECEMBER 9, 2019

Prepared for:

MR. BRIAN DOSWALD
INDUSTRIAL AND COMMERCIAL CONTRACTORS, L.P.
413 W. YOSEMITE AVENUE, SUITE 105
MADERA, CALIFORNIA 93637

Prepared by:

KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
4320 ORANGE GROVE AVENUE, SUITE E-F
SACRAMENTO, CALIFORNIA 95841
(916) 564-2200

Krazan & ASSOCIATES, INC.
SITE DEVELOPMENT ENGINEERS

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

December 9, 2019

KA No. 032-19032

Mr. Brian Doswald
Industrial and Commercial Contractors, L.P.
413 W. Yosemite Avenue, Suite 105
Madera, California 93637

RE: Geotechnical Engineering Investigation
Proposed SDG Commerce 217 Distribution Center
1075 Commerce Court
American Canyon, California

Dear Mr. Doswald:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at or (916) 564-2200.



Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

DRJ:ht

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December 9, 2019 KA Project No. 032-19032

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217 DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed SDG Commerce 217 Distribution Center to be located at Commerce Court near Eucalyptus Drive in American Canyon, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, pavement design and soil cement reactivity.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs, and the boring log legend are presented in Appendix A. Appendix A contains a description of the laboratory-testing phase of this study, along with the laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements, and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated October 14, 2019 (KA Proposal P641-19) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 24 borings to depths ranging from approximately 10 to 50 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood that development will include the construction of an approximately 217,000 square foot distribution center building. It is anticipated the building will be a single-story concrete tilt-up structure utilizing concrete slab-on-grade construction. Foundation loads are anticipated to be light to moderate. On-site paved areas and landscaping are also planned for the development of the project.

In the event, these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is rectangular in shape encompasses approximately 10.39 acres. The site is located approximately 0.4 miles north of Eucalyptus Drive, just west of Commerce Court Extension in American Canyon, California. The site has a street address of 1075 Commerce Court. The site is surrounded by agricultural land, groves of trees and industrial developments.

Site history was obtained by reviewing historical aerial photographs taken in 1948, 1982, 1993, 2002, 2005, 2012 and 2018. Review of the 1948 aerial photograph indicates that the project site was occupied by a grove of trees. Commerce Boulevard Extension trended north-south along the eastern edge of the site. The land to the north was vacant. Land to the south, east and west were occupied by groves of trees. A stream trending north-south was located west of the project site.

Review of the 1982 and 1993 aerial photographs indicate that the project site conditions appeared to be relatively similar to that noted in the 1948 aerial photograph. The northwest portion of the site had been cleared of trees.

Review of the 2002 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 1993 aerial photograph. A parking area and access road were located at the clearing in the northwest corner. Land further north of the site was developed with an industrial warehouse.

Review of the 2005 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 2002 aerial photograph. Land immediately north of the site was developed with an industrial warehouse. The section of Commerce Boulevard Extension bordering the project site was realigned to connect to new Commerce Boulevard, resulting in an enlarged project site.

Review of the 2012 and 2018 aerial photograph indicates that the project site and the land to the south had been cleared of the trees and were vacant.

Presently, the site predominately consists of vacant land. Some grading activities had been performed throughout the site. Several stockpiles of rocks are located in the northeast corner of the site. The surface soils have a loose consistency and contain a moderate amount of grass and weeds. Trees border the site to the north and west. Commerce Boulevard Extension is a gravel road and borders the site to the east. Buried utility lines may be located along Commerce Boulevard Extension along the eastern edge of the site. The site gently slopes from east to west with approximately 20 to 23 feet in grade change across the site.

GEOLOGIC SETTING

The subject site is located in the north-eastern portion of the San Francisco Bay Region, within the Coast Ranges Geomorphic Province of California. The Coast Range Geomorphic Province borders the Coast of California and generally consists, more or less, of a discontinuous series of northwesterly/southeasterly trending mountain ranges, ridges, and intervening valleys characterized by intense, complex folding and faulting. The ridges are most often comprised of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges.

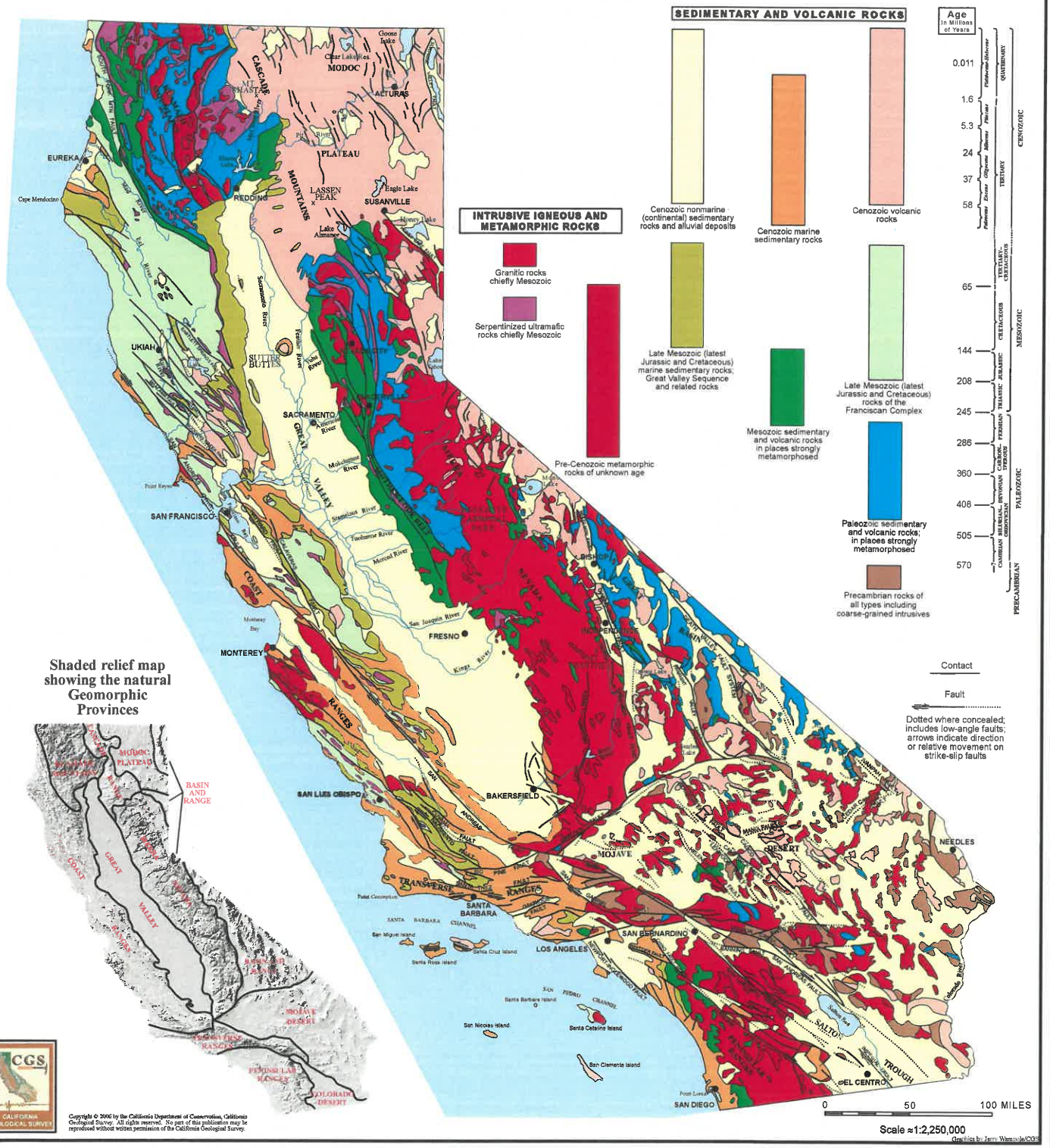
The project site is located in a seismically active region, which is situated on a tectonic plate boundary marked by the San Andreas Fault System and several northwest trending active and potentially active faults. The site is in close proximity to several major faults, including the West Napa, Green Valley, Hayward-Rodgers Creek, Mount Diablo Thrust, Calaveras, and San Andreas faults located approximately 0.8 miles west, 8.0 miles east, 11 miles west, 24 miles south, 29 miles southeast, and 30 miles west of the site, respectively. Although the site is in close proximity to several faults, the site is not within a State of California Earthquake Fault Zone or Special Study Zone for faulting. The site is located approximately 3,200 feet west of the West Napa Fault and 600 feet from the California Earthquake fault zone for the West Napa Fault. The site is not located on a State of California Seismic Hazard Zone Map.

The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the San Francisco Bay Area within a 30-year period of time is evaluated by the U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities on a periodic basis. The result of the 2008 evaluation indicated a 63 percent likelihood that such an earthquake event will occur in the Bay Area between 2007 and 2036 (USGS 2008). The faults with the greater probability of a magnitude 6.7 or higher earthquake are the Hayward fault at 31 percent and the San Andreas fault at 21 percent.

Based on published geologic maps of the area the near-surface deposits in the vicinity of the subject site are indicated to be comprised of late Pleistocene to Holocene fan deposits of sand, gravel, silt and clay that are moderately to poorly sorted and moderately to poorly bedded. The site is located at an elevation of approximately 20 feet above sea level. Groundwater in the vicinity of the site is typically encountered at depths of approximately 11 to 25 feet.

SIMPLIFIED GEOLOGIC MAP OF CALIFORNIA

CORRELATION OF MAP UNITS



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FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 24 borings to depths ranging from approximately 10 to 50 feet below existing site grade, using a truck-mounted drill rig. In addition, 3 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Soil samples were retained for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential, plasticity, R-value and moisture density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and results of the laboratory test are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the upper soils consisted of approximately 6 to 12 inches of very loose clayey sand and sandy clay. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

Beneath the loose surface soils, approximately 7 to 13½ feet of loose to dense clayey sand or stiff to hard sandy clay and silty clay were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. The clayey soils had a moderate to high potential for expansion. Penetration resistance ranged from 16 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 100 to 132 pcf. Representative soil samples swelled approximately 1 to 1½ percent under a 2 ksf load when saturated. Representative soil samples had angles of internal friction between 16 and 18 degrees. Representative samples of the clayey soil had expansion indices between 77 and 102.

Below 8 to 14½ feet, alternating layers of predominately stiff to hard silty clay or medium dense clayey sand, clayey sand/sandy clay, sandy silt, silty sand, and sandy silt were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 9 to 52 blows per foot. Dry densities ranged from 88 to 121 pcf. These soils had slightly stronger strength characteristics than the upper soils and extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. The historic high groundwater depth for the region was determined to be 10 feet below existing site grade, based on the State of California Department of Water Resources data from 3 wells within 1.5 miles of the site. However, free groundwater was encountered between depths of 9 and 22 feet during our subsurface investigation.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

SOIL LIQUEFACTION

Soil liquefaction is a state of soil particle suspension, caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs in soils, such as sands, in which the strength is purely frictional. However, liquefaction has occurred in soils other than clean sands. Liquefaction usually occurs under vibratory conditions, such as those induced by seismic events.

To evaluate the liquefaction potential of the site, the following items were evaluated:

1) Soil type

2) Groundwater depth

3) Relative density

4) Initial confining pressure

5) Intensity and duration of groundshaking

The predominant soils within the project site consist of alternating layers of silty clays, clayey sands, clayey sand/sandy clay and sandy clays. Groundwater was encountered at depths as shallow as 9 feet below existing site grade during our exploratory drilling. Information obtained from the Department of Water Resources indicated that water wells had historic groundwater elevations as shallow as 10 feet below existing site grade within the project site vicinity.

The potential for soil liquefaction during a seismic event was evaluated using the LIQUEFYPRO computer program (version 5.8h) developed by CivilTech Software. For the analysis, a maximum earthquake magnitude of 6.9 was used. A peak horizontal ground surface acceleration of 0.687g was considered conservative and appropriate for the liquefaction analysis. An estimated high groundwater

depth of 9 feet was used for our analysis. The computer analysis indicates that soils above a depth of 9 feet are non-liquefiable due to the absence of groundwater. The soils below a depth of 9 feet have a slight to very low potential for liquefaction under seismic shaking due to predominately medium dense/stiff to very dense/hard sandy and clayey soils. The analysis also indicates that the total and differential seismic induced settlement is not anticipated to exceed 1 and ⅔ inch, respectively. Accordingly, measures to mitigate liquefaction potential are not necessary.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, expansive nature of the clayey soils, and previous development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

The site was previously utilized as agricultural land consisting of orchards. In addition, several dirt access roads trend throughout the site. Associated with these developments may be buried structures, such as utility lines and irrigation lines that extend into portions of the project site. Demolition activities should include proper removal of any buried structures. Any surface or buried structures, including utilities or loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that demolition activities of the existing structures will disturb the upper soils. After demolition activities it is recommended that these disturbed soils be removed and/or recompacted. This compaction effort should stabilize the upper soils and locate any unsuitable or pliant areas not found during our field investigation.

It is recommended that following stripping and fill removal operations, the upper 12 inches of soil within the proposed building areas be excavated worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, in order to reduce the potential for differential settlement, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soils and fill material will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This

compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

The upper soils within the site are predominately clayey sands and sandy clays. These soils appeared to have a moderate to high swell potential. The estimated swell pressures of the clayey soils may cause minor movement effecting slabs and possible stucco or similar brittle exterior finishes. To reduce potential soil movement, it is recommended the upper 30 inches of soil within slab-on-grade and adjacent exterior flatwork areas consist of 24 inches of non-expansive Engineered Fill overlain by 6 inches of Class 2 aggregate base. During construction, it is recommended that additional tests should be performed on the on-site soils to verify their physical and index properties.

As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting the slab areas can consist of lime-treated clayey soils. The lime-treated soils should be recompacted to a minimum of 90 percent of maximum density. Preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be above optimum moisture during the mixing operations.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

Buried utility lines are located along Commerce Boulevard Extension on the east side of the site and may extend into the site. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and the resulting excavations cleaned to firm native ground and backfilled with Engineered Fill. Disturbed areas caused by demolition activities should be removed and/or recompacted.

Tree removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be cleaned to firm native ground and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 3,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 18 inches.

Groundwater Influence on Structures/Construction

During our field investigations, groundwater was encountered at depths of 9 to 22 feet below site grade. Therefore dewatering and/or waterproofing may be required should structures or excavations extend below the groundwater table. If groundwater is encountered, our firm should be consulted prior to dewatering the site. Installation of a standpipe piezometer is suggested prior to construction should groundwater levels be a concern.

In addition to the groundwater level, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Site Preparation

General site clearing should include removal of vegetation; concrete and metal debris; existing utilities; structures including foundations; basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

The site is surrounded by agricultural land, groves of trees and industrial developments. Associated with these developments are buried structures such, as utility lines that are located along the edges of the site and within the project site vicinity. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and/or relocated and the resulting excavations backfilled. Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. The resulting excavations should be backfilled with Engineered Fill.

The site was previously occupied by a eucalyptus grove. Tree root removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

It is recommended that following stripping, tree removal operations and fill removal operations, the upper 12 inches of native soils within the proposed building areas be excavated, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soil and fill material will be suitable for reuse as Engineered Fill, provided it is cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Following stripping and fill removal operations, the exposed subgrade in exterior flatwork and pavement areas should be excavated/scarified to a minimum depth of 12 inches, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Limits of recompaction should extend 3 feet beyond structural elements. This compaction effort should stabilize the surface soils and located any unsuitable or pliant areas not found during our field investigation.

It is recommended that the upper 30 inches of soil within proposed slab-on-grade and adjacent exterior flatwork areas consist of non-expansive or lime-treated Engineered Fill. The intent is to support slab-on-grade and exterior flatwork areas with 24 inches of non-expansive or lime-treated fill, overlain by 6 inches of compacted Class 2 aggregate base. Alternatively, the upper 30 inches may consist of lime-treated Engineered Fill. The fill placement serves two functions: 1) it provides a uniform amount of soil, which will more evenly distribute the soil pressures and 2) it reduces moisture content fluctuation in the clayey material beneath the building area. The non-expansive fill material should be a well-graded silty sand or sandy silt soil. A clean sand or very sandy soil is not acceptable for this purpose. A sandy soil will allow the surface water to drain into the expansive clayey soil below, which may result in soil swelling. Imported Fill should be approved by the Soils Engineer prior to placement. The fill should be placed as specified as Engineered Fill. In addition, it is recommended conventional foundations and slabs be nominally reinforced to reduce cracking and vertical offsets.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent

of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The organic-free, on-site, upper native soils and fill material are predominately clayey sand, sandy clay, and silty clay. These clayey soils will not be suitable for re-use as non-expansive Engineered Fill. These clayey soils will be suitable for reuse for fill placement within the upper 30 inches of slab-on-grade and adjacent exterior flatwork areas, provided they are lime-treated. The preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be at or near optimum moisture-condition during mixing operations. Additional testing is recommended to determine the appropriate application rate of lime prior to placement. These clayey soils will be suitable for reuse as General Engineered Fill, provided they are cleansed of excessive organics, debris, and moisture-conditioned to at least 2 percent above optimum moisture. It is recommended that additional testing be performed on the on-site soils and fill material to evaluate the physical and index properties prior to reuse as Engineered Fill.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material with a plasticity index less than 10 and a UBC Expansion Index less than 15. Imported Fill should be free from rocks and lumps greater than 4 inches in diameter. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

The Contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

The proposed structure may be supported on a shallow foundation system bearing on a minimum of 30 inches of Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	2,250 psf
Dead-Plus-Live Load	3,000 psf
Total Load, Including Wind or Seismic Loads	4,000 psf

The footings should have a minimum depth of 18 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load. Ultimate design of foundations and reinforcement should be performed by the project Structural Engineer. A modulus of subgrade reaction of 35 pci can be used for the on-site soils.

The total soil movement is not expected to exceed 1 inch. Differential movement measured across a horizontal distance of 40 feet should be less than 1 inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

The footing excavations should not be allowed to dry out any time prior to pouring concrete. It is recommended that footings be reinforced by at least one No. 4 reinforcing bar in both top and bottom.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.3 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 250 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

In areas that will utilize moisture-sensitive floor coverings, concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder.

The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt, or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted. Floor slabs subject to forklift traffic should be underlain by a minimum of 2 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D1557. Slabs can be designed utilizing a modulus of subgrade reaction of 100 pci.

The floor slab should be a minimum of 6 inches thick and reinforced at a minimum with No. 4 reinforcement bars at 24 inches on-center each way within the middle one-third. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever large vehicular loads, heavy concentrated loads, heavy equipment, or machinery is anticipated.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. All fills required to bring the building pads to grade should be Engineered Fills.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 50 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 70 pounds per square foot per foot per depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways. All of the above earth pressures are unfactored and are, therefore, not inclusive of factors of safety.

Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic concrete or other suitable backfill to

of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (916) 564-2200.

Respectfully submitted,
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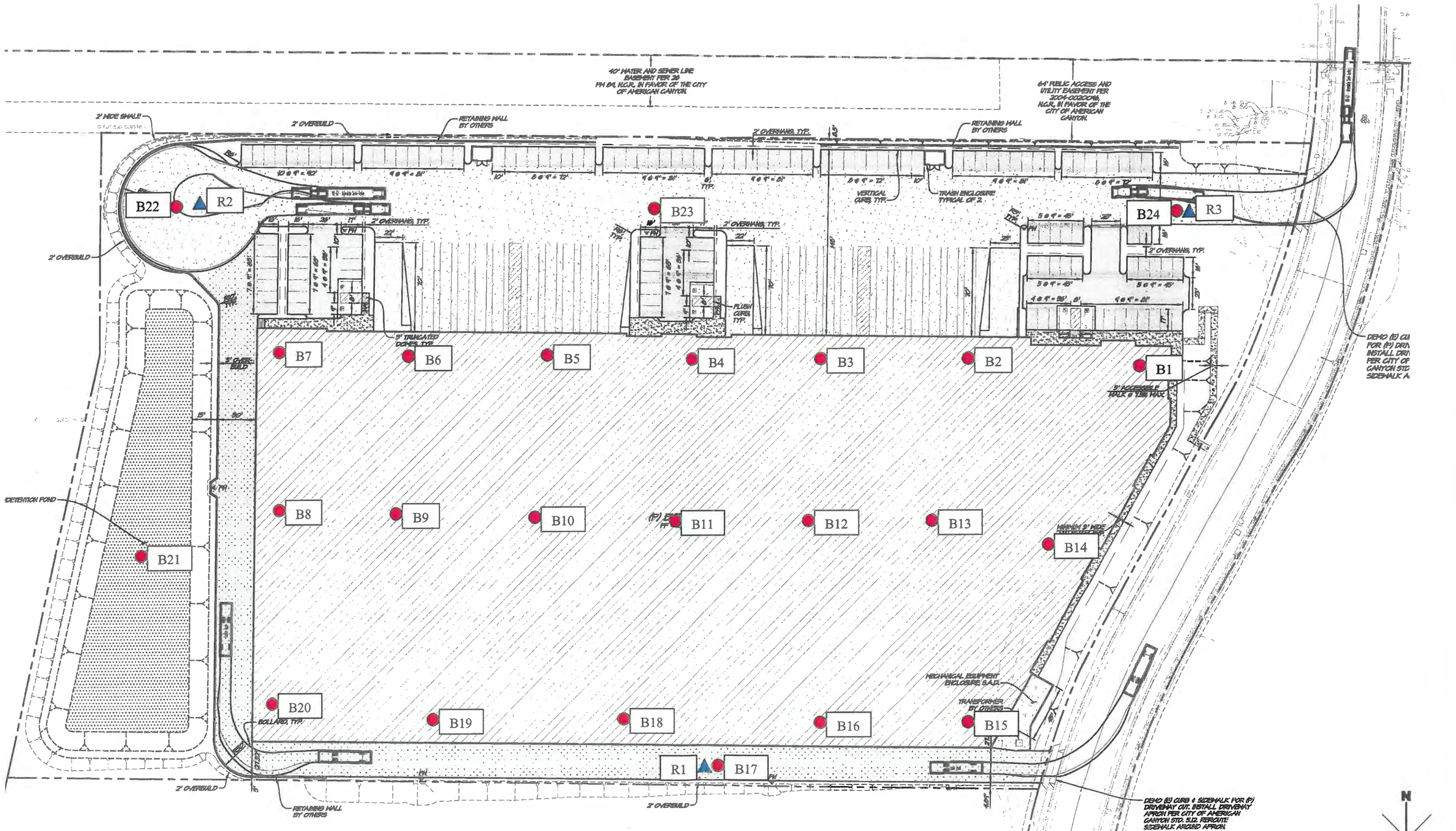

● APPROXIMATE BORING LOCATION

▲ APPROXIMATE R-VALUE LOCATION

SITE MAP	**Scale:** NTS	**Date:** December 2019	Krazan GEOTECHNICAL ENGINEERING
Commerce 217 Distribution Center **1075 Commerce Court** **American Canyon, California**	**Drawn by:** HT	**Approved by:** DJ	
	Project No. 032-19032	**Figure No.** 1	

Appendix E

Noise Appendices

American Canyon SDG Commerce 217

Wine Storage Project Noise Appendix

Technical Information

Site 1 – 24-Hour Noise Plots (3 pages)

Noise Measurement Locations Figure

RCH GROUP
planning & environmental consulting

NOISE APPENDIX

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the "loudness" of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[1]; day–night 24-hour average sound level (Ldn)[2] with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[3], also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

Table 1 identifies decibel levels for common sounds heard in the environment.

Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (Caltrans, 1998b). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

Temporary Construction Noise

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. **Table 2** shows typical noise levels from construction equipment. **Table 3** shows noise levels from construction activities, which typically range from 81 to 88 dB Leq at 50 feet, depending on the construction phase.

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[1]The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[2]Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[3]CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Table 1: Typical Noise Levels

Noise Level (dB)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: modified from Caltrans, 1998a

Groundborne Vibration

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment at a distance of 25 feet are summarized in **Table 4**. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inches per second (in/sec) or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a PPV threshold of 0.5 in/sec for residential and commercial structures, 0.25 in/sec for historic buildings and archaeological sites, and 0.2 in/sec for non-engineered timber and masonry buildings (FTA, 2006).

Table 2: Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Grader	85
Impact Pile Driver	101
Jackhammer	89
Loader	79
Paver	77
Pickup Truck	75
Roller	80

Source: FHWA, 2006

Table 3: Typical Construction Activities Noise Levels

Construction Phase	Noise Level (dB, Leq at 50 feet)
Ground Clearing	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.
Leq = equivalent sound level
Source: U.S. Environmental Protection Agency, Legal Compilation, 1973

Table 4: Representative Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Large Bulldozer		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, 2006

State Guidelines

State Land Use Compatibility standards for Community Noise (**Table 5**) are provided in the State of California General Plan Guidelines.

TABLE 5:
LAND USE COMPATIBILITY NOISE STANDARDS

Land Use Category	Community Noise Exposure Ldn or CNEL, dB
Residential – Low Density Single Family, Duplex, Mobile Homes	50 to 60 = Normally acceptable 55 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Residential -- Multifamily	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Transient Lodging – Motels, Hotels	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Auditoriums, Concert Halls, Amphitheaters	50 to 75 = Conditionally acceptable 65 to 85 = Clearly unacceptable
Sports Arena, Outdoor Spectator Sports	50 to 70 = Conditionally acceptable 70 to 85 = Clearly unacceptable
Playgrounds, Neighborhood Parks	50 to 70 = Normally acceptable 67.5 to 75 = Normally unacceptable 72.5 to 85 = Clearly unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75 = Normally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly Unacceptable
Office Buildings, Business, Commercial and Professional	50 to 70 = Normally acceptable 67.5 to 77.5 = Conditionally acceptable 75 to 85 = Normally acceptable
Industrial, Manufacturing, Utilities, Agriculture	50 to 75 = Normally acceptable 70 to 80 = Conditionally acceptable 75 to 85 = Normally acceptable

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: **State of California General Plan Guidelines, Office of Planning and Research, 2017.**

REFERENCES

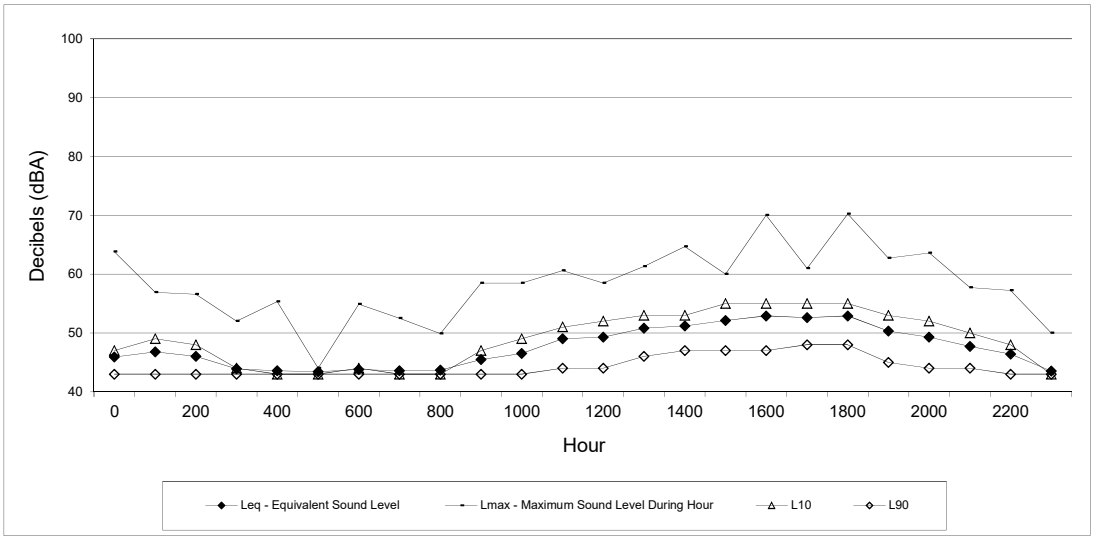
California Department of Transportation (Caltrans), 1998a. *Technical Noise Supplement*.

California Department of Transportation (Caltrans), 1998b. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October 1998.

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06).

Governor's Office of Planning and Research (OPR), 2017. *State of California General Plan Guidelines*. Appendix D: Noise Element Guidelines.

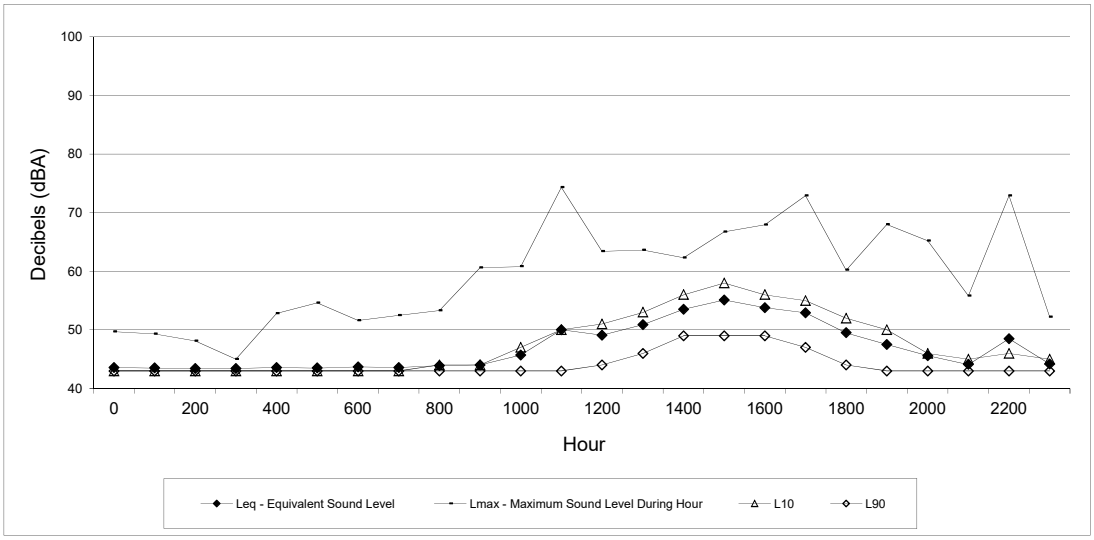


Site 1: Northern Boundary of Site on Eucalyptus Grove
Tueday August 4, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	46	64	47	43
100	47	57	49	43
200	46	57	48	43
300	44	52	44	43
400	44	55	43	43
500	43	44	43	43
600	44	55	44	43
700	44	53	43	43
800	44	50	43	43
900	46	59	47	43
1000	47	59	49	43
1100	49	61	51	44
1200	49	59	52	44
1300	51	61	53	46
1400	51	65	53	47
1500	52	60	55	47
1600	53	70	55	47
1700	53	61	55	48
1800	53	70	55	48
1900	50	63	53	45
2000	49	64	52	44
2100	48	58	50	44
2200	46	57	48	43
2300	44	50	43	43

CNEL 53
LDN 53

3818

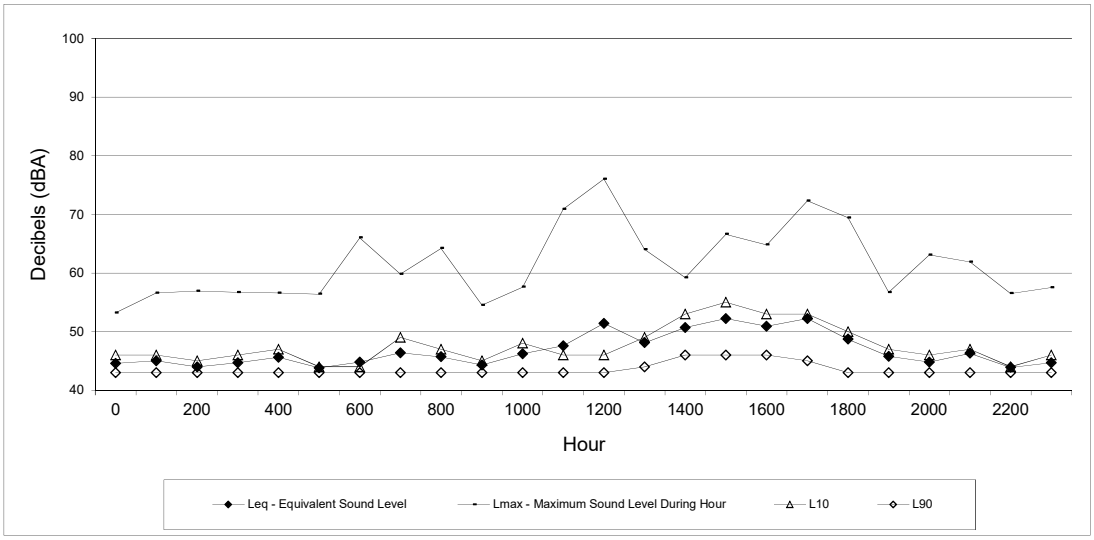


Site 1: Northern Boundary of Site on Eucalyptus Grove
Wednesday August 5, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	44	50	43	43
100	44	49	43	43
200	43	48	43	43
300	43	45	43	43
400	44	53	43	43
500	44	55	43	43
600	44	52	43	43
700	44	53	43	43
800	44	53	44	43
900	44	61	44	43
1000	46	61	47	43
1100	50	74	50	43
1200	49	63	51	44
1300	51	64	53	46
1400	54	62	56	49
1500	55	67	58	49
1600	54	68	56	49
1700	53	73	55	47
1800	50	60	52	44
1900	48	68	50	43
2000	46	65	46	43
2100	44	56	45	43
2200	49	73	46	43
2300	44	52	45	43

CNEL: 53

LDN 52



Site 1: Northern Boundary of Site on Eucalyptus Grove
Thursday August 6, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	45	53	46	43
100	45	57	46	43
200	44	57	45	43
300	45	57	46	43
400	46	57	47	43
500	44	56	44	43
600	45	66	44	43
700	46	60	49	43
800	46	64	47	43
900	44	55	45	43
1000	46	58	48	43
1100	48	71	46	43
1200	51	76	46	43
1300	48	64	49	44
1400	51	59	53	46
1500	52	67	55	46
1600	51	65	53	46
1700	52	72	53	45
1800	49	69	50	43
1900	46	57	47	43
2000	45	63	46	43
2100	46	62	47	43
2200	44	57	44	43
2300	45	58	46	43

CNEL: 52

LDN 52

Noise Measurement Locations



RCH GROUP planning & environmental consulting

Source: Google Earth and RCH Group 2020

Appendix F
Traffic Memorandumă

Memorandum

May 8, 2020

To:	Mr. Brian Doswald Stravinski Development Group, LLC	Project:	SDG 217 Commerce Boulevard Distribution Center Project
From:	Kenneth Isenhower III, EIT Kamesh Vedula, P.E.	Ref/Job No.:	11213027
CC:		File No.:	C2106MEM007.DOCX

Subject: Traffic Impact Analysis Memorandum

1. Introduction

This traffic impact analysis memorandum (TIAM) has been prepared to present the results of a traffic impact analysis performed by GHD for a proposed new distribution center development at 217 Commerce Boulevard in the City of American Canyon. The term "project" used in this memorandum refers to the proposed new 217,294 square foot wine storage warehouse. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[1] The project site is located at the terminus of Commerce Boulevard south of Green Island Road.

Included in this technical memorandum are analyses and discussion of the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this project:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

[1] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

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The following study intersection was identified and analyzed for this project:

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

The *Existing Conditions* analysis represents current operations of roadway and intersections based on collected traffic count data (October 2018);

The *Existing Plus Approved Conditions* represent the projects that have been approved by the City of American Canyon but have not been constructed and adding these trips to the existing traffic volumes.

The *Existing Plus Approved Plus Project Conditions* represent the net increase in project trips that are then added to existing plus approved traffic volumes to quantify potential impacts from proposed project uses;

The *Cumulative (No Project) Conditions* represent future traffic conditions based on the City of American Canyon General Plan to the Year 2030 but with the proposed project trips backed off as this project is assumed in the buildout of the General Plan.

The *Cumulative Plus Project Conditions* represent the net increase in project trips added to cumulative (no project) volumes to quantify impacts from proposed project uses. Care is given not to "double count" proposed project trips based on assumed land uses for the proposed project site used in City's General Plan.

1.1 Existing Traffic Volumes

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road (see Appendices for Supporting Data Information).[2]

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the amount of heavy vehicles (truck traffic) was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

[2] National Data and Surveying Services (NDS), AM peak period (7:00-9:00), PM peak period (4:00-6:00) intersection count at the Green Island Road/Commerce Boulevard intersection, October 2, 2018. Average daily traffic (ADT) counts on Green Island Road (east and west of Commerce Boulevard) and Commerce Boulevard (north and south of Green Island Road, October 2, 3, 4, 2018.

1.2 Analysis Level of Service Methodologies/Policies

1.2.1 City of American Canyon Traffic Study Thresholds of Significance

The City of American Canyon establishes the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

1.2.2 Project-Specific Significance and Mitigation Thresholds

In accordance with the City of American Canyon guidelines, the following thresholds of significance are used to determine if an impact is significant and requires mitigation:

Unsignalized Intersections:

The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS in the *No Project* condition to deteriorate to an unacceptable LOS in the *Plus Project* condition; or,
- Increase the delay by more than 5 seconds at an unsignalized intersection that is already operating or will operate at an unacceptable LOS in the *No Project* condition.

2. Existing Intersection Operations

2.1 Methodology

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. For all-way-stop-control intersections it is the average delay for all approaches.

Intersection levels-of-service have been based on the most recent Highway Capacity Manual (*HCM 6*) operations methodology for unsignalized all-way-stop-control intersections using *Synchro* software (version 10). In addition, peak hour factors (PHF's) for each intersection approach have been incorporated into all existing and future intersection LOS calculations. The PHF is a comparison of the peak 15 minute period within the peak hour compared to the peak hour. Based on field count data, these PHF's ranged from .75 to .87 depending on the peak hour.

2.2 Intersection

Table 1 presents a summary of the *Existing* peak hour intersection delay and level of service at the Green Island Road/Commerce Boulevard intersection using the most recent Synchro model.

Table 1: Existing Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	9.5	A	10.6	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 1, the Green Island Road/Commerce Boulevard intersection is currently operating at acceptable LOS during both peak hours.

2.3 Project Description

The proposed 217 Commerce Boulevard Wine Storage Facility project would be located in the City of American Canyon south of the current terminus of Commerce Boulevard. Based on the latest correspondence and site plan from the project applicant the proposed project would consist of a 217,294 square foot wine storage warehouse. At this time, vehicle and truck access to/from the proposed facility would be to/from Commerce Boulevard via Green Island Road.

2.4 Project Trip Generation

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[3] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities. Using the same methodology for the AM peak hour (between 7:00-9:00) and PM peak hour (between 4:00-6:00) peak hour trip generation has been compared in Tables 2 and 3.

[3] Omni-Means, Ltd., Trip Generation Rates---Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

Table 2: AM and PM Peak Hour Trip Generation Comparison--Tuesday

Tuesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	10-May-16	61 / 42	0.15 / 0.11
787 Airpark Road	377		27 / 37	0.07 / 0.10
175 & 177 Tower Road	254		30 / 31	0.12 / 0.12
Commerce Boulevard	692	16-Feb-16	72 / 93	0.10 / 0.13
Hanna Drive	718		151 / 109	0.21 / 0.15
Lombard Drive	287		50 / 33	0.17 / 0.12
Six Site Combined Average Tuesday Trip Rate				**0.14 / 0.12**

Table 3: AM and PM Peak Hour Trip Generation Comparison---Wednesday

Wednesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	11-May-16	57 / 34	0.14 / 0.09
787 Airpark Road	377		54 / 24	0.14 / 0.06
175 & 177 Tower Road	254		51 / 36	0.20 / 0.14
Commerce Boulevard	692	17-Feb-16	99 / 133	0.14 / 0.19
Hanna Drive	718		164 / 128	0.23 / 0.18
Lombard Drive	287		57 / 38	0.20 / 0.13
Six Site Combined Average Wednesday Trip Rate				**0.18 / 0.13**

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

As presented in Tables 2 and 3, the average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf , respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily and peak hour trip generation has been presented in Table 4.

Table 4: Project Trip Generation; Daily and Peak Hour

Observed Daily and Peak Hour Trip Rates	Unit[1]	Daily Trip Rate/Uni	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Wine Warehouse/Storage	ksf	1.69	0.16	60%	40%	0.13	35%	65%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
American Canyon Wine Warehouse	217	367	35	21	14	28	10	18
Net New Project Trips		**367**	**35**	**21**	**14**	**28**	**10**	**18**

Notes:

1. 1 ksf = 1,000 square feet

2. Trip rates based on daily traffic driveway counts at six (6) different wine warehouse/storage facilities in the American Canyon Area focusing on the 24-hour and AM and PM peak hours between (7:00-9:00 am and 4:00-6:00 pm).

As calculated in Table 4, the proposed project would be expected to generate 367 daily trips with 35 AM peak hour trips and 28 PM peak hour trips.

2.5 Project Distribution

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

3. Existing Plus Approved Traffic Conditions

Existing Plus Approved conditions were simulated by superimposing AM and PM peak hour traffic by adding approved project trip distribution patterns and volumes onto *Existing* intersection traffic volumes. The current list of approved projects consistent of only one project (330 Commerce Blvd Wine Storage Facility).

Intersection Operation

Table 5 provides a summary of *Existing Plus Approved* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 5: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.0	A	12.4	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 5, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

4. Existing Plus Approved Plus Project Traffic Conditions

Existing Plus Approved Plus Project conditions were simulated by superimposing AM and PM peak hour traffic by the proposed project onto *Existing Plus Approved* intersection traffic volumes.

Intersection Operation

Table 6 presents a summary of *Existing Plus Approved Plus Project* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 6: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.3	B	13.0	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 6, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

5. Cumulative (No Project) Conditions

Cumulative (No Project) conditions were based on cumulative AM and PM peak hour volume projections found in the *Napa Logistics Park Phase 2 Project Draft EIR* subtracting out the proposed project trip estimates. Peak hour volume projections for Green Island Road west of Paoli Loop Road were used for this analysis and encompass all future vehicle trips originating from industrial and light industrial areas in the Mezzetta Court, Jim Oswalt Way, Hanna Drive, and Commerce Boulevard areas. As a conservative measure, the *No Shift Change Reduction* volumes were utilized.

5.1 Intersection Operation

Table 7 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 7: Cumulative (No Project) Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	16.5	C	31.3	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 7, the Green Island Road/Commerce Boulevard intersection would operate at acceptable LOS during both peak hours.

6. Cumulative Plus Project Conditions

Cumulative Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto *Cumulative (No Project)* intersection traffic volumes.

6.1 Intersection Operation

Table 8 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 8 Cumulative Plus Project: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	17.9	C	35.0	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 8, the Green Island Road/Commerce Boulevard intersection would continue to operate at acceptable LOS with *Cumulative Plus Project* volumes during both peak hours.

7. Signal Warrants and Turn Lane Warrants Analyses

7.1 Signal Warrants Analysis

The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants. The CaMUTCD manual identifies up to nine warrants which can be used and states that "*An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location*".[4] Traffic signals can have several advantages which are outlined in the manual. These include: maintaining orderly movement of traffic; increasing capacity, reducing the frequency of certain accident types (right-angles), provide continuous movement of traffic at a definite speed, and permit minor street traffic/pedestrians to cross the major street.

However, the manual goes on to state that "*The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated*." The manual recommends that engineering judgment ultimately be used when deciding the appropriateness of signal controls.

Five of the nine warrants were evaluated (four warrants concerning school crossings, coordinated signal systems, roadway networks, and railroad crossing locations were not applicable). The signal warrant worksheets are attached in the Appendix.

7.1.1 Existing Without Project and Existing Plus Project Signal Warrants

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include “8-hour volumes” (Warrant 1), “4-hour volumes” (Warrant 2), and “peak hour volumes” (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The CAMUTCD warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard intersection are very low. During the AM and PM peak periods, a maximum of two (2) pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

[4] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 5 (March 27, 2020).

Finally, the crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location indicates that the current conditions do not warrant signalization for safety reasons.

7.1.2 Cumulative (No Project) and Cumulative Plus Project Signal Warrants

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

7.2 Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips.[5]

8. Summary/Mitigation

The proposed 217 Commerce Boulevard Wine Storage Facility project would not significantly affect AM and PM peak hour traffic operations at the Green Island Road/Commerce Boulevard intersection. With *Existing Plus Approved Plus Project* and *Cumulative Plus Project* volumes, the intersection would continue to operate at acceptable levels during the AM and PM peak hours (LOS D or better).

Analyses of intersection signal warrant satisfaction at the Green Island Road/Commerce Boulevard location indicates that no signal warrant would be satisfied under *Existing Plus Approved Plus Project* volumes. With forecast cumulative volumes, the intersection would qualify for signalization under the Peak Hour Warrant (Part A only) during the PM peak hour for *Cumulative (No Project)* and *Cumulative Plus Project* conditions.

At the City's request, the northbound Commerce Boulevard approach was evaluated for right-turn lane warrants based on TRB and AASHTO guidelines for the installation of a right-turn lane. Commerce Boulevard during the PM peak hour would meet the peak hour volume thresholds for installation of a separate right-turn lane with *Existing Plus Approved* and *Existing Plus Approved Plus Project* volumes (the proposed project would add to the existing warrant). In response, the following measure is recommended:

- Widen and/or re-stripe northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7% (28 trips / 1,018 cumulative volumes—PM peak hour).

With recommended improvements for a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under *Existing Plus Approved Plus Project* and *Cumulative Plus Project* conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (13.0 seconds) to LOS B (11.7 seconds) with *Existing Plus Approved Plus Project* conditions. Under *Cumulative Plus Project* conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds).

[5] Transportation Research Board, Intersection Channelization Design Guide, Chapter 4, Guidelines for Design of Channelized Intersections, Figure 4-23, Traffic volume guidelines of right-turn lanes, 1995.

Technical Memorandum

March 21, 2021

To:	Brian Doswald Stravinski Development Group, LLC	Project:	Commerce 217 Distribution Center
From:	Kamesh Vedula, PE Todd Tregenza, AICP Rosanna Southern, EIT	Ref/Job No.:	11213027
CC:		File No.:	11213027-MEM004.DOCX

Subject: Focused Traffic Impact Analysis for Vehicle Miles Traveled (VMT)

1. Introduction

GHD has been contracted by Stravinski Development Group, LLC (SDG) to prepare a technical memorandum that summarizes the results of a qualitative vehicle miles traveled (VMT) analysis consistent with the guidance and methodologies under the California Environmental Quality Act (CEQA) and the California Governor's Office of Planning and Research (OPR), per Senate Bill 743, for the Commerce 217 Wine Storage Facility/Distribution Center. The Project is located in the northern portion of the City of American Canyon, on Commerce Boulevard, near several other similar land use types.

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS) is no longer considered an environmental impact under CEQA. Instead, Project impacts are determined by changes to VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

As part of this study, GHD has reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority (NVTA) and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding threshold values, GHD has presumed a reduction of 15% from regional baseline VMT per employee, consistent with the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) and CEQA Guidelines. GHD has estimated baseline and Project trip-based VMT per employee, using journey-to-work data from the US Census Bureau, data from the California Statewide Travel Demand Model (CSTDM), and data from StreetLight. The Project-level VMT per employee estimates are reviewed against the regional baseline.

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1.1 Vehicle Miles Traveled (VMT)

VMT is the amount and distance of automobile travel on a daily basis. VMT for land use projects is measured by multiplying average trip length by the trip generation for the project. VMT estimates for the project are reported based on analysis of average commute trip lengths and estimated project site trip generation for employees. Average trip length information was established from a variety of sources, including StreetLight Data, census housing and employment data, applicant-provided commute data, and the California Statewide Travel Demand Model. This analysis is summarized in this memorandum and discussed in detail in the Appendix. Ultimately, a blend of sources was used to establish baseline VMT for the Project and for the Countywide average (Napa County). Average trip length for the Project Area was multiplied by the Project commute trip generation to estimate Project work-based VMT.

1.2 Travel Demand Management (TDM)

The proposed Project includes TDM features that are likely to result in reduced VMT per employee once operational. These TDM features were not quantified as part of the VMT analysis but will serve to reduce the number of individual commute trips generated by the project site, and to encourage commute modes other than single-occupancy vehicle trips. The TDM features included as part of the project are commensurate with measures included in the California Air Pollution Control Officers Association (CAPCOA) publication *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). Specifically, the Project includes measures consistent with the “TRT-1: Implement Commute Trip Reduction Program – Voluntary”mitigation measure category in the CAPCOA report. The Project is committed to the continued provision of:

- Carpooling encouragement;
- Ride-matching assistance;
- Preferential carpool parking;
- Designated transportation coordinator;
- Vanpool assistance; and,
- Bicycle end-trip facilities (including indoor storage).

The provision of these measures is documented to reduce employee VMT by 1% to 6.2%.

1.3 CEQA Baseline Considerations & Significance Thresholds

Under CEQA, the Project must be evaluated by comparing environmental conditions after Project implementation to conditions at a point in time referred to as the baseline. The CEQA Guidelines state that generally, the baseline is the environmental condition that exists at the time the notice of preparation is published or environmental analysis is commenced, from both a local and regional perspective. However, a lead agency may define the baseline by referencing historic conditions, as long as substantial evidence is provided that such a baseline is necessary to provide the most accurate picture practically possible given that existing conditions change or fluctuate over time.

GHD has reviewed available literature, guidance, and documentation from NVTA and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from StreetLight Data, US Census Longitudinal Employer-Household Dynamics (LEHD) database, and the California Statewide Travel Demand Model (CSTDM). The VMT impact has been assessed for the Project in terms of average daily VMT and the associated average trip length, and assessed against applying a Napa Countywide average trip length.

2. Reviewed Data Sources

2.1 LEHD Data, CSTDM, and StreetLight Data

Data from LEHD and the California Statewide Travel Demand Model were used to compare journey-to-work patterns, including trip length. The technical analysis processes used to verify and interpret the outputs from these data sources are provided in Appendix A. Ultimately, StreetLight Data was also acquired to address concerns regarding geography and sample size in the LEHD and CSTDM data. StreetLight Data provides empirically-based and directly comparable commute trip length (work-based VMT) information for the Project Area and Napa County. Lastly, commute data from the applicant was provided for similar uses in the project vicinity. Although a good source of information for employee commute lengths in the project area, the absence of comparable data for establishing a defensible baseline precluded its use in our analysis.

2.2 Data Review Summary

Based on review of the available data sources, GHD has found pros and cons to each source. Although all the data sources reviewed support the general finding that the Project area employee commutes are longer than the Countywide average, the amount of difference between the Project area and Countywide average commute length varies. Table 2.1 presents a summary of the pro's, con's, and trip length findings from each data source. Appendix A provides a full accounting of each applied methodology.

Table 2.1 Data Review Summary

	LEHD	CSTDM	StreetLight Data	Applicant Data
Pros	• Relatively small geography (precise) • Employment record-based	• Accessible VMT metrics by TAZ	• Custom precision for geography	• Data based on employees of similar uses in Project area
Cons	• Telecommute and remote office not considered • Employer records outside realistic commute shed	• TAZ geography (imprecise) masks localized variation	• Sample-based methodology may not reflect reality	• No comparable baseline data for County
Average Employee Commute Lengths				
County	15.69 miles	11.16 miles	11.70 miles	N/A
Project Area	18.65 miles	12.89 miles	17.30 miles	11.00 miles

3. Analysis Results Summary

As shown in the prior Table 2.1, the various reviewed data sources share similarities. For example, the County average commute trip lengths from the CSTDM and Streetlight Data are similar, when compared to the LEHD data. However, the LEHD is similar to StreetLight Data for the Project Area, as compared to the CSTDM. The CSTDM VMT is similar, however, the Project-applicant submitted employee data. GHD recommends a blended approach using the LEHD, CSTDM, and StreetLight Data. Although the applicant provided data shares similarities for the local Project area with the CSTDM data, GHD did not include it in the assessment due to the lack of a comparable regional average.

Table 3.1 presents a summary of the VMT analysis results, showing average employee commute trip lengths for the Project Area and the County, establishing VMT baseline and threshold of a 15% reduction from baseline. As shown in Table 3.1, the County average baseline is estimated at 12.85 miles, resulting in a VMT impact threshold of 10.92 miles. The Project area estimate for commute length is 16.28 miles.

Table 3.1 Commute Length Data Analysis Summary

Trip Type	Commute Trip Length
Countywide Average	12.85 miles
Impact Threshold	10.92 miles
Project Area Average	16.28 miles

The commute trip length values shown in Table 3.1 are subsequently used to estimate Project VMT, and quantify potential VMT impacts against the threshold established using the Countywide average.

3.1 Project Only VMT

In order to evaluate the Project's impact on VMT, total VMT is calculated based on the Project's employee-based trip generation and the Project Area's average trip length (identified in Table 3.1 above). The Project's trip generation was estimated in GHD's Traffic Impact Study for the Project, dated May 2020. The Project is estimated to generate 367 new daily trips, this represents employee trips, visitor trips, delivery trips, and truck trips. Using the StreetLight Data, the percentage of employee trips vs non-employee trips (37%) was established and utilized to estimate the Project's employee-based VMT. Table 3.2 presents the calculation of the Project's estimated VMT, the VMT threshold based on the trip length that is 15% below the countywide average, and the resulting reduction in VMT necessary to reduce any VMT excess over that threshold.

Table 3.2 Project VMT Calculation

Project Daily Trip Generation	% Commute Trips	Employee Trips
367	37%	136
Area	**Average Trip Length**	**Total Employee VMT**
Proposed Project	**16.28 miles**	**2,214**
Baseline Threshold	*10.92 miles*	*1,485*
VMT Reduction to meet Baseline Threshold		**729**

Based on an average Project Area trip length of 16.28 miles, the total employee VMT generated by the Project is estimated to be 2,214 VMT. In the absence of applicable local thresholds for light industrial and warehouse uses, GHD recommends utilizing the Countywide average commute trip length as the baseline and a VMT threshold of 15% below that average. Based on 136 employee trips, the Project's VMT would need to be reduced by 729 VMT to fall below the proposed 1,485 VMT threshold.

4. Recommendations to Reduce VMT

The applicant has proposed to construct a Class I bike path running from the current terminus of Commerce Court (northern extent) to Eucalyptus Drive (southern extent) to help reduce the Project's VMT below the required threshold. As illustrated in Figure 4.1 below, a portion of the bike path has already been constructed adjacent to the Project site, extending south from the terminating cul-de-sac of Commerce Court (which was also recently extended to the Project site) to the southern property line of the Project site.

The bike path will fill an approximately 800-foot gap in regional bike infrastructure, resulting in a continuous route from the residential areas to the south with employment destinations to the north. The bike path will extend the alignment of the Class I bike path along Wetlands Edge Road (San Francisco Bay Trail).

Figure 4.1 Extents of Bike Path and Recommended Improvement



4.1 Minimum and Maximum VMT Reduction Estimates

VMT reduction estimates for the proposed trail were prepared using two methodologies. The “Minimum” assessment estimates the induced bicycle commuting (or VMT reduction) from the 800-foot bike path only. This assessment therefore assumes the commuting potential of the balance of the Wetlands Edge bike path is already fully realized. This assessment assumes the closure of the bike trail gap would provide no indirect benefits to users of the surrounding bicycle network. However, continuing the bike path north from Wetlands Edge Road to Commerce Court fills a currently non-traversable gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices.

The “Maximum” assessment estimates the induced bicycle commuting for the entire length of the existing bike path along Wetlands Edge and the proposed 800-foot gap closure. This assessment assumes that the existing Wetlands Edge bike trail has zero utilization for bicycle commutes. This assumption is supported by the fact that the existing Wetlands Edge bike trail is fully disconnected from commute destinations, since State Route 29 poses a significant barrier to bicycle commuting and the trail is, today, isolated from other bike infrastructure.

Acknowledging that neither the “Minimum” nor “Maximum” assessment are likely to portray the existing trail’s exact commuter use, GHD proposes to use an average of both assessment results to quantify the anticipated induced bicycle commute (or VMT reduction) provided by the 800-foot bike trail and gap closure.

4.2 Supporting and Additional Information

The elementary school development, which is located on the northeast corner of Eucalyptus Drive and Wetlands Edge Road, is currently under construction and would also benefit from the construction of the adjacent bike path. Additionally, with the planned Class I bike path further north, connecting Green Island Road to Devlin Road, continuous bikeways will be provided to connect American Canyon to employment centers north of Green Island. Without closure of the 800-foot gap in bike facilities, the full benefit of the Devlin Road bike connection will not be realized.

Evidence for the existence of viable bicycle commuters between the Project site and the areas utilized in the induced bicycle commute analysis is provided by US Census Transportation Planning Products (CTPP) and LEHD data, as shown below in Figure 4.2. The units of analysis available for this assessment are limited to Census Block Group geography. As shown in the figures, the proposed Project (outlined in blue) is served by hundreds of commuters within American Canyon, and particularly along Wetlands Edge Road.

Figures 4.3 below depicts a ½ mile buffer from the existing Wetlands Edge bike trail with the addition of the 800-foot gap closure and connection to Commerce Boulevard. The induced bicycle commute analysis includes several buffer distances, and as noted above, was performed on both a “Minimum” and “Maximum” basis. Figure 4.3 visualizes the residential population and employment destinations currently accessible within a half-mile of this corridor, demonstrating the number of potential users within close walking distance. The half-mile buffer distance is estimated to include 5,300 residents and up to 1,600 jobs.

Figure 4.2 Existing Commute Patterns in Project Area

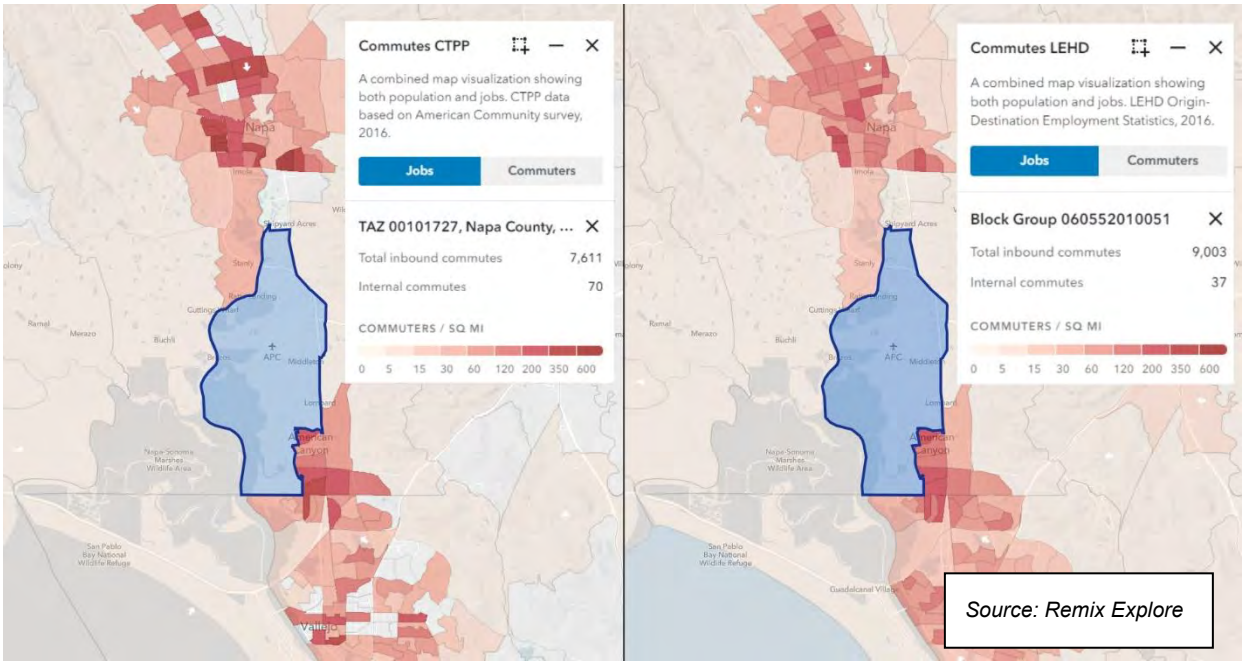
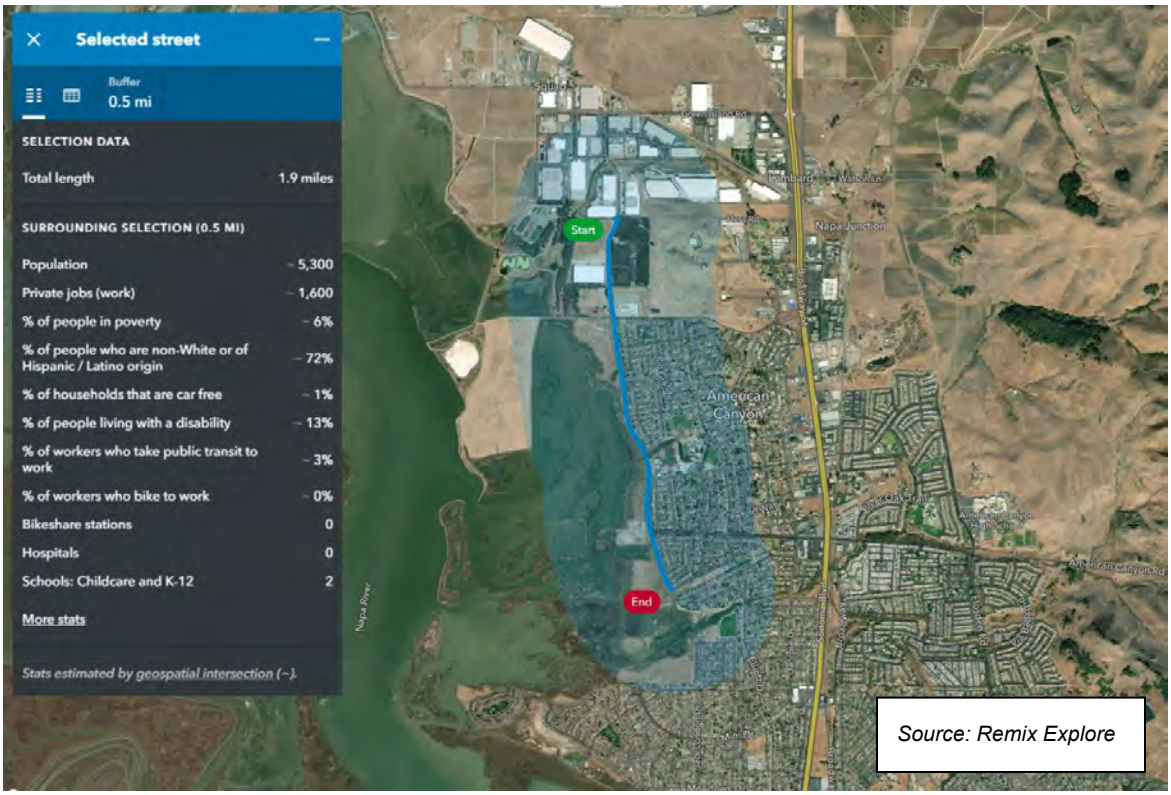


Figure 4.3 Half-Mile Demographic Buffer from Bicycle Corridor



4.3 VMT Reduction Analysis Findings

The quantification of the VMT reduction from full construction of the bike path is detailed in Appendix B. The VMT reduction is based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*. An important input into this calculation is the assumed average bicycle commute trip distance. Unlike vehicular commute trip lengths and distances, bicycle commute trip lengths are not readily available at the local or County level. While data for average bicycle trip lengths are available at the State level and Federal level from household travel surveys, they are presented as aggregated bicycle trip lengths for all trip purposes. Since commuting is typically the longest length non-recreational trip purpose, these data do not represent typical commuting distances. Furthermore, the latest available California household travel survey oversampled rural areas, which may distort bicycle use characteristics, especially in the context of American Canyon, an urbanized area.

Bicycle commute trip length data were obtained from two sources. The first source is from a survey of bicycle commutes prepared by Oregon Transportation Research and Education Consortium (OTREC). The report, *Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice* (OTREC, 2008) distinguishes bicycle trip length and distance by trip purpose. This research found an average one-way bicycle commute trip distance of 5.2 miles. The second identified source of bicycle commute trip distances is from the American Association of State Highway and Transportation Officials (AASHTO) *Commuting in America 2013: The National Report on Commuting Patterns and Trends*. Specifically, AASHTO published *Report 14. Bicycling and Walk Commuting* (AASHTO, 2015). This report presents an average bicycle commute length and distance of 20.9 minutes and 3.8 miles, respectively.

Table 4.1 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the bicycle facility and the new connection north to Commerce Court. The total new commuters estimated from the analysis (detailed in Appendix B) is used to estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and by the average trip distance for a bicyclist commuter. The results for both the AASHTO and OTREC bicycle commute trip distance are shown.

Table 4.1 VMT Reduction with Induced Demand/Bicycle Mode Shift

		Minimum (800 ft)	Maximum (1.85 mi)	Average
	Total New Commuters	38	155	96.5
	Daily Commute Trips (2 trips)	76	310	193
5.2 mile bicycle commute	Average One-way Trip Length[1]	5.2	5.2	5.2
	Daily VMT Reduction	**395**	**1,612**	**1,004**
	Annual VMT[2]	92,872	378,820	235,846
3.8 mile bicycle commute	Average One-way Trip Length[3]	3.8	3.8	3.8
	Daily VMT Reduction	**289**	**1,178**	**733**
	Annual VMT[2]	67,868	276,830	172,349

[1] "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC-RR-08-03, December 2008.

[2] Assumes 47 weeks per year, 5 days per week for average commute year

[3] "Commuting in America 2013; Report 14. Bicycle and Walk Commute", AASHTO, January 2015

As shown, the new shared-use path (Class I bicycle facility) is expected to result in mode shift from vehicle to bicycle for up to 155 commuters. According to the NCHRP calculation, this bike path is anticipated to reduce VMT by up to 1,178 to 1,612 vehicle trip miles, depending on the bicycle commute trip length used. If the Wetlands Edge trail today were fully utilized by commuters, and the proposed 800-foot bike trail were not closing a critical gap in network connectivity, the 800-foot bike trail project alone would be estimated to reduce 289 to 395 vehicle trip miles, depending on the bicycle commute trip length. Acknowledging that current commute use of the Wetlands Edge trail today is likely a non-zero figure, GHD recommends using a blended average of the “Minimum” and “Maximum” assessment, which would result in a reduction in VMT of 733 to 1,004 vehicle trip miles, which is sufficient to reduce the total Project VMT to a value less than the threshold established in this memorandum.

Memorandum

Appendices

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Appendix A
Technical Methodologies & Data

Appendix A Technical Methodologies & Data

The following section outlines the analysis methodologies and data sources that have been used in the VMT impact study to quantify VMT for the proposed Project. The regional travel demand model and VMT policy are currently under development. Therefore, various data sources were utilized to determine VMT characteristics.

1. Project Specific (Related) Information

SDG has provided site-specific information for home locations of existing employees at the existing building at 330 Commerce Boulevard, which is a similar use to the use anticipated at the proposed Project site. This information is presented in Table A.1 along with the calculated two-way commute distance, VMT, and the total VMT per employee rate (21.9). According to the application, the proposed Project is anticipated to employ 43 workers, whose residence locations are currently unknown. However, since the estimate in the below table is the existing data for a single similar use only, it does not provide substantial evidence to support a baseline VMT per employee commute distance estimation in the greater project area and cannot support a Countywide baseline finding.

Table A.1 Employee Commute & VMT for 330 Commerce Blvd (3 buildings)

Home Origin	Number of Employees	Two-Way Commute Distance (mi)	VMT Estimate
Vallejo	21	12.6	264.6
Napa	18	22.8	410.4
American Canyon	8	2.0	16.0
Fairfield	7	31.8	222.6
Vacaville	3	46.8	140.4
Benicia	1	29.5	29.5
Suisun City	1	32.6	32.6
Sonoma	1	36.8	36.8
Yountville	1	37.5	37.5
Pittsburg	1	65.3	65.3
Antioch	1	73.6	73.6
Winters	1	74.9	74.9
TOTAL	64		1404.2
Weighted average VMT per employee			21.9 trip miles
Weighted average commute distance		11.0 miles	

2. LODES Data

Journey-to-work data is available from the Longitudinal Employer-Household Dynamics (LEHD) program[1]. The primary source of data used in the LEHD program is the enhanced Quarterly Census of Employment and Wages (QCEW) microdata files obtained from each participating Local Employment Dynamics (LED) state. The employer-based QCEW data is merged with additional worker-based administrative data collected by the US Census Bureau to create integrated employer-worker data, available through two different databases, Quarterly Workforce Indicators (QWI) and LEHD Origin-Destination Employment Statistics (LODES).

Unlike sample-based surveys (such as the US Census's American Community Survey or CTPP), the LODES data provides a nearly complete enumeration of home-to-work flows covering over 90% of all workers and employers in the United States. The LODES data does not contain details on the work trips such as mode choice, route, or travel times. The LODES data does not include federal workers, self-employed or the military, and workplace location is assigned algorithmically for people who work for a business with multiple locations in a County. The LODES data provides many more origin-destination pairs than collected through sampled data, and provides sufficient data for home-to-work flows.

The LODES data was used to calculate average trip lengths and associated VMT for the Project Area in comparison against the region. The 2017 LODES data was downloaded statewide, on the US Census block level, and then filtered for Napa County. Based on the LODES data, approximately 52% of Napa County workers live outside the County, and approximately 48% of County employees live and work in Napa County. The employment number used for VMT per employee was determined by summing all the job destinations in the LODES dataset for Napa County.

Based on the methodology for estimating Baseline VMT as described herein, Table A.2 below presents a summary of the Baseline VMT estimates and Project VMT estimates utilizing LODES data and shortest-path analysis for trip lengths, within a 50-mile radius. The Project Area average trip length was found to be 18.6 miles, the Citywide average was found to be 16.4 miles, and the Countywide average was found to be 15.7 miles. The selected census blocks for the Project Area that present similar uses currently have VMT per employee rates that are, on average, higher than the Countywide average. The finding of above-average commute lengths in the project area was later corroborated in the StreetLight data findings.

[1] Data Source: U.S. Census Bureau. 2020. Longitudinal-Employer Household Dynamics Program (LEHD) Origin-Destination Employment Statistics Data (2015-2017). Washington, DC. accessed on 05/12/2020 at https://lehd.ces.census.gov/data/#lodes. LODES 7.4

Table A.2 LODES Analysis Results Summary

Area	Total Employees	Total VMT	Average VMT per Employee	Average Commute Distance
Napa County	58,836	1,846,314	31.4	15.7
City of American Canyon	3,171	103,671	32.7	16.4
Project Area	682	25,366	37.2	18.6
Project Area % Difference from County			18.5%	
Project Area % Difference from City			13.8%	

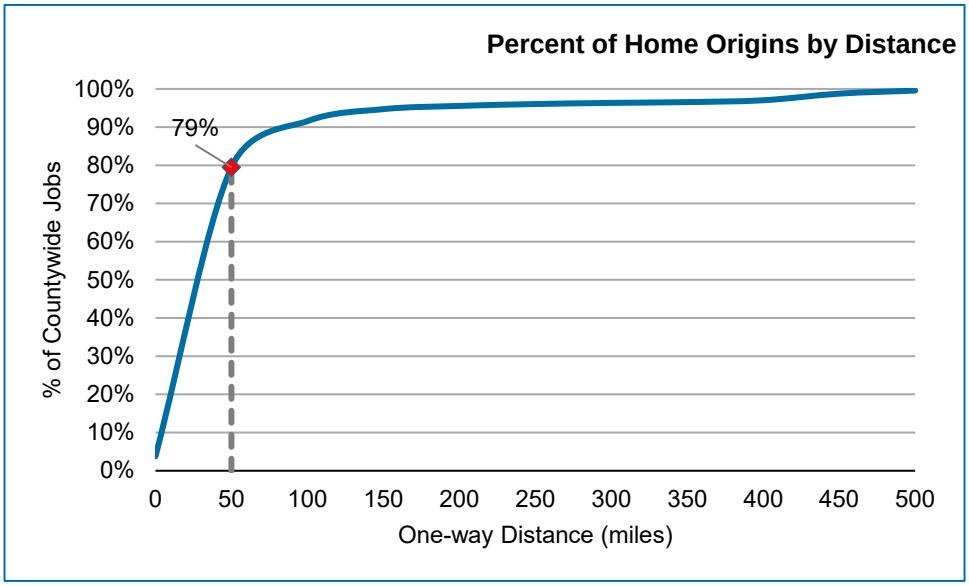
Shortest Path GIS Analysis Methodology

Shortest path analysis was performed using the GIS-based Google Distance Matrix API. The API is a service that computes travel distance and journey duration between multiple origins and destinations using a given mode of travel. The geographic boundaries of the census blocks Statewide were downloaded from the US Census Bureau to be utilized within the analysis. The LODES data was queried to retrieve the census blocks statewide that had a work destination within Napa County, then joined to the reference block dataset to find their locations. There were over 67,300 origin-destination pairs with a work destination in Napa County. The geometric centroids of each of the filtered census blocks were then calculated and utilized to determine the coordinates of the origins or destinations for analysis within the GIS-based API. The API was then called iteratively for a process which calculated the distance and travel time between each origin and destination (block to block). Distances between each origin-destination pair account for the full trip length, outside of the County boundary. The results were then joined back to the original LODES data to preserve the job count information, and assure the calculated destinations corresponded with the correct origin-destination pairs. GHD reviewed some of the origin-destination pair's distances against Google maps directions for quality control and assurance.

The primary work location reported by the LODES data may not represent the actual physical location where workers work, i.e. large corporations or other companies may have a headquarters located in an unrealistic location for commuting to and from work on a daily basis. Figure A.1 shows the percent of home origins of the Countywide jobs by distance. The Figure shows that a 50-mile buffer captures 79% of work destination trips Countywide (travel time is approximately 1 hour). Based on the project-specific information provided by the Project applicant, the existing employees of the neighboring use commute within a 50-mile distance. Therefore, the VMT per employee was calculated utilizing only the trips within a 50 mile buffer, one-way, thus removing errant outliers in the data that incorrectly inflate the average VMT per employee.

Based on the LODES data and shortest-path analysis, the Countywide average VMT per employee was estimated to be 31.4, and the Citywide average VMT per employee was estimated to be 32.7.

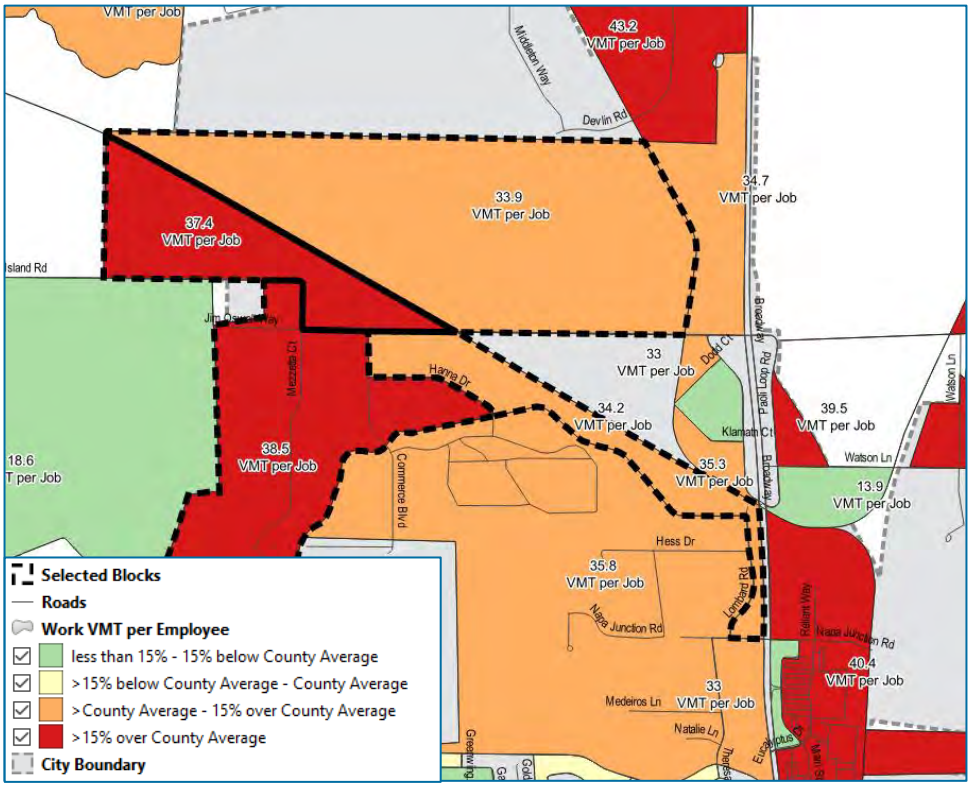
Figure A.1 Percent of Home Origins of Countywide Jobs by Distance



VMT Estimations & Geography

The distances calculated from the shortest path GIS analysis combined with the LODES data was utilized to estimate VMT per employee. VMT for each origin-destination pair was estimated by multiplying the number of jobs (employees) by the distance between the origin, destination, and back to the origin (2x distance) to include the full daily trip length for each origin-destination pair. The number of jobs, total VMT estimation, and average VMT per employee results were then summarized by geography (County, City, Project Area) for baseline estimation, Project Area estimation, and comparison of VMT per employee rates. The average VMT per employee for the County and City of American Canyon were calculated by dividing the total VMT by the total number of jobs for the census blocks in those geographies. For the Project Area average, four census blocks were evaluated, as identified in Figure A.2 below, to estimate the VMT per employee of the Project, by estimating the VMT per employee of the surrounding similar land uses. The census block along Commerce Boulevard was not selected due to also containing an elementary school, City Hall, and other dissimilar uses. Figure A.2 also shows the VMT per employee for each of the selected census blocks, and is colorized based on the comparison to the Countywide average VMT per employee. As shown, the selected census blocks in the Project Area range from rates of 33.9 to 38.5 VMT per employee. The average VMT per employee for the Project Area is 37.2 (total of VMT for Project Area divided by the total of employees in Project Area).

Figure A.2 Selected Census Blocks for Project Area



3. StreetLight Data

GHD has implemented alternative resources and tools to facilitate data collection and accurately represent origin-destination data for home-based-work trips in the study area and Countywide. GHD utilized “big data” from StreetLight Data to assess journey-to-work characteristics including trip length and VMT during 2019. StreetLight Data uses Location Based Services (LBS) and provides VMT and trip length estimations based on an anonymized sample of traffic. Estimations include trips that are tracked from start to finish and provides a more granular estimation of VMT patterns when compared to most travel demand models.

StreetLight Data is updated monthly and provides information for all roadways identified on the “Open Streets Map”. The data available through this service allows for evaluation of historical and/or current travel conditions. The data was collected for all days throughout 2019 (pre-COVID-19), for two sets of geographies: Napa County and the “Project Area”. The Project Area is identified in Figure A.3 below. The data was provided for all days, weekdays, and weekends. However, the analysis evaluated data for weekdays only. The data was analyzed by trip type including commute-based and non-commute-based for origins and destinations from/to work, home, and other trip types.

Figure A.3 Selected Project Area for StreetLight Data Analysis



The employee commute data from StreetLight Data was used to calculate average trip length and VMT estimates for the Project Area and Countywide. The average trip length information was utilized to establish Project-level VMT and the VMT that would be 15% below the Countywide average baseline metric.

Table 3.1 presents a summary of the StreetLight Data analysis results, showing employee and visitor trips and the average trip lengths for the Project Area and the County. Additionally, the percent split of employee and visitor trips within the Project Area is presented, which will be utilized to estimate the employee portion of trips from the Project's trip generation. As presented, a 37% portion of Project Area trips were employee (commute) trips. The average trip lengths presented vary between 11.7 and 31.3 miles, when evaluating commute trips and visitor-based trips. The VMT estimation associated with the Project utilizes the average trip length associated with employee commute trips from the Project Area.

Table A.3 StreetLight Data Analysis Results Summary

Trip Type	Project Area Volumes	% of Trips	Project Area Trip Length (mi)	Countywide Volume	Countywide Trip Length (mi)
Commute Daily Volume	2,138	37%	17.3	704,468	11.7
Non-Commute Daily Volume	3,626	63%	23.8	287,068	31.3
Total / Average	5,764	100%	21.4	991,536	17.4

It should be noted that the average commute trip length for the project area (17.3 miles) significantly exceeds the applicant-provided information on worker home bases for similar uses in the area (11.1 miles). Thus, the

VMT estimate for the project area from StreetLight Data may be conservatively high. Notwithstanding this consideration, since the applicant-provided data cannot be directly compared to the Countywide information from StreetLight data, GHD has decided not to use it in this analysis.

4. Caltrans Statewide Travel Demand Model

Caltrans maintains the Statewide travel demand model (CSTDM) which contains VMT information on the traffic analysis zone (TAZ) level. Based on the CSTDM, the Countywide average VMT per employee is estimated to be 23.7, the Citywide average VMT per employee is estimated to be 38.7, and the TAZ where the Project is located has a VMT per employee rate of 38.1. However, the CSTDM only has two TAZ's that are located in the City of American Canyon. Based on the CSTDM, the Countywide average trip length is 11.2, and the average trip length for the Project area is 12.9.

Appendix B
VMT Reduction for Class I Bikeway

Appendix B VMT Reduction for Class I Bikeway

The proposed SDG Commerce 330 Distribution Center Project (herein referred to as the Project) includes a segment of Class I Shared-Use Path that will close a gap between two shared-use facilities to the north and south of the proposed project. Based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*, the new facility may result in mode shift from vehicle to bicycle for some users. The methodology describes an approach for estimating the induced demand associated with a given bicycle facility improvement, and translates the projected increase in demand to monetized benefits related to mobility, health, recreation, and decreased auto use.

To estimate the reduction in vehicle miles traveled (VMT) associated with the bicycle facility improvement proposed as part of the Project, this analysis utilizes only the decreased auto use benefit component of the NCHRP 552 methodology. The induced demand benefits associated with the Project's proposed bicycle facility improvement is translated to a VMT reduction estimate by using the projected increase in number of daily commuters estimated to be associated with the proposed bicycle facility, and the average bicycle commute trip length.

This memorandum describes our application of the NCHRP 552 methodology in additional detail, the results of the induced demand and reduced auto use benefit, and the estimated reduction in VMT associated with the Project.

Methodology

The NCHRP 552 methodology is centered on several assumptions (NCHRP 552, Appendix A):

1. Existing bicyclists near a new facility will shift from the existing nearby facility to the new facility.
2. The new facility will result in induced number of cyclists as a function of the number of existing bicyclists, relative to the attractiveness of the proposed facility.
3. People are more likely to ride a bicycle if they live within 1.5 miles of a facility than if they live outside that distance.

The methodology suggests that existing bicycle commute mode share can be utilized to estimate the number of existing and future bicycle ridership based on low, moderate, and high likelihood multipliers and the population within 1.5 mile, 1.0 mile, and 0.5 mile buffers that surround a facility. The total rate of adult bicycling ranges from a low estimate, based on the Census commute share, to a high estimate, based on 0.6 percent plus three times the Census commute share (NCHRP 552, Appendix A). Moreover, the highest likelihood of a member of the population to use the facility exists if they live within a 0.5 mile buffer around the facility. Thus, demand is reported at low, medium, and high estimates for the populations at each buffer distance. Each buffer area—at 0.5, 1.0, and 1.5 mile was assessed for both a "Minimum" and "Maximum" bikeway benefit area.

The “Minimum” benefit area assumes only the direct induced demand of the 800-foot segment proposed by the project applicant. However, this assessment methodology undervalues the bike facility’s benefit as it assumes no additional benefit to the existing bike path along Wetlands Edge Road. The Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus.

In an effort to demonstrate this cumulative benefit, a “Maximum” benefit area was also calculated. The “Maximum” benefit area includes the entire length of the existing Wetlands Edge bike trail in addition to the proposed 800-foot gap closure segment. This assessment assumes zero commute benefit for the existing Wetlands Edge bike trail. Acknowledging that some commute benefit likely exists on the existing trail, and average of the “Minimum” and “Maximum” benefit is used in this study. However, this may still undervalue the benefit of the gap closure since the existing bike trail’s commuter use is likely closer to zero than it is to fully-actualized, since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders.

To project the future bicycling demand, the population was estimated based geospatial intersection of Census Block Group geography, using 2019 American Community Survey (ACS) five-year population estimates. Using the estimated population and the sketch planning method presented in Appendix A of the NCHRP 552 Report, the induced demand and decreased auto use benefits associated with the proposed bicycle facility were estimated for the “Minimum” and “Maximum” scenarios described above.

Results

Induced Demand

Table B.1 presents the calculations for estimating the induced demand associated with the proposed bicycle facility at the three buffer distances. As shown, the bicycle facility improvement is anticipated to induce 38 new bicyclist commuters (“Minimum”) and 155 new bicyclist commuters (“Maximum”), for an average 97 new bicyclist commuters.

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Adult Population Percentage [1]	73.70%	73.70%
Bicycle Commute Mode Share [2]	1.10%	1.10%
Existing Population [3]		
Population near Facility, 2400m	9,600	27,400
Population near Facility, 1600m	3,700	16,500
Population near Facility, 800m	700	5,300
Existing Bicycle Commuters [4]		
Bicyclist Commuters, 2400m	105.6	301
Bicyclist Commuters, 1600m	40.7	182
Bicyclist Commuters, 800m	7.7	58
Existing Adult Population [5]		

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Adult Population near Facility, 2400m	7,075	20,194
Adult Population near Facility, 1600m	2,727	12,161
Adult Population near Facility, 800m	516	3,906
Existing Adult Bicycling Rates (Non-Commuters) [6]		
Adult Bicycling Rate, High	3.90%	3.90%
Adult Bicycling Rate, Moderate	1.72%	1.72%
Adult Bicycling Rate, Low	1.10%	1.10%
Existing Adult Bicyclists (Non-Commuters), High Estimates [7]		
Adult Bicyclists, High 2400m	276	788
Adult Bicyclists, High 1600m	106	474
Adult Bicyclists, High 800m	20	152
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]		
Adult Bicyclists, Moderate 2400m	122	347
Adult Bicyclists, Moderate 1600m	47	209
Adult Bicyclists, Moderate 800m	9	67
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]		
Adult Bicycling Rates, Low 2400m	78	222
Adult Bicycling Rates, Low 1600m	30	134
Adult Bicycling Rates, Low 800m	6	43
Likelihood Multipliers By Each Buffer Distance [8]		
Likelihood Multiplier, 2400m	0.15	0.15
Likelihood Multiplier, 1600m	0.44	0.44
Likelihood Multiplier, 800m	0.51	0.51
New Bicycle Commuters [9]		
Total New Commuters, 2400m	16	45
Total New Commuters, 1600m	18	80
Total New Commuters, 800m	4	30
Total New Commuters	**38**	**155**
New Adult Bicyclists (Non-Commuters), High Estimates [10]		
New Adult Cyclists, High 2400m	41	118
New Adult Cyclists, High 1600m	47	209
New Adult Cyclists, High 800m	10	78
New Adult Bicyclists (Non-Commuters), Medium Estimates [10]		
New Adult Cyclists, Moderate 2400m	18	52
New Adult Cyclists, Moderate 1600m	21	92
New Adult Cyclists, Moderate 800m	5	34
New Adult Bicyclists (Non-Commuters), Low Estimates [10]		

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	Minimum (800 ft)	Maximum (1.85 mi)
Total New Adult Cyclists, Low 2400m	12	33
Total New Adult Cyclists, Low 1600m	13	59
Total New Adult Cyclists, Low 800m	3	22
Total New Adult Cyclist Estimates (Commuter and Non-Commuter) [11]		
Total New Cyclists, High	154	634
Total New Cyclists, Moderate	99	407
Total New Cyclists, Low	84	343

Table Notes:

[1] U.S. Census Bureau, American Community Survey ACS 2019 5-Year Estimates

[2] Napa County, CA Commuting Characteristics 2019 ACS 5-Year Estimates

[3] 2010 U.S. Decennial Census Population by Block; 2018 U.S. Census American Community Survey (ACS) 5-Year Estimates by Block Group

[4] Population near Facility x Bicycle Commute Mode Share

[5] Population near Facility x Adult Population Percentage

[6] High Estimate Rate = .06% + 3(Census Bicycle Commute Mode Share); Medium Estimate Rate = 0.4% +1.2(Census Bicycle Commute Mode Share); Low Estimate Rate = Census Commute Mode Share

[7] Adult Population near Facility at Given Buffer Distance x Adult Bicycling Rate

[8] Established by NCHRP 552 research; see Appendix B

[9] Existing Bicycle Commuters x Likelihood Multiplier

[10] Existing Adult Bicyclist (Non-Commuter) x Likelihood Multiplier

[11] Sum of New Adult Bicyclists (Non-Commuter) and New Bicyclist Commuters at High, medium and Low Estimates

Vehicle Miles Traveled (VMT) Reduction

Table B.2 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the proposed bicycle facility. The total of new commuters shown in Table B.1 is used to estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and the average one-way trip length for a bicycle commute trip. As shown, the daily VMT reduction is estimated to be up to 1,612, at least 395, and an average of 1,004 vehicle miles travelled.

Table B.2: VMT Reduction Associated with Induced Demand/Bicycle Mode Shift

	Minimum (800 ft)	Maximum (1.85 mi)	Average
Total New Commuters	38	155	96.5
Daily Commute Trips (2 trips)	76	310	193
Average One-way Trip Length[1]	5.2	5.2	5.2
Daily VMT Reduction	**395**	**1,612**	**1,004**
Annual VMT[2]	92,872	378,820	235,846

[1] "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC-RR-08-03, December 2008.

[2] Assumes 47 weeks per year, 5 days per week for average commute year

Appendix G
Tribal Outreach Letters

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 29, 2020

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

To Whom It May Concern:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

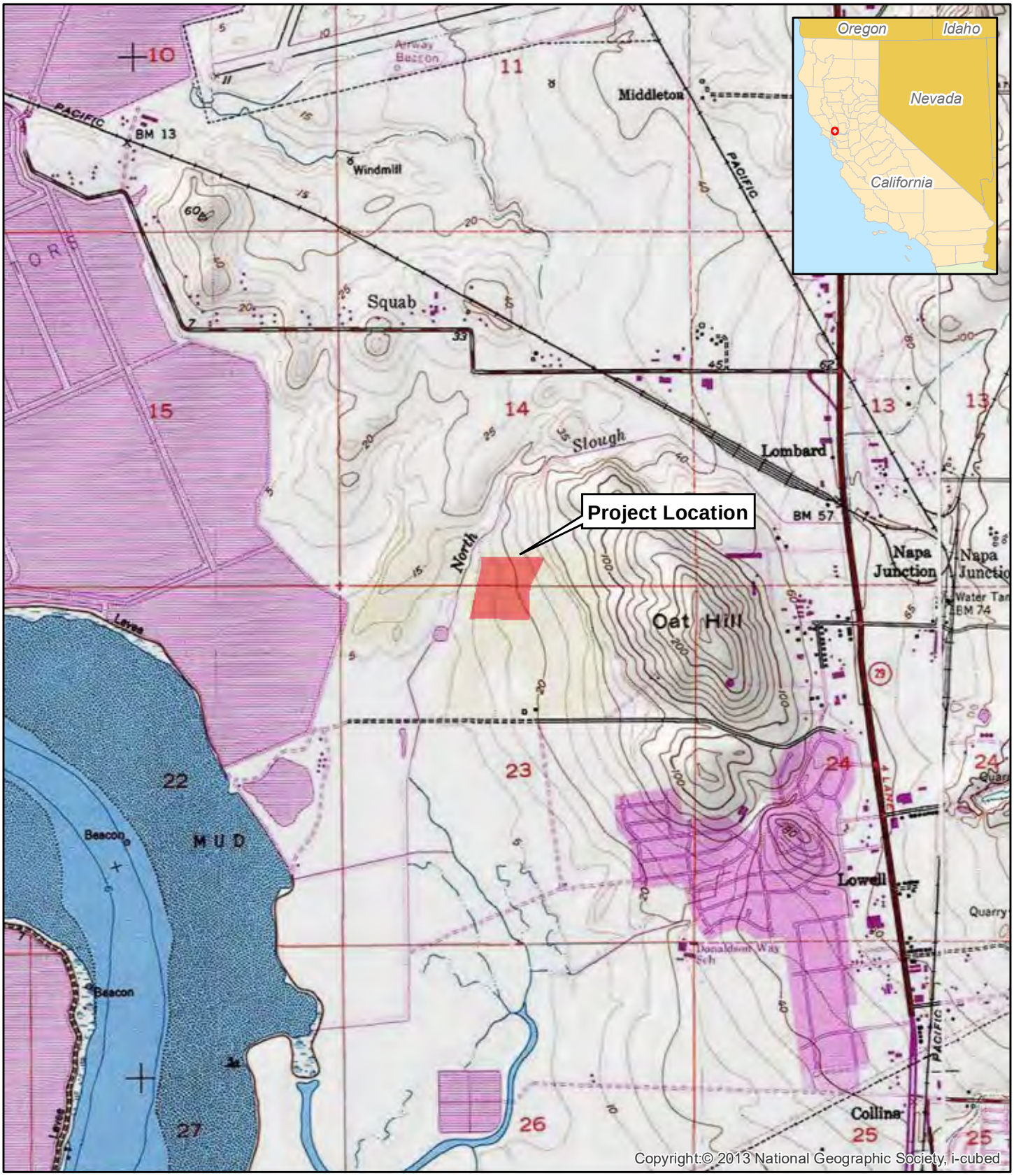
The SAS study will include a pedestrian cultural resources survey of the project area. Before we commence fieldwork, however, we would like to facilitate AB 52 consultation on behalf of the City. To provide this assistance to the City, we would like to request a list of appropriate regional Native American community contacts and a search of the Sacred Lands File.

If you have any questions, feel free to contact me at your convenience by phone at 530-417-7007 or via email at Brian@solanoarchaeology.com. Thank you very much for your time and I look forward to hearing from you soon.

Regards,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

Native American Heritage Commission
Tribal Consultation List
Napa County
7/30/2020

Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 — Wintun
Williams, CA, 95987
Phone: (530) 473 - 3274
Fax: (530) 473-3301

Guidiville Indian Rancheria
Merlene Sanchez, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Middletown Rancheria of Pomo Indians
Jose Simon, Chairperson
P.O. Box 1035 — Lake Miwok
Middletown, CA, 95461 — Pomo
Phone: (707) 987 - 3670
Fax: (707) 987-9091
sshope@middletownrancheria.com

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor, CA, 95492
Phone: (707) 494 - 9159
scottg@mishewalwappotribe.com

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
Fax: (530) 796-2143
aroberts@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed SDG Commerce 330 Warehouse Project, Napa County.

NATIVE AMERICAN HERITAGE COMMISSION

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Luiseño

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Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

July 30, 2020

Brian Ludwig, PhD, Principal Investigator
Solano Archaeological Services

Via Email to: brian@solanoarchology.com
Cc to: scottg@mishewalwappotribe.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, SDG Commerce 330 Warehouse Project, Napa County

To Dr. Ludwig:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Mishewal-Wappo Tribe of Alexander Valley tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Sarah.Fonseca@nahc.ac.gov.

Sincerely,



Sarah Fonseca
Cultural Resources Analyst

Attachment

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Ms. Merlene Sanchez
Guidiville Indian Rancheria
P.O. Box 339
Talmage, CA 95481

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Ms. Sanchez:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

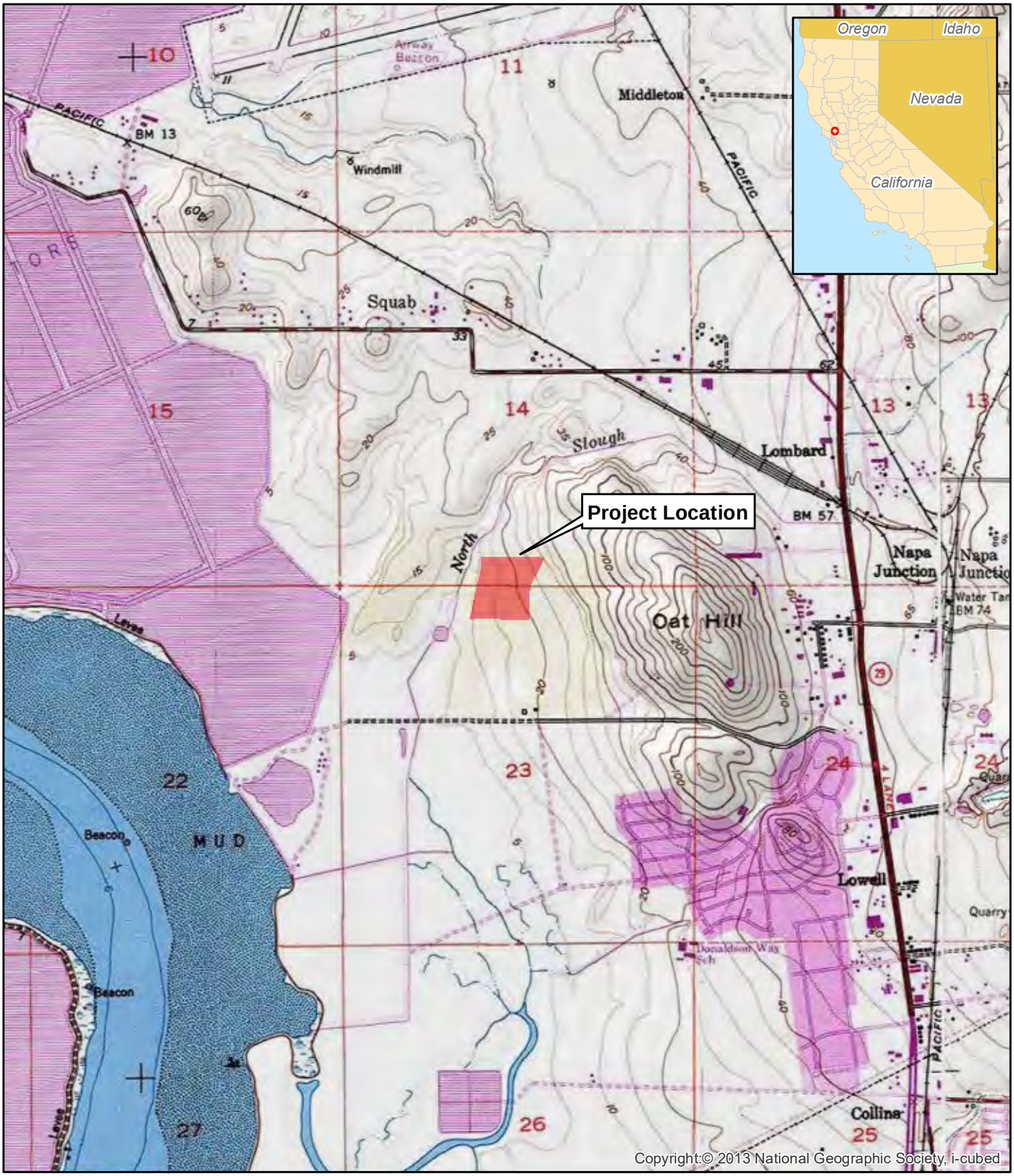
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

SAS SOLANO ARCHAEOLOGICAL SERVICES

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707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Scott Gabaldon
Mishewal-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, CA 95492

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Gabaldon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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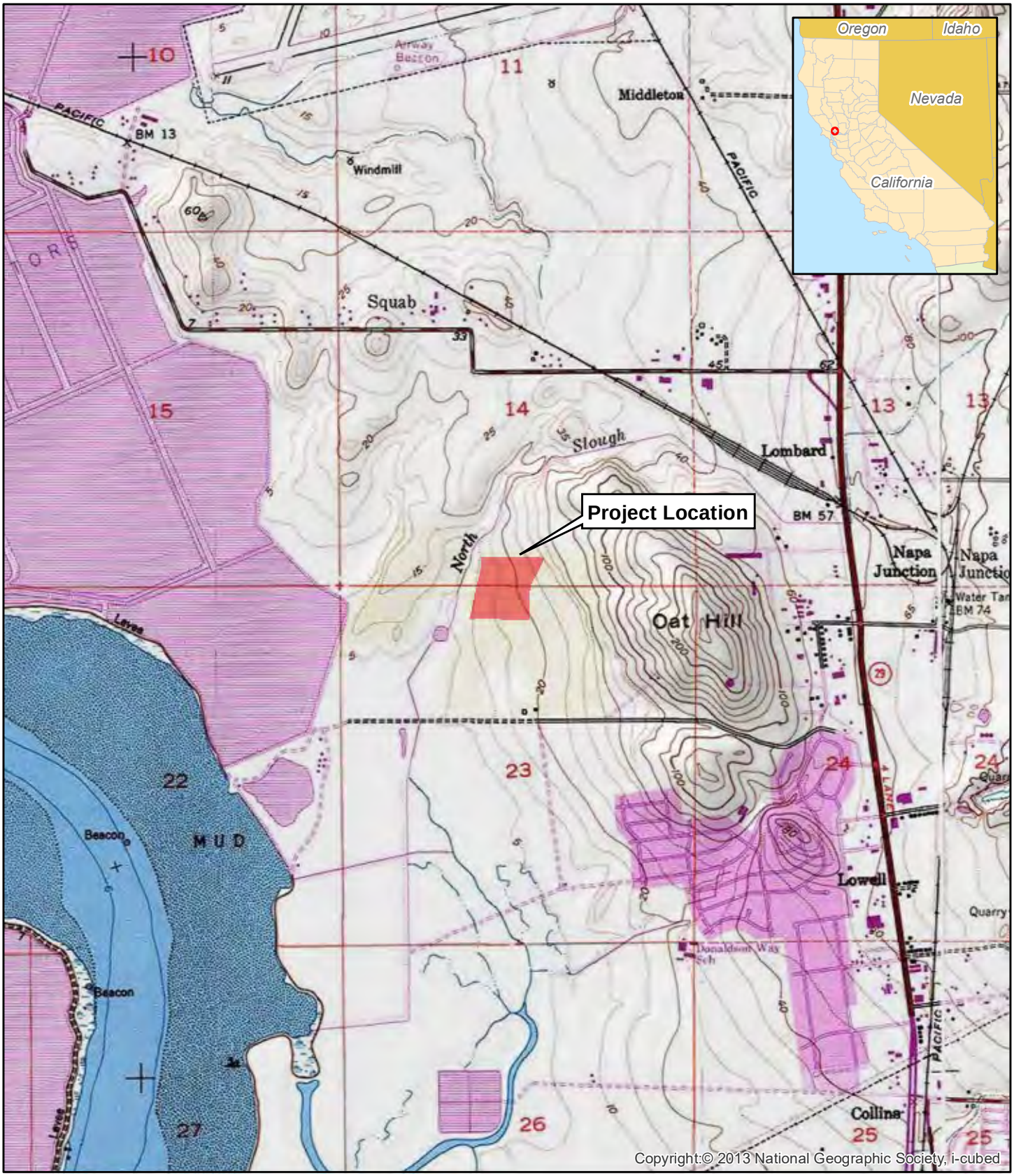
On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project to you, and solicit any information on undocumented sites that may exist in the project area or concerns you might have with the proposed Project. In addition, if you can provide specific information on, or guidance pertaining to the cultural property noted by the NAHC, it would be greatly appreciated.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



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Commerce 217 Project Area

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0.5 Miles

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SAS

3867

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

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www.solanoarchaeology.com

August 3, 2020

Mr. Jose Simon
Middletown Rancheria of Pomo Indians
P.O. Box 1035
Middletown, CA 95461

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Simon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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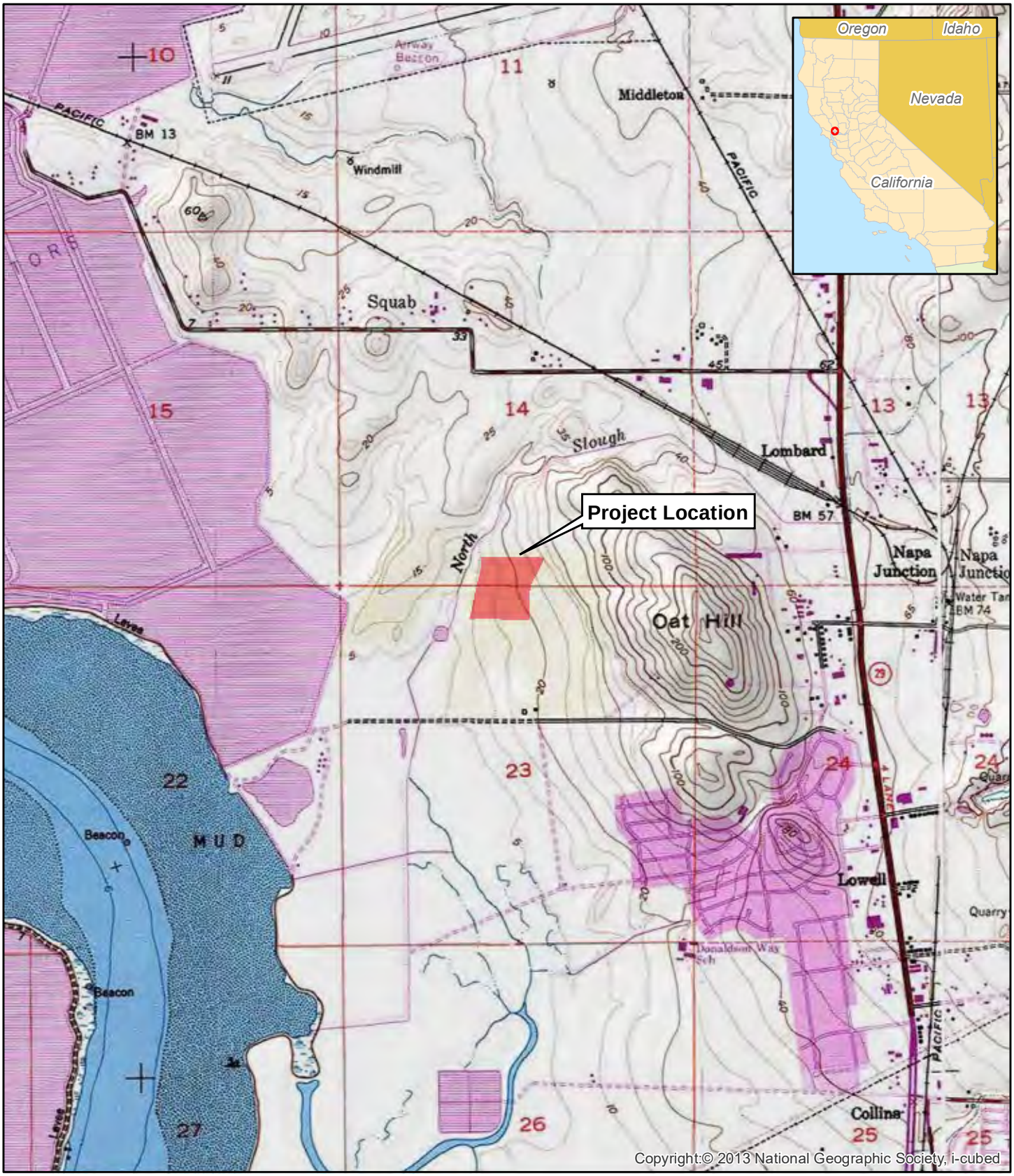
Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



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Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Charlie Wright
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
P.O. Box 1630
Williams, CA 95987

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Wright:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

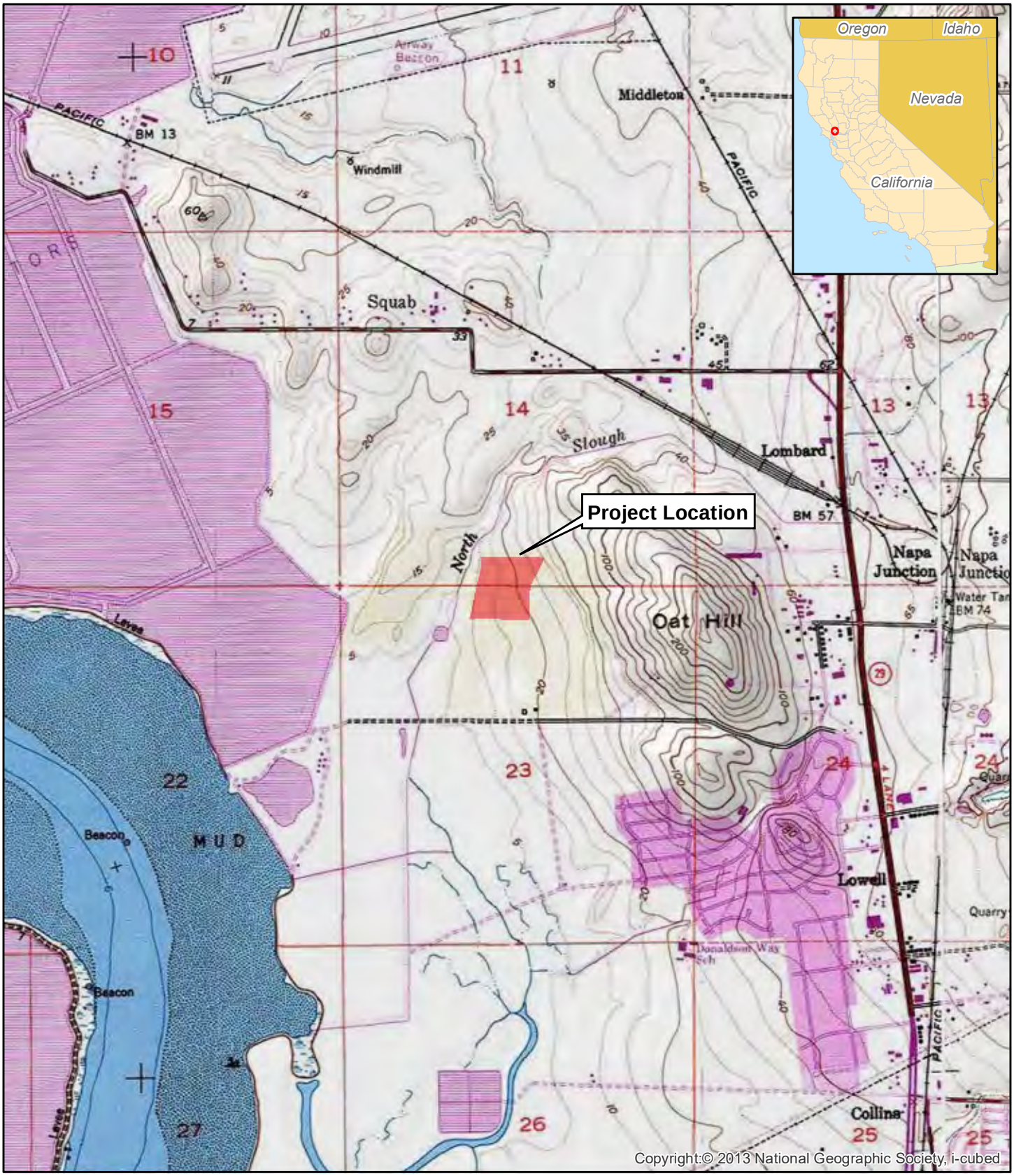
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Anthony Roberts
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA 95606

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Roberts:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

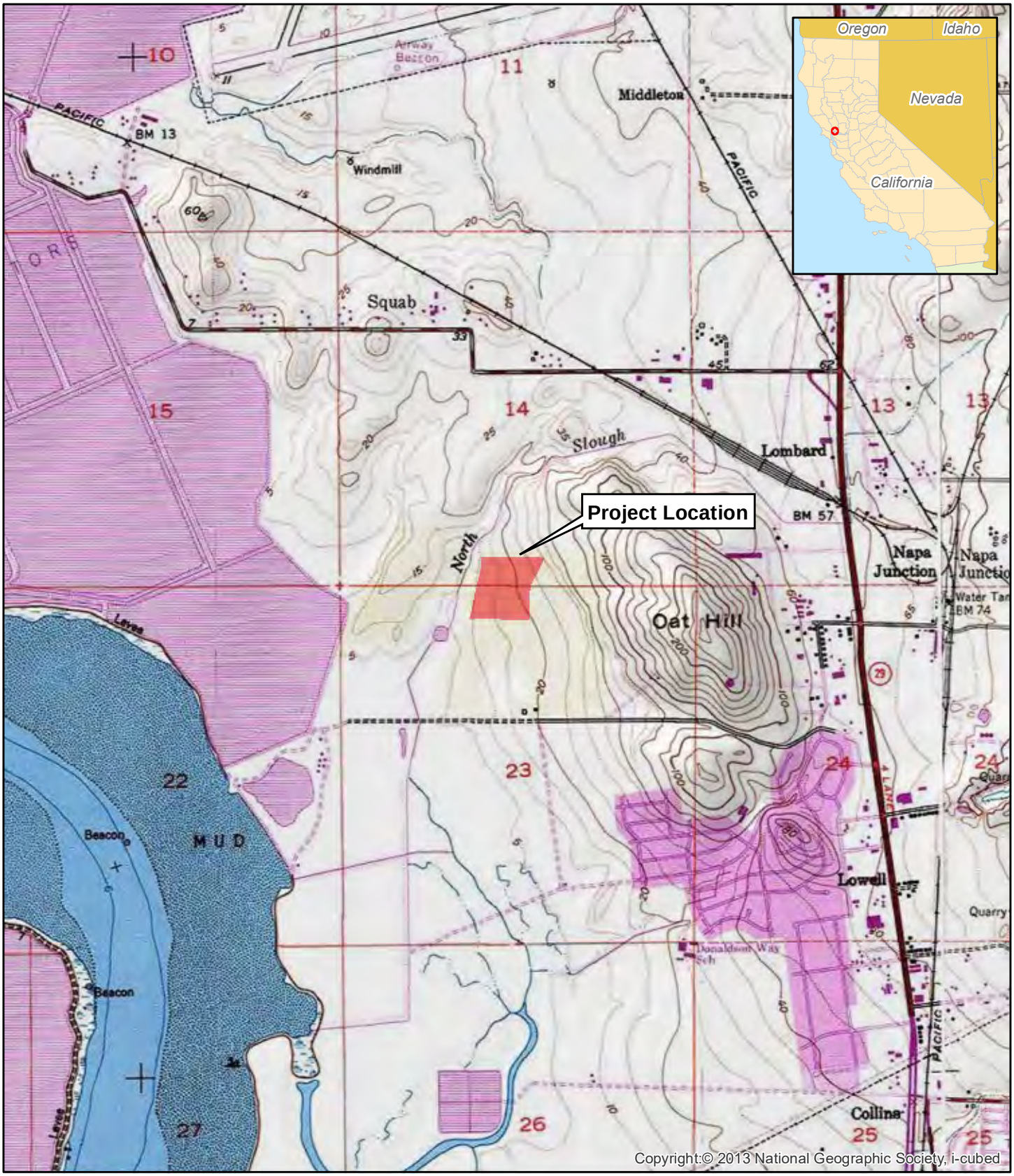
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

SAS

3873

NATIVE AMERICAN CONSULTATION LOG FOR THE SDG COMMERCE 217 PROJECT, NAPA COUNTY, CALIFORNIA

SAS Contact: Brian Ludwig, Ph.D.

Native American Consultant	Date of Correspondence	Responses
Cortina Rancheria – Kletsel Dehe Band of Wintun Indians **Charlie Wright -** Chair	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message.
Guidiville Indian Rancheria - **Merlene Sanchez -** Chairperson	8-3-2020 8-17-1010 8-22-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message Received email from Mr. Ryan Peterson (Admin & Projects Coordinator). Mr. Ryan stated the project area was outside the Guidiville Rancheria's ancestral area of concern and suggested SAS contact Mr. Gabaldon of the Mishewal Wappo.
Middletown Rancheria of Pomo Indians **Jose Simon,** Chairperson	8-3-2020 8-17-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by email regarding the project Sally Peterson emailed stating that SAS request would be forwarded to the THPO department. Also provided updated contact information for the tribe which SAS forwarded to NAHC.
Mishewal-Wappo Tribe of Alexander Valley **Scott Gabaldon,** Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message regarding the project. No responses received
Yocha Dehe Wintun Nation **Anthony Roberts**, Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message concerning project - no responses received.

Appendix H

Will Serve Letters

April 17, 2020

Mr. Peter Stravinski
SDG Commerce 330, LLC
413 W. Yosemite Ave., Suite 105
Madera, CA 93637

SUBJECT: Request for Water Service "Will-Serve" Letter
SDG Commerce 217, LLC
1075 Commerce Court, American Canyon, CA 94503
(APN's 058-030-065)

Dear Mr. Stravinski:

The City of American Canyon has received your request as Property Owner for a Will-Serve letter for water service to the property located at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065); referred to herein as the "Property"). The City is also processing a Conditional Use Permit (PL18-0010) received on March 18, 2020 for the development of a 217,294 square foot warehouse to be used for the storage and distribution of wine and wine industry goods. Additionally, the City has received an application for a Tentative Parcel Map (PL18-0011) on February 28, 2019 (Planning Commission Resolution 2019-02) to divide this parcel into three separate parcels. After the Parcel Map is recorded the warehouse will reside on a 10.39 acre parcel shown as Lot 1 in the parcel map, with additional development on the remaining two parcels.

It is the City's understanding that the Property is located within its city limits and that a Will-Serve Letter for water service to the Property is required prior to issuance of any building permits. In general, the City reviews the impacts of such requests for service taking into account the overall demand within its system and known supplies available to meet this demand.

The City's understanding of the current request is based on water demand estimates attached to the Will-Serve Application dated April 7, 2020. At present, the land comprising 35.85 acres, and the future 10.39 acre legal parcel is vacant with no historical water demand.

As Table 1 below shows, the requested Average Daily Demand (ADD) is 142 gal/day. Table 2 details the requested Maximum Daily Demand (MDD) of 560

gal/day for the Property. Table 3 shows the anticipated recycled water demands for the Property.

Table 1 – Requested Average Day Demand

Average Daily Water Demand (ADD) in gallons per day:	
Domestic:	142 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	142 gpd

Table 2 – Requested Maximum Day Demand

Maximum Daily Water Demand (MDD) in gallons per day:

Domestic:	560 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	560 gpd

Table 3 – Anticipated Recycled Water Demand

ADD (gpd)	MDD (gpd)
541	2,736

The City's Zero Water Footprint (ZWF) Policy requires new development to offset all of its water demands in order to prevent reduction in the reliability of existing water supplies or increases in water rates to existing customers. In light of the information submitted in the Application the City has determined that the Property will not have a Zero Water Footprint because once complete, the Property's proposed ADD (142 gpd) will be greater than the established baseline ADD (0 gpd). Because the Owner is requesting service greater than the established baseline demand, the Property will potentially reduce the reliability of existing water supplies and increase costs to existing customers. In accordance with this Policy, because the Property has been determined to not have a Zero Water Footprint, a more detailed Water Supply Report has been prepared, and is attached hereto and made a part of this "Will-Serve" Letter. In order to comply with the ZWF Policy and offset the Property's demand, the applicant shall contribute to the City's ZWF Mitigation Fund whereby the City will continue to undertake water conservation efforts to

offset the requested ADD increase of 142 gpd. Such efforts will result in this Property achieving a net zero impact to the City's water system, therefore adhering to the ZWF Policy.

This Will-Serve Letter supersedes any other purported service commitments to the Property for any use. By way of this Will-Serve Letter, the City is offering to meet the water service demands shown in Tables 1 & 2. The City's offer is contingent upon the occurrence and/or satisfaction of the following conditions and the continued existence of the following described conditions:

1. Owner shall be subject to all City's rules and regulations, including all fees and charges.

2. At no cost to the City, the Owner shall construct all facilities necessary to serve the Property in accordance with all City standards.

3. As part of the application process, the owner/developer shall submit a Developer Deposit Project Setup Form and pay the required deposit of $2,000. The deposit will be retained and the owner will receive a monthly statement of charges for the cost of processing the application, including writing water will serve and water supply report, plan review and inspections. At the close of the project, the last statement will be deducted from the deposit and remainder will be refunded to the owner.

4. The City has experienced potential reduction and/or curtailment of its primary sources of water supply during times of drought. When these reductions occur, the City's demands may exceed available supplies. In an effort to reduce this undesirable imbalance, the City is taking steps to reduce customer demands while also seeking to acquire additional supplies. The cost of these additional supplies is unknown at this time, and is not included in the current City water rates. The City is considering implementing potential changes to its rate structure which would be applied in a uniform manner in order to acquire such supplies. The Owner agrees to waive any protest to changes to current City water rates necessary to acquire additional water supplies during their formulation, implementation and review under the California Environmental Quality Act, Public Resources Code section 21000 et seq. ("CEQA") as long as such changes are initiated during the term of this Will Serve Water Supply Agreement or any extension thereof. Moreover, the Owner acknowledges that the City, during dry years, may be unable to meet the Property's water service demands and that its water service may be uniformly reduced and/or curtailed entirely. Owner further agrees to indemnify, defend and hold harmless the City, its elected officials, officers, attorneys, employees or agents for any and all damages or claims of damages stemming from such uniform reductions or curtailments that may occur as long as they are directly related to the City's provision for water to the Property.

5. As a result of Vineyard Area Citizens for Responsible Growth v. Rancho Cordova (2007) 40 Cal.4th 412, the City, as lead agency pursuant to CEQA, prior to approval the project must, at a minimum during its environmental review:

   a. Presented sufficient facts to evaluate the pros and cons of supplying the water that the Project will need; and

   b. Presented analysis that assumes that all phases of the Project will be built and will need water, and includes an analysis to the extent reasonably possible of the consequences of the impacts of providing water to the entire project; and

   c. Where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of the environmental consequences of those impacts were presented.

6. The Owner agrees its financial obligation for water service is as follows:

   a. Monthly water service charges will be billed at the current rate of $6.59 per unit (1 unit = 748 gal). At present the estimated average monthly water service fee will be approximately $37.53[1], plus meter fees and any surcharges. Service charges will be billed at the rates in effect at the time of service and are subject to change.

   b. The water capacity fee for the Property will be $ 13,865.60[2] based on MDD of 560 gal.

   c. The ZWF Mitigation (offset) cost for the Property is $1,310.77[3]in order to achieve compliance with the ZWF Policy.

   d. Capacity fees and mitigation funds are due and payable prior to issuance of a building permit.

7. The Property shall incorporate the following water conservation best management practices:
   - Ultra-low-flow toilets in restrooms
   - Ultra-low-flow fixtures and appliances
   - On demand (Instahot) hot water heaters or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
   - Installation of ET Smart irrigation controllers

[1] (142 gpd/748) * 30 days * $6.59 = $37.53/month
[2] Calculation: 560 gpd x $24.76 = $ 13,865.60. This fee based on rates effective December 17, 2019. Actual fee to be based on rates in effect at time of payment.
[3] Calculation: 142 gpd/65 gpd x $600 = $1,310.77

- Use of recycled water for irrigation
- Education of employees regarding water conservation (offered both in English and in Spanish.

8. The City reserves the right to audit the site's water demand as deemed necessary in order to verify that the Owner's water use is in accordance with this Will-Serve letter.

9. Future changes to the Project with respect to the change in use or water demands shall require that a new Will-Serve Letter be issued.

10. Development of the remaining parcel(s) will require a separate Will-Serve Letter.

This Will-Serve Letter will remain valid until April 30, 2020. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and authorized or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Owner or to any third party on behalf of the City. The City does not make a determination as to land use entitlements required for the proposed project, and the issuance of this Will Serve letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development Property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will Serve letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

Richard Kaufman, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Susan Presto, Finance Manager
Utility Billing

ACCEPTANCE
of
City's Conditional Offer of Water Service for

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Numbers 058-030-065

I, _____, _____,
(Print Name) (Print Title)

accept the conditions set forth in this communication.

_____ Date: _____
(Signature)

CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

Prepared by:

Edison Bisnar Jr.
Development Services

Approved by:

Richard Kaufman, P.E.
Public Works Director/City Engineer

Date

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SECTION 2.0 - PROJECT WATER FOOTPRINT **4**

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ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS **9**

PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065) and is referred to herein as the "Property." The Property is zoned General Industrial (GI) and is located within the City's Corporate Boundary.

1.2 - Project Description

The project is a new 217,294 square foot warehouse building to be used for storage and distribution of case-good wines and wine industry goods. A Will-Serve and a Conditional Use Permit (PL20-0008) is under review by the City.

The project will incorporate the following water conservation best management practices:

- Ultra-low flow toilets in restrooms
- Ultra-low flow fixtures and appliances
- On demand hot water heaters for all lavatories & breakrooms or the plumbing of hot water return lines with a timed recirculation pump
- Installation of an ET Smart irrigation controllers
- Use of recycled water for landscaping
- Education of employees regarding water conservation (offered in both English and Spanish).

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property can be served by City recycled water.

1.4 - Will Serve Application

A Will-Serve Application was submitted by the Owner, Mr. Peter Stravinski on April 7, 2020. The application submitted details the anticipated and existing water demands for the project. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

1.5 - "Average-Day" Demand (ADD)

As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 142 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
142	0	0	142

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 560 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
560	0	0	560

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 - Baseline Water Footprint

The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 3 below, the Property's baseline water footprint is 0 gpd.

Table 3 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	N/A	0	0

2.2 - Zero Water Footprint Determination

Because the Property ADD (142 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's

water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.3 - Demand Offset

The City has established various programs intended offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $1,310.77[1] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 142 gpd, thereby offsetting the Property's new ADD.

2.4 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after the implementation of the ZWF Policy are determined to potentially have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.5 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it makes to the water capacity fee program in addition to the ZWF Mitigation fee it will make to mitigate 100% of the Property's new water demand.

2.6 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[2]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public

[1] Calculation: 142gpd/65 gpd x $600 = $1,310.77
[2] ACMC §13.14.070

Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[3], the Property shall pay a Water Capacity Fee is $13,865.60. This one-time fee is based on the rate of $24.76 per gallon per day (MDD) based on rates in effect December 17, 2020 rates. The actual fee will be based on rates effective at the time of payment.

3.2 – Service Charge

The Property is located within the City's Corporate Boundary and based on the American Canyon Water Rates and Connection Fee Ordinance[4], the Property shall pay a monthly service charge in the amount of $6.59/100 cubic feet, plus any rate surcharges and monthly meter fees. Based on the AADD, the estimated water service charge is approximately $37.53[5] per month. All service charges shall be based on actual use and rate schedule that is in place at time of billing.

3.3 - Reimbursable Improvements

The Property proposes no water or recycled system improvements that would be eligible for reimbursement by the City.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water

[3] ACMC §13.06.090
[4] ACMC §13.06.040
[5] (142 gpd/748) * 30 days * $6.59 = $37.53/month

supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts With Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,000 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,460 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "single-dry year scenarios". For single dry year scenarios only 2025 appears to have adequate supplies.

New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) were anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total AADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except "under single-dry water year conditions, the supply is generally sufficient until sometime after 2030 when shortfalls begin to appear." The Project will offset its new demand by paying a ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

I, _____, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated_____2020.

_____
(Print Name and Title)

Date: _____

_____ Date: _____
(Signature)

Appendix I

Draft COVID-19 Exposure Control Plan

COVID – 19

Exposure Control Plan (ECP)

DRAFT
4.6.2020

Industrial & Commercial Contractors, LP
413 W. Yosemite Ave, Suite 105
Madera, CA 93637
(559) 674-0906
License # 506265

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COVID-19 Exposure Control Plan for Construction

Industrial & Commercial Contractors, LP (ICC) takes the health and safety of our employees very seriously. With the spread of the coronavirus or "COVID-19," a respiratory disease caused by the SARS-CoV-2 virus, we all must remain vigilant in mitigating the outbreak. This is particularly true for the construction industry, which has been deemed "essential" during this Declared National Emergency. In order to be safe and maintain operations, we have developed this COVID-19 Exposure Prevention, Preparedness, and Response Plan to be implemented throughout ICC / Subcontractor and at all our jobsites. We have also identified a team of employees to monitor available U.S. Center for Disease Control and Prevention ("CDC") and Occupational Safety and Health Administration ("OSHA") guidance on the virus.

This Plan is based on currently available information from the CDC and OSHA and is subject to change based on further information provided by the CDC, OSHA, and other public officials.

ICC may also amend this Plan based on operational needs.

1. Responsibilities of Managers and Supervisors

All managers and supervisors must be familiar with this Plan and be ready to answer questions from employees. Managers and supervisors must always set a good example by following this Plan. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees.

2. Responsibilities of Employees / Subcontractors

We are asking every one of our employees and subcontractors to help with our prevention efforts while at work. In order to minimize the spread of COVID-19 at our jobsites, we all must play our part. As set forth below, ICC has instituted various housekeeping, social distancing, and other best practices at our jobsites. All employees / workers must follow these.

Everyone is a partner in insuring jobsite safety and if you observe a person or situation which is unsafe you should immediately notify your supervisor or safety personnel.

In addition, employees are expected to report to their managers or supervisors if they are experiencing signs or symptoms of COVID-19, as described below. If you have a specific question about this Plan or COVID-19, please ask your manager or supervisor. If they cannot answer the question, please contact ICC Safety Manager, Kevin Barnes at 559-674-0906.

OSHA and the CDC have provided the following control and preventative guidance to all workers, regardless of exposure risk:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Follow appropriate respiratory etiquette, which includes covering for coughs and sneezes.
- Avoid close contact with people who are sick.
- In addition, employees must familiarize themselves with the symptoms of COVID-19:
- Coughing, Fever; Shortness of breath, difficulty breathing; and early symptoms such as chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

If you develop a fever and symptoms of respiratory illness, such as cough or shortness of breath, DO NOT GO TO WORK and call your healthcare provider right away. Likewise, if you come into close contact with someone showing these symptoms, call your healthcare provider right away. If you do not go to work be sure to inform your direct supervisor in the usual manner.

3. Job Site Protective Measures

ICC has instituted the following protective measures at all jobsites.

A. General Safety Policies and Rules

- Any employee/contractor/visitor showing symptoms of COVID-19 will be asked to leave the jobsite and return home.
- Safety meetings will be by telephone, if possible. If safety meetings are conducted in-person, attendance will be collected verbally, and the foreman/superintendent will sign-in each attendee. Attendance will not be tracked through passed-around sign-in sheets or mobile devices. During any in-person safety meetings, avoid gathering in groups of more than 10 people and participants must remain at least six (6) feet apart.
- Employees must avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- All in-person meetings will be limited. To the extent possible, meetings will be conducted by

telephone.

- Employees will be encouraged to stagger breaks and lunches, if practicable, to reduce the size of any group at any one time to less than ten (10) people.

- ICC and Subcontractors understands that due to the nature of our work, access to running water for hand washing may be impracticable. In these situations, ICC / Subcontractor will provide, if available, alcohol-based hand sanitizers and/or wipes.

- Employees should limit the use of co-worker's tools and equipment. To the extent tools must be shared, Subcontractor will provide disinfectant to clean tools before and after use.

- Employees are encouraged to limit the need for N95 respirator use, by using engineering and work practice controls to minimize dust. Such controls include the use of water delivery and dust collection systems, as well as limiting exposure time.

- Employees shall avoid ride-share. While in vehicle, employees must ensure adequate ventilation.

- If practicable, employees should use/drive the same truck or piece of equipment every shift.

- In lieu of using a common source of drinking water, such as a cooler, employees should use individual water bottles.

B. Workers entering Occupied Building

- When employees perform construction and maintenance activities within occupied office buildings, and other establishments, these work locations present unique hazards with regards to COVID-19 exposures. All such workers should evaluate the specific hazards when determining best practices related to COVID-19.

- During this work, employees must sanitize the work areas upon arrival, throughout the workday, and immediately before departure. ICC / Subcontractor will provide alcohol-based wipes for this purpose.

- Employees should ask other occupants to keep a personal distance of six (6) feet at a minimum. Workers should wash or sanitize hands immediately before starting and after completing the work.

C. Job Site Visitors

- The number of visitors to the job site, including the trailer or office, will be limited to only those necessary for the work.

- All visitors will be screened in advance of arriving on the job site. If the visitor answers "yes" to

any of the following questions, he/she should not be permitted to access the jobsite:

- Have you been confirmed positive for COVID-19?
- Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath?
- Have you been in close contact with any persons who has been confirmed positive for COVID- 19?
- Have you been in close contact with any persons who have traveled and are also exhibiting acute respiratory illness symptoms?

- Site deliveries will be permitted but should be properly coordinated in line with the employer's minimal contact and cleaning protocols. Delivery personnel should remain in their vehicles if possible.

D. Personal Protective Equipment and Work Practice Controls

- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:

- Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Employees should avoid sharing gloves.

- Eye protection: Eye protection should always be worn while on-site.

- **NOTE:** The CDC is currently not recommending that healthy people wear N95 respirators to prevent the spread of COVID-19. Employees should wear N95 respirators if required by the work and if available.

- Due to the current shortage of N95 respirators, the following Work Practice Controls should be followed:

    - Keep dust down by using engineering and work practice controls, specifically using water delivery and dust collection systems.
    - Limit exposure time to the extent practicable.
    - Isolate workers in dusty operations by using a containment structure or distance to limit dust exposure to those employees who are conducting the tasks, thereby protecting nonessential workers and bystanders.

- Institute a rigorous housekeeping program to reduce dust levels on the jobsite.

4. Job Site Cleaning and Sanitation

- ICC and Subcontractors shall institute regular housekeeping practices, which includes cleaning and disinfecting frequently used tools and equipment, and other elements of the work environment, where possible. Employees should regularly do the same in their assigned work areas.

- Jobsite trailers and break/lunchroom areas will be cleaned at least once per day. Employees performing cleaning will be issued proper personal protective equipment ("PPE"), such as nitrile, latex, or vinyl gloves and mask as recommended by the CDC.

- Any trash collected from the jobsite must be changed frequently by someone wearing nitrile, latex, or vinyl gloves.

- Any portable jobsite toilets should be cleaned by the leasing company at least twice per week and disinfected on the inside. ICC / Subcontractor will ensure that hand sanitizer dispensers, where available, are always filled. Frequently touched items (i.e. door pulls and toilet seats) will be disinfected frequently.

- Stock additional toilet paper as needed.

- A designated worker shall check the facilities each morning or before each shift to assure the cleaning was performed at least twice a week. Check date on cleaning tag.

- Vehicles and equipment/tools should be cleaned at least once per day and before change in operator or rider.

- If an employee has tested positive for COVID-19, OSHA has indicated that there is typically no need to perform special cleaning or decontamination of work environments, unless those environments are visibly contaminated with blood or other bodily fluids. Notwithstanding this, ICC / Subcontractor will clean those areas of the jobsite that a confirmed-positive individual may have meet before employees can access that workspace again.

- ICC and Subcontractors will ensure that any disinfection shall be conducted using one of the following:

    - Common EPA-registered household disinfectant; or

    - Diluted household bleach solutions (these can be used if appropriate for the surface).

- ICC / Subcontractor will maintain Safety Data Sheets of all disinfectants used on site.

5. Jobsite Exposure Response Situations

- **Employee Exhibiting COVID-19 Symptoms**

  - ICC and Subcontractors will confirm with individual that they should not return to work until a doctor confirms it is safe. Currently, direction is at least 72 hours after the resolution of fever (below 100.4° F [37.8° C]), and respiratory symptoms, including cough, without employing fever-lowering medications or cough suppressants.

  - Confirm individual is receiving care they need.

  - Confirm areas and people the individual had contact with and during what time.

  - Try and determine if the individual knows when they might have been exposed.

  - Confirm that individual should not report to work and should self-quarantine to avoid contact with other people as much as possible to keep from spreading illness.

  - For employees who have tested positive, communicate all available resources and benefits available to them including that this time off will be considered sick leave and short-term disability for those who become eligible.

  - Subcontractor employees, should check with their employer to determine leave benefits.

  - If an individual receives notification of a positive diagnosis of COVID-19 while at the project or office, please isolate them in a separate room and provide them a mask to wear. The comfort and the care we show is important to everyone's mindset.

- **Employee Tests Positive for COVID-19**

  - An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least seven (7) days have passed since the date of his or her first positive test and have not had a subsequent illness. Employees that test positive and are directed to care for themselves at home may return to work when: (1) at least 72 hours (3 full days) have passed since recovery;[1] and (2) at least seven (7) days have passed since symptoms first appeared. Employees that test positive and have been hospitalized may return to work when directed to do so by their medical care provider. ICC will require an employee to a Subcontractor's employee to provide documentation clearing their return to work.

[1] Recovery is defined as: (1) resolution of fever with the use of fever-reducing medications; and (2) improvement in respiratory symptoms (e.g., cough, shortness of breath).

6. OSHA Recordkeeping

If a confirmed case of COVID-19 is reported, ICC / Subcontractor will determine if it meets the criteria for recordability and reportability under OSHA's recordkeeping rule. OSHA requires construction employers to record work-related injuries and illnesses that meet certain severity criteria on the OSHA 300 Log, as well as complete the OSHA Form 301 (or equivalent) upon the occurrence of these injuries. For purposes of COVID-19, OSHA also requires employers to report to OSHA any work-related illness that (1) results in a fatality, or (2) results in the in-patient hospitalization of one or more employee. "In-patient" hospitalization is defined as a formal admission to the in-patient service of a hospital or clinic for care or treatment.

OSHA has decided that COVID-19 should *not* be excluded from coverage of the rule – like the common cold or the seasonal flu – and, thus, OSHA is considering it an "illness." However, OSHA has stated that only confirmed cases of COVID-19 should be considered an illness under the rule. Thus, if an employee simply comes to work with symptoms consistent with COVID-19 (but not a confirmed diagnosis), the recordability analysis would not necessarily be triggered at that time.

If an employee has a confirmed case of COVID-19, ICC and Subcontractor will assess any workplace exposures to determine if the case is work-related. Work-relatedness is presumed for illnesses that result from events or exposures in the work environment, unless it meets certain exceptions. One of those exceptions is that the illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs *outside* of the work environment. Thus, if an employee develops COVID-19 *solely* from an exposure outside of the work environment, it would *not* be work-related, and thus not recordable.

The Company's assessment will consider the work environment itself, the type of work performed, risk of person-to-person transmission given the work environment, and other factors such as community spread. Further, if an employee has a confirmed case of COVID-19 that is considered work-related, ICC and Subcontractor will report the case to OSHA if it results in a fatality within 30 days or an in-patient hospitalization within 24-hours of the exposure incident occurring.

7. Essential Business

Several States and localities are issuing orders that prohibit work and travel, except for essential businesses. In general, construction work has been deemed essential and ICC is committed to continuing operations safely. If upon your travel to and from the worksite, you are stopped by State or local authorities, you will be provided a letter that you can show the authorities

indicating that you are employed in an “essential” industry and are commuting to and from work.

8. Confidentiality/Privacy

Except for circumstances in which ICC is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When it is required, the number of persons who will be informed of an employee’s condition will be kept at the minimum needed not only to comply with legally-required reporting, but also to assure proper care of the employee and to detect situations where the potential for transmission may increase. A sample notice to employees is attached to this Plan. ICC reserves the right to inform other employees that a co-worker (without disclosing the person’s name) has been diagnosed with COVID-19 if the other employees might have been exposed to the disease so the employees may take measures to protect their own health.

9. General Questions

Given the fast-developing nature of the COVID-19 outbreak, ICC may modify this Plan on a case by case basis. If you have any questions concerning this Plan, please contact ICC Safety Manager, Kevin Barnes.

What is COVID-19?

The novel coronavirus, COVID-19 is one of seven types of known human coronaviruses. COVID-19, like the MERS and SARS coronaviruses, likely evolved from a virus previously found in animals. The remaining known coronaviruses cause a significant percentage of colds in adults and children, and these are not a serious threat for otherwise healthy adults. Patients with confirmed COVID-19 infection have reportedly had mild to severe respiratory illness with symptoms such as fever, cough, and shortness of breath.

How is COVID-19 Spread?

COVID-19, like other viruses, can spread between people. Infected people can spread COVID-19 through their respiratory secretions, especially when they cough or sneeze. According to the CDC, spread from person-to-person is most likely among close contacts (about 6 feet). Person-to-person spread is thought to occur mainly *via* respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19, and investigations are ongoing.

COVID-19 Prevention and Work Practice Controls:

Worker Responsibilities

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.
- Avoid touching your eyes, nose, or mouth with unwashed hands. Avoid close contact with people who are sick.
- Notify your supervisor if you have symptoms (i.e., fever, cough, or shortness of breath) and stay home—DO NOT GO TO WORK.
- Avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- Avoid ride-sharing. While in vehicle, ensure adequate ventilation.
- If practicable, use/drive the same truck or piece of equipment every shift.
- In lieu of using a common source of drinking water, such as a cooler, use individual water bottles.
    - Maintain at least (6) feet of personal space while waiting to enter or exit the project.

General Job Site Practices

- Clean AND disinfect frequently touched objects and surfaces. Dirty surfaces can be cleaned with soap and water prior to disinfection.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
    - Clean and disinfect frequently used tools and equipment on a regular basis.
    - Clean shared spaces such as trailers and break/lunchrooms at least once per day.
    - Disinfect shared surfaces (door handles, machinery controls, etc.) on a regular basis.
    - Avoid sharing tools with co-workers if it can be avoided. If not, disinfect before and after each use.
    - Arrange for any portable job site toilets to be cleaned by the leasing company at least twice per week and disinfected on the inside.
    - Any trash collected from the jobsite must be changed frequently by someone wearing gloves.
    - In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:
        - Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Gloves should not be shared.
        - Eye protection: Eye protection should always be worn while on-site.

Appendix J

Mitigation Monitoring and Reporting Program

SDG Commerce 217 Project
Mitigation Monitoring and Reporting Program

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
BIOLOGICAL RESOURCES				
Mitigation Measure BIO-1: A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/ Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary. 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions: • From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests	1. A qualified biologist shall conduct a preconstruction burrowing owl survey per mitigation measure specifications and contact CDFG as necessary. 2. If the site has burrowing owls, applicant shall follow restricted activity dates and setback distances from burrows as specified in the mitigation. 3. Applicant shall submit copies of preconstruction surveys and outcomes of any consultation with CDFG If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB. 4. If burrowing owls are found on the site during preconstruction surveys, passive relocation may occur as specified in the mitigation, upon CDFW	No more than 30 days prior to grading or land clearing operations No more than 14 days prior to grading or land clearing operations Prior to grading or land clearing operations Prior to grading or land clearing operations	Community Development Department Community Development Department Community Development Department, CDFW Community Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
and wintering sites. • From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites. • No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging. 2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW. 3) If a nesting season survey or wintering season survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed-restricted set aside on open space land owned or obtained by the applicant shall be provided. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.	approval. 5. If the survey determines that the project site is actively being used by burrowing owls, then compensatory habitat mitigation shall be provided in accordance with the mitigation measure. The habitat mitigation/ compensation plan shall be subject to approval of the CDFW. 6. City mitigation monitor or designee shall perform site inspections.	Prior to grading Prior to grading or tree removal and ongoing during construction	Community Development Department, CDFW Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure BIO-2: If project activities must occur during the Swainson's hawk nesting season (i.e., typically March 1 through September 15), a qualified biologist (i.e., a biologist with at least two years' experience conducting surveys who has made Swainson's hawk detections) shall conduct pre-construction surveys for nesting Swainson's hawks within a half-mile radius around all project activities for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. If Swainson's hawks are found to be nesting on the project site or within a 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.	1. A qualified biologist shall conduct preconstruction nesting Swainson's hawk surveys and contact CDFG as necessary. 2. If Swainson's hawks are found to be nesting on the project site or within a 1/4-mile of the project site, buffers shall be established by the qualified biologist who conducted the surveys. 3. Applicant shall submit copies of preconstruction surveys and outcomes of any consultation with CDFG. If Swainson's hawks are observed during surveys, notification shall also be submitted to the CNDDB. 4. City mitigation monitor or designee shall perform site inspections.	As specified in CDFW guidance document Between January 1st and August 1st, as specified in CDFW guidance document Prior to grading or land clearing operations Prior to grading or tree removal and ongoing during construction	Community Development Department Community Development Department Community Development Department, CDFG Community Development Department	
Mitigation Measure BIO-3: To ensure that impacts to nesting raptors are avoided, the following	1. A qualified biologist shall conduct a preconstruction	No more than 14 days prior to	Community Development	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
mitigation measures shall be implemented: 1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections) prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within 7 days prior to site disturbance. The raptor nesting surveys shall include examination of all trees and other suitable nesting structures/areas within 500 feet of the project site. 2) If nesting raptors are identified during the surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests. No-disturbance buffers shall be demarcated in the field with orange construction fencing or similar. If the tree or other nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. If nesting white-tailed kites are found during surveys, a suitable non-disturbance buffer shall be established by a qualified biologist (as defined above) but in no case shall the buffer be less than 200 feet. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting raptor displaying distress, the qualified biologist shall require that all project activities cease.	nesting bird survey. 2. If the site has trees with nesting birds a qualified biologist shall demarcate setback areas around the trees. 3. City mitigation monitor or designee shall perform site inspections.	grading or land clearing operations Between February 1st and August 31st Prior to grading or tree removal and ongoing during construction	Department Community Development Department Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt and all activities causing distress shall cease until the nesting attempt is completed as determined by a qualified biologist. 3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nest site until the qualified biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, Cooper's hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified biologist that the nest is no longer active. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.				
Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a qualified biologist shall conduct a survey within 7 days prior to commencing construction/ grading or tree	1. A qualified biologist shall conduct a preconstruction nesting bird survey.	No more than 14 days prior to grading or land clearing	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on or adjacent to the project site within 200 feet, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers for all nests. The no-disturbance buffers shall be clearly demarcated in the field with orange construction fencing or similar, prior to the start of project activities. Disturbance within the buffer shall be postponed until a qualified biologist determines that the young have fledged and have attained sufficient flight skills to leave the area, and that the nesting cycle has otherwise completed. To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site on a daily basis for a minimum of one week and then weekly during construction. If the qualified biologist observes any nesting bird displaying distress, the qualified biologist shall have the authority to require that all project activities cease until the nesting distress has been ameliorated. In this event, the qualified biologist shall ensure proper measures are taken so that no harm comes to the nest/nesting attempt until the nesting attempt is completed as determined by a qualified biologist. These measures may include increasing the no-disturbance buffer, postponing specific construction activities causing the distress until the nesting attempt is completed, or other appropriate protect measures as determined in the field.	2. If the site has trees with nesting birds a qualified biologist shall demarcate setback areas around the trees. 3. City mitigation monitor or designee shall perform site inspections.	operations Between February 1 and September 1 Prior to grading or tree removal and ongoing during construction	Community Development Department Community Development Department	
Mitigation Measure BIO-5: A qualified biologist	Preconstruction fencing plan shall	Fencing shall be	Community	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
(i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities. The nest site plus a 50-foot buffer around the nest site and a no-disturbance corridor between the nest site and North Slough shall be fenced with orange construction fence until eggs hatch and young turtles disperse along the protected no-disturbance corridor to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot	be prepared by qualified biologist and submitted to CDFW. Fencing shall be installed by project contractor.	installed prior to ground disturbance	Development Department, CDFW	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
buffer area and the no-disturbance corridor shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.				
CULTURAL RESOURCES				
Mitigation Measure CUL-1: Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under	For Mitigations CUL-1 and CUL-2: Applicant shall incorporate cultural resources mitigation measures into site plan specifications and construction contract. A qualified cultural resources professional shall demarcate the no-construction area. The contractor or applicant shall provide written notification upon finding remains.	Prior to issuance of grading permit During construction During construction	Community Development Department Community Development Department Community Development Department; County coroner; Native American Heritage Commission	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials. ***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken: • There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required.				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.				
GEOLOGY & SOILS				
Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract. Applicant's geotechnical consultant shall review construction and grading plans and provide a written summary.	Prior to the issuance of grading, encroachment, and building permits Prior to the issuance of grading, encroachment, and building permits	Public Works Department Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/ developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to: • Hydroseeding and/or establishment of appropriate plant materials/landscaping • Placement of straw wattles along slope contours and drainages • Lining of drop inlets with filter fabric/geotextile • Establishment of a single destination "wash-out" for construction subcontractors • Use of siltation fences • Use of sediment basins	Applicant shall submit erosion control plan to City Public Works department.	Prior to issuance of building or grading permits	Public Works Department	
Mitigation Measure GEO-3: The applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).	Applicant shall incorporate geotechnical recommendations into site plan specifications and construction contract. Applicant's geotechnical consultant shall review construction and grading plans and provide a written summary.	Prior to the issuance of grading, encroachment, and building permits Prior to the issuance of grading, encroachment, and building	Community Development Department Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
		permits		
HYDROLOGY AND WATER QUALITY				
Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation. • Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.	Applicant shall provide copies of the SWPPP and Notice of Intent to the Public Works Department for review and approval prior to submittal to the Regional Water Quality Control Board.	Prior to excavation or grading	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
• Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim				

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
erosion control measure throughout the wet season. ***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy. ***Mitigation Measure HYD-3:*** Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.	For mitigations HYD-2 and HYD-3, Applicant shall submit a drainage plan and stormwater control plan to the City, which includes: • calculations of storm-water peak flows and facilities to handle the flow; • water quality/erosion control mitigations; • detailed plans for construction and maintenance of the seasonal detention basin.	For mitigations HYD-2 and HYD-3, Prior to excavation or grading	For mitigations HYD-2 and HYD-3, Public Works Department/City Engineer	
Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual	City mitigation monitor or designee shall perform site inspections to ensure that post construction BMPs are followed.	Inspections shall occur annually prior to and during the rainy season for the life of the project.	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
reports. ***Mitigation Measure HYD-5:*** The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.	Applicant (or successors-in-interest) shall maintain the detention and sediment basin(s) and traps, and provide a bond for this maintenance.	Inspections shall occur annually prior to and during the rainy season for the life of the project.	Public Works Department	
NOISE				
Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant.	The Site Plan shall include all noise mitigation components and be reviewed and approved by City Community Development Department.	Prior to issuance of building permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
The City also shall be pre-notified of nighttime construction. ***Mitigation Measure NOISE-2:*** All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	Construction contracts shall specify use of noise-reduction features in equipment.	Prior to construction	Community Development Department	
TRANSPORTATION/TRAFFIC				
Mitigation Measure TRA-1: Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.	Applicant shall provide mitigation fee.	Prior to issuance of building permit	Community Development Department	
Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northeast corner of Eucalyptus Drive and Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.	Applicant shall construct the bikeway.	Prior to issuance of occupancy permit for building	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
UTILITIES & SERVICE SYSTEMS				
Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water: • Reducing existing potable water demands onsite • Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area • Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or • Purchase new water supplies from other water providers. The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.	Applicant shall incorporate recycled water pipelines and hook-ups into construction plans and specifications, and make reference to them in construction contracts.	Prior to building permits	Public Works Department	
Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.	City mitigation monitor or designee shall verify that recycled water is provided to the site and that all storm-water is retained on-site.	Prior to building permits	Public Works Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.	Applicant shall provide funding for the City's water conservation program.	Prior to issuance of the building permit	Public Works Department	
Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.	Applicant shall comply with City regulations regarding changes in project use.	Prior to obtaining Use Permit for new use	Community Development Department	
Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to: • Drought-resistant vegetation • Irrigation systems employing the following features:	Applicant's landscaping plan shall be submitted to the City for review/approval prior to issuance of building permits.	Prior to issuance of Building Permit	Community Development Department	

Mitigation Measure	Implementation Method	Timing	Monitoring/ Enforcement Responsibility	Compliance Verification (Initials & Date)
o Drip irrigation o Low-precipitation-rate sprinklers o Bubbler/soaker systems o Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller) o Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system o Conservative sprinkler spacings that minimize overspray onto paved surfaces o Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.				

Appendix K

State Clearinghouse March 2021 Recirculated Draft IS Circulation

Documents

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

30 DAY NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration for recirculation for the following described project in accordance with the California Environmental Quality Act (CEQA). The 30-day public comment period begins April 1, 2021 and ends May 3, 2021.

NOTICE IS FURTHER HEREBY GIVEN that the City Council will hold a public hearing on **Tuesday, May 18, 2021** at **6:30 p.m.,** at **4381 Broadway, Suite 201, American Canyon, CA 94503** (in the Council Chambers of the American Canyon City Hall), to consider the recirculated Initial Study Checklist and Mitigated Negative Declaration and the following applications:

Project Title:	SDG Commerce 217 Distribution Center
Project Number:	PL20-0008
Project Applicant:	SDG Commerce 217, LLC
Project Location:	1075 Commerce Court, American Canyon, Napa County, CA 94503.
Assessor Parcel(s):	058-030-065
Project Description:	Conditional Use Permit for a new 217,294 square foot wine warehouse distribution center with parking and landscaping. The site is located in the Recreation (REC) zoning district.

The basis for proposing a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

Copies of all documents that relate to the above-described project and proposed MND and Initial Study Checklist may be examined on the City's website at: https://bit.ly/3gAjtEs.

Comments on the MND, sent in writing, must be received by 5:00 p.m. on May 3, 2021, at whe@cityofamericancanyon.org or the following address:

William He, AICP, Associate Planner
City of American Canyon Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Oral or written comments may be provided to the City Councilmembers at their meeting. All interested persons are invited to attend the meeting and be heard on this matter.

Public meetings/events sponsored or conducted by the City of American Canyon are held in accessible sites. Requests for accommodations may be made by calling (707) 647-4577 (voice) or 711 for the California Relay Service or by e-mailing the ADA Coordinator, Cherri Walton, at cwalton@cityofamericancanyon.org at least 72 hours in advance of the event. Copies of documents distributed at the meeting are available in alternative formats upon request.

_____

Cherri Walton, CMC, Interim City Clerk

Mailed Date: April 1, 2021
Publication Date: April 1, 2021

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: SDG Commerce 217 Distribution Center Project

Lead Agency: City of American Canyon | Contact Person: William He, Associate Planner
Mailing Address: 4381 Broadway Street, Suite 201 | Phone: (707) 647-4337
City: American Canyon | Zip: 94503 | County: Napa

Project Location: County: Napa | City/Nearest Community: American Canyon
Cross Streets: Commerce Court near Green Island Road | Zip Code: 94503
Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W | Total Acres: 10.39
Assessor's Parcel No.: 058-030-065 (partial) | Section: ____ | Twp.: ____ | Range: ____ | Base: ____
Within 2 Miles: State Hwy #: 37 | Waterways: Napa River
Airports: Napa Airport | Railways: ____ | Schools: Napa Junction Elementary

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other: Recirculated MND
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other: ____

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other: ____

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☒ Commercial: Sq.ft. 217,000 Acres 10.39 Employees 50
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☐ Wetland/Riparian
☒ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☒ Other: tribal Cultural Resou

Present Land Use/Zoning/General Plan Designation:

Site is vacant/open space. General Plan: Commercial Recreation. Zoning: Recreation

Project Description: *(please use a separate page if necessary)*

The project proposes to develop a 217,219 square-foot wine distribution center on the 10.39-acre parcel. The building would be approximately 424 feet deep from north to south, and 780 feet wide from east to west. The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. A total of 134 car and 21 truck dock parking spaces would be provided for the building. As part of the proposed project, the parcel's storm water runoff would be directed into a detention/bioretention pond.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

_____	Air Resources Board	_____	Office of Historic Preservation
_____	Boating & Waterways, Department of	_____	Office of Public School Construction
_____	California Emergency Management Agency	_____	Parks & Recreation, Department of
_____	California Highway Patrol	_____	Pesticide Regulation, Department of
_____	Caltrans District # _____	_____	Public Utilities Commission
X	Caltrans Division of Aeronautics	X	Regional WQCB # 2
_____	Caltrans Planning	_____	Resources Agency
_____	Central Valley Flood Protection Board	_____	Resources Recycling and Recovery, Department of
_____	Coachella Valley Mtns. Conservancy	_____	S.F. Bay Conservation & Development Comm.
_____	Coastal Commission	_____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____	Colorado River Board	_____	San Joaquin River Conservancy
_____	Conservation, Department of	_____	Santa Monica Mtns. Conservancy
_____	Corrections, Department of	_____	State Lands Commission
_____	Delta Protection Commission	_____	SWRCB: Clean Water Grants
_____	Education, Department of	_____	SWRCB: Water Quality
_____	Energy Commission	_____	SWRCB: Water Rights
X	Fish & Game Region # 3	_____	Tahoe Regional Planning Agency
_____	Food & Agriculture, Department of	_____	Toxic Substances Control, Department of
_____	Forestry and Fire Protection, Department of	_____	Water Resources, Department of
_____	General Services, Department of		
_____	Health Services, Department of	_____	Other: _____
_____	Housing & Community Development	_____	Other: _____
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date April 1, 2021 Ending Date June 3, 2021

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: SDC Commerce 330 LLC
Address: 413 W. Yosemite Ave., Suite 105
City/State/Zip: Madera, CA 93637
Phone: (559) 674-0906

Signature of Lead Agency Representative: William He **Date:** 5/4/2021

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Appendix L

Comments Received on March 2021 Recirculated Draft IS and Responses

COMMENTS AND RESPONSES ADDENDUM: FINAL RECIRCULATED DRAFT INITIAL STUDY FOR THE 217 COMMERCE DISTRIBUTION CENTER BUILDING PROJECT

Introduction

The following comments were received on the Recirculated Draft Initial Study:

A. Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021
B. Lozeau Drury Comment Letter, May 3, 2021
C. Lozeau Drury Comment Letter, June 3, 2021

These comments are attached and numbered, followed by corresponding numbered responses, below.

A. Responses to Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Adams Broadwell Joseph & Cardoza comment letter. The comment letter is included as Attachment A to this appendix.

General Comments

Comment A.1. *There is a fair argument that the Project will result in potentially significant impacts relating to air quality, public health, biological resources, energy, GHG, land use, noise, and transportation.*

Response: Please see responses to specific comments below. The IS found that, while a number of potentially significant impacts would occur from the proposed project, all can clearly be mitigated to a less-than-significant level.

Comment A.2. *The MND fails to adequately disclose, investigate, and analyze the project's potentially significant impacts, and fails to provide substantial evidence that impacts will be reduced to a less-than-significant level.*

Response: As described in the responses to comments below, the project, with mitigation identified in the IS, as modified in the Final IS, would not have any potentially significant impacts that cannot be mitigated to a less-than-significant level. Additionally, the revisions to the Draft IS included in this Final IS do not alter any of its significance determinations.

Comment A.3. *The City violated CEQA and improperly truncated the MND's public comment period by failing to make all documents referenced, incorporated by reference, and relied on in the MND available for public review during the public comment period.*

Response: At the request of the applicant, the City decided to re-circulate a revised Initial Study after receipt of the commenter's April 15 comment letters. The recirculated document included several substantive revisions made in response to the comments received on that original Draft IS. Therefore responses to comments on that prior IS are no longer required. The City originally proposed a 30-day comment period on the re-circulated Draft IS. However, in response to requests from concerned parties, that period was extended to 62 days, extending from April 1, 2021 to June 3, 2021, which provided the commenter with well over the required 30 days to review all of the requested documents referenced in the comment. The Ballentine email, while referenced in the IS, is not important in determining of impact significance or any potential land use conflict. Zoning compatibility is discussed on pp. 7 and 77 (PDF page) of the Draft IS, and was determined by the City Council in its approval of the Commerce 330 project.

Comment A.4. The MND fails to provide an accurate and complete project description by piecemealing its review of the project and related projects.

Response: The current document is not required to address the overall impacts of subdivision and full buildout of the larger subdivided property. The project has independent utility and does not cause any other projects to be built. Therefore, any such project would not be a part the currently proposed project (or vice versa), but rather part of potential future cumulative development. Cumulative impacts of the original subdivision were generally discussed in the Cumulative Impacts section of the Commerce 330 IS/MND, which stated on p. 98.

> "It is possible that the two additional parcels to be created by the proposed tentative map would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, and air quality impacts of the proposed project. No projects are currently proposed for those sites, therefore assessment of those impacts would be speculative at this time."

Similarly, this IS addressed the potential cumulative impacts of development of the remaining subdivided parcel in the Cumulative Impacts discussion:

> "It is possible that the remaining parcel between the project site and the Commerce 330 site would be developed with project similar to that proposed for the project site. Development of [that site] could add to cumulative traffic, noise, biological resources, and air quality impacts of the proposed project, as with the project impacts. No projects are currently proposed for that site, therefore assessment of those impacts would be speculative at this time. Environmental review of that project would be required to also consider the proposed project, if approved.

Cumulative traffic conditions also were considered in the Commerce 330 Project IS.

The SDG 258 warehouse project is not adjacent to this site and was not a part of the original subdivision, wherefore is not in any way a part of a larger project including this project. It is

another project with similar uses proposed by the same applicant in the Green Island Road area. It is neither dependent on or causative of any element of the proposed project.

The fact that the CaLEEMoD model was modified from another project for use on this project is not relevant to whether or not the project description was piecemealed.

Air Quality Comments

Comment A.5. The City failed to update the MND's air quality baseline data and relevant analyses when it revised and recirculated the MND.

Response: The Comment is misinterpreting CEQA Guidelines Section 15125(a). As stated in CEQA Guidelines Section 15125(a)(1), "Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective." Nevertheless, the CalEEMod was reran to update the construction schedule since the Project has been delayed (raw model outputs are on file for review at the City Community Development Department office).

Construction activities were originally planned to commence March 1, 2021. Construction activities are now planned to commence March 1, 2022. Construction phases would take place in the same seasons as originally assumed in the IS/MND. However, since the Project has been delayed one year, construction emissions would be decreased compared to the emissions described in the MND since emission factors decrease annually due to cleaner engines and fuels. Table RTC-1 displays the updated average daily construction emissions vs the average daily construction emissions displayed in the IS/MND and compares them to BAAQMD's average daily construction emissions thresholds of significance.

Table RTC-1
Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
MND Emissions (Year 2021)	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
Updated Emissions (Year 2022)	**12.0**	**22.0**	**0.8**	**0.8**	**18.8**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

As shown in Table RTC-1, updated average daily construction emissions for year 2022 would be well below BAAQMD's average daily construction thresholds of significance and less than the average daily construction emissions displayed in the IS/MND for year 2021 Project construction

activities. Operational air emissions were calculated for summer, winter and annual scenarios and the delay in Project development would not change the operational emissions (other than a slight decrease due to cleaner engines and fuels since Project operation has been delayed one year), thus operational emissions would be well below the BAAQMD's operational thresholds of significance. Therefore, no significant impacts related to air quality would occur and an EIR is not required.

Comment A.6. The City failed to perform a project-specific Traffic Impact Analysis (TIA) for the project and is relying on a TIA for another project.

Response: This comment is incorrect. As referenced in the first paragraph of the Draft IS transportation section, GHD prepared a traditional level-of-service TIA for the SDG Commerce 217 Distribution Center (May 2020) in addition to an SB 743-compliant VMT impact analysis (March 2021). Both were discussed in the IS and included in full as Appendix F in the Draft IS.

Comment A.7. The City has not accurately reported the project's estimated daily construction emissions and failed to disclose significant air quality impacts during the construction phase.

Response: As stated in Table 2-1 on page 2-2 of the BAAQMD *CEQA Air Quality Guidelines* (May 2017)[1], BAAQMD's CEQA threshold of significance for construction-related activities are in the units of "Average Daily Emissions (lbs/day)." Per BAAQMD Guidance, the total emissions from the Project were divided by the total number of construction days to calculate the average daily emissions in order to compare them to the BAAQMD thresholds of significance. The results and emissions estimate for each phase were provided in the IS/MND's Air Quality Appendix, but were not included in the IS/MND's air quality section because they are not applicable for comparison to BAAQMD's significance thresholds. As described in Response to Comment A.5., above, updated average daily construction emissions for year 2022 would be well below BAAQMD's average daily construction thresholds of significance and less than the average daily construction emissions displayed in the IS/MND for year 2021 Project construction activities. Therefore, no significant impacts related to air quality would occur.

Comment A.8. The City fails to quantify the impact that transportation refrigeration units (TRUS) will have on air quality impacts from the proposed project**.**

Response: The proposed Project entry/exit and Commerce Blvd. is approximately 1,000 feet from the nearest sensitive receptor (mobile home on the Couch Property to the east). Napa Junction Elementary School is approximately 1,750 feet from the Project exit and approximately 2,150 feet from the Project entry. The residential neighborhood south of Napa Junction Elementary

[1] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May 2017. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde&hash=A8ECB7754057DCC18AF1CFF77E17F50C

School is approximately 2,100 feet from the Project exit and approximately 2,500 feet from the Project entry.

A Health Risk Assessment (HRA) has been prepared for the project and provided in Attachment D to this Responses to Comments document. The HRA analyzes health impacts on existing residences and school receptors from toxic air contaminants (TACs) such as diesel particulate matter (DPM) from diesel construction equipment and diesel truck activities (including TRUs) at loading docks and along roadways. The HRA concluded that the Project would have a less-than-significant impact on existing residential and school receptors, as the Project would be below BAAQMD's cancer risk significance threshold of 10 in one million, as well as thresholds for noncancerous risk (acute or chronic) and PM2.5.

GHG emissions were quantified for the Project with CalEEMod, which included mobile sources such as heavy trucks and heavy trucks with TRUs. CalEEMod calculates idling GHG emissions from mobile sources. GHG emissions from the Project would be less than significant. See also Response to Comment **A.29**.

Comment A.9. The City failed to quantify the health impacts from emissions from the project and incorrectly relies on a non-quantitative analysis performed for the SDG 330 Warehouse Project.

Response: See the Health Risk Assessment provided in Attachment D. See Response to Comment **A.8**, above.

Comment A.10. The use of Tier 2 equipment as mitigation would not enhance exhaust emission reductions and would increase the potential emissions from sources on site, resulting in increased health risk.

Response: Construction equipment greater than 25 horsepower having engines that meet or exceed USEPA or CARB Tier 2 off-road emission standards, AND engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy was not a mitigation measure for the Project in the IS/MND. This was a mitigation measure for the previous SDG 330 Warehouse Project. The SDG 330 Warehouse Project HRA (February 2019) found that Project construction emissions would be less than significant with the implementation of the mitigation measure. Construction equipment for the proposed Project would be required to comply with the California Air Resource Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation and would be much cleaner than a Tier 2 construction fleet.

See Response to Comment A.8. See the Health Risk Assessment in Attachment D. While the HRA concluded that the Project would result in less than significant health impacts without mitigation, the applicant would include the following requirements into its construction contracts to further reduce emissions from construction equipment and to ensure no Tier 2 equipment is used for Project construction:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall have engines that meet or exceed either USEPA or CARB Tier 3 (or better) off-road emission standards and Level 3 Diesel Particulate Filters.

Comment A.11. The logic used by the City to justify not producing a dispersion model of the Project's toxic air emissions and a quantitative health risk analysis for the either this Project or the SDG Commerce 330 Warehouse project is flawed and fails to comply with CEQA.

Response: See Response to Comment **A.8**. An HRA was performed for the SDG 330 Warehouse Project in February 2019 as part of the Final IS/MND. The HRA analyzed health impacts from Project construction and operation on existing residential sensitive receptors and future school receptors with the planned Napa Junction Elementary School. The HRA found that Project construction and operational emissions would be less than significant. Since the SDG 330 Warehouse Project is much closer to the existing sensitive receptors and future school receptors, the City found it was logical to conclude that the proposed Project's impacts would also be less than significant. Nevertheless, a new HRA was prepared for the proposed Project and found that all impacts would be below BAAQMD's thresholds of significance and thus less than significant (See Attachment D).

Comment A. 12. The City failed to assess the public health impacts from TACs that will be released during the construction and operational phases of the Project on the Napa Unified School District's new Napa Junction School.

Response: See the Health Risk Assessment in Attachment D. See Response to Comment A.8. The HRA analyzed health impacts on school receptors from toxic air contaminants (TACs) such as diesel particulate matter (DPM) from diesel construction equipment and diesel truck activities (including TRUs) at loading docks and along roadways (Project construction and operations). The HRA concluded that the Project would have a less-than-significant impact on school receptors, as the Project would be below BAAQMD's cancer risk significance threshold of 10 in one million, as well as thresholds for noncancerous risk (acute or chronic) and PM2.5.

Comment A. 13. The SDG 330 Project's Mitigation Measure AQ- 4 is insufficient to reduce the project's significant health risk to less than significant.

Response: See Response to Comments **A.8., A.9., A.10., A.11., and A.12**. The proposed Project would not include stationary sources, such as stationary diesel generators. Furthermore, any stationary source would require a permit from the BAAQMD where an HRA would be required prior to issuance of the permit.

Comment A.14. The IS must include a cumulative emissions analysis of the impacts from the project and surrounding projects.

Response: See Response to Comments **A.8., A.9., A.10., A.11., and A.12**. An HRA was performed for the proposed Project (See Attachment D). Since proposed Project construction and operational health risks are below the BAAQMD's project-level thresholds of significance, the proposed Project would have a less than cumulatively considerable contribution to cumulative health risk.

Furthermore, there are no stationary sources within 2,000 feet of the nearest sensitive receptor (mobile home on Couch Property) or within 3,000 feet of the new Napa Junction Elementary School. The nearest high-volume roadway, Highway 29, is approximately 4,000 feet away from the nearest sensitive receptor and the new Napa Junction Elementary School and the nearest rail line is approximately 3,000 feet from the nearest sensitive receptor and approximately 4,000 feet from the new Napa Junction Elementary School.

The zone of influence for BAAQMD's project-level and cumulative health risk thresholds of significance is a 1,000-foot radius from the property line of a sensitive receptor. Since there are no stationary sources or major roadways/rail lines within 1,000 feet of sensitive receptors in the Project vicinity, cumulative risk for nearby sensitive receptors would be well below BAAQMD's cumulative health risk thresholds of significance and would be less than significant.

Comment A.15. The MND relies on non-binding Best Management Practices (BMPs) to reduce emissions of dust and particulates.

Response: The City considers the BAAQMD's Basic Construction Mitigation Measures Recommended for ALL Proposed Projects to be required (Page 8-4 of the BAAQMD *CEQA Air Quality Guidelines,* May 2017)[2], as stated in the IS/MND as follows:

> *"The BAAQMD's CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:*
>
> - *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
> - *All haul trucks transporting soil, sand, or other loose material off site shall be covered.*

[2] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May 2017. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde&hash=A8ECB7754057DCC18AF1CFF77E17F50C

- *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- *All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.*
- *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
- *A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.*

The following measures also are required by regulation:

- *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.*
- *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation."*

These measures would be included in the City's Conditions of Approval for the Project.

Biological Resources Comments

Comment A.16.: The MND fails to establish a baseline setting.

Response: As noted in M&A's March 2020 *Biological Resources Analysis* report, M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel of which the approximately 10-acre project site is a part. GECo retained Vollmar Natural Lands Consulting (VNLC) to conduct a peer review of M&A's reports, which included a site visit by Jake Schweitzer, VNLC biologist.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel of which the approximately 10-acre project site is a part. M&A biologists conducted site surveys on the entire 35-acre parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. During the site surveys and wetland delineation, M&A biologists recorded

biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species.

California Environmental Quality Act (CEQA) Guidelines, Section 15125(a), requires that the IS discuss the "baseline" environmental conditions at and in the vicinity of the project site. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the baseline condition:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project...

Therefore, the "baseline" is the combined circumstances existing at the time the CEQA document is published, which in the case of M&A's Biological Resources Analysis is March 2020, supplemented by M&A's September 3, 2020 study of the borrow site on the adjacent parcel.

Prior to preparing the biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of effect. Therefore, in analyzing "baseline" conditions for biological resources, M&A considered past sightings and studies on the project site to the extent that they were still relevant.

Note that the proposed project site is only 10 acres of the original 35-acre parcel that M&A surveyed in 2006, 2011, and 2012, 2017, 2018, and 2019. M&A's Biological Resources Analysis report described wildlife habitats and species observed onsite during the 2020 baseline survey conducted as part of M&A's Biological Resources Analysis report for the project site.

Comment A.16.B: The MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle. The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.

The comment continues with:

"The California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys. Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.

…..

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards."

Response: M&A's principal and senior associate biologists have been conducting biological field surveys for over 30 years and have never heard CDFW refer to "detection" surveys versus "take avoidance" surveys when commenting on CEQA documents. The comment does not provide a citation in reference to these two types of surveys; therefore, M&A is unable to refer to that specific CDFW publication referenced in the comment.

CEQA biology reports typically include a general assessment of the plant communities and wildlife habitats on a project site, and an evaluation of the likelihood of those communities/ habitats to support specific special-status species (i.e., threatened, endangered, rare species). The reports then determine if the proposed project could directly or indirectly impact such species. M&A's baseline surveys followed this approach, which is the standard of care for the industry for preparation of CEQA biological resources reports.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel in which the approximately 10-acre project site is a part. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. On April 22, 2021, M&A also conducted a specific survey for nesting birds including raptors such as the Western Burrowing Owl, Northern Harrier, White-tailed Kite, and Swainson's Hawk. During all surveys M&A biologists also noted all plant species onsite, kept lists of plants observed and were able to conclusively state that no special-status plants were observed on the project site. Nine of the 11 surveys mentioned above were appropriately timed to identify rare plants, had they been present on the project site. Finally, no special-status raptors or other special-status animal species were observed onsite or nearby during M&A's numerous surveys. Nine of the 11 surveys mentioned above were conducted during the nesting season; thus, had raptors or special-status birds nested on or near the project site, they would have been readily detected during these surveys by M&A's trained biologists. Regardless, since M&A recognizes that birds

are mobile and change nesting locations from year to year, preconstruction surveys would be necessary to ensure that the proposed project did not result in "take" of nesting birds, their eggs or young, as prescribed in the MND.

Comment A.17: The MND Fails to Adequately Analyze and Mitigate Impacts to the Swainson's Hawk. The comment states that the City relied on the California Natural Community Database (CNDDB) for its knowledge of Swainson's Hawk records in the Napa County area and as such has no basis for its assumption that the nearest Swainson's hawk nesting record is 2.6 miles to the north of the project site. Further, the commenter states that the applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the project site.

Response: Impacts to Swainson's hawk were adequately analyzed in the MND and mitigation prescribed for the project's potential impact to this species. M&A and the City did not rely on the CNDDB for knowledge of Swainson's hawk records. The CNDDB is only a part of the background research that goes into determining special-status species presence in an area. Thus, the fact that the MND states that the closest known occurrence of nesting Swainson's hawks is 2.6 miles to the north, as cited in the CNDDB and shown in Exhibit A, is not indicative of M&A solely relying on the CNDDB for special-status species data. M&A has conducted numerous studies in the City of American Canyon and southern Napa County, and has years of Swainson's hawk-specific local data from surveys that were conducted during the prescribed survey windows as specified by and in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 1994). In fact, in 2019, surveys for nesting Swainson's hawks were conducted in two separate periods on the 35-acre parcel that encompasses this 10-acre project site. In total, six surveys were conducted on the 35 acres over the two survey periods; no nesting Swainson's hawks were found onsite or within a half-mile radius. Additionally, in March and April of 2021, M&A biologists conducted Swainson's hawk surveys for other projects in the City of American Canyon and the 0.5-mile survey radius for those studies included the 217 Commerce Center project site. No nesting Swainson's hawks were observed onsite or nearby during the March and April 2021 surveys (Sarah Lynch, Senior Biologist, Monk and Associates, pers. com.).

Comment A.17.B: the MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk population. Based on Mr. Cashen's review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.

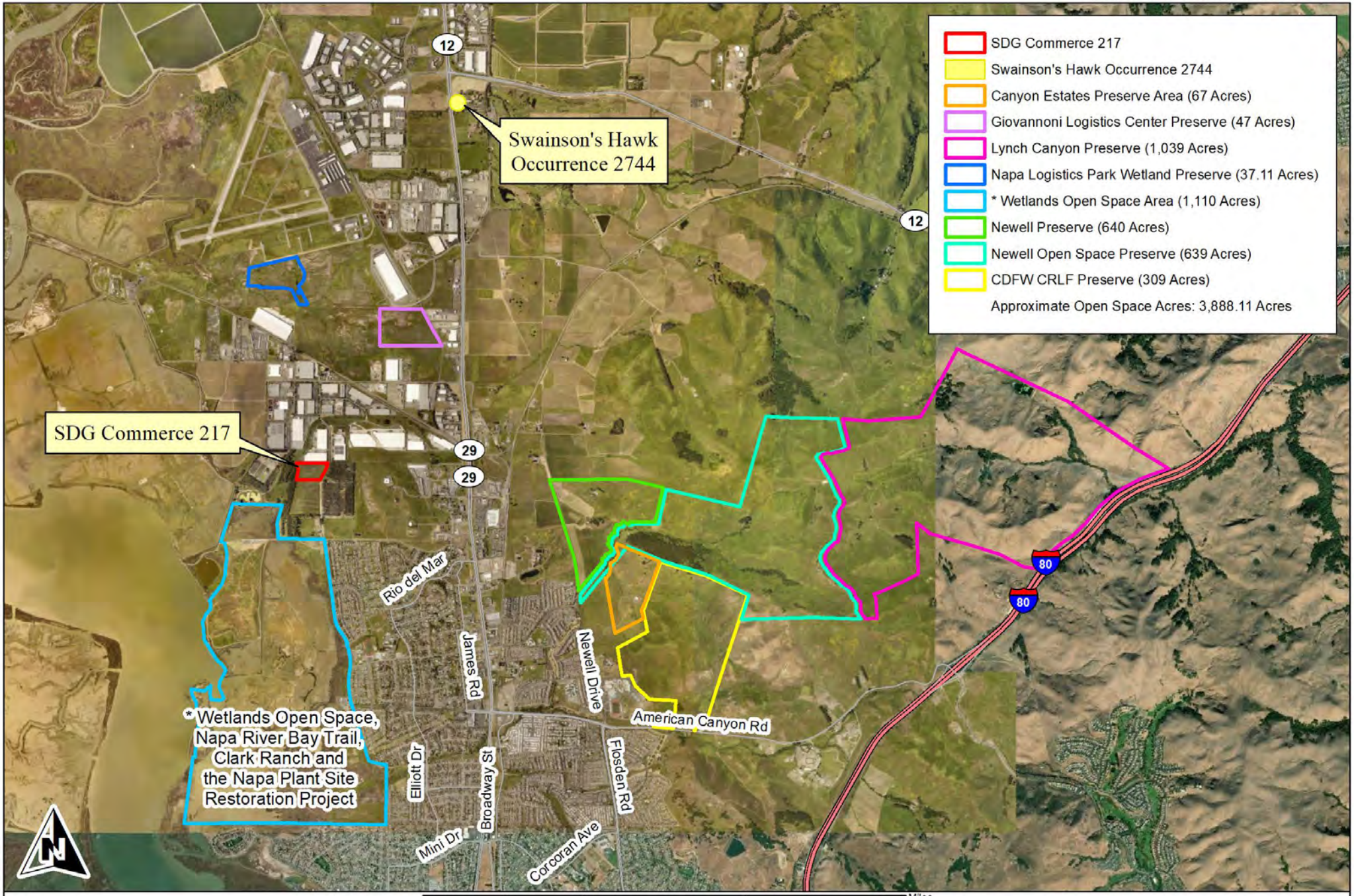
Response: M&A biologists have conducted numerous Swainson's hawk surveys of the undeveloped lands of American Canyon and southern Napa County over several decades, and, based on those studies, consider the comment's conclusion that the lands around the project site

and within 2.6 miles is comprised of "vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks" to be in error. Most of the undeveloped land east of the project site between Hess Road and Eucalyptus Drive (the Oat Hill area) is open grassland that provides suitable foraging habitat. Similarly, north of the project site, between Green Island Road and Devlin Road is the Giovannoni property which is approximately 208 acres of undeveloped grassland and seasonal wetland habitat. This land is perfect for foraging raptors such as the Swainson's hawk. Finally, the American Canyon wetlands south of the project site has plenty of upland habitat to support foraging Swainson's hawks, as demonstrated in the eBird sightings in this area. It is important to note that there is currently 2,092 acres of high-quality permanently preserved open space, comprised primarily of grassland with interspersed oak woodland, that is within 5.2 miles of the project site. These open space areas include Canyon Estates Preserve Area (67 acres), Lynch Canyon Preserve (1,039 acres), Napa Logistics Park Wetland Preserve (37.08 acres), Newell Preserve (640 acres), Newell Open Space Preserve (639 acres), and the CDFW California Red-Legged frog Preserve (309-acres) as shown on **Exhibit A,** below. Impacts to the 10-acre project site represents an insignificant loss of foraging habitat (0.48% of the preserved foraging habitat within 5.2 miles). More importantly, the Napa Logistics Park Wetland Preserve (37 acres) and the proposed Giovannoni Preserve (47 acres) (Exhibit A) are located 1 mile to 1.3 miles southwest of the aforementioned nesting occurrence (CNDDB Occurrence No. 2744) which is even closer than the project site. This should be more than adequate to support any nesting pairs within this area of southern Napa County.

Regardless, the Swainson's hawk has not been observed nesting onsite during appropriately timed, protocol-level surveys conducted in 2021, 2019, and 2018. Impacts to Swainson's hawks are unlikely to occur from the proposed project, and, in addition, mitigation measures are in place to ensure that any potential impacts to this species are reduced to a less-than-significant level.

Comment A.18: The MND Fails to Adequately Analyze and Mitigate Impacts to the Northern Harrier. The comment explains that one of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat. Although the MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers). The comment further states: Mr. Cashen explains that Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. He concludes that, because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.

Response: The northern harrier is a California "species of special concern." This raptor is not protected pursuant to either the State or Federal Endangered Species Acts. As such, loss of foraging habitat for this raptor (bird of prey) is not protected under any state or federal regulation. Protection of the northern harrier is limited to California Fish and Game Code sections that protect this bird, its active nests, its eggs and young. As such, the MND proposes mitigation to ensure that the project does not result in loss of nesting birds, eggs, or young. The mitigation



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Environmental Consultants
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Walnut Creek, California 94595
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Exhibit A. Preserved Open Space
Within the Vicinity of the
SDG Commerce 217 Project

Aerial Photograph Source: ESRI
Map Preparation Date: June 1

measure prescribed for the northern harrier is sufficient given this raptor's legal status (a California species of special concern). Finally, though it is not a requirement pursuant to CEQA or the Fish and Game Code that protects this bird, suitable foraging habitat for this bird remains in the project vicinity as discussed above for Swainson's hawk, and as shown on Exhibit A.

Comment A.19.: The MND Fails to Adequately Analyze and Mitigate Impacts to the White-tailed Kite. Mr. Cashen explains that the City's white-tailed kite analysis suffers the same flaws as the analysis for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges and seldom hunt more than 0.5 mile from their nests when breeding. Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles, which are known to occur at the Project site. Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree. Therefore, if white-tailed kites nest on or near the Project site, they would be significantly impacted by the loss of foraging habitat (from the Project site).

Response: The white-tailed kite is a "fully protected" species under California Fish and Game Code. Fully protected species may not be taken or kept in possession at any time (Fish and Game Code Section 3511). Thus, it is illegal to "take" white-tailed kites. "Take" is defined in Fish and Game Code Section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill." Any proposed activity that could kill or otherwise take a white-tailed kite would be a significant adverse impact pursuant to CEQA. However, loss of white-tailed kite foraging habitat would not be considered a significant adverse impact pursuant to CEQA and it is not a CEQA requirement to set aside foraging habitat for this species. Additionally, the white-tailed kite has no special federal legal status. The MND has been correctly written to ensure the protection of individual and nesting white-tailed kites and their eggs and young. Finally, though it is not a requirement pursuant to CEQA or the Fish and Game Code, suitable foraging habitat for this bird remains in the project vicinity (as discussed above for Swainson's hawk), and as shown on Exhibit A.

Comment A.20: The MND Fails to Adequately Analyze and Mitigate Impacts to Burrowing Owl Habitat. According to the comment: "Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat (CDFW 2012 Staff Report). Contrary to CDFW's guidance, the MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the MND is limited to the following: the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level. As Mr. Cashen explains, there are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated

from Napa County. Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have been extirpated. In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.

Response: While CEQA requires an analysis of the project baseline at the time the CEQA report is initiated, the project site's history is relevant to this project's biological resources analysis. The project site and surrounding parcels were 100 percent choked with Eucalyptus trees between the 1950s (perhaps earlier) and January 2012 (UC Santa Barbara Aerial Photograph Library). During that 60-plus year period, no California ground squirrels would have been on the project site as this species is typically not found in dense Eucalyptus. The removal of the Eucalyptus "grove" did not result in attracting California ground squirrels to the area; biological surveys conducted by M&A onsite in 2018, 2019, and 2021 did not detect California ground squirrels onsite. In April 2021, two M&A biologists conducted a burrowing owl nesting survey on the project site walking systematic transects over the entire site. No California ground squirrels and no suitable donor burrows were observed onsite.

It is logical to assume that burrowing owls would not nest on the project site, or winter there, for many reasons. One, the fact that the site was covered with Eucalyptus trees for decades precluded use by ground squirrels and ground nesting birds. Two, the project site is still surrounded by Eucalyptus on two sides and buildings on two sides which offers ground nesting birds such as the burrowing owl a very narrow aerial view which makes scanning the sky for predators difficult and which also means that predators such as larger owls and eagles have readily accessible perches to observe the project site's open field for prey. Three, burrowing owls are not known to have historically nested in southern Napa County.[3] The commenter states that burrowing owls are extirpated from Napa County, but it is speculative to presume that they bred/nested/resided in the county initially. The only conclusion that may be drawn from the data at hand is that they are a transient bird of the open grassland/wetland habitats of southern Napa County/American Canyon. It is important to note that eBird records in the county for this species are spotty and do not date back earlier than 2013 which does not speak to the history of this species in the County. Based on M&A's numerous surveys on the project site and in the vicinity (M&A biologists have conducted site surveys on the overall 35-acre parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, March 30, 2018, December 19 and December 27, 2019, and April 21, 2021), M&A is confident that this ground-nesting owl would not nest onsite or winter for more than a day or two, at most, due to an absence of secure refugia (burrows). Thus, the mitigation measure prescribed for this owl would reduce the project's proposed impact to this species to a less than significant level.

[3] Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a. California's wildlife, volume II, birds. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Comment A.20: Second, CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided." Thus, CDFW recommends compensatory mitigation if the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.

Response: The western burrowing owl is a California species of special concern. It is not protected under the California Endangered Species Act nor is it protected under the Federal Endangered Species Act, which is the Act that can extend coverage to endangered species' *habitat* (unlike the CESA which only protects the listed species itself and not the habitat). Regardless, the project site does not provide habitat for the western burrowing owl as there are no burrows onsite or other suitable refugia (M&A April 2021 survey results). This ground- nesting owl has not been observed onsite during multiple surveys days conducted over multiple years in both the winter and the nesting season as described in other responses above. Thus, after many years of surveys there are no expected impacts to this owl, either wintering or breeding, from the proposed project. However, in an abundance of caution a mitigation measure for potential impacts to nesting burrowing owls was included in the MND in the remote possibility that this owl may occur onsite in the future. Keeping with our cautious approach, we have added to this mitigation measure the necessity of mitigating for impacts to wintering burrowing owls. This revised mitigation measure is provided below with red-line track changes showing where text was added to the measure.

> ***Mitigation Measure BIO-1:*** A qualified western burrowing owl biologist shall conduct surveys in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone of approximately 200 to 500 feet depending on the neighboring terrain and vegetation as necessary to detect owls nearby that may be impacted by the project. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.
>
> 1) If burrowing owls are detected on or adjacent to the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:

• From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.

• From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests and wintering sites.

• No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

2) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW.

3) If a nesting season survey or wintering season survey determines that a burrow or refugia on the project site is occupied by burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

Comment A.21. b) The MND Fails to Adequately Analyze and Mitigate Impacts from Passive Relocation. The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat. The MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.

Response: M&A biologists have received permission from the CDFW on multiple projects to exclude wintering burrowing owls from properties in order to prevent these owls from nesting onsite in the near future when construction is eminent and it would be more impactful to the owls to have them nesting onsite when construction commences. Excluding wintering burrowing owls from properties proposed for construction is an impact minimization measure that is recognized by conservation organizations and is prescribed in the San Joaquin Multi-Species Conservation Plan (SJMSCP) and in the East Contra Costa County HCP/NCCP as a recognized take avoidance/impact minimization measure. Also, please note that MND Mitigation Measure BIO-1 has been rewritten to provide compensatory mitigation for *wintering* western burrowing owls, although based on past surveys conducted onsite over multiple years, we believe it is highly unlikely that western burrowing owl will be observed onsite.

Comment A.22. The MND Fails to Adequately Analyze and Mitigate Cumulative Impacts. The MND indicates there are only four projects that are proposed or under construction in the City of American Canyon. This does not comport with the "Active Project List" (dated March 2021) available on the City's website. According to the Active Project List, there are several additional projects that would contribute to cumulative impacts on biological resources. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.

Response: The project site provides approximately 10 acres of ruderal herbaceous habitat that, for decades, was a eucalyptus forest (source: historic aerial photograph images, UC Santa Barbara). Eucalyptus trees have allelopathic chemicals in their leaves, bark and roots which prevents other plants from growing under them. Dense groves of eucalyptus also blot out sunlight from reaching the ground. Dense groves of eucalyptus typically thwart burrowing animals' attempts at establishing underground tunnels due to the dense root network of the closely planted trees. Removal of the trees allows the ground to recover and herbaceous vegetation to re-establish in the area but the recovery process of the soil is slow and continual management for fire control hinders a speedy ecological recovery. In summary, development of this approximately 10-acre property that abuts eucalyptus groves and warehouses does not constitute a cumulatively considerable contribution to overall cumulative impacts to biological resources in American Canyon. The habitat preserves that have been established on the eastern City limits and in the surrounding portions of Napa County, as discussed in the MND and as shown in attached Exhibit A, provide far greater habitat value to biological resources using or possibly using the project site. The mitigation measures prescribed in the MND appropriately address potential impacts to western burrowing owl, Swainson's hawk, nesting raptors and nesting passerine birds, and reduce those impacts to a less-than-significant level in both the project and cumulative contexts. Therefore, no additional cumulative impacts assessment is required in the MND.

Comment A.23. The MND Provides Inadequate Compensatory Mitigation for Potentially Significant Impacts to Biological Resources. a) Mitigation Measure BIO-1 (Burrowing Owl). The commenter continues the comment saying that the mitigation measure BIO-1 is vague in its mitigation details and that success criteria and other mitigation plan details are not provided in the mitigation measure.

Response: The details of the Relocation Plan and Exclusion Plan would be developed at the point such a plan is necessary, and would be submitted to the CDFW for their review, comment and ultimately, approval. Typically, success criteria and other details are not discussed in the CEQA review document but rather in the mitigation plan or permit application submitted to the agency with jurisdiction over the resource in question. Should mitigation for burrowing owl be necessary, the CDFW would review the proposed mitigation plan(s)(e.g., exclusion plan, etc.) and provide

comment at that time. Any such plan would undergo robust vetting by the CDFW prior to their approval.

Comment A.24. Mitigation Measure BIO-2 (Swainson's Hawk). CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree. For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio. Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.

Response: In 1979, a report prepared by Dr. Peter Bloom estimated 375 (+ or -50) breeding pairs of Swainson's hawks remaining in California. Bloom's report noted that nesting numbers were greatest in the Central Valley and in the Great Basin area of northeastern California, with a few Swainson's hawk territories located in Shasta Valley, the Owens Valley, and the Mohave Desert. In 1988, a CDFW led survey effort revealed no change in Swainson's hawk distribution from the 1979 report. The 1988 effort led to an estimate of 430 pairs in the Central Valley and a state-wide estimate of 550 breeding pairs. In 2005, a state-wide survey was conducted in the known range. The results showed a state-wide estimate for the number breeding pairs at 2,081.

Circa 2005, Dr. Bloom noted that the Swainson's hawk population in California and indeed throughout its historic range in North America was suffering from acute poisoning from grasshopper insecticides that were being applied directly on their gregarious migration roosts in Argentina (pers. comm. with G. Monk). This practice has largely been stopped in Argentina within the last 15 years and the Swainson's hawk nesting population in California seems to be responding remarkably. The Swainson's hawk nesting distribution now occurs in many areas where the Swainson's hawk has not been known to nest for decades, if ever. Napa County, while considered within the historic distribution of the Swainson's hawk, was not known to support nesting sites for this hawk in the 1970s or 1980s. Similarly, the nesting population now extends into east Contra Costa County where nesting has not been recorded for many decades. Other nesting population recovery that Mr. Monk knows of includes areas of Southern California in the Antelope Valley and in Kern County. This widespread nesting recovery that is documented in the CNDDB and by the personal observations of many other biologists in California is yet to be incorporated into CDFW policy. Accordingly, the 1994 Staff report regarding *Mitigation for Impacts to Swainson's hawks (Buteo swainsonii) in the Central Valley of California* besides being geographically inappropriate for the proposed project in Napa County, is also not relevant to current nest territory expansion of the Swainson's hawk population into Napa County and elsewhere in the state. Thus, this document is not appropriately used as a basis for determining mitigation ratios for impacts to annual grassland (and in the case of the project site, ruderal herbaceous habitat) in Napa County. That *Staff Report* requires mitigation for projects that impact foraging habitat within 10 miles of an "active" Swainson's hawk nest (as defined by the

CDFW *Staff Report*). For the reasons provided above this mitigation requirement is not reflective of the current population expansion of the Swainson's hawk in California, and its use is geographically limited to the Central Valley.

It is noteworthy that other raptors that were state and federally listed when the Swainson's hawk was state listed in 1983 such as the Bald Eagle (*Haliaeetus leucocephalus*) and the peregrine falcon (*Falco peregrinus*) have been delisted (i.e., removed from protections provided by both the CESA and the FESA). The federal government conducted routine census surveys for these species and determined that the nesting populations of these species had fully recovered and thus that protection pursuant to the FESA was no longer warranted. The CDFW followed these delisting efforts. In contrast, the Swainson's hawk was never federally listed, and as the State of California does not have a recovery plan for the Swainson's hawk there is no guideline for what constitutes recovery. In addition, the Swainson's' hawk certainly has not a full "boots on the ground" nesting census to the extent that federally listed raptor species did. Thus, mitigation prescriptions developed 21 years ago are outdated today.

While the decline of the Swainson's hawk population may still be an issue in the Central Valley, the Napa County population may be overemphasized by the CDFW. While the CDFW published a 5-Year Status Review for the Swainson's hawk, the census data supporting this raptor's continued listed status was focused only on the known distribution of this species as detailed in Bloom 1980, which this document claims is consistent with the distribution and numbers outlined in the original status review that led to the listing of this species by CDFW. As referenced above, these data do not take into account the range expansions into areas where the Swainson's hawk had historically nested and the species was presumed extirpated, specifically Sonoma and Napa counties (page 14 of the 2016 CDFW Status Review) and from which may be difficult to prognosticate population trends. The CNDDB lists many new records within the geographic area of the project site that are not taken into account in the status review. These CNDDB records attest to the health and well-being of the Swainson's hawk within this area of Napa County where it is clear the Swainson's hawk population is expanding. Finally, there are well over 2,000 acres of open space preserves in the immediate area for Swainson's hawks to forage/nest in. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity. As such, mitigation for the project's impact to potential foraging habitat are not warranted as this impact would be less than significant.

Comment A.25. Mitigation Measure BIO-3 (Nesting Raptors). The MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.

Response: The MND does not spell out all the variables that the biological monitor would watch for to determine if nesting adults are in distress from earth-moving/construction activities nearby; however, as required by the MND's mitigation measure, the biological monitor would be a trained and qualified raptor biologist, with a minimum of two years of experience conducting raptor nesting surveys with detections. He or she would know what behaviors to watch for that would indicate that an adult may be in distress (for example, in some raptor species this could be agitated behavior in adult birds with one adult circling overhead and calling repeatedly. In some raptor species it is a silent departure from the nest). These distress signals will be known to the experienced raptor biologist who would be monitoring the nest.

It also should be noted that some raptors are more acclimated to disturbance than others. For example, a raptor pair that nests next to a busy road or a noisy factory would be acclimated to noise, and adjacent construction would likely not phase the nesting pair. By having a qualified raptor biologist monitor the nest/nesting attempt from the start of the construction activity daily for a week to observe the nesting raptors' behavior during the ongoing work, the biologist can see how the raptors respond to the activity and what an appropriate non-disturbance buffer would be. Once this buffer is established, the nest would continue to be observed to see how the raptors are responding. Presuming that the raptors are undisturbed by the established buffer distance, the daily monitoring can be reduced to checks once a week to ensure there has been no change in the birds' behavior. Of course, if a new and potentially more disruptive type of machinery or construction method is introduced to the work area, biological monitoring could resume daily to check that this new activity does not adversely affect the birds. Biological monitoring is an adaptive process and the biologist would modify the frequency of the monitoring activity as necessary to ensure the success of the nesting attempt. Thus, the mitigation measure as written in the MND reduces the project impact to nesting raptors to a less-than-significant level pursuant to CEQA.

Comment A.26. Mitigation Measure BIO-4 (Nesting Passerines) Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.

Response: This response is similar to the response to comment A.24. The biological monitor who would be assigned to this task would be a well-trained and experienced biologist. He or she would know what distress signs to look for in the nesting passerines. Of course, if a new and potentially more disruptive type of machinery or construction method is introduced to the work area, biological monitoring could resume daily to check that this new activity does not adversely affect the birds. Biological monitoring is an adaptive process and the biologist will modify the frequency of the monitoring activity as necessary to ensure the success of the nesting attempt. Thus, the mitigation measure as written in the MND reduces the project impact to nesting passerines to a less than significant level pursuant to CEQA.

Comment A.27. Mitigation Measure BIO-5 (Pond Turtle) Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." Mr. Cashen explains that the proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, he explains that it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.

Response: In response to the comment, the mitigation measure for western pond turtle has been modified to include a no-disturbance corridor between the nest site(s) (if one is found) and North Slough. New text is underlined in the modified mitigation measure below.

Mitigation Measure BIO-5: A qualified biologist (i.e., a biologist with at least 2 years' experience conducting surveys for western pond turtle with detections) has prepared a wildlife exclusion plan for this project and has attached an exhibit of that fencing plan herein (please see attached Exhibit A). This wildlife exclusion fencing will be constructed of manufactured ERTEC wildlife exclusion fencing. This exclusion fencing shall be installed along the western perimeter of the project site returning back 50 feet to the north and 50 feet to the south preventing species from traveling from North Slough onto the project site during construction (see Exhibit A). A qualified biologist shall survey the project site and adjacent habitat within 72 hours of the start of project activities to determine if western pond turtle or their nests are present and guide the installation of the exclusion fence. If western pond turtles are discovered, a qualified biologist with experience handling and relocating the species shall move the species to the nearest suitable habitat outside of the project area and exclusion fencing. If western pond turtle nests are found, CDFW shall be notified prior to starting project activities. The nest site plus a 50-foot buffer around the nest site and a <u>no-disturbance corridor between</u> <u>the nest site and North Slough</u> shall be fenced with orange construction fence until eggs hatch and young turtles disperse <u>along the protected no-disturbance corridor</u> to the adjacent North Slough. In addition, if nest(s) are located during surveys, moth balls (naphthalene) shall be sprinkled around the vicinity of the nest (no closer than 5 feet) to mask human scent and discourage predators. Grading within the nest site's 50-foot buffer area <u>and no-disturbance corridor</u> shall be delayed until the young leave the nest as determined by a qualified biologist. If the CDFW allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the CDFW.

Implementation of this mitigation measure reduces the project's impact to western pond turtle to a less than significant level because it meets or exceeds all standard resource agency requirements for this species, and is consistent with professionally accepted approaches to mitigating impacts to this species.

Energy Impacts

Comment A.28. Substantial evidence supports a fair argument that the project may result in potentially significant energy impacts

Response: The IS/MND described and quantified the proposed Project's energy use. Construction energy use was quantified in the IS/MND as follows:

> *"Construction of the proposed project would require consumption of gasoline and diesel fuel by construction worker vehicles travelling to and from the site, by haul trucks delivering construction materials and supplies to the site, and by onsite construction equipment. Once the construction is completed and the proposed project is occupied, gasoline and diesel fuel would continue to be consumed by motor vehicles from employees, deliveries and visitors. Electricity would be consumed for lighting, space and water heating, and landscape maintenance (i.e., electricity to control irrigation equipment), as well as the operation of typical office and warehouse equipment such as computers and electric forklifts.*
>
> *The air quality modeling (CalEEMod) described in detail in the air quality section of this Initial Study, utilized standard fuel consumption estimates to determine that project construction activities would require approximately 42,500 gallons of diesel fuel.3 For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. Natural gas would not be used during construction."*

Operational energy use was quantified in the IS/MND as follows:

> *"The proposed project's electricity consumption was based upon actual electricity usage from two nearby and almost identical warehouse buildings and was estimated to be approximately 652,000 kilowatt-hours (kWh) of electricity per year (See Appendix B for details). The proposed project would not require the use of natural gas. The daily weekday vehicle trip rate of 1.69 weekday trips per 1,000 square feet was used to estimate mobile vehicle emissions (367 weekday vehicle trips). Based on air quality modeling (CalEEMod), the estimated annual vehicle miles traveled for the proposed project would be approximately 765,788 miles, requiring approximately 35,000 gallons of gasoline per year. Additional information regarding the energy calculation details are found in Appendix B."*

Energy use was estimated with through the use of the CalEEMod performed for the air quality analysis. The default energy use settings were adjusted in CalEEMod and were based on actual electricity usage for other wine warehouses nearby the proposed Project site. This provided far more accurate energy use estimates for the proposed Project because CalEEMod uses an average energy use derived from refrigerated warehouses throughout California. The proposed Project's

energy use is specific to the Project type (wine storage), location/climate (City of American Canyon), and also takes into account specific Project design (i.e., night air cooling system to capture cold air from outside during night, motion sensor lighting). As concluded in the IS/MND, energy impacts would be less than significant.

GHG Impacts

Comment A.29. The GHG analysis relies on inapplicable thresholds in violation of CEQA

Response: As stated in the IS/MND,

> *"The GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a* ***less-than significant*** *impact."*

On September 8, 2016, Governor Brown signed Senate Bill (SB) 32 into law, amending the California Global Warming Solution Act. SB 32 requires the California Air Resources Board (CARB) to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030, and CARB adopted an updated Climate Change Scoping Plan in December 2017 to provide a framework for achieving this more stringent 2030 target. BAAQMD has yet to publish a threshold for 2030 in response to SB 32 and the CARB Scoping Plan. So, in the interim, the City has decided to use a threshold of significance that is 40 percent below the 2020 BAAQMD targets, which is what many other lead agencies under BAAQMD jurisdiction have chosen to do until the BAAQMD updates its CEQA Guidelines. Consequently, for the purposes of the proposed Project, a bright-line threshold of 660 metric tons of CO2e per year is utilized based on the GHG reduction goals of SB 32 (40% below the 1,100 metric tons of CO2e per year threshold).

As stated in the IS/MND and shown above, the GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO2e per year, which is below the 660 metric tons of CO2e per year threshold based on the GHG reduction goals of SB 32. Therefore, the Project would not conflict with the GHG reduction goals of SB 32 and GHG emissions impacts would be less than significant.

Land Use Impacts

Comment A.30. The project may result in significant land use impacts due to zoning designation non-compliance.

Response: The American Canyon City Council considered the appropriateness of the zoning for wine warehouse uses in its approval of the Commerce 330 project in 2019, and considered the proposed use compatible with that zoning. As described in the IS, this is consistent with the City Attorney's conclusions. It should be noted that whether or not a project conforms with the site's zoning is a planning issue and does not constitute a physical environmental issue under the

purview of CEQA. Therefore zoning non-conformance is not, in itself, a potentially significant environmental impact.

Noise Impacts

Comment A.31. The Project may have significant noise impacts because it will create a canyon noise effect on the north side since there will be two concrete walls now facing each other**.**

Response: The proposed Project building would be greater than 200 feet (60 meters) from the existing building to the north and in between there is a dense row of eucalyptus trees and City access road. A canyon noise effect is typically observed in highly urbanized areas in between two high rise buildings where the area between the two buildings is narrow, paved and subject to constant traffic noise.

Based on the distance, vegetation and proposed intensity of Project operations between the proposed Project building and existing building to the north, the proposed Project would likely not generate a perceptible canyon noise effect. Any added noise from reflections from the building to the north would send noise east and west of the area between the proposed Project building and existing building to the north, which are Eucalyptus groves with no sensitive receptors nearby. Therefore, no City noise standards would be exceeded and noise impacts would be less than significant.

Furthermore, no canyon noise effect was observed during onsite noise measurements between the building to the north of the Project site and the building north of the Couch property to east of the Project site. These two buildings are approximately the same distance apart as the proposed Project building and the existing building north of the Project site.

Comment A.32. The MND accounts for noise on site due to truck traffic, but does not account for any along the routes the trucks must take enter and exit the to the Project

Response: The IS/MND analyzed noise from on-site truck traffic as follows:

> *"The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Court and Green Island Road. The existing average traffic noise levels measured at Commerce Court (Site 5) were 52 to 59 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 367 trips per day during weekdays with 35 AM peak- hour trips and 28 PM peak-hour trips, which would be less than one trip per minute during the peak hour traffic (GHD, 2020). Project traffic would not result in a doubling of traffic and would have a less than 3 dB increase and would have a minimal effect upon ambient noise levels in the project vicinity.*

> *Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.*
>
> *The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).*
>
> *Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be* ***less than significant****."*

Trucks would travel between the site and Highway 29 via Commerce Blvd. and Green Island Road (an industrial region of the City). Trucks would enter the Project site at the northeast corner of the Project site via Commerce Blvd. Trucks would exit the Project site at the southeast corner of the Project site via Commerce Blvd.

The Project entry/exit and Commerce Blvd. is approximately 1,000 feet from the nearest sensitive receptor (mobile home on the Couch Property to the east). Napa Junction Elementary School is approximately 1,750 feet from the Project exit and approximately 2,150 feet from the Project entry, and is shielded by very dense eucalyptus on the Couch Property (east of the Project site and north of Napa Junction Elementary School). The residential neighborhood south of Napa Junction Elementary School is approximately 2,100 feet from the Project exit and approximately 2,500 feet from the Project entry, and is also shielded by very dense eucalyptus on the Couch Property.

Heavy trucks have an Lmax of approximately 85 dB at 50 feet.[4] Based on line source attenuation for a soft site (the land between Commerce Blvd and the nearest sensitive receptor on the Couch Property is undeveloped), heavy trucks would have an Lmax of approximately 65 dB at 1,000 feet. Since trucks would be entering and exiting the facility intermittently during daytime hours and very dense eucalyptus exists between the Project entry/exit and the nearest sensitive receptor, which would further attenuate noise, traffic noise levels would be well below 65 dB Ldn at the mobile home on the Couch Property approximately 1,000 feet to the east. Furthermore, the

[4] California Department of Transportation (CalTrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

majority of peak hour traffic is expected to be employee automobile trips, which would likely be imperceptible at the nearest sensitive receptor to the east. Therefore, traffic noise would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan and traffic noise impacts would be less than significant.

Comment A.33. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours and whether the noise created from them would stay under 65dB as required by American Canyon Municipal Code.

Response: The IS/MND analyzed nighttime concrete pours as follows:

> *"Project construction would require approximately 15 days of nighttime construction activities for pouring concrete for the building slab, wall panel, and additional large paving due to the scale of the pour requiring that the plant and trucks being dedicated to it for the pour duration. Previous nighttime concrete pours occurred for the construction of the SDG Commerce 330 Distribution Center building approximately 1,000 feet south of the project. The City received a few calls from the residents to the southeast (the neighborhood southeast of the Eucalyptus Drive/ Wetlands Edge Road intersection) inquiring about nighttime construction noise. Once the pre-notification of nighttime construction dates and times were submitted to the City, the residents to the southeast were notified and understood the nature and timing of nighttime construction and submitted no further noise inquiries (Doswald, 2020). The concrete pours would occur during nighttime hours starting no earlier than 12:00 a.m.*
>
> *Concrete pouring activities would occur approximately 1,000 feet from the existing residence and 2,300 feet from the residential neighborhood. In addition, the existing SDG Commerce 330 Distribution Center building to the south would work as a noise barrier to the residences approximately 2,300 to the southeast. As shown in Table Noise-4, the maximum noise levels generated at 1,000 feet would be approximately 53 dB. This would be below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code. Similar to previous construction for the SDG Commerce 330 Distribution Center building, pre- notification of these night pour dates and times would be provided to the City of American Canyon and to residents that expressed concern with nighttime noise during the Commerce 330 Distribution Center construction."*

There was no noise monitoring conducted during the previous nighttime pours for the SDG 330 Warehouse Project, thus no information was provided in the IS/MND. The SDG 330 Warehouse Project was also significantly closer to the residential neighborhood south of Napa Junction Elementary School where residents previously called the City regarding nighttime noise (SDG

330 Warehouse was approximately 1,000 feet away and did not benefit from noise attenuation from the very dense eucalyptus on the Couch Property, and the proposed Project is approximately 2,300 feet away with intervening structures and vegetation in between). As stated above, the noise analysis in the IS/MND estimated concrete pouring activities including concrete trucks at approximately 53 dB Lmax at the nearest receptor approximately 1,000 feet to the east (mobile home on Couch Property). This estimate was considered conservative as it did not account for the attenuation from the dense eucalyptus that would act as a noise barrier between the Project site and the nearest receptor approximately 1,000 feet away. As stated in the IS/MND, nighttime pouring activities would be well below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code and would be less than significant. As an added measure, see MM-Noise 1, which requires pre-notification of night time pours.

Traffic Comments

Comment A.34. Potential warehousing uses of the project building may result in significantly higher trip generation than assumed in the MND.

Response: The intensification in use as described in the comment would not be allowable under the conditional use permit being sought. As described on Page 7 of the Initial Study, under "Current Zoning and General Plan Designations":

> *The General Plan designates the site as Commercial Recreation (CR) and the Zoning Map designates the site as Recreation (REC). The City's Municipal Code, Chapter 19.15.020 permits Wineries and non-winery uses with a conditional use permit in the Recreation Zoning District. A Conditional Use Permit is applied for in the attached Entitlement Application Form. It is anticipated that the distribution center would be used for "Winery" work in conjunction with viticulture related activities such as bottling, storage logistics, distribution, wine-packing, and wine related services.*

Comment A.35. The MND's Transportation section fails to address the serious operations and safety problems on SR 29 in the project vicinity.

Response: Since the statewide implementation of SB 743 on July 1, 2020, automobile congestion and delay are no longer considered to constitute a significant environmental impact under CEQA (Pub. Resources Code, §21099(b)(2)). Therefore, notwithstanding the existing congestion issues present on the corridor, as documented in the SR 29 Comprehensive Multimodal Corridor Plan, the proposed project's contribution towards automobile delay on SR 29 are no longer considered in the determination of potential transportation impacts under CEQA. From a traffic safety perspective, the project proposes no geometric changes to the roadways or intersections that

would contribute towards or introduce unsafe conditions on SR 29. Further, Caltrans, the agency with jurisdiction over SR 29, has reviewed the transportation analyses prepared in support of this project and made no comment requesting additional study of the SR 29 mainline or its intersections.

Comment A.36. The MND assumes implausible mitigation of the Project's significant VMT impacts.

Response: The approach GHD has applied to estimate VMT reduction associated with the completion of the bikeway connection between Eucalyptus Drive and Commerce Court represents a reasonably conservative estimate. The existing Wetlands Edge bikeway provides no commute benefit, as it currently fails to connect residential neighborhoods to employment destinations. The proposed 800-foot bikeway that would close the gap between Eucalyptus Drive and Commerce Court thereby induce additional bicycle commute demand for the existing Wetlands Edge bikeway by connecting a large residential area (south of Eucalyptus Drive) with the City's largest employment destinations (north of Commerce Court).

There is no existing designated bikeway connecting from Eucalyptus Drive to the recently constructed Class I Bike Path, located adjacent to the Commerce 330 site, connecting to Commerce Court. The unpaved gap in bicycle infrastructure is not a suitable bicycle commute route and is, for bicycle network planning purposes, a non-traversable gap. Constructing an accessible, paved, designated bikeway to Class I standards from Eucalyptus Drive to Commerce Court will provide a safe and efficient route for bicycle commuters.

The existing bikeway gap serves as a barrier to commuters that may desire to bicycle. It is necessary to include the existing Wetlands Edge bikeway in the induced bicycle commuting calculation, as it quantifies the extent of "latent demand" estimated to be present along the Wetlands Edge corridor. However, because there is a non-zero chance that some existing commuters may "traverse" the bikeway gap, notwithstanding the present unpaved dirt and gravel conditions, GHD presented and averaged the resulting calculations for induced bicycle commuting demand of both the full 1.85-mile bikeway and the proposed 800-foot gap closure in an effort to present a reasonably conservative estimate.

With respect to bicycle commute distance, GHD's technical analysis demonstrates that applying either the lower or higher bicycle commute distances (3.8 miles or 5.2 miles) would induce sufficient bicycle commuting to offset the project's VMT impact. GHD presented the results of both calculations and presented an average thereof. However, It is not necessary to average the results of this calculation to make the determination relative to the project's VMT impact.

Lastly, the annualization of daily VMT estimates (assuming 5 days per week, 47 weeks per year) is standard industry practice for converting daily traffic volumes, trip generation estimates, or VMT calculations to an annualized figure.

Comment A.37. There is substantial evidence supporting a fair argument that the Project may result in potentially significant adverse impacts that were not identified in the MND.

Response: The opinion expressed in the comment is noted. As discussed in this Final IS, there are no unmitigated potentially significant impacts associated with the project, therefore preparation of an environmental impact report is not required.

B. Lozeau Drury Comment Letter, May 3, 2021.

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury May 3, 2021 comment letter. The comment letter is included as Attachment B to this appendix.

Comment B.1. Constructing an 800-foot bike lane would reduce VMT of commuters in nearby neighborhoods by 733 VMT daily is not supported by substantial evidence because it assumes that cyclists cannot currently ride on Commerce Avenue from Eucalyptus Drive to the existing bike lane adjacent to the SDG Commerce 330 building. In addition, the VM<T reduction would be inadequate.

Response: See responses to **A.16,** above and **B.6,** below**.**

Comment B.2. The VMT Analysis fails to address the numerous non-commute trips generated by the Project.

Response: The consideration of commute trips only when establishing VMT baselines, VMT thresholds, and VMT estimates for employment projects is standard industry practice. Per the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), with respect to recommended processes to establish VMT thresholds for office (work-based) projects, "where tour-based information is unavailable for threshold determination, […], **home-based work trip VMT should be used throughout all steps of the analysis**." (emphasis added)

Additionally, per the OPR Technical Advisory, the term "automobile" means on-road passenger vehicles, specifically cars and light trucks. Notwithstanding the fact that employment projects generate non-commute traffic and VMT, the selection of the commute VMT only provides a defensible apples-to-apples basis for establishing VMT baseline and thresholds against which all employment projects can be evaluated. Therefore, home-based work (i.e. commute) VMT, is the appropriate basis of analysis for this project.

Comment B.3. Substantial evidence of a fair argument exists that the project may have significant transportation impacts.

Response: See responses to **B.4, B.5,** and **B.6,** below. As discussed in those responses, the model inputs and assumptions made by GHD in preparation of the VMT analysis are considered conservative and rely on past studies most closely reflective on the characteristics of the proposed project. Therefore, the comment does not provide substantial evidence to support a fair argument of a significant impact.

Comment B.4. The MND's assertion that the proposed 800-foot bike lane should be credited with benefits for an additional 1.7 miles of existing bike lane is arbitrary and capricious.

Response: GHD's analysis does not "credit" VMT mitigation to the project from existing infrastructure. GHD's analysis quantifies the anticipated bicycle commute mode shift that could be reasonably expected to occur once the gap in the existing bikeway system is closed. See response to **A.36** for additional detail.

Comment B.5. The 5.2-mile average bicycle commute distance is based on an average bicycle commute trip distance documented in the Oregon Transportation Research and Education Consortium Report, *Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice* (OTREC 2008). This Report provides substantial evidence of the bicycle commute trip length because it collected statistically significant data, detailed bicycling behavior via GPS, and studied characteristics of bicycle commuters in an urbanized area. Since GHD's analysis is focused on bicycle commute mode shift in an urbanized area, use of bicycle commute trip length data from the OTREC study is appropriate, and is supported by substantial evidence.

The 3.8-mile average bicycle commute distance is reported in *Report 14. Bicycling and Walk Commuting* of *Commuting in America 2013: The National Report on Commuting Patterns and Trends* (AASHTO, 2015). This report is publicly available online and presents an average bicycle commute trip length of 3.8 miles based on nationwide household survey data. AASHTO is a nationally accepted and credible source and this study analyzed bicycle commuting nationwide with statistically significant data. GHD's analysis demonstrates that applying either the 3.8 mile or 5.2-mile distance to the calculation would result in sufficient induced bicycle commuting to offset the project's VMT impact.

The commenter suggests that the maximum potential bicycle commute that would be served by the bikeway is 0.75 miles. This is unreasonable, as the existing Wetlands Edge bikeway itself is nearly 2 miles long. It is, however, reasonable to assume that bicycle commuters could use the proposed bikeway gap closure to commute at least 5.2 miles to employment destinations on Commerce Court and along Green Island Road. South of the project, beyond the existing Wetlands Edge bikeway, there are low-stress residential streets and existing bikeways (i.e., bike lanes, bike routes) in American Canyon and in the City of Vallejo that will be connected to employment destinations via this gap closure.

Comment B.6. Applying CARB methodology to estimating VMT reductions induced by a bike facility, the proposed bike lane would induce only bike commutes replacing 24 VMTs.

Response: The CARB methodology is not appropriately applied in the comment. The equation utilizes an estimated 20 ADT on Commerce Court, which is a cul-de-sac. The intent of the CARB methodology is to use ADT as a proxy for latent bicycle commute demand where bikeways are not present. The correct application of the CARB methodology in this case would be to use the ADT of SR 29 (or a portion thereof) that is representative of the actual travel demand between Commerce Court and Eucalyptus Drive, were it connected by a public street instead of blocked by opposing cul-de-sacs.

Furthermore, the CARB methodology is not intended to estimate induced bicycle commute demand. The CARB methodology utilizes 1.5 miles as the average bicycle trip length. However, the 1.5-mile bicycle trip length presented by CARB represents the average distance of all bicycle trips, including commute trips, recreational trips, trips by children, shopping trips, and all other trip purposes. The methodology applied by GHD isolates induced demand to commute travel purposes only, which is required in order to maintain consistency with the home-based-work VMT calculations that establish a CEQA baseline and inform the determination of an impact.

C. Lozeau Drury Comment Letter, June 3, 2021.

The following responses are keyed to the numbers of the comments in the "Analysis" section of the Lozeau Drury June 3, 2021 comment letter. The comment letter is included as Attachment C to this appendix.

Comment C.1. For the many reasons identified in LIUNA's previous comments, the MND's estimate of VMT reductions that would result from the Project's proposed 800-foot bike lane are highly exaggerated. There is substantial evidence of a fair argument that the Project may have significant transportation impacts.

Response: See responses **B.1** through **B6,** to Lozeau Drury Comment Letter, May 3, 2021, above. As noted therein, there is not substantial evidence of a fair argument that the Project may have significant transportation impacts.

Comment C.2. For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required.

Response: The comment's expressed opinion regarding the adequacy of the IS and need for an EIR is noted. Please see responses **B.1** through **B.6**, above.

Attachment A: Adams Broadwell Joseph & Cardoza Comment Letter, May 3, 2021

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May 3, 2021

Via Email and U.S. Mail

William He, Associate Planner
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Email: whe@cityofamericancanyon.org

RE: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008; SCH Number 2020120302)

Dear Mr. He:

We write on behalf of American Canyon Residents for Responsible Development ("Residents") to provide comments on the Initial Study and Mitigated Negative Declaration ("MND") prepared by the City of American Canyon ("City") for the SDG Commerce 217 Distribution Center Project (Application PL20-0008; SCH Number 2020120302) ("Project"), proposed by SDG Commerce 217, LLC ("Applicant").

The Applicant seeks a Conditional Use Permit ("CUP") to construct a new 217,294 square foot wine warehouse distribution center with parking and landscaping at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area. The Project site is on the west side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the Project site is from SR-29 via Green Island Road to Commerce Court.

The Project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on

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February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved as Project SDG 330 for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size[1]. According to the MND, there are no current plans for development of that parcel.[2]

Based upon our review of the MND and supporting documentation, we conclude that the MND fails to comply with the requirements of the California Environmental Quality Act[3] ("CEQA"). The MND fails to accurately describe the Project by piecemealing the City's environmental review of the Project from its related components. Additionally, it fails to identify the Project's potentially significant environmental impacts and fails to propose enforceable measures that can reduce those impacts to a less than significant level, as required by CEQA. 1

As explained in these comments, there is more than a fair argument that the Project will result in potentially significant impacts relating to air quality, public health, biological resources, energy, GHG, land use, noise, and transportation. The City may not approve the Project until it prepares an environmental impact report ("EIR") that adequately analyzes the Project's potentially significant direct, indirect and cumulative impacts, and incorporates all feasible mitigation measures to avoid or minimize these impacts.

We prepared these comments with the assistance of air quality and hazards experts James Clark, Ph.D., of Clark and Associates, Neil Shaw, FASA, FAES, Scott Cashen, M.S., and Daniel Smith Jr., P.E., of Smith Engineering & Management. Dr. Clark's technical comments and curricula vitae are attached hereto as **Attachment A**.[4] Mr. Shaw's technical comments and curricula vitae are attached hereto as

[1] MND, p. 4.
[2] MND, p. 4.
[3] Pub. Resources Code, §§ 21000 et seq.; 14 Cal. Code Regs. ("C.C.R") §§ 15000 et seq. ("CEQA Guidelines").
[4] **Attachment A**: Letter from James Clark re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 3, 2021 ("Clark Letter").

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Attachment B.[5] Mr. Cashen's technical comments and curricula vitae are attached hereto as **Attachment C**.[6] Mr. Smith's technical comments and curricula vitae are attached hereto as **Attachment D**.[7]

I. STATEMENT OF INTEREST

American Canyon Residents for Responsible Development is an unincorporated associations of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental and public service impacts of the Project. Residents includes American Canyon residents Robert Schwerin, Jason Moreno, and Anthony Ricker, the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Union Local 343, Sprinkler Fitters Local 483, International Association of Sheet Metal, Air, Rail, Transportation Workers Local Union 104, and the District Council of Ironworkers, along with their members, their families, and other individuals who live and work in the City of American Canyon, and in Napa and Solano counties.

Individual members of Residents live, work, recreate, and raise their families in the City, in Napa and Solano counties, and in the surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist on site.

In addition, Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for businesses and industries to expand in the region, and by making the area less desirable for new businesses and

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[5] **Attachment B**: Letter from Neil Shaw re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 3, 2021 ("Shaw Letter").
[6] **Attachment C**: Letter from Scott Cashen re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) May 2, 2021 ("Cashen Letter").
[7] **Attachment D**: Letter from Daniel Smith Jr. re: Comments on the Initial Study/Mitigated Negative Declaration for SDG Commerce 217 Distribution Center Project (Application PL20-0008) April 29, 2021 ("Smith Letter").
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new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. AN EIR IS REQUIRED

CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR.[8] "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR protects not only the environment, but also informed self-government."[9] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[10]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances.[11] CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[12]

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review

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[8] See Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.
[9] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goletta Valley*), internal citations omitted.
[10] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[11] See Pub. Resources Code, § 21100.
[12] Pub. Resources Code, §§ 21080, subd. (d), 21082.2, subd. (d); CEQA Guidelines, §§ 15002, subd. (k)(3), 15064, subds. (f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123 (*Laurel Heights II*); *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602 (*Quail Botanical*).

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> *would avoid the effects or mitigate the effects to a point where* <u>*clearly*</u> *no significant effect on the environment would occur*, and (2) there is *no substantial evidence* in light of the whole record before the public agency that the project, as revised, *may* have a significant effect on the environment.[13]

Courts have held that if "no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[14] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[15] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[16]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[17] According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (f):

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.

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[13] Pub. Resources Code, § 21064.5 (emphasis added).
[14] See, e.g., *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[15] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[16] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; see also *Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 (*Friends of B Street*) ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[17] CEQA Guidelines, § 15384, subd. (a).
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Furthermore, CEQA documents, including EIRs and MNDs, must mitigate significant impacts through measures that are "fully enforceable through permit conditions, agreements, or other legally binding instruments."[18] Deferring formulation of mitigation measures to post-approval studies is generally impermissible.[19] Mitigation measures adopted after Project approval deny the public the opportunity to comment on the Project as modified to mitigate impacts.[20] If identification of specific mitigation measures is impractical until a later stage in the Project, specific performance criteria must be articulated and further approvals must be made contingent upon meeting these performance criteria.[21] Courts have held that simply requiring a project applicant to obtain a future report and then comply with the report's recommendations is insufficient to meet the standard for properly deferred mitigation.[22]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts, and fails to provide substantial evidence to conclude that impacts will be mitigated to a less than significant level. Because the MND lacks basic information regarding the Project's potentially significant impacts, the MND's conclusion that the Project will have a less than significant impact on the environment is unsupported.[23] The City failed to gather the relevant data to support its finding of no significant impacts. Moreover, substantial evidence shows that the Project may result in potentially significant impacts. Therefore, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR.

2

III. THE CITY FAILED TO PROVIDE TIMELY ACCESS TO MND REFERENCE DOCUMENTS

3

The City violated CEQA and improperly truncated the MND's public comment period by failing to make all documents referenced, incorporated by reference, and relied on in the MND available for public review during the public

[18] CEQA Guidelines, § 15126.4, subd. (a)(2).
[19] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309; Pub. Resources Code, § 21061.
[20] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical, supra,* 29 Cal.App.4th at p. 1604, fn. 5.
[21] *Id.*
[22] *Id.*
[23] Pub. Resources Code, § 21064.5.

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comment period.[24] As a result, Residents was unable to complete its review and analysis of the MND and its supporting evidence during the current public comment period. Our request for a further extension went unanswered, and was therefore presumptively denied. We therefore provide these preliminary comments on the MND and reserve our right to submit supplemental comments on the MND at a future date.

CEQA requires that all documents referenced, incorporated by reference, and relied upon in an MND be available for review and "readily accessible" during the entire comment period.[25] The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the CEQA review period invalidates the entire CEQA process and that such a failure must be remedied by permitting additional public comment.[26] It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.[27] By failing to make all documents and underlying data referenced in the MND "readily available" during the current comment period, the City is violating the procedural mandates of CEQA.[28]

3 (cont.)

On April 15, 2021, our office submitted two letters to the City, the first seeking immediate access to all MND reference documents pursuant to CEQA, and the second seeking immediate access to all public records referring or related to the Project pursuant to the California Public Record Act ("CPRA").[29] We did not receive any response to the letters. On April 20, 2021, we followed up these letters with an email directed to Mr. He asking for an update on these document requests. On April 26, 2021, we filed a letter with the City again asking for immediate access to outstanding MND reference documents, and requesting an extension of the public comment period on the MND due to the City's failure to provide timely access to the

[24] *See* PRC § 21092(b)(1); 14 C.C.R § 15072(g)(4).
[25] Pub. Resources Code §§ 21092(b)(1); 14 Cal. Code Regs. § 15072(g)(4).
[26] *Ultramar v. South Coast Air Quality Man. Dist*. (1993) 17 Cal.App.4th 689, 699.
[27] *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 ("Whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.").
[28] Pub. Resources Code § 21092(b)(1); 14 C.C.R § 15072(g)(4).
[29] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Public Records – SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008) (Apr. 15, 2021.); Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Documents Referenced in the MND for SDG Commerce 217 Distribution Center Project (Application PL20-0008) (Apr. 15, 2021.)

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reference documents during the public comment period.[30] We have received no response from the City regarding either of the record requests or the email as of the date of this comment letter, and still have not been given access to numerous MND reference documents that are relevant to our review of the MND.

In particular, the City has failed to provide access to the following MND reference documents that have delayed Residents' full analysis of issues addressed in this letter:

- GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

- Email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018 regarding Commercial Recreation Land Use in the General Plan.

3 (cont.)

Without this critical information, our clients and other members of the public are unable to meaningfully review and comment on the MND and are deprived of the opportunity to review the supporting information for the MND. The City's actions violate both CEQA and CPRA disclosure requirements, and have resulted in a violation of Resident's due process rights.

IV. THE MND FAILS TO PROVIDE AN ACCURATE AND COMPLETE PROJECT DESCRIPTION

An accurate and complete project description is necessary to perform an evaluation of the potential environmental effects of a proposed project.[31] Without a complete project description, the environmental analysis will be impermissibly narrow, thus minimizing the project's impacts and undercutting public review.[32] The courts have repeatedly held that "an accurate, stable and finite project description

[30] Letter to William He, City of American Canyon from Darien Key, Adams Broadwell Joseph & Cardozo, Request for Immediate Access to Public Records – SDG Commerce 217 Distribution Center Project (SCH Number 2020120302; Application PL20-0008) (Apr. 26, 2021.)
[31] See, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.
[32] See *Id.*

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is the *sine qua non* of an informative and legally sufficient [CEQA document]."[33] Only through an accurate view of the project may affected outsiders and public decision makers balance the proposal's benefit against its environmental costs.[34]

A. The City Violated CEQA by Piecemealing its Review of the Project and Related Projects

The Project is a component of a larger, phased warehouse development by the Applicant in the City. Yet, the MND does not include the Applicant's other warehouse projects in its description and fails to analyze the direct, indirect, and cumulative impacts of the Applicants' warehouse development project within the City as CEQA requires.[35] This approach, termed "piecemealing" or "segmenting," violates CEQA, as it inhibits the full disclosure, analysis and mitigation of impacts, and discussion of alternatives.[36]

4

The City within the last 5 years has reviewed the Project, the SDG 330 Project, the SGE 258 Warehouse Project, and the 2019 tentative map approval.[37] A review of the MNDs for the adjacent SDG 217 and SDG 330 Projects shows marked similarities between the two projects such as (1) having the same applicant, (2) similar LLC's who were organized by the same individual, (3) their Energy analysis in Appendix A-2 deferred actual analysis but instead stated the "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project"

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[33] *County of Inyo v. County of Los Angeles* (1977) 71 Cal.App.3d 185, 193.
[34] *Id*. at pp. 192-193.

[35] See generally, *Bozung v. LAFCO*, 13 Cal.3d 263, 283-84 (1975); *City of Santee v. County of San Diego*, 214 Cal.App.3d 1438, 1452 (1989); *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo*, 172 Cal.App.3d 151, 165 (1985).
[36] E.g., Pub. Resources Code, §21002, 210021.1(a); CEQA Guidelines, §§ 151363, 15121, 15140, 15151 (An EIR is informational document whose purpose is to disclose and mitigate impacts, analyze a reasonable range of alternatives, and select as the project any alternative which can achieve project objectives, but is more protective of the environment, consistent with CEQA's substantive mandate); CEQA Guidelines, § 15378 (project description must include all project components).
[37] SDG 330 Project MND, at Appendix A2, https://www.cityofamericancanyon.org/Home/ShowDocument?id=17307

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because they were nearly identical[38], (4) they are proposed every two years,[39] (5) previously in 2016 the three separate lots were combined into one single lot.[40]

These Projects should have been considered as one project because "piecemealing" or "segmenting" violates CEQA, as it inhibits the full disclosure, analysis and mitigation of impacts, and discussion of alternatives.[41]

4 (cont.)

A project under CEQA means the "whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment."[42] CEQA prohibits a project proponent from seeking approval of a large project in a piecemeal fashion in order to take advantage of environmental exemptions or lesser CEQA review for smaller projects.[43] CEQA mandates "that environmental considerations do not become submerged by chopping a large project into many little ones - each with a minimal potential impact on the environment - which cumulatively may have disastrous consequences."[44] Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences. As the Court of Appeal stated, "[t]he CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish."[45]

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[38] SDG 330 Project MND, at Appendix A2, https://www.cityofamericancanyon.org/Home/ShowDocument?id=17307

[39] CEQA Clearing House Projects in American Canyon, https://ceqanet.opr.ca.gov/Search?City=American+Canyon; **Attachment E** SDG 330 Project MND.

[40] CEQA SCH 2016012049, https://ceqanet.opr.ca.gov/Project/2016012049

[41] E.g., Pub. Resources Code, §21002, 210021.1(a); CEQA Guidelines, §§ 151363, 15121, 15140, 15151 (An EIR is informational document whose purpose is to disclose and mitigate impacts, analyze a reasonable range of alternatives, and select as the project any alternative which can achieve project objectives, but is more protective of the environment, consistent with CEQA's substantive mandate); CEQA Guidelines, § 15378 (project description must include all project components).

[42] CEQA Guidelines, § 15378(a).

[43] *Arviv Enterprises, Inc. v. South Valley Area Planning Com.*, 101 Cal.App.4th 1337, 1340 (2002).

[44] *Bozung v. LAFCO*, 13 Cal.3d 263, 283-84 (1975); *City of Santee v. County of San Diego*, 214 Cal.App.3d 1438, 1452 (1989); *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo*, 172 Cal.App.3d 151, 165 (1985).

[45] *Natural Resources Defense Council v. City of Los Angeles*, 103 Cal.App.4th 268 (2002); see also *Whtiman v. Board of Supervisors* (1979) (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).

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Here the Applicant every two years submits a nearly identical warehouse Project, with a nearly identical MND, in the exact same area in an apparent attempt to disguise the actual impacts on the environment of one large warehouse district.[46] The MND further explains that a tentative parcel map was adopted by the City on February 28, 2019, that split the previously 35.85-acre parcel into three separate parcels in order to facilitate the Project and the SDG 330 Project.[47] The 15.24-acre south parcel was approved for the approximately 330,000 square-foot SDG 330 wine distribution center, which was subsequently approved with a separate MND and is nearing completion.[48] The City failed to prepare a single EIR for the parcel map and subsequent warehouse projects on these parcels, despite the clear connection between these actions.

4 (cont.)

The City should have required an EIR for SGE 258, the subdivision map, SDG 330, and the Project, to determine whether future expansion would have occurred, similar to what is currently happening, in order to provide proper review. It was reasonably foreseeable from SDG 330 and on that the Applicant planned to turn the area into a warehouse district and so far has been allowed to do so with separate MNDs as environmental review, rather than a single EIR. This violates CEQA and cannot be permitted to continue.

The City must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the current Project in conjunction with the cumulative impacts of the previous projects. In particular, an EIR is required to review the cumulative impacts of all these warehouses being built in the same area since this will now be the third one, with space for potentially one more. The EIR must analyze the environmental effects of other phases or future expansions of a project if the other activities are reasonably foreseeable consequences of the initial project.49

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[46] *Arviv Enterprises, Inc. v. South Valley Area Planning Com*. (2002) 101 Cal. App. 4th 1333, 1340 (serial approval of multiple small housing and subdivision projects by same applicant in same location, leading to single large development project).

[47] MND, p. 12.
[48] *Id*.
[49] *Bozung*, 13 Cal.3d at 283–284.
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V. THERE IS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT IMPACTS THAT REQUIRE THE CITY TO PREPARE AN EIR

Under CEQA, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[50] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[51] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[52] Substantial evidence can be provided by technical experts or members of the public.[53] "If a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect."[54]

As discussed below, there is a fair argument supported by substantial evidence that the Project may result in significant impacts relating to air quality, biological resources, energy, GHG, land use, noise, and transportation. The City is required to prepare an EIR to evaluate the Project's impacts and propose mitigation measures to reduce those impacts to a less-than-significant level.

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[50] Pub. Resources Code, § 21082.2; CEQA Guidelines, § 15064, subds. (f), (h); *Laurel Heights II, supra,* 6 Cal. 4th at p. 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical, supra,* 29 Cal.App.4th at pp. 1601-1602.
[51] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[52] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; *see also Friends of B Street, supra,* 106 Cal.App.3d at p. 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an [environmental impact report] and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[53] See, e.g., *Citizens for Responsible and Open Government v. City of Grand Terrac*e (2008) 160 Cal.App.4th 1323, 1340 (substantial evidence regarding noise impacts included public comments at hearings that selected air conditioners are very noisy); *see also Architectural Heritage Assn. v. County of Monterey*, 122 Cal.App.4th 1095, 1117-1118 (substantial evidence regarding impacts to historic resource included fact-based testimony of qualified speakers at the public hearing); *Gabric v. City of Rancho Palos Verdes* (1977) 73 Cal.App.3d 183, 199.
[54] CEQA Guidelines, § 15062, subd. (f).
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A. There is Substantial Evidence that the MND Underestimates and Fails to Properly Mitigate Air Quality Impacts

1. The City Failed to Update the MND's Baseline Data and Relevant Analyses When It Revised and Recirculated the MND.

CEQA requires the lead agency to describe the baseline physical conditions that exist at a project site at the time its notice of intent to adopt a CEQA document is issued.[55] CEQA also requires the environmental document to accurately describe the severity of a project's impacts.[56]

The City issued its original Notice of Intent to adopt an MND on December 16, 2020. The City then decided to revise and recirculate the MND for a new round of public comment, and issued a new Notice of Intent on April 1, 2021.[57] When the City did this, it failed to update its baseline data and all the relevant timelines applicable to Project development, and rending several of its analyses inaccurate and unsupported.[58]

5

For example, the MND's CalEEmod analysis of construction and operational air emissions accounts for the seasons in which certain activities would take place to determine the proper emissions,[59] thus affecting the Air Quality analysis and the GHG analysis. The City's failure to update the CalEEmod analysis resulted in an inaccurate and unsupported air quality analysis because the revised MND does not accurately reflect the severity of emissions that will occur at different phases of Project construction and operation. The City must prepare an EIR to correct these errors.

[55] 14 C.C.R § 15125(a).
[56] 14 C.C.R §§ 15143, 15162.2(a); *Cal. Build. Indust. Ass'n v. BAAQMD* (2015) 62 Cal.4th 369, 388-90 (CEQA document must include sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact").
[57] MND, p. 1.
[58] MND, p. 13.
[59] Appendix B-2.
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2. The City Failed To Perform A Project-Specific Traffic Impact Analysis (TIA) For The 217 Commerce Center Project And Is Relying On A TIA For Another Project

The City has failed to perform a TIA for the 217 Commerce Center project. Rather than assess the impacts the City relies on the 2018 TIA performed for the SDG Commerce 330 Warehouse Project. According to the introductory paragraph of the TIA Memorandum, the TIA was prepared to present the results of an analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard Wine Storage Facility project in the City of American Canyon. The TIA assumed the construction of a 330,528 square foot wine storage warehouse. According to the TIA Memorandum, 9 projects were included in the traffic analysis along with the SDG Commerce 330 Warehouse Project. Those projects include[60]:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

6

The analysis showed that the conditions at State Route 29 and Green Island Road would drop from a Level of Service (LOS) C to LOS D in the AM peak hours.

The trip generation analysis used in the TIAM for the SDG Commerce 330 Warehouse assumed a generation rate of 1.69 vehicles for each 1,000 square feet of the wine warehouse constructed (1.69 * 330.528 = 558.59 or 559 vehicles). Clearly, the 2018 analysis does not consider the impact from the additional 367 vehicle trips (217.294 *1.69 = 367.22 or 367), an increase of approximately 66 percent (65.74% = ((367.22 + 558.59)/(558.59))). In addition, the TIA fails to account for the additional

[60] Clark Letter, p. 5.

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6 (cont.)

traffic burden/vehicle trips associated with the opening of the New Napa Junction School located at the corner of Eucalyptus Drive and Commerce Boulevard. Given the significant increase in trips from the unaccounted projects identified herein, the City must re-evaluate the traffic impacts from the project in an environmental impact report (EIR).[61] Given the unaccounted for increase in trips, the MND has understated its mobile emissions and GHGs as well.

3. The City Has Not Accurately Reported The Project's Estimated Daily Construction Emissions and Failed to Disclose Significant Air Quality Impacts During The Construction Phase

7

According to the MND, the Project's construction emissions are less than significant because they do not exceed the Bay Area Air Quality Management District's ("BAAQMD's") CEQA significance thresholds (See Table AQ-1) and because the proposed Project would also include Best Management Practices ("BMPs") required per the BAAQMD's CEQA Air Quality Guidelines.[62]

Table AQ-1: Estimated Daily Construction Emissions (pounds/day)

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
2021	13.6	24.6	19.5	1.0	0.9
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	No	No	No	No	No

However, Dr. Clark explains that the City's analysis assumes one continuous phase of construction, ignoring the substantial highs and lows in emissions which commonly occur during each phase of construction (site preparation, grading,

[61] Clark Letter, p. 5.
[62] MND, p. 31.

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building construction, paving, and architectural coating).[63] The City has failed in its obligation to accurately report the Project's construction emissions by failing to accurately quantify the Project's emissions in each construction phase, and by mis-interpreting guidance from BAAQMD which the City claims to follow.[64] The City is legally obligated to accurately disclose the nature and extent of project's air quality impacts pursuant to CEQA which it failed to do here by failing to follow its own selected significance threshold.[65]

According to the 2017 CEQA Guidance From BAAQMD, "[t]he Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year."[66] This means that, for each phase of construction, the Project's construction emissions should be presented and compared against the BAAQMD Significance Thresholds.[67]

7 (cont.)

As was previously pointed out in public comments on the original MND, the calculated daily construction emissions in the original MND were based on the total average emissions for the entire construction phase of the project. Dr. Clark explains that the City's continued use of the total average daily emissions in the revised MND ignores the substantial impacts that are associated with the maximum daily emission rates calculated by the CALEEMOD model of the Project.[68]

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
Site Preparation	3.9558	40.5366	21.6621	2.04546	1.88178
Grading	2.5683	37.5613	17.7651	1.16798	1.07479
Building Construction	2.6831	24.2402	22.5509	0.9815	1.3558

[63] Clark Letter, p. 6.
[64] 14 C.C.R §§ 15143, 15162.2(a); *Cal. Build. Indust. Ass'n v. BAAQMD,* 62 Cal.4th at 388-90; *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 518–522; 14 C.C.R § 15064.7(b), (c).
[65] see 14 C.C.R § 15064.7.
[66] BAAQMD, CEQA Guidelines May 2017, p. 2-3.
[67] Clark Letter, p. 6.
[68] Clark Letter, pp. 6-7.
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Paving	1.7638	12.952	15.0764	0.6785	0.62424
Architectural Coatings	155.6296	1.5948	2.6922	0.09575	0.09562
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	**Yes**	No	No	No	No

Dr. Clark concludes the that the MND's failure to analyze construction emissions during the different phases of Project construction results in an underestimation of the Project's total construction emissions. As Dr. Clark explains, over the course of construction, the emissions of reactive organic gases ("ROGs"), precursors to the formation of ozone, increase substantially from a low of 1.76 lbs/day during the paving phase of the project to a high of 155.63 lbs/day during the Architectural Coatings phase of the project. The MND fails to reflect this increase.

7 (cont.)

While the MND's total averaged values over the whole construction period are lower than the BAAQMD Significance Threshold value of 54 lbs/day, the MND fails to describe the emissions fluctuations during different phases of construction. The City is obligated to assess impacts of emissions from each phase of the construction of the Project in order to accurately assess the nature and magnitude of the Project's construction emissions. The MND fails to comply with this basic CEQA requirement. The MND also fails to explain that short term exceedances of the significance thresholds may have significant local impacts on the air quality and the community at large.

The City must report the impacts from each step of the construction of the project in an EIR providing a clear analysis of the criteria and toxic air contaminants ("TACs") as well as the greenhouse gas ("GHG") emissions.[69]

[69] Clark Letter, p. 7.

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4. The City Fails To Quantify The Impact That Transportation Refrigeration Units (TRUs) Will Have On Air Quality Impacts From The Proposed Project.

The MND fails to analyze the impacts from diesel particulate matter ("DPM") emissions from transportation refrigeration units ("TRUs") installed on insulated cargo vans and trucks that will be used to transport the temperature sensitive goods stored at the Project site. The MND explains that, because the Project's warehouse building is proposed for warehousing and distribution of wine and/or other wine related products, it would be heavily insulated and refrigerated.[70] Dr. Clark explains that this use will also require TRU's to transport refrigerated products, yet the MND fails to analyze any emissions from mobile refrigeration.[71]

In 2019, CARB released a health risk analysis that documented the significant impact of TRU's. CARB calculated that the operation of one daily truck delivery, one daily trailer delivery, and one seasonal trailer TRUs for a total of 202 hours per week results in a cancer health risk of 190 in one million on site, 28 in one million at a residence 100 meters off-site, and 5 in one million at a residence 400 meters off site.[72] 8

The closest residence to the proposed Project site is identified by the City as being located 500 feet (approximately 150 meters off-site).[73] Dr. Clark concludes that, when the number of daily trucks is increased to 10 per day and daily trailers increased to 6 per day, the Project's onsite cancer risk increases to 610 in one million, the 100-meter offsite risk increases to 92 in one million, and the 400-meter offsite risk increase to 16 in one million.[74] These impacts from the use of TRUs at the Project Site exceed BAAQMD's cancer risk significance threshold of 10 in one million, resulting in a significant health risk and air quality impact for residents nearby to the Project site that the MND fails to disclose.[75]

The City must prepare an EIR to accurately disclose and mitigate these impacts. In addition to the health impacts from exposure to DPM that must be

[70] MND, p. 9; Appendix B, p. 11.
[71] Clark Letter, p. 7.
[72] CARB, Preliminary Health Analyses: Transport Refrigeration Unit Regulation, p.26.
[73] MND, p. 35.
[74] Clark Letter, pp. 7-8.
[75] MND, p. 35.

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8 (cont.) assessed in an EIR, the impacts on GHG emissions from TRUs must also be included in an EIR of the Project.[76]

5. The City Failed To Quantify The Health Impacts From Emissions From The Project And Incorrectly Relies On A Non-Quantitative Analysis Performed For The SDG 330 Warehouse Project

The City failed to perform a quantitative analysis of the emissions from construction and operational emissions from the Project. Instead, the MND incorrectly relies on a non-quantitative 2019 analysis performed for a different project, the SDG 330 Warehouse Project.[77] The City's approach lacks merit and fails to comply with CEQA's requirements to quantify the impacts of a project's air emissions on human health.

CEQA mandates discussion, supported by substantial evidence, of the nature and magnitude of a project's impacts of air pollution on public health.[78] A CEQA document must analyze the impacts from human exposure to toxic substances.[79] The Supreme Court has held that a CEQA document fails to comply with CEQA's mandate to protect public health and safety when it fails to disclose the public health impacts from air pollutants that would be generated by a development project.[80] A lead agency's significance determination must also be supported by accurate scientific and factual data that is specific to the project being analyzed.[81] An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.[82] The MND fails to quantify the Project's DPM emissions and instead relies on a qualitative analysis of health impacts prepared for a different project. The MND's discussion of the Project's health risk fails to meet CEQA's basic legal requirements.

9

The MND acknowledges that sensitive receptors are located in close vicinity to the Project site. On page 35 of the MND, the City states that the nearest sensitive receptors to the Project include homes that could potentially be within

[76] Clark Letter, pp. 7-8.
[77] MND, p. 33; See also Appendix B.
[78] *Sierra Club*, 6 Cal.5th at 518–522.
[79] *Berkeley Jets*, 91 Cal.App.4th at 1369–1371.
[80] *Sierra Club,* 6 Cal.5th at 518–522.
[81] 14 C.C.R. § 15064(b).
[82] *Kings County Farm Bureau*, 221 Cal.App.3d at 732.

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1,000 feet of certain Project construction phases (site preparation and grading activities) and a school under construction only 1,500 feet away.[83] Nevertheless, the MND fails to disclose the exposure levels at these receptor sites to the Project's DPM and other TAC emissions.

The MND incorrectly attempts to justify this omission by relying on the SDG 330 Warehouse MND's claim that State health guidance does not require a health risk analysis of the Project's construction emissions because construction is a short-term impact. According to the City's analysis of the SDG 330 Warehouse Project, the "Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).[84]

9 (cont.)

The SDG 330 Warehouse Project MND next adopted a mitigation measure requiring enhanced exhaust emissions to purportedly "ensure the proposed project's health impacts are less than significant" – Mitigation Measure AQ-4." Mitigation Measure AQ-4 assumed that all off-road equipment should have: :[85]

> "a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;
>
> b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available."

10

However, as explained below and by Dr. Clark, the use of Tier 2 equipment would not enhance exhaust emission reductions and would, in fact, ***increase*** the potential emissions from sources on site, resulting in increased health risk at the

[83] MND, p. 35.
[84] See Clark Letter, p. 11.
[85] Clark Letter, p. 8.

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(10) (cont.) SDG 330 project site, and at this Project site, if the same measure were adopted for the Project.[86]

The logic used by the City to justify not producing a dispersion model of the Project's toxic air emissions and a quantitative health risk analysis for the either this Project or the SDG Commerce 330 Warehouse project is flawed and fails to comply with CEQA. As explained by Dr. Clark, the City's reasoning also contradicts the BAAQMD CEQA guidance, on which the MND claims to rely.

Under Section 5.2.4, Sources Not Requiring A BAAQMD Permit, the BAAQMD states:

> For new land uses that would host a high number of non-permitted TAC sources, such as a distribution center, the incremental increase in cancer risk shall be determined by an HRA using an acceptable air dispersion model in accordance with BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards and/or CAPCOA's guidance document titled Health Risk Assessments for Proposed Land Use Projects. A Lead Agency may consult HRAs that have previously been conducted for similar land uses to determine whether it assesses the incremental increase in cancer risk qualitatively or by performing an HRA. This analysis shall account for all TAC and PM emissions generated on the project site, ***as well as any TAC emissions that would occur near the site as a result of the implementation of the project (e.g., diesel trucks queuing outside an entrance, a high volume of trucks using a road to access a quarry or landfill)***.[87]

(11)

Clearly, the City failed to assess the TAC and PM emissions from the SDG 330 Warehouse Project, and is relying on the same lack of analysis to avoid analyzing health risks from the current Project. The City also incorrectly assumes that Mitigation Measure AQ-4 (which is only required for the SDG 330 Project, and not for this Project) would reduce any TAC and PM emissions to a level that would not produce a risk above 10 in one million, without any supporting evidence. This hand waving does not meet the obligations that the City has under CEQA to quantify the impacts of the Project on the community. Furthermore, relying on this

[86] Clark Letter, p. 9.
[87] Clark Letter, p. 9.

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unsupported analysis to support the assertion that the SDG Commerce 217 Distribution Center project will not have a significant impact is patently false.

(11) (cont.)

The City must perform quantified health risk analysis of the Project's construction and operational emissions and assess the impact of those emissions in an EIR, consistent with the requirements of CEQA, and applicable guidance from OEHHA.[88]

6. The City Failed To Quantify The Health Impacts From Emissions From The Project On A New Elementary School (Sensitive Receptor) That Is Less Than 500 Meters Southeast of The Project Site.

The City failed to assess the public health impacts from TACs that will be released during the construction and operational phases of the Project on the Napa Unified School District's new Napa Junction School, being constructed at the corner of Eucalyptus Drive and Commerce Boulevard.

In the MND, the City states that there are no schools or daycare centers within 1,000 feet of the proposed project.[89] This is misleading. The new Napa Junction School is located approximately 450 meters (approximately 1500 feet) southeast of the Project site, and is scheduled to open in Fall 2021.[90] Schools are (12) considered sensitive receptors for purposes of CEQA analysis, and the MND explains that some Project construction activities during approximately nine weeks of site preparation and grading could be within 1,000 feet of the school property boundary.[91] Students and staff at the school will therefore be exposed to emissions from the construction and operational phases of the Project. Those emissions will include known human carcinogens, yet were ignored in the MND. The City's failure to analyze the health risk of the Project's emissions on the school violates CEQA.[92]

The BAAQMD CEQA Guidance Appendix also states that the "lead agency should enlarge the 1,000-foot radius on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is

[88] Clark Letter, p. 9.
[89] MND, p. 133.
[90] Clark Letter, p. 10.
[91] MND, p. 35; CEQA Appendix G, Section III.D.
[92] *Sierra Club*, 6 Cal.5th at 518–522; *Berkeley Jets*, 91 Cal.App.4th at 1369–1371.

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beyond the recommended radius."[93] Accordingly, in keeping with BAAQMD's recommendation, the City should expand the radius of influence to be evaluated to include all impacts on the school (not just within the 1,000-foot radius that will be impacted by construction). In order to accurately analyze the Project's health risk impacts on the school, Dr. Clark recommends that the City perform an EMFAC-compliant analysis of the increase in traffic from the project and the surrounding warehouses, perform dispersion model of the traffic emissions to determine the extent of DPM emissions that will impact the school, and perform a quantified health risk analysis to determine impacts on the staff and students of the school. The results of that analysis must be presented in a DEIR.[94]

12 (cont.)

7. The SDG 330 Project's Air Quality Mitigation Measure AQ-4 Is Insufficient To Reduce the Project's Significant Health Risk to Less than Significant Levels

In the City's analysis of air quality impacts for the SDG Commerce 330 Warehouse project, the preferred mitigation measure (AQ-4) for ensuring DPM emissions would remain below the significance thresholds was the use of U.S. EPA Tier 2 equivalent construction equipment. required ensure that the Project's health risk impacts are less than significant levels. The City stated at the time of the SDG 330 Project's MND release that the use of Tier 2 technology would keep emissions below a health risk of 10 in 1,000,000, without quantifying the actual health risk in the analysis. Tier 2 technology was first released in the mid-1990's and is not currently the recommended standard for diesel powered equipment.[95]

13

Far more effective technology is currently available. As Dr. Clark explains, the United States Environmental Protection Agency ("U.S. EPA") has slowly adopted more stringent standards to lower the emissions from off-road construction equipment since 1994. Since that time, Tier 1, Tier 2, Tier 3, Tier 4 Interim, and Tier 4 Final construction equipment has been phased in over time. Tier 4 Final represents the cleanest burning equipment and therefore has the lowest emissions compared to other tiers, including Tier 4 Interim equipment.[1] Dr. Clark concludes that requiring the use of Tier 2 or equivalent control technology for all equipment as

[93] BAAQMD, CEQA Guidelines May 2010, p. 2-5.
[94] Clark Letter, p. 10.
[95] Clark Letter, p. 10.

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a mitigation measure does not provide the community with greatest level of protection possible.[96]

For the operational phase of the Project, the City must promulgate mitigation measures to ensure that residents near the Project are not adversely affected by DPM emissions from any generator that may be installed onsite. Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. EPA and CARB. Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more), Dr. Clark explains that diesel back-up generators generally have U.S. EPA Tier II ratings and need to be outfitted with diesel particulate filters to achieve additional PM2.5 reductions. In addition, Dr. Clark recommends that diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). If higher rated diesel generators are available, the City must require that the proponent purchase and maintain the generator that will achieve the highest amount of DPM reduction.

13 (cont.)

The City should prepare a DEIR which accurately discloses the extent of the Project's health risk from construction and operational DPM emissions, and which includes a Mitigation Monitoring and Reporting Program with enforceable mitigation measures to reduce the Project's health risk to the greatest extent feasible.[97]

8. The City Failed To Perform A Cumulative Analysis Of The Impacts From The Proposed Project and Surrounding Projects.

The City must assess the cumulative impacts from the Project and the adjacent projects that are likely to have cumulatively considerable impacts.[98] The City has allowed a significant number of overlapping projects to be developed in the immediate vicinity of the SDG 217 Project without quantifying the impact of construction emissions and operation emissions from each of the projects on the surrounding community. Those projects include:[99]

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[96] Clark Letter, p. 10.
[97] Clark Letter, p. 10-11.
[98] PRC § 21083; 14 C.C.R §15130(b)(1)(A); *CBE v. CRA*, 103 Cal.App.4th at 117.
[99] Clark Letter, pp. 13-15.

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1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project
10. SDG Commerce 330 Warehouse Project

(14) (cont.)

The results of this cumulative analysis should then be presented in a DEIR.

9. The MND Relies On Non-Binding Best Management Practices (BMPs) To Reduce Emissions Of Dust And Particulates.

(15)

Mitigation measures must be enforceable through conditions of approval, contracts or other means that are legally binding.[100] This requirement is intended to ensure that mitigation measures will actually be implemented, not merely adopted and then ignored.[101] The MND's reliance on BMPs fails to meet this threshold requirement because the measures are not incorporated as binding mitigation measures. As a result, the MND fails to include any binding mechanism to ensure that the Applicant will be required to implement these measures for the Project. This is exacerbated by the fact that the BMPs themselves are framed in a way that makes them unenforceable by using phrases such as "where and when possible".

[100] PRC § 21081.6(b); 14 C.C.R § 15126.4(a)(2); *Lotus v. Dep't of Transp*. (2014) 223 Cal. App. 4th 645, 651-52.
[101] *Fed'n of Hillside & Canyon Ass'n v. City of Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261; *Anderson First Coal. v. City of Anderson* (2005) 130 Cal.4th 1173, 1186.
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Without an enforceable mechanism, the BMPs described in the MND are little more than wishful thinking, and the MND's conclusions that the Project's impacts will be less than significant with these measures incorporated are unsupported. If the City intends to rely on BMPs as listed on page 32 to reduce impacts to less than significant levels, these measures must be incorporated into the Project's MMRP and Conditions of Approval.[102]

15 (cont.)

B. Substantial Evidence Supports a Fair Argument that the Project Will Have Significant, Unmitigated Impacts to Biological Resources

1. The MND Fails to Establish a Baseline Setting

The existing environmental setting is the starting point from which the lead agency must measure whether a proposed project may cause a significant environmental impact.[103] CEQA defines the environmental setting as the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and regional perspective.[104] Describing the environmental setting accurately and completely for each environmental condition in the vicinity of the Project is critical to an accurate, meaningful evaluation of environmental impacts. The courts have clearly stated that, "[b]efore the impacts of a project can be assessed and mitigation measures considered, an [environmental review document] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined."[105] The City failed to establish a proper baseline setting by not performing detection surveys.[106]

16

The MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle.[107] The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of

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[102] *Lotus v. Dep't of Transp.*, 223 Cal. App. 4th 645, 651-52.
[103] *See, e.g.*, *Communities for a Better Env't v. S. Coast Air Quality Mgmt. Dist.* (March 15, 2010) 48 Cal.4th 310, 316.
[104] CEQA Guidelines §15125(a) (emphasis added); *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1453 ("*Riverwatch*").
[105] *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.
[106] Cashen Letter, p. 2.
[107] MND, pp. 41 through 44.
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these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.[108,109]

Mr. Cashen notes that the California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys.[110] Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.[111]

16 (cont.)

Take avoidance surveys are conducted immediately prior to implementation of the project. The intent of take avoidance surveys is to: (a) determine whether there have been any changes in baseline conditions that affect implementation of mitigation. For example, take avoidance surveys might reveal that burrowing owls that had nested on the north side of the site, are now nesting on the south side of the site. In summary, detection surveys are conducted to satisfy the requirements of CEQA (and other regulatory review processes), whereas take avoidance surveys are conducted to ensure take avoidance when the project is actually constructed.[112]

Detection surveys were not conducted for the Project. Instead, the MND requires detection surveys as "mitigation," after the CEQA review process terminates. Mr. Cashen explains that this approach negates the value of detection surveys and is unacceptable because it precludes proper understanding of baseline conditions, and thus, the ability of the public and resource agencies to submit informed comments on the Project's impacts and proposed mitigation. Assuming a species may be present at the Project site (the approach taken in the MND) is generally not an acceptable substitute for baseline survey data because it precludes

[108] *Id*, p. 44; Cashen Letter, p. 2.
[109] According to the Revised Biological Resource Analysis ("BRA") prepared by Monk & Associates (March 2, 2020), the probability of western pond turtles on the Project site is "none" (*see* BRA, Table 4). However, according to the MND (p. 42): "there is a possibility of turtles nesting onsite."
[110] Cashen Letter, p. 2.
[111] Cashen Letter, p. 2.
[112] Cashen Letter, p. 2.
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understanding of the relative severity of the Project's impacts. For example, while the loss of nesting habitat for one pond turtle might not be significant, the loss of nesting habitat for five pond turtles would be very significant.[113]

16 (cont.)

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards, and the results of those surveys need to be released in a revised CEQA document so they can be thoroughly vetted by the public, resource agencies, and decision makers during the CEQA review process.[114]

2. The MND Underestimates the Project's Impacts on Sensitive Species

a) The MND Fails to Adequately Analyze and Mitigate Impacts to the Swainson's Hawk

Mr. Cashen explains that loss of foraging habitat is one of the primary threats to Swainson's hawks in California.[115] In addition to generating a potentially significant impact under CEQA, the loss of foraging habitat from the Project site may result in the take (killing) of Swainson's hawks, which would be a violation of Section 2080 of California Fish and Game Code.[116] The MND provides the following analysis of this issue:

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> The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.[117]

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[113] Cashen Letter, p. 2.
[114] Cashen Letter, p. 3.
[115] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[116] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[117] MND, p. 43.

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Dr. Cashen identifies several flaws with the City's analysis. First, the City's analysis relies on California Natural Diversity Database ("CNDDB") data and assumes that the nearest nesting location is 2.6 miles north of the Project site.[118] However, the MND admits: "the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat."[119] CNDDB data on Swainson's hawk nest locations in Napa County have not been updated since 2013,[120] and the Applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the Project site.[121] As a result, the City does not have the basis for its assumption that the nearest nesting location is 2.6 miles from the Project site, and thus, that the loss of foraging habitat from the Project site would not have a significant impact on the species.[122]

17 (cont.)

Second, the Project site may provide important foraging habitat for Swainson's hawks even if the nearest nesting location is 2.6 miles away. Fleishman et al. (2016) found that the vast majority of adult Swainson's Hawks in the Natomas Basin (northern Central Valley, California) traveled distances up to 6.2 miles from the nest to forage.[123] Mr. Cashen provides substantial evidence documenting the likelihood of Swainson Hawk foraging activities in and around the Project site. He explains that Babcock found that Swainson's hawks in the Sacramento Valley foraged as far as 14 miles from the nest, and that ruderal fields was one of the vegetative cover types that ranked highest in foraging use.[124] Other studies have shown that Swainson's hawks may travel up to 18 miles from the nest to forage.[125]

Third, the fact that the Project site did not historically provide foraging habitat is irrelevant to its current function as foraging habitat for Swainson's

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[118] *Id*, p. 42.
[119] *Id.*
[120] California Natural Diversity Database. 2021. RareFind 5 [Internet]. California Department of Fish and Wildlife [Apr 2, 2021].
[121] MND, p. 44.
[122] Cashen Letter, p. 4.
[123] Fleishman E, Anderson J, Dickson DG, Krolick D, Estep JA, Anderson RL, Elphick CS, Dobkin DS, Bell DA. 2016. Space Use by Swainson's Hawk (*Buteo swainsoni*) in the Natomas Basin, California. Collabra, 2(1): 5, pp. 1–12.
[124] Babcock KW. 1995. Home Range and Habitat Use of Breeding Swainson's Hawks in the Sacramento Valley of California. Journal of Raptor Research 29:193–197.
[125] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California; Cashen Letter, p. 4.
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hawks. Dr. Cashen explains that, to reverse the decline of Swainson's hawk populations, it is CDFW's policy that new development projects that adversely modify nesting or foraging habitat within 10 miles of an active nest should mitigate the project's impacts by providing compensatory mitigation.[126] According to CDFW, the 10-mile foraging radius recognizes the need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of development(s) consistent with Fish and Game Code Section 2053.[127]

Fourth, the MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk population. Based on Mr. Cashen's review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.[128]

17 (cont.)

Fifth, Mr. Cashen explains that there is no scientific evidence that the eucalyptus forest surrounding the Project site precludes the site from being "a foraging destination which would likely attract foraging Swainson's hawks." To the contrary, Mr. Cashen points to substantial evidence demonstrating that the Project site may attract foraging Swainson's hawks because it contains California voles (*Microtus californicus*)—the Swainson's hawk's primary prey.[129]

Sixth, Mr. Cashen points to data demonstrating that Swainson's hawks have consistently been detected approximately 2,200 feet south of the Project site.[130] In addition, two Swainson's hawks were detected approximately 3,500 feet northeast of the Project site on April 16, 2021.[131] Therefore, Mr. Cashen concludes that either:

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[126] *Id.*
[127] *Id*, p. 2; Cashen Letter, p. 4.
[128] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California; Cashen Letter, pp. 4-5.
[129] Monk & Associates. 2020 Mar 2. Biological Resource Analysis, pp. 6 and 12; Cashen Letter, p. 5.
[130] eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed Apr 28, 2021). Swainson's hawks detected on: 19 Apr 2015; 25 Aug 2016; 14 Jul 2017; 18 Aug 2018; and 13 Jul 2019.
[131] *Id.*

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(a) the Project site is within the foraging radius of the Swainson's hawks that nest 2.6 miles north of the Project site, or (b) there is an undocumented Swainson's hawk nest in the vicinity of the Project site. Both scenarios undermine the validity of the rationale for the City's determination that impacts to foraging habitat would not be significant.[132]

17 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the Swainson's Hawk. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

3. The MND Fails to Adequately Analyze and Mitigate Impacts to the Northern Harrier

Mr. Cashen explains that one of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat.[133] According to the MND: "[s]hould northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be potentially significant."[134] Although the MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers).[135]

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The MND states the following with respect to the loss of foraging habitat: "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a less-than-significant level."[136] The MND's statement regarding historic conditions is incorrect because historically the Project site provided habitat (for northern harriers) before the eucalyptus trees were planted (sometime between

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[132] Cashen Letter, p. 5.
[133] Shuford WD, Gardali T, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. pp. 149 through 155.
[134] MND, p. 43.
[135] Cashen Letter, p. 6.
[136] *Id*.

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1916 and 1942).[137] Nevertheless, the significance of the impact under CEQA is dependent on the environmental conditions at the time the CEQA document was published,[138] *not* the environmental conditions in 2012. Mr. Cashen explains that Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. He concludes that, because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.[139]

18 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the Northern Harrier. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

4. The MND Fails to Adequately Analyze and Mitigate Impacts to the White-tailed Kite

Mr. Cashen explains that the City's analysis suffers the same flaws as the analysis it provided for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges[140] and seldom hunt more than 0.5 mile from their nests when breeding.[141] Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles,[142] which are known to occur at the Project site.[143] Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree.[144] Therefore, if white-tailed kites nest on or near the Project site, they would be significantly

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[137] United States Geological Survey. 1916 and 1942. *Mare Island, CA*. Topographic map.1:63,000. U.S. Department of the Interior, Reston, Virginia.
[138] MND, p. 669.
[139] Cashen Letter, pp. 6-7.
[140] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595.
[141] California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2005. CWHR version 9.0 personal computer program. Sacramento, CA.
[142] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595. *See also*, Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.
[143] MND, p. 38.
[144] Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.
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impacted by the loss of foraging habitat (from the Project site). Mr. Cashen concludes that Mitigation Measure BIO-3 does not mitigate the impact because it is limited to actions designed to minimize construction-related disturbance to nests. As a result, potentially significant impacts on the white-tailed kite remain unmitigated.[145]

19 (cont.)

The above reasons demonstrate substantial evidence that the MND failed to properly analyze impacts to the White-tailed Kite. An EIR must be prepared to fully disclose and mitigate the Project's impacts on this special status species.

5. The MND Fails to Adequately Analyze and Mitigate Impacts to the Burrowing Owl

a) The MND Fails to Adequately Analyze and Mitigate Impacts to Burrowing Owl Habitat

"Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat.[146] Contrary to CDFW's guidance, the MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the MND is limited to the following:

> the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level.[147]

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As Mr. Cashen explains, there are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated from Napa County.[148] Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have

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[145] Cashen Letter, p. 6.
[146] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 24.
[147] MND, p. 42.
[148] Townsend SE, Lenihan C. 2003. Burrowing Owl Status in the Greater San Francisco Bay Area. Proceedings of the California Burrowing Owl Symposium. Bird Populations Monographs No. 1:60-70.

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been extirpated.[149] In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.[150]

Second, CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided."[151] Thus, CDFW recommends compensatory mitigation if the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.[152]

20 (cont.)

b) The MND Fails to Adequately Analyze and Mitigate Impacts From Passive Relocation

The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat.[153,154] The MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.[155] Specifically, burrow

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[149] Wilkerson RL, Siegel RB. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10:1-36.
[150] Cashen Letter, p. 7.
[151] *See* MND, p. 682.
[152] Cashen Letter, pp. 7-8.
[153] MND, p. 46 (MM BIO-1).
[154] Although not discussed in the MND, burrow exclusion entails the installation of one-way doors on occupied burrows so owls can exit, but not re-enter, the burrows.
[155] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.

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exclusion may result in: (a) significant loss of habitat for reproduction, refuge from predators, and shelter from weather; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[156] Consequently, the City must disclose and analyze impacts associated with the "passive relocation" of burrowing owls.[157]

As Mr. Cashen explains, the need for full analysis of potential impacts associated with passive relocation (i.e., burrow exclusion) of burrowing owls is further supported by research that indicates most relocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that relocation projects generally have failed to produce self-sustaining populations.[158] Investigators attribute the limited success of relocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[159]

21 (cont.)

6. The MND Fails to Adequately Analyze and Mitigate Cumulative Impacts

The MND indicates there are only four projects that are proposed or under construction in the City of American Canyon.[160] This does not comport with the "Active Project List" (dated March 2021) available on the City's website.[161] According to the Active Project List, there are several additional projects that would contribute to cumulative impacts on biological resources. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.[162]

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[156] *Id*, pp. 10 and 21.
[157] Cashen Letter, p. 8.
[158] Smith BW, Belthoff JR. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391.
[159] *Id*; Cashen Letter, p. 8.
[160] *Id.*
[161] *See* <https://www.cityofamericancanyon.org/government/community-development/projects>.
[162] Cashen Letter, p. 9.
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CEQA Guidelines § 15130(b)(3) state that lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. The geographic scope of the City's cumulative impacts analysis was the City of American Canyon.[163] The MND fails to provide an explanation for this geographic limitation. Moreover, the cumulative impacts analysis is fundamentally flawed because the City applied two different geographical scales to its analysis. The MND states:

> With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.[164]

22 (cont.)

The Lynch Canyon Preserve (1,039 acres) and the CDFW California Red-Legged Frog Preserve (317 acres) are not located within the City of American Canyon. It is not possible to accurately analyze cumulative impacts by using one geographic scope for open space preserves, but a smaller geographic scope for development projects. Furthermore, the MND misrepresents the functions of the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project as habitat. The Clark Ranch Project is designed to be a multi-use community park with a bike skills loop, dog park, equestrian riding area, and several buildings (among other features that are incompatible with wildlife conservation).[165] Therefore, the Clark Ranch Project would contribute to cumulative impacts (that were not contemplated in the MND). The other three

[163] MND, p. 119.
[164] *Id.*
[165] City of American Canyon. 2017 Nov 7. Clarke Ranch Master Plan. Exhibit A.

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open space areas are negatively impacted by recreation activities,[166] are comprised primarily of salt ponds or wetlands, and generally do not provide habitat for the same suite of species as those that would be impacted by the Project.[167]

The MND provides the following analysis of cumulative impacts to biological resources:

> Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

22 (cont.)

Although the MND states the Project would result in cumulative impacts to ruderal habitats, and that Project-related impacts would be considered cumulative with other projects, it fails to provide the City's determination on the significance of the cumulative impacts. In addition, the MND fails to identify what type(s) of Project-related impacts would be considered cumulative, and which species would be subject to the cumulative impacts.[168]

The City's determination regarding the significance of cumulative impacts to biological resources is vague and not supported by substantial evidence. On the CEQA Environmental Checklist Form, the City indicates the impact would be "Less Than Significant." However, the subsequent text in the MND states "[i]mplementation of the proposed project would result in cumulative impacts to ruderal habitats," but that "mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant."[169]

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[166] *See* California Fish and Wildlife, Recreation Special Issue 2020.
[167] Cashen Letter, pp. 9-10.
[168] Cashen Letter, p. 10.
[169] Cashen Letter, p. 10.

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The City's determination that mitigation measures prescribed in the MND would offset cumulative impacts to special-status species to less-than-significant levels is not supported by evidence or analysis. The Project would eliminate 10.39 acres of habitat. Mr. Cashen explains that habitat loss is the primary threat to special-status species that occur in the Project area. However, the mitigation measures proposed in the MND are almost entirely limited to measures (e.g., seasonal buffers) designed to avoid or minimize direct impacts to individual animals. Although the MND requires compensatory mitigation if nesting burrowing owls are detected onsite, it does not require compensatory mitigation if non-nesting burrowing owls are detected onsite, nor does it require compensatory mitigation if any other special-status species are detected onsite. Mr. Cashen concludes that this mitigation is inadequate to reduce impacts to less than significant levels. As a result, the City's determination that the proposed mitigation would offset cumulative impacts to less-than-significant levels is not supported by evidence.[170]

22 (cont.)

7. The MND Provides Inadequate Compensatory Mitigation for Potentially Significant Impacts to Biological Resources.

a) Mitigation Measure BIO-1 (Burrowing Owl)

Mitigation Measure BIO-1 states: "[i]f passive relocation of non-nesting burrowing owls is necessary; a qualified biologist shall prepare a Relocation Plan and submit it to CDFW." The proposed mitigation is vague because it does not establish minimum standards for the content of the Relocation Plan, nor does it require CDFW's approval of the Relocation Plan. According to CDFW's Staff Report on Burrowing Owl Mitigation: "burrowing owls should not be excluded from burrows unless or until:

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- A Burrowing Owl Exclusion Plan (see Appendix E) is developed and approved by the applicable local DFG office;
- Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the Mitigating Impacts sections below. Temporary exclusion is mitigated in accordance with the item #1 under Mitigating Impacts below.
- Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided.

[170] Cashen Letter, p. 10.

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Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion will occur immediately after the end of the breeding season.
- Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight)."[171]

Mitigation Measure BIO-1 does not require these elements, nor does it establish success criteria for burrowing owls that are relocated from the Project site.[172]

Mitigation Measure BIO-1 further states:

> If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

23 (cont.)

As described below, the compensatory mitigation requirements of Mitigation Measure BIO-1 are far too vague to ensure impacts on nesting burrowing owls are reduced to less-than-significant levels.[173]

First, the MND fails to identify how much compensatory mitigation would be required. Mitigating Project impacts to burrowing owl habitat requires compensatory mitigation at a ratio of at least 1:1. As stated in CDFW's Staff Report on Burrowing Owl Mitigation:

> As set forth in more detail in Appendix A, the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well

[171] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 11.
[172] Cashen Letter, p. 11.
[173] Cashen Letter, p. 11.

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drained soils, and abundant and available prey within close proximity to the burrow.[174]

Second, the MND fails to establish any criteria for selection of the compensatory mitigation site. These include: (a) geographic location, (b) habitat conditions, and (c) the status of burrowing owls at the site. These variables are critical to the mitigation site's ability to reduce Project impacts to less-than-significant levels. Most notably, permanent protection of a site that is not occupied by burrowing owls would not mitigate the Project's impacts to occupied nesting habitat.[175]

Third, the MND fails to establish a mechanism that would ensure the mitigation site is maintained and managed in perpetuity to conserve burrowing owls and their habitat. Burrowing owls are limited to habitats with relatively short vegetation and only sparse shrubs or taller vegetation.[176] Therefore, even if the Applicant acquires a mitigation site that currently contains burrowing owls, the site would not offset Project impacts unless the Applicant implements a mechanism (e.g., grazing or mowing) for maintaining short vegetation at the site. In addition, deed restrictions do not ensure habitat conservation in perpetuity because: (a) they can be changed or eliminated,[177] and (b) do not have a third party that can be designated to monitor and enforce the restriction.[178]

22 (cont.)

Fourth, the MND fails to establish performance standards or monitoring and reporting requirements for the mitigation site. Thus, Mitigation Measure BIO-1 provides no assurances that the mitigation site would effectively compensate for the loss of burrowing owl habitat from the Project site.[179]

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[174] *Id*, p. 8.
[175] Cashen Letter, pp. 11-12.
[176] Gervais JA, Rosenberg DK, Comrack LA. 2008. Burrowing Owl (*Athene cunicularia*). Pages 218-226 *In:* Shuford WD, Gardali T, editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
[177] County of Kern. 2016. Willow Springs Solar Array Project. Comment 1-Q from the California Department of Fish and Wildlife (dated 1 October 2015).
[178] Land Trust Alliance. 2001. LTA Fact Sheet: Conservation Easement v. Deed Restriction. Available at: https://conservationtools.org/library_items/203-LTA-Fact-Sheet-Conservation-Easement-vs-Deed-Restriction; Cashen Letter, p. 12.
[179] Cashen Letter, p. 12.
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Finally, Mitigation Measure BIO-1 requires compensatory mitigation only "if such a protected area makes sense for protection of nesting owls." This condition is vague and confusing. The MND fails to explain the factors that the City would evaluate to determine whether a protected area "makes sense," nor does it explain how significant impacts to nesting burrowing owls would be mitigated if a protected area does not "makes sense."[180]

23 (cont.)

b) Mitigation Measure BIO-2 (Swainson's Hawk)

CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.[181] For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio.[182] Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.[183]

24

c) Mitigation Measure BIO-3 (Nesting Raptors)

Mitigation Measure BIO-3 states: "[i]f nesting raptors are identified during the [pre-construction] surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests…To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction."[184]

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Mitigation Measure BIO-3 defines a qualified biologist as "a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections." The response of nesting birds to human-related disturbance activities is dependent

[180] Cashen Letter, p. 12.
[181] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. p. 13.
[182] *Id,* p. 12.
[183] Cashen Letter, p. 12.
[184] Cashen Letter, p. 13.

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on numerous site-specific and species-specific variables. Consequently, determining the appropriate buffer distance requires knowledge of species-specific responses to various types of disturbance in various settings. Many biologists that have experience conducting raptor surveys have no experience with (or knowledge of) avian responses to disturbance. As a result, Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.[185]

For buffer zones to be effective, they need to be based on empirical evidence of avian responses to disturbance. There is an overall lack of this type of empirical evidence.[186] As a result, monitoring is critical to validating the adequacy of a buffer. The MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Nevertheless, there is no scientific basis for the assumption that a nesting raptor can tolerate an inadequate nest buffer for one week (i.e., the proposed interval of construction monitoring), especially without adverse effects to reproductive success and productivity. This issue is compounded by the absence of any success standards, or monitoring and reporting requirements, for Mitigation Measure BIO-3. For these reasons, the actions proposed in Mitigation Measure BIO-3 do not ensure significant impacts to nesting raptors are avoided. To rectify this issue, the City must require nest buffers consistent with the best available scientific information.[187]

25 (cont.)

Suter and Joness (1981) surveyed 74 raptor researchers to derive recommendations for nest site protection.[188] Based on the survey results, Suter and Joness (1981) recommended a buffer distance of at least one kilometer (3,281 feet) to prevent raptors from abandoning their nests in response to construction and similar noisy, extended activities.

d) Mitigation Measure BIO-4 (Nesting Passerines)

Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active

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[185] Cashen Letter, p. 13.
[186] Richardson CT, Miller CK. 1997. Recommendations for Protecting Raptors from Human Disturbance: A Review. Wildlife Society Bulletin 25(3):634-638.
[187] Cashen Letter, p. 11.
[188] Suter GW III, Joness JL. 1981. Criteria for Golden Eagle, Ferruginous Hawk and Prairie Falcon Nest Site Protection. Raptor Research 15(1):12-18.
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(26) (cont.) nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.[189]

e) Mitigation Measure BIO-5 (Pond Turtle)

Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." Mr. Cashen explains that the proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, he (27) explains that it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.[190]

Pursuant to Mr. Cashen's recommendations, the City must analyze the Project's significant impacts to Biological Resources the City must prepare an EIR.

C. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Energy Impacts

(28) The MND fails to perform its own energy analysis and instead relies on the SGE 258 analysis.[191] Recent cases interpreting Appendix F hold that, to comply with CEQA, the lead agency must not only describe a project's energy impacts in a CEQA document, it must also quantify them.[192] This is consistent with

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[189] Cashen Letter, p. 13.
[190] Cashen Letter, p. 14.
[191] Appendix B, p. 11.
[192] *Ukiah Citizens for Safety First v. City of Ukiah* ("*Ukiah Citizens*") (2016) 248 Cal.App.4th 256, 264-65 (energy impact analysis requires clarification and technical information regarding project-related energy usage and conservation features); *Spring Valley Lake Association v. City of Victorville* ("*Spring Valley*") (2016) 248 Cal.App.4th 91, 103 (CEQA doc must show factual basis of its assumptions that both energy use and greenhouse gas emissions will be reduced); *California Clean Energy Committee v. City of Woodland* ("*CCEC*") (2014) 225 Cal.App.4th 173, 210 ("CEQA EIR requirements are not satisfied by saying an environmental impact is something less than some previously unknown amount").

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longstanding precedent which holds that unsupported conclusions are entitled to no judicial deference.[193]

Here the City did not quantify the energy uses from the Project but instead relied on an MND analysis that was not provided. This Project's analysis of energy is at best superficial and merely puts forth the conclusion that because this Project is similar to others in the past, no energy analysis is required.[194] Even if the analysis under SGE 258 were appropriate here, it is impossible to tell from the face of this MND because that analysis can only be found after looking the MND of SGE 258 which is not part of the MND for this Project and was not included in the MND. The MND should have provided the analysis under SGE 258 in the discussion of Energy and the CalEEMod analysis under SGE 258.

28 (cont.)

D. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Impacts from Greenhouse Gas Emissions

1. The GHG Analysis Relies on Inapplicable Thresholds In Violation of CEQA

Under the CEQA Guidelines, which have been recently updated, a lead agency must analyze a project's impacts on GHG emissions.[195] The Guidelines allow for several approaches to this analysis, both qualitative and quantitative. The Guidelines explicitly mandate, however, that the "analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes.[196]"

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The MND's GHG analysis relies on the outdated tiered approach developed by BAAQMD for assessing the impacts of land use development projects. Under this approach, projects are first analyzed using a "bright-line" screening threshold of

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[193] *Comtys. for a Better Env't v. City of Richmond* ("*CBE v. Richmond*") (2010) 184 Cal.App.4th 70, 85; *Topanga,* 11 Cal.3d at 515 (CEQA document must provide reader with analytic bridge between ultimate findings and the facts in the record).

[194] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 (quoting California Oak Foundation v. City of Santa Clarita (2005) 133 Cal.App.4th 1219, 1239.).

[195] 14 C.C.R §15064.4.

[196] 14 C.C.R §15064.4(b)

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1,100 metric tons of carbon dioxide-equivalents per year ("MTCO2e/year").[197] If the project's annual emissions go beyond this threshold, it should be analyzed under an efficiency threshold.[198] The MND analyzed the Project's annual emissions and found they were below the "bright-line" threshold, ending the analysis there.[199]

BAAQMD's bright-line threshold, however, is not applicable to the Project, and relying on it violates CEQA. BAAQMD's thresholds, included in the district's 2017 CEQA Guidelines, were developed to comply with the state reduction target as it is embodied in AB 32,[200] which mandates that statewide greenhouse gas emissions be reduced to 1990 levels by the target year 2020.[201] In 2016, the state passed SB32,[202] which codified a new statewide 2030 GHG emissions reduction target of 40% below 1990 levels. Following the new legislation, CARB adopted in December 2017 a new scoping plan to outline the strategy needed to achieve SB 32 GHG targets. These are the binding "state regulatory scheme" that the CEQA Guidelines require agencies to account for.

29 (cont.)

The BAAQMD Guidelines do not account for or include any numeric threshold for compliance with SB 32 or the scoping plan and are therefore not applicable to projects that will be built and operated beyond the AB 32 target year.[203] Because the Project's first fully operational year would be 2021, and it would continue to operate many years beyond that, the City must analyze the Project for its compatibility with the state's mandated goals for, at the very least, the year 2030.[204]

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[197] MND, p. 61.
[198] The Guidelines also allow for a CAP consistency analysis, but it is not applicable here.
[199] MND, pp. 61-62.
[200] See, California Environmental Quality Act Air Quality Guidelines, Bay Area Air Quality Management District, May 2017, at p. D-27.
[201] California Air Resources Board, Assembly Bill 32 Overview; available at: https://www.arb.ca.gov/cc/ab32/ab32.htm, accessed April 3, 2019.
[202] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32
[203] See also *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497.
[204] The MND contains a single paragraph which purports to analyze the Project's consistency with SB 32. MND, p. 62. However, the section lacks any detailed discussion of how the City asserts the Project would comply with SB 32 goals, stating merely that "[t]he assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals," and that, for this reason, the Project's GHG impacts would be less than significant under a qualitative plan-based approach. This analysis is inadequate.
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BAAQMD *itself* advises lead agencies not to rely on its numeric significance thresholds and instead advises they make significance determinations based on the most recent state greenhouse gas reduction targets. For example, in recent comment letters to lead agencies, BAAQMD stated as follows:

> The Air District encourages the City to make a significance determination for greenhouse gas impacts based on the most recent State greenhouse gas targets and CEQA guidance. The Air District's 2010 CEQA guidelines are based on the State's 2020 greenhouse gas targets. These targets have been superseded by the State's 2030 and 2050 climate stabilization goals and by the most recent draft of the AB 32 Scoping Plan written by the California Air Resources Board.[205]

29 (cont.)

> The GHG impact analysis should include an evaluation of the Plan's consistency with the California Air Resources Board 2017 Scoping Plan and State and Air District climate stabilization goals for 2030 and 2050. Please be advised that the Air District is in the process of updating the CEQA guidelines/thresholds and current thresholds for GHGs should not be used for this plan.[206]

BAAQMD is in the process of updating its current CEQA Guidelines and thresholds of significance.[207] This is yet another reason why the MND cannot rely on BAAQMD's bright-line threshold.

The MND must be revised to include a detailed analysis of the Project's compatibility with the reduction targets set in SB 32, which go beyond those set in AB 32. As it is now, the MND's analysis violates both CEQA and the Supreme Court rulings on GHG analysis.

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[205] Greg Nudd, BAAQMD, Letter to Joshua McMurray, Oakley, CA, Oakley Logistics Center Project, March 21, 2019; available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa-letters/2019/2019_03_21_city_of_oakley_oakley_logistics_center_nop-pdf.pdf?la=en, accessed April 12, 2019.

[206] Greg Nudd, BAAQMD, Letter to Alicia Parker, City of Oakland, RE: Downtown Oakland Specific Plan - Notice of Preparation of a Draft Environmental Impact Report, February 15, 2019; available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa-letters/2019/downtown_oakland_specific_plan_eir_notice_of_preparation_021519-pdf.pdf?la=en

[207] BAAQMD, CEQA Guidelines Update Underway; available at: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, accessed April 9, 2019.

E. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Land Use Impacts.

The MND notes that the City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan.[208]

30 While this may be substantial evidence of that fact, given the City's failure to provide said email, it is merely a conclusory statement and evidence of nothing. "Substantial evidence" includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.[209] A legal opinion alone does not constitute substantial evidence.[210]

Since the email is not made available for review the City cannot rely on it in support of this MND.

F. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Noise Impacts

1. The New Building Will Form A Canyon With The Existing Building To The North.

31 Mr. Shaw concludes that the Project may have significant noise impacts because it will create a canyon noise effect on the north side since there will be two concrete walls now facing each other. The MND fails to describe or analyze this effect in its current calculations thus resulting in an underestimate for the test samples located in Table Noise-1. The MND needs to include analysis regarding how the ambient levels would change with this canyon effect.[211]

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[208] MND, Land Use, p. 2.
[209] 14 C.C.R § 15384 (b).
[210] Id.; See People v. County of Kern (1974) 39 Cal.App.3d 830, 841-842 (conclusory statements unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind are insufficient to support a finding of insignificance).)
[211] Shaw Letter, p.1.

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2. The Project Does Not Account for the Truck Routes and Noise as a Result of those Routes.

The MND accounts for noise on site due to truck traffic, but does not account for any along the routes the trucks must take enter and exit the to the Project. The MND states there will be 35 peak hour trips in the morning which means there will be an average of 1.7 minutes between trips. For the 28 peak hour PM trips there will be an average of 2.1 minutes between trips. With the transit around the building as noted in Figure 2, Site Plan on page 14/701, this means there will be a continuous parade of trucks around the building. The MND fails to analyze noise during operations, except for those on the North side.[212] An EIR must be prepared to correct this omission.

32

3. The Project Does Not Properly Account for Noise as a Result of Night Time Construction

There will be construction activities at night for 15 nights. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours and whether the noise created from them would stay under 65dB as required by American Canyon Municipal Code, Chapter 8.12. The MND should have provided this information along with noise levels from the previous night time pour since the last pour resulted in calls to the City regarding noise.[213] The impact from the concrete activities is thus not disclosed, rendering the MND significance conclusions unsupported.[214]

33

G. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Transportation Impacts

1. Potential Warehousing Uses of the Project Building May Result in Significantly Higher Trip Generation than Assumed in the MND

The MND and its Appendix F rely on studies of trip generation at six existing wine storage/distribution facilities in the Project's vicinity to estimate the proposed

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[212] Shaw Letter, p.2
[213] MND p. 88.
[214] Shaw Letter, p. 2

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Project's motor vehicle trip generation. While Mr. Smith finds the MND's trip generation measurements performed at the nearby buildings to be reasonably consistent with the Institute of Transportation Engineer's authoritative publication *Trip Generation, 10th Edition* data for Land Use Category 150-Warehouse and for Category 154-High Cube Logistics Warehouse, he explains that the MND's trip generation fails to consider that the type of warehouse building planned for the Project is readily adaptable to much more traffic-intensive types of warehousing than calculated.

Mr. Smith explains that this type of building could easily be used as what *Trip Generation, 10th Edition* characterizes as Land Use Category 156 – Parcel Hub Warehouse or, to use the terminology of a major operator of such facilities, Amazon, a "Last Mile" facility.[215] These are facilities where goods are brought in directly from "fulfillment centers" or air freight terminals by heavy tractor-trailer truck rigs and trans-loaded to van-type vehicles for actual delivery to consumers. As Mr. Smith explains, the difference in trip generation of a "parcel hub warehouse" and a "wine warehouse" as analyzed in the MND is highly significant.

34 (cont.)

The MND estimates the trip generation for a wine warehouse in vehicles per thousand square feet of floor area as 1.69 daily, 0.16 in the AM peak and 0.125 in the PM peak. *Trip Generation, 10th Edition* indicates the trip generation for a "parcel hub warehouse" in vehicles per thousand square feet of floor area as 7.75 daily, 0.7 in the AM peak and 0.64 in the PM peak.[216] In other words, if used as a parcel hub instead of a wine warehouse, which is reasonably foreseeable, the Project's warehouse building would generate 4.6 times as much traffic daily, 4.4 times as much traffic in the AM peak and 5.1 times as much traffic in the PM peak as what is disclosed in the MND.[217]

The MND contains no condition or mitigation measures which would restrict the Project's warehouse use to the less trip-intensive use analyzed in the MND. Indeed, the fact that the proposed warehouse is apparently a 'spec' building (the MND says it could be occupied by up to 3 tenants implying that there were no tenant commitments at the time of writing) and its proximity to heavy jet-capable Napa County Airport, strengthen the possibility that the Project could end up being used as a parcel hub. Hence, to be adequate, the MND must consider the possibility

[215] Smith Letter, p. 1
[216] Smith Letter, p. 1.
[217] Smith Letter, p. 1.

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(34) (cont.) of this plausible and more traffic intense use, or the Conditional Use Permit must limit the warehouse to being used solely as a wine storage warehouse.[218]

2. The MND's Transportation Section Fails To Address the Serious Operations and Safety Problems on S.R. 29 in the Project Vicinity

Because of its location, most motor vehicle traffic to and from the Project must ultimately use parts of State Highway 29 ("SR 29").[219] This State Highway experiences considerable operational and safety problems, as is well documented in the *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020.[220]

Mr. Smith explains that the City and its consultants, GHD, who prepared the transportation work supporting the MND, know this as they both were participants in the above-referenced SR 29 study.[221] Yet, the MND utterly fails to address the SR 29 issues or how the Project and others like it in the area contribute to the problem and can contribute to implementing the corridor study recommendations. Instead, the MND devotes much attention to studies of level of service, traffic signal (35) warrants and right-turn lane warrants at a single local intersection, that of Commerce Boulevard with Green Island Road. Mr. Smith concludes that the MND's lack of analysis of the Project's impacts on SR29 is a major omission which leaves out a critical component of the Project's transportation impacts.[222]

The MND is defective in failing to acknowledge and address the problems in the SR 29 corridor and the Project as a cumulative contributor to them.[223] As a result, the MND's conclusion that the Project will have less than significant impacts on traffic and transportation is not supported by substantial evidence. The City must prepare an EIR to fully disclose and mitigate the Project's traffic and transportation impacts from all reasonably foreseeable uses and on all reasonably foreseeable major thoroughfares.

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[218] Smith Letter, pp. 1-2.
[219] MND, p. 12.
[220] *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020, https://www.nvta.ca.gov/sites/default/files/SR%2029%20Final%20Report.pdf
[221] Smith Letter, p. 2.
[222] Smith Letter, p. 2.
[223] Smith Letter, p. 2.
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3. The MND Assumes Implausible Mitigation of the Project's Significant VMT Impacts

After considering highly disparate data sources regarding average employee trip lengths, the MND's transportation analysis finds that the Project, without mitigation, would generate an average of 16.28 daily vehicle miles traveled ("VMT") per employee compared to an impact significance threshold of 10.92 VMT per employee, resulting in a significant impact.[224] Hence, without mitigation, the Project would have significant transportation impacts. Translated to aggregate VMT numbers, the MND finds that the Project's employees would generate 2214 VMT each weekday, exceeding the significance threshold of 1485 VMT and requires mitigation that eliminates 729 VMT daily in order for the Project to be said to have no significant impact with mitigation.[225]

The MND goes on to assume that, because the Project is committed to pave what the MND claims is an 800 foot gap in the area bikeway network. This action, based on a theoretical formulation, would induce commuters on between 76 and 310 daily commute trips[226] to shift from commuting by auto to bicycle (or splitting the difference between the high and low estimate a so-called average of 193 trips) resulting in a purported daily VMT saving of between again splitting the difference between high and low estimates) of 733 to 1004 miles.[227] The MND asserts these theoretical VMT savings would be sufficient to fully mitigate the Project's the significant VMT impacts. However, Mr. Smith explains that the MND's analysis is flawed because it fails to consider what underlies the high and low estimates, and fails to justify the reasonableness of the MND's approach of just averaging between them.[228]

36

As Mr. Smith explains, both the high and low estimates in the MND are generated by a theoretical formula estimating the number of commuters who would be induced to travel by bike, instead of auto, as the result of a bikeway of certain length. The MND's low estimate reflects only the commuters induced to travel by bike solely by the 800 feet of paved path the Project proposes to provide. The high estimate credits the Project with the commute attractiveness of the entire 1.85 mile bikeway that has already existed for a number of years to the south of the 800 feet

[224] MND Appendix F, GHD Memorandum, p. 4.
[225] Smith Letter, p. 3.
[226] Commuters to the general area, not just to the Project itself.
[227] MND, p. 102.
[228] Smith Letter, pp. 3-4.

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of bikeway the Project will pave.[229] Mr. Smith concludes that averaging between an estimate that just reflects the length of bikeway the Project will pave and one that credits the Project with the entire 1.85 miles of bikeway that already existed is not supported by substantial evidence and is simply not reasonable.[230]

Mr. Smith further explains that the MND's high VMT-reduction estimate reflects a limited localized study by an Oregon research cooperative that found the average commute bike trip length was 5.2 miles, whereas the low estimate reflects a national study by the American Association of State Highway and Transportation Officials (AASHTO) that found the average bike commute trip length was 3.8 miles.[231] Mr. Smith opines that splitting differences is, in essence, placing equal credence on a limited local study as on one with a national data base. This assumption is unsupported. The MND also discloses by footnote that it assumes the bike commuters would do so 5 days per week for 47 weeks per year.[232] This is in essence every single work day per year, discounting vacation, sick leave and holidays. It leaves no allowance for days of substantial rain or when rain is forecast to fall before quitting time, days of high winds, very cold days or extreme summer heatwaves, or days where the commuter intends to make a trip at lunch hour or immediately after work for which travel by bike may be unsuitable.[233]

36 (cont.)

Finally, the MND's notion that the Project is "filling a gap" in the area bikeway network is an exaggeration. Mr. Smith identified aerial photo evidence which shows that a bikeable path has existed on the alignment of Commerce Boulevard at the supposed gap since the mid-1990s, if not before.[234] The aerial photos provide substantial evidence demonstrating that the Project's bike path is a minor addition to existing bike access, and is therefore not likely to produce significantly higher VMT reductions than currently provided by the existing bike lanes. Mr. Smith concludes that the Project is not supplying a missing link, it is just improving the pavement.[235]

It is unreasonable for the MND to assume that the Project's significant VMT impacts will be mitigated by simply paving a few hundred feet of bikeway. The

[229] Smith Letter, pp. 3-4.
[230] Smith Letter, pp. 3-4.
[231] Smith Letter, pp. 3-4; citing MND p. 701.
[232] MND, Appendix F, p. 256, FN 2.
[233] Smith Letter, pp. 3-4.
[234] Smith Letter, pp. 3-4.
[235] Smith Letter, pp. 3-4.

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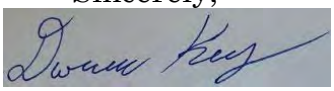
(36) (cont.) Project cannot be approved under an MND. [236] An EIR must be prepared to incorporate additional mitigation to reduce the Project's VMT impacts to less than significant levels.

VI. CONCLUSION

(37) There is substantial evidence supporting a fair argument that the Project may result in potentially significant adverse impacts that were not identified in the MND, and thus have not been adequately analyzed or mitigated. We urge the City to fulfill its responsibilities under CEQA by withdrawing the MND and preparing a legally adequate EIR to address the potentially significant impacts described in this comment letter and the attached expert comments. This is the only way the City and the public will be able to ensure that the Project's significant environmental impacts are mitigated to less than significant levels.

Thank you for your attention to these comments.

Sincerely,



Darien K. Key
Associate

DKK:acp
Attachment

[236] Smith Letter, pp. 3-4.

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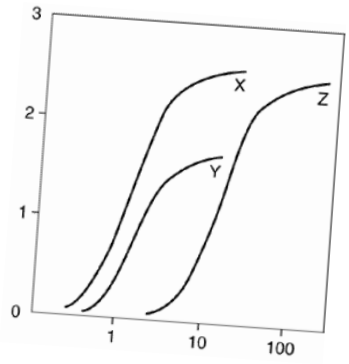
ATTACHMENT A



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May 3, 2021

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Attn: Mr. Darien Key

Subject: Comment Letter on Recirculated Initial Study For The SDG Commerce 217 Distribution Center Project (PL20-0008), American Canyon, California

Dear Mr. Key:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the 2021 City of American Canyon (the City) Recirculated Initial Study (RIS) of the above referenced project. The City circulated a draft Initial Study (DIS) for a 30-day public review on December 16, 2020. After receiving comments on the DIS, a Final IS was completed and adopted at the City's February 25, 2021 Planning Commission meeting. At that meeting, additional comments on the Final IS were received. The Planning Commission's project approval was appealed on March 5, 2021. The City elected to recirculate the Draft IS including modifications in response to comments received both during the initial public comment period and at the Planning Commission hearing.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the RIS. If we do not comment on a specific item, this does not constitute acceptance of the item.

Project Description:

The project site is located at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area. The project location is on the west

side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the project site is from SR-29 via Green Island Road to Commerce Court.

The project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size; there are no current plans for development of that parcel.

The project applicant proposes to develop a 217,294 sq. ft. wine distribution center on the northern 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR). The assumed 4,350 square feet of office space is an estimate. The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. It would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings to provide additional modulation. The average roof height of the building would be approximately 35 feet and exterior walls would have various heights (33-37 feet) to provide architectural relief. The building would have earth-tone colors and style matching the SDG Commerce 330 Distribution Center building to the south. Building elevations are shown on Figure 4 of the RIS. The building has the potential of accommodating multiple tenants with provisions for up to three offices. It is anticipated that the distribution center would be used for wine storage and other wine-related storage, distribution, and warehousing activities (i.e. bottles, corks, barrels, etc.).

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would

allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

A total of 134 car and 21 truck dock parking spaces would be provided. Six of the parking stalls would be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building would have 21 truck loading docks.

Construction Activities and Schedule

According to the City, the construction of the proposed project would occur in one phase. This phase would include site grading and installation of underground utilities stubbed to the building pad. The detention/bioretention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during the initial construction phases. It is anticipated that approximately 9.5 months would occur from commencement of initial grading start to building construction completion. The grading component is anticipated to take approximately 9 weeks.

According to the RIS, the Project construction hours would occur from 7:00am to 6:00pm Monday through Friday except for the concrete building slab pour, wall panel and large concrete paving pours. These are required to be performed during nighttime hours starting no earlier than 12:00am. Pre-notification of these night pour dates and times will be provided to the City and nearby residents that expressed concerns during the SDG 330 nighttime concrete pours, as well as all property owners within 300 feet of the project site. The project is anticipated to have approximately 5 concrete night pours for the building slab, 4 for the large concrete paving, and 6 for the tiltup walls. Pours would start between 12am - 2am and continue into daytime hours. Maximum noise levels at the nearest residential receptor would be less than 53 dBA (See section XIII, Noise, for a complete discussion of concrete pour noise impacts). Nighttime pours are not optional due to cooler ambient nighttime temperatures, volume of concrete poured, morning traffic congestion that can prevent concrete trucks from arriving at the site on time, and concrete vendor conflict with other customers needing concrete during the day.

According to the RIS, typical construction equipment used at the site would include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels,

tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, it is typical for 12 to 24 workers on- site but can equal up to 80 workers.

Proposed Building Uses

It is anticipated that the building will operate 12-18 hours per day in up to 3 overlapping shifts during the peak season. During this time, up to 32 full-time employees and 18 part-time employees may work on-site at the same time. The employment estimates are approximations as there is no specific user identified with the application; however, they are substantiated with similar uses. The proposed uses for the building can be estimated that approximately 2 to 4 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The building is designed to accommodate three tenants. Office space within the building is incidental to the distribution center operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal months, typically June through November.

General Comments:

The Proponent of the project has already constructed another building in the immediate vicinity that is exactly like the Commerce 217 Distribution Center (SDG Commerce 330 Warehouse Project) and has recycled the design and environmental analysis from that project for use in the SDG 217 project. It is clear that the Proponent is piecemealing a larger project by constructing the same project every two years. The City and the Proponent have failed in their obligations under CEQA to adequately describe and assess the impacts of the whole project on the surrounding community. The City is attempting to recirculate appealed DIS on March 5, 2021 without addressing serious concerns raised about the "Final" IS. The issues not addressed include exceedances of significance thresholds during the construction phase of the project, a lack of health risk analysis for increases in the diesel particulate matter that will be emitted from activities associated with the Site, health impacts and the lack of a quantitative health risk analysis for the air emissions associated with the Site.

In addition, the RIS fails to assess latent hazards that may be present in the soils present at the

site which will impact not only construction workers at the site but workers in adjacent businesses. The Phase II report of the subsurface investigation relied on an inadequate sampling program that failed to adequately characterize conditions across the site. The City must re-evaluate the impacts and compile them in a draft environmental impact report (DEIR).

Specific Comments:

1. The City Failed To Perform A Project Specific Traffic Impact Analysis (TIA) For The 217 Commerce Center Project And Is Relying On A TIA For Another Project

The City has failed to perform a TIA for the 217 Commerce Center project. Rather than assess the impacts the City relies on the 2018 TIA performed for the SDG Commerce 330 Warehouse Project. According to the introductory paragraph of the TIA Memorandum, the TIA was prepared to present the results of an analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard Wine Storage Facility project in the City of American Canyon. The TIA assumed the construction of a 330,528 square foot wine storage warehouse. According to the TIA Memorandum 9 projects were included in the traffic analysis along with the SDG Commerce 330 Warehouse Project. Those projects include:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

The analysis showed that the conditions at State Route 29 and Green Island Road would drop from a Level of Service (LOS) C to LOS D in the AM peak hours.

The trip generation analysis used in the TIAM for the SDG Commerce 330 Warehouse assumed a generation rate of 1.69 vehicles for each 1,000 square feet of the wine warehouse

constructed (1.69 * 330.528 = 558.59 or 559 vehicles). Clearly, the 2018 analysis does not consider the impact from the additional 367 vehicle trips (217.294 *1.69 = 367.22 or 367), an increase of approximately 66 percent (65.74% = ((367.22 + 558.59)/(558.59))). In addition, the TIA fails to account for the additional traffic burden/vehicle trips associated with the opening of the New Napa Junction School located at the corner of Eucalytpus Drive and Commerce Boulevard. Given the significant increase in trips from the unaccounted projects identified herein, the City must re-evaluate the traffic impacts from the project in an environmental impact report (EIR).

2. **The City Has Not Accurately Reported The Estimated Daily Construction Emissions and Ignored The Significant Impacts During The Construction Phase**

According to the DIS and the RIS, the Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include Best Management Practices (BMPs) required per the Bay Area Air Quality Management District's (BAAQMD's) CEQA Air Quality Guidelines. Therefore, project impacts from construction emissions would be less than significant. The City's analysis assumes one continuous phase of construction, ignoring the substantial highs and lows based on each phase of construction evaluated (site preparation, grading, building construction, paving, and architectural coating).

Table AQ-1: Estimated Daily Construction Emissions (pounds/day)

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
2021	13.6	24.6	19.5	1.0	0.9
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	No	No	No	No	No

The City has failed in its obligations to accurately report the construction emissions by mis-interpreting guidance from BAAQMD. According to the 2017 CEQA Guidance From BAAQMD, "The Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather

than the full year." This means that for each phase of construction emissions should be presented and compared against the BAAQMD Significance Thresholds.

As was previously pointed out in comments on the DIS, the calculated daily construction emissions in the RIS are based on the total average emissions for the entire construction phase of the project. The City's use of the total average daily emissions ignores the substantial impacts that are associated with the maximum daily emission rates calculated by the CALEEMOD model of the project.

Construction Phase	Total Regional Pollutant Emissions (lbs/day)				
	ROG	NO_x	CO	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Proposed Project Unmitigated Emissions					
Site Preparation	3.9558	40.5366	21.6621	2.04546	1.88178
Grading	2.5683	37.5613	17.7651	1.16798	1.07479
Building Construction	2.6831	24.2402	22.5509	0.9815	1.3558
Paving	1.7638	12.952	15.0764	0.6785	0.62424
Architectural Coatings	155.6296	1.5948	2.6922	0.09575	0.09562
BAAQMD Significance Threshold	**54**	54	--	82	54
Emissions Exceed Threshold?	**Yes**	No	No	No	No

Over the course of the construction the emissions of reactive organic gases (ROGs), precursors to the formation of ozone, increase substantially from a low of 1.76 lbs/day during the paving phase of the project to a high of 155.63 lbs/day during the Architectural Coatings phase of the project. While the total averaged values over the whole are lower than the Significance Threshold value of 54 lbs/day, the City is obligated to assess impacts of emissions from each phase of the construction of the project. Short term exceedances of the significance thresholds may have significant local impacts on the air quality and the community at large. The City must report the impacts from each step of the construction of the project in an EIR providing a clear analysis of the criteria and toxic air contaminants as well as the greenhouse gas emissions.

3. The City Has Failed To Quantify The Impact That Transportation Refrigeration Units (TRUs) Will Have On Air Quality Impacts From The Proposed Project In The Alternative Project Analysis.

The RIS's assessment of the project does not include the impacts from diesel particulate matter (DPM) emissions from transportation refrigeration units (TRUs) installed on insulated cargo vans and trucks that will be used to transport the temperature sensitive goods stored at the project site. In 2019, CARB released a health risk analysis that documented the significant impact of TRU's. In CARB's analysis they calculated that the operation of one daily truck delivery, one daily trailer delivery, and one seasonal trailer TRUs for a total of 202 hours per week results in a cancer health risk of 190 in one million on site, 28 in one million at a residence 100 meters off-site, and 5 in one million at a residence 400 meters off site. The closest residence to the proposed project site is identified by the City as being located 500 feet (approximately 150 meters off-site). When the number of daily trucks is increased to 10 per day and daily trailers increased to 6 per day, the onsite risk increases to 610 in one million, the 100-meter offsite risk increases to 92 in one million, and the 400-meter offsite risk increase to 16 in one million. Clearly the impacts from the use of any TRUs at the Project Site will have a substantial impact on the air quality for residents and other sensitive nearby to the project site. Since the TRU mobile refrigeration unit emissions will have a significant health impact for workers on site and residents nearby the City must require mitigation measures to reduce that risk below BAAQMD thresholds. The mitigation measures at a minimum must

1. Track the number, types, and emissions of DPM from TRUs brought on-site;
2. Establish a baseline acceptable level based on a health risk analysis of the TRUs utilized (total DPM emissions allowable per year); and/or
3. Implement alternative systems for powering TRUs, including the use of electrified systems.

In addition to the health impacts from exposure to DPM that must be assessed in the analysis, the impacts on greenhouse gas (GHG) emissions from TRUs must be included in an EIR of the project.

4. The City's Reliance On Best Management Practices (BMPs) To Keep Emissions Below Significance Threshold Values Are Unenforceable.

The use of best management practices (BMPs) as a mitigation measure are an unenforceable measure. These measures rely on the good will of a third party (e.g., construction contractors) to ensure that mitigation is being performed on known sources of pollution. Without clear lines of authority to penalize for failure to meet stated goals (i.e., reports of daily dust emission monitoring at the fence line during the construction phase of the project) the BMPs become meaningless and counter-

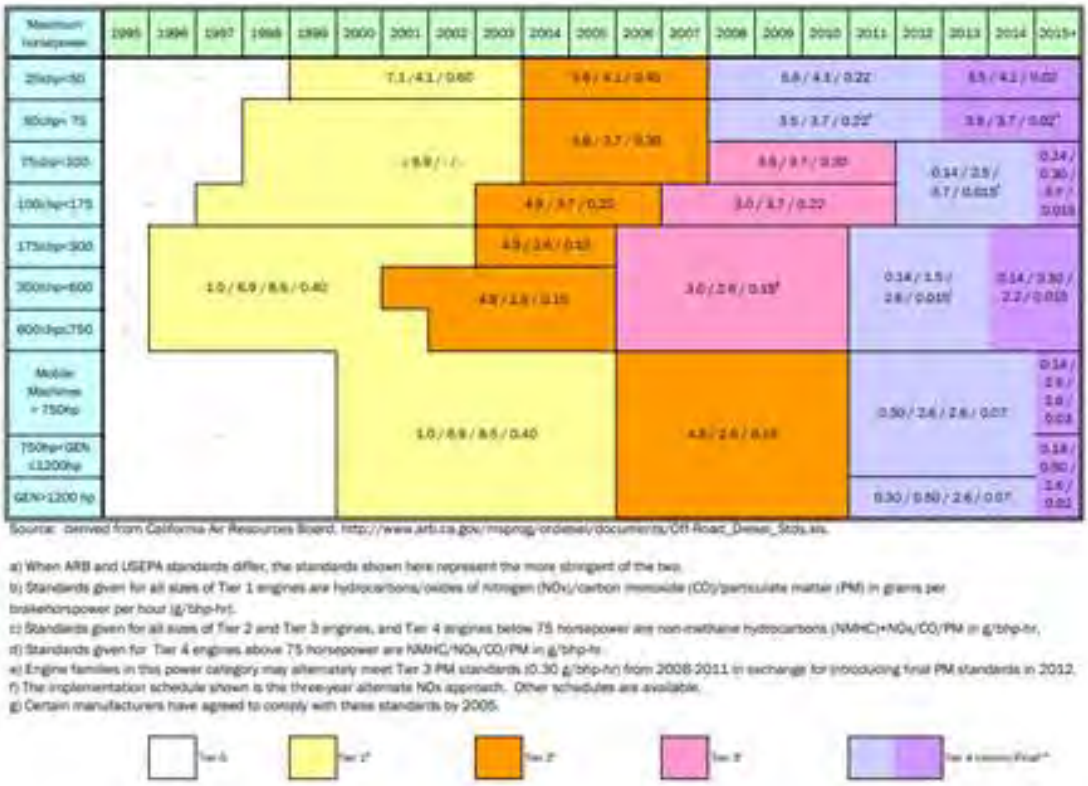
productive.

5. The City's Air Quality Mitigation Measure AQ-4 Utilized In The Analysis of The SDG Commerce 330 Warehouse Project Was Insufficient To Reduce the Project's Significant Health Risk to Less than Significant Levels

In the City's analysis of air quality impacts for the SDG Commerce 330 Warehouse project, the preferred mitigation measure (AQ-4) for ensuring DPM emissions would remain below the significance thresholds was the use of U.S. EPA Tier 2 equivalent construction equipment. required ensure that the Project's health risk impacts are less than significant levels. The City stated at the time of the IS/MNDs release that the use of Tier 2 technology would keep emissions below a health risk of 10 in 1,000,000 without quantifying the actual health risk in the analysis. Tier 2 technology was first released in the mid-1990's and is not currently the recommended standard for diesel powered equipment.

The United States Environmental Protection Agency (U.S. EPA) has slowly adopted more stringent standards to lower the emissions from off-road construction equipment since 1994. Since that time, Tier 1, Tier 2, Tier 3, Tier 4 Interim, and Tier 4 Final construction equipment has been phased in over time. Tier 4 Final represents the cleanest burning equipment and therefore has the lowest emissions compared to other tiers, including Tier 4 Interim equipment.[1]

[1] "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, *available at:* https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p. 6.



As demonstrated in the figure above, Tier 2 equipment has greater emission levels than Tier 3, Tier 4 Interim, and Tier 4 Final equipment.[2] Requiring the use of Tier 2 or equivalent control technology for all equipment as a mitigation measure does not provide the community with greatest level of protection possible.

For the operational phase of the project, the City must promulgate mitigation measures to ensure that residents near the Project are not adversely affected by DPM emissions from any generator that may be installed onsite. Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more), diesel back-up generators generally have U.S. EPA Tier II ratings and need to be outfitted with diesel particulate filters to achieve additional PM2.5 reductions. In, addition, diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur

[2] "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, *available at:* https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p. 6.

content of 15 parts per million (ppm). If higher rated diesel generators are available, the City must require that the proponent purchase and maintain the generator that will achieve the highest amount of DPM reduction. The City should prepare a DEIR which accurately discloses the extent of the Project's health risk from construction and operational DPM emissions, and which includes a Mitigation Monitoring and Reporting Program with enforceable mitigation measures to reduce the Project's health risk to the greatest extent feasible.

6. The City Has Failed To Perform a Quantitative Health Risk Analysis Of The Emissions From The SDG Commerce 217 Project And Is Relying On A Non-Quantitative Analysis Performed On The SDG 330 Warehouse Project

The City must perform a quantitative analysis of the emissions from construction and operational emissions from the Project, instead of relying on a non-quantitative analysis provided in the SDG 330 Warehouse Project which lacks any merit. On page 25 of the Initial Study for the SDG 330 Warehouse Project, the City states that the nearest sensitive receptors to the project, a residential neighborhood, with two-to-three homes that could potentially be within 1,000 feet of certain project construction phases (site preparation and grading activities).

According to the City's analysis of the SDG 330 Warehouse Project, the "Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).

To ensure the proposed project's health impacts are less than significant, this Initial Study implements the enhanced exhaust emissions reduction measures as Mitigation Measure AQ-4." Mitigation Measure AQ-4 assumed that all off-road equipment should have:

"a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;

b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment

products, add-on devices such as particulate filters, and/or other options as such are available." As will be demonstrated in Comment 5 above, the use of Tier 2 equipment for the SDG 330 Warehouse Project would not have met the goal of enhancing exhaust emission reductions and would in fact increase the potential emissions from sources on site.

The logic used by the City to justify not producing an air dispersion model of emissions and a quantitative health risk assessment for the SDG Commerce 330 Warehouse project is flawed and contradicts the BAAQMD CEQA guidance. Under Section 5.2.4, Sources Not Requiring A BAAQMD Permit, the BAAQMD states that "For new land uses that would host a high number of non-permitted TAC sources, such as a distribution center, the incremental increase in cancer risk shall be determined by an HRA using an acceptable air dispersion model in accordance with BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards and/or CAPCOA's guidance document titled Health Risk Assessments for Proposed Land Use Projects. A Lead Agency may consult HRAs that have previously been conducted for similar land uses to determine whether it assesses the incremental increase in cancer risk qualitatively or by performing an HRA. This analysis shall account for all TAC and PM emissions generated on the project site, ***as well as any TAC emissions that would occur near the site as a result of the implementation of the project (e.g., diesel trucks queuing outside an entrance, a high volume of trucks using a road to access a quarry or landfill)***" (emphasis added).

Clearly the City has previously failed to assess the TAC and PM emissions from the SDG 330 Warehouse Project and is falsely assumed that Mitigation Measure AQ-4 would reduce any TAC and PM emissions to a level that would not produce a risk above 10 in one million without any supporting evidence. Applying the same hand waving of the facts to the SDG Commerce 217 Project does not meet the obligations that the City has under CEQA to quantify the impacts of the project on the community. Furthermore, relying on this unsupported analysis to support the assertion that the SDG Commerce 217 Distribution Center project will not have a significant impact is patently false. The City must quantify the diesel particulate emissions from all sources associated with the SDG Commerce 217 Distribution Center project (including TRUs that will be utilized onsite), perform an acceptable air dispersion model of the SDG Commerce 217 construction and operational emissions, and assess the impact of those emissions in a health risk assessment consistent with guidance from OEHHA. Additionally, the City must include a cumulative impact analysis that includes the emissions from all of the projects identified previously as having a potential impact on traffic in the vicinity. The

results of those analyses must be presented in a DEIR.

7. The City Has Failed To Quantify The Health Impacts From The Construction Emissions Of The Project On The New Elementary School Receptors That Are Less Than 500 Meters Southeast of The Project Site.

In the RIS, the City states that "Construction activities would occur intermittently for approximately 9.5 months and the vast majority of construction activities would be well beyond 1,000 feet from the nearest residence and 1,500 feet from the school. *Some construction activities during the approximately nine weeks of site preparation and grading for the project could be within 1,000 feet of the school property boundary, however, site preparation and grading activities are planned for March 2021 and the school is set to begin instruction in Fall 2021* (emphasis added). Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a healthrisk evaluation and would be considered less-than-significant by the BAAQMD" Given that it is now May, 2021 and a final RIS has not been approved by the City, it is clear that construction activities that will generate dusts and DPM that will affect the students and staff at the new school will occur during the start of the new school year. The City must now perform the health risk analysis and air dispersion modeling to ensure that the students and staff of the school are not adversely impacted and submit the results in a DEIR.

8. The City Has Failed To Quantify The Health Impacts From Operational Emissions From The Project On New Elementary School (Sensitive Receptor) That Is Less Than 500 Meters Southeast of The Project Site.

The City must assess the air quality impacts for all toxic air compounds that will be released during the operational phase of the project on the new Napa Unified School District new Napa Junction School constructed at the corner of Eucalytpus Drive and Commerce Boulevard. In the RIS, the City states that there are no schools or daycare centers within 1,000 feet of the proposed project. The new Napa Junction School is located approximately 450 meters (approximately 1500 feet) southeast of the project site and is scheduled to open in the Fall of 2021. Students and staff at the school will be exposed to emissions from the operational phase of the project. Those emissions were ignored in the

RIS and will include known human carcinogens.

The BAAQMD CEQA Guidance Appendix states " lead agency should enlarge the 1,000-foot radius on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is beyond the recommended radius." The City must expand the radius of influence to be evaluated, perform an EMFAC compliant analysis of the increase in traffic from the project and the surrounding warehouses, perform dispersion model of the traffic emissions to determine the extent of DPM emissions that will impact the school, and perform a health risk assessment to determine impacts on the staff and students of the school. The results of that analysis must be presented in a DEIR.

9. The City Has Failed To Quantify All Of The Health Impacts Emissions From The Project On The Surrounding Community.

The City must assess the air quality impacts for all toxic air compounds that will be released during the construction and operational phases of the project. CARB[3] defines diesel exhaust as a complex mixture of inorganic and organic compounds that exists in gaseous, liquid, and solid phases. CARB and U.S. EPA identify 40 components of the exhaust as suspected human carcinogens, including formaldehyde, 1,3-butadiene, and benzo[a]pyrene. The inhalation unit risk factor identified by OEHHA for use in risk assessments is for the particulate matter (DPM) fraction of diesel exhaust and not the vapor phase components identified by CARB and U.S. EPA.

The City attempts to argue that it is not required to analyze the health risk from operational exposure to TAC emissions. However, there is notable precedent requiring a quantitative analysis of TACs from diesel exhaust in CEQA documents. Moreover, the absence of this analysis renders the DEIR's health risk analysis incomplete. In a 2017 Air Quality Technical Report[4] submitted in support

[3] CARB. 1998. Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Part A, Public Exposure To, Sources and Emissions of Diesel Exhaust In California. April 22, 1998. Pg A-1.

[4] Ramboll Environ. 2017. Air Quality Technical Report Turk Island Landfill Consolidation And Residential Subdivision Project. Prepared For City of Union City, Union City, CA. Prepared by Ramboll Environ US Corporation, San Francisco, CA August, 2017. https://www.unioncity.org/DocumentCenter/View/1867/Turk-Island---App-D---AQ-Emissions-Report?bidId=

of a Draft EIR for the Turk Island Landfill Consolidation and Residential Subdivision[5], proponents accounted for the gaseous phase of diesel emission and detailed the speciated diesel total organic gas (TOG) emissions along with the DPM emissions for all construction equipment. The speciated diesel TOG emissions and DPM emissions were utilized in dispersion modeling to identify the maximally exposed individual sensitive receptor (MEISR) of the project to determine the health risks associated with all sources of air toxins from the construction phase of the project. This is a common and feasible analysis that is routinely performed for development projects like the SDG Commerce 217 Warehouse project.

Here, the City's analysis ignores the presence of TACs being emitted with diesel exhaust during the construction and operational phases of the project without making any attempt to quantify the impacts. This omission is a continuing flaw that must be addressed by the City. The results should then be presented in a DEIR.

10. The City Has Failed To Perform A Cumulative Analysis Of The Impacts From The Proposed Project and The Surrounding Projects Allowed Previously By The City.

The City must assess the cumulative impacts from the project and the adjacent projects it authorized in the last 10 years. The City has allowed a significant number of projects to be developed in the immediate vicinity of the SDG 217 Project without quantifying the impact of the emissions from each of the projects on the surrounding community. Those projects include:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase 1
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch

[5] Union City. 2018. Draft Environmental Impact Report (DEIR) Turk Island Landfill Consolidation And Residential Subdivision Project. SCH Number 20008112107. Dated 3/15/2018. https://www.unioncity.org/DocumentCenter/View/1863/Turk-Island-DEIR?bidId=

9. Green Island 258 Warehouse Project
10. SDG Commerce 330 Warehouse Project

The results of this cumulative analysis should then be presented in a DEIR.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant unmitigated impacts if allowed to proceed. The City must prepare a DEIR to address these substantial concerns and to address the errors presented in the IS/MND.

Sincerely,



JAMES J. J. CLARK, Ph.D.

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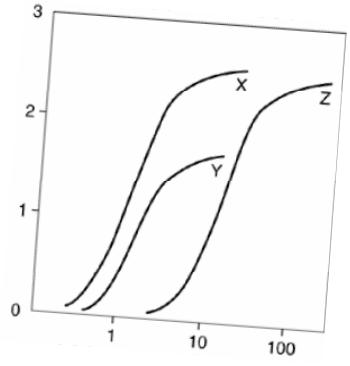

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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment*.

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. Organohalogen Compounds, Volume 70 (2008) page 000527

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** (2007). "Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *Environmental Research.* 105:194-199.

Rosenfeld, P.E., **Clark, J. J.,** Hensley, A.R., and Suffet, I.H. 2007. "The Use Of An Odor Wheel Classification For The Evaluation of Human Health Risk Criteria For Compost Facilities" Water Science & Technology. 55(5): 345-357.

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Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

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ATTACHMENT B

MENLO SCIENTIFIC ACOUSTICS, INC.
Consultants in Acoustics and Communication Technologies

3 May 2021

Ms. Christina Caro
Adams Broadwell Joseph & Cardozo
601 Gateway Blvd., Suite 1000
South San Francisco, California 94080

Subject: **Review of the Draft Initial Study for The SDG Commerce 217 Distribution Center Project (PL20-0008)**

Dear Ms. Caro,

Per Mr. Darien K. Key's request, Menlo Scientific Acoustics, Inc. (MSAI), reviewed the Draft Initial Study (DIS) for the SDG Commerce 217 Distribution Center Project (PL20-0008). The discussion below provides a brief summary of our review.

The items discussed below indicate ways in which the DIS does not adequately describe the Project's noise impacts, presents the impression the impacts are not significant when in fact they are potentially significant, does not account for potential noise sources and a discussion of their impacts from its analysis, and fails to mitigate potentially significant noise impacts. In short, the initial study fails to provide the details necessary to meaningfully review the Project's noise impacts and assess the mitigation needed to minimize them. The Project description lacks information critical for the reviewing public to meaningfully assess the DIS's conclusions in several ways.

PDF Comment

14 **The New Building Will Form A Canyon with The Existing Building to The North**. This can concentrate the noise from operations on the north side of the proposed Project since the walls for the building to the north are concrete, which acts as an efficient reflector of sound. As such, the normal spreading of sound (a 6 dB decrease in level with each doubling of distance from the source to the receiver) that is implied in the noise propagation calculations in Section XIII, Noise, page 85, is not correct for the noise level vs distance from this location. A review of Table Noise-1 presents noise levels without the canyon effect, and there is no discussion is provided about how much it would increase due to the effect. The reflections from the building from the north, which are not identified in the DIS, will add to noise emanating from the Project to the east and west and so increase the level of this noise. Therefore, the impact noted in the DIS from these activities is not accurate and will result in levels that may be significant. To reduce the canyon effect the Project could incorporate barriers that limits the open areas between the buildings, but the impact from operations at the north side of the building may still be significant.

14 **The Project Does Not Account for the Truck Routes and Noise as a Result of those Routes.**

Figure 2, Site Plan, shows Project truck traffic to and from the site will first turn right (travel west) from the southbound lane of Commerce Court to access the loading docks on the north side of the building, then to exit the site, trucks will continue west to the northeast corner of the building, then turn south and travel along the west side of the building, then at the southwest corner of the building turn east and travel along the south side of the building, and at the south east corner of the building turn left to enter the Commerce Court northbound lane. The noise impact from the truck traffic route is not limited to the north side of the building but will also have an impact to the west, south, and east. The impact from the truck traffic around the perimeter of the proposed Project is not addressed nor is the continuous character of the noise from the truck traffic on DIS page 89 or elsewhere in Section XIII, Noise, and so, the impact noted in the DIS from these activities is not accurate. A possible mitigation may be to erect a barrier on the west and south sides of the building. Despite these measures, the impact from truck traffic leaving the site and then travelling north on Commerce Court will be un-mitigated and significant.

22 **The Project Does Not Properly Account for Noise as a Result of Night Time Construction**

There will be construction activities at night for 15 nights. The MND fails to describe how many concrete trucks will be necessary to complete the night time pours. The MND should have provided this information along with noise levels from the previous night time pour noted, since the last pour resulted in calls to the City regarding noise. The impact from the concrete activities is thus not disclosed and so the DIS conclusions are not accurate.

81 **Project Is Not Consistent with City Land Use Policies.**

In section XI Land Use and Planning, the DIS mentions Policy 11.2.9 and states the Project is "Consistent: The proposed Project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise)" (correct Noise section is XIII). However, the DIS makes no mention of impact from construction vehicles or operational truck and other traffic nor discloses any design features to help mitigate noise. Therefore, the conclusion the proposed Project is consistent with Land USE and Planning is not accurate.

85 **The Project Underestimates the Increased Noise from Consistent Truck Traffic**.

In DIS Table Noise-1: Existing Noise Levels in the Project Area, for the Site 5 data (the noisiest site listed), a longer measurement period that also included information about the number and type of traffic, would better characterize the existing noise levels.

With this said, the reported noise level for Site 4 (the quietest site) is 41 dB Leq and 44 dB Leq. The future noise level at this location due to the proposed Project will be much higher due to the almost continuous truck traffic due to Project operational phase truck traffic.

89 The DIS states there will be 35 peak hour trips in the morning which means there will be an average of 1.7 minutes between trips. For the 28 peak hour PM trips there will be an average of 2.1 minutes between trips. With the transit around the building as noted in Figure 2, Site Plan on page 14/701, this means there will be a continuous parade of trucks around the building. The DIS does not adequately or accurately discuss this impact.

The DIS uses the noise at Site 5 in Table Noise-1 for the baseline Existing Noise Level. This is the noisiest site. Site 4 is more appropriate and the levels here are up to 18 dB less than that at Site 5. Therefore, the calculated impact is understated.
Although the trailers will be backed up to the building and load/unloaded into the building, the loading dock activities description does the not seem to note the tractors for the trucks will remain outside the building and the noise from the tractors in not mitigated.
And the "Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse" will occur every 1.7 to 2.4 minutes while the truck noise from entering, circuiting the building, and the leaving the property can be almost continuous.
The quoted distance, 1400 feet, between the source and receptor is to which receptor? The Couch residence is about 700 feet from the source.
The 65 Ldn is an inappropriate measure. The American Canyon Municipal Code sections of concern are:

8.12.010 Purpose of provisions – Public nuisance determination

A. Certain noise levels and vibrations are detrimental to the public health, welfare, safety and quality of life, and are contrary to the public interest;

B. The making and creating of disturbing, excessive or offensive noises within the city is a public nuisance, and is unlawful, and the noise ordinance shall be enforced as provided in this chapter.

8.12.040 General noise restrictions designated.

B. 8. Whether the noise is continuous, recurrent or intermittent;

B. 9. Whether the noise is produced by a commercial or noncommercial activity.

8.12.070 Exterior Noise Limits – 10 p.m.- 7 a.m. 50 dBA, 7 a.m. to 10 p.m. 60 dBA

which provide the criteria for noise levels and general noise characteristic restrictions. Using Ldn allows for levels above the ACMC night time criteria.
The DIS conclusion that the impact is less than significant is inaccurate.

87 The distance from the east edge of the proposed Project and the Couch residence appears to be about 700 feet (MND say 1000 feet). The distance from the SE corner of the proposed property to the development to the south of Eucalyptus Drive appears to be about 2000 feet (MND say 2300 feet). Although these discrepancies will result in a small increase in the calculated levels, the protected Project noise levels are inaccurate.

224 **The Project Underestimates the Increased Noise from Consistent Truck Traffic to Nearby Receptors.**
There is no analysis of expected levels due to the large number of trucks during the operational phase. As noted for page 89, above, the conclusion the impact is less than significant is unsupported.

Please contact me to discuss at your convenience. Thank you for the opportunity to be of service.

Sincerely,

MENLO SCIENTIFIC ACOUSTICS, INC.

Neil A. Shaw

Neil A. Shaw, FASA, FAES

NAS:sk

RESUME - NEIL A. SHAW

Education:

University of California, Los Angeles
B. S. Engineering, 1977, cum laude
M. S. Engineering, 1977

Cooper Union, New York, 1968 - 1970

Honors:

Kenward S. Oliphant Memorial Fellowship in Acoustical Engineering (awarded by Consulting Engineers Association of California)
Tau Beta Pi

Experience:

Menlo Scientific Acoustics, Inc., Topanga

Designer and manager for acoustic design projects including audio-visual systems, sound reinforcement systems, television and radio production systems, architectural room acoustics, electromagnetic compatibility system design and criteria development, electroacoustic and electronic signal processing equipment product performance criteria development, product design and development, environmental noise surveys and analysis, noise and vibrations control, sound isolation, and machine noise control.
1992 to present.
Principal.

University of Southern California, Thornton School of Music
2008 - 2010.

Southern California Institute of Architecture, Los Angeles
2003.

WEAL, Santa Monica

Design and construction services for sound reinforcement systems, television systems, A/V systems, paging systems, and masking noise systems for various production facilities, convention centers, airport terminals, auditoriums, places of worship, concert halls, athletic facilities, courtrooms, multipurpose rooms, gymnasiums, museums, banquet halls, lecture rooms and other facilities. Transportation ambient noise surveys and analysis, construction site noise measurements, and field STC and NIC measurements per ASTM E 336-84. Lead member of team to install, run and maintain database manager computer software for company projects and clients. Part of design, implementation and enhancement team for computer controlled laboratory data acquisition and processing for laboratory tests performed per ASTM E 90-85 and ASTM C 423-84a.
1975 to 1992.

Aero-acoustics Laboratory, UCLA

Responsibilities include computer programming, aero-acoustic measurements, acoustic measurements, database search and statistical processing, A/D anti-aliasing filter design and prototyping, multi-channel data acquisition and processing, post processing and display.
1978 to 1984.

Affiliations:

Fellow, Acoustical Society of America
- Chairman, Los Angeles Chapter, 1991 to 2001.
- Organizer and Co-Chair, Joint ASA/ASJ meeting 1996, Auralization Special Session.
- Organizer and Chair, ASA meeting, 1997, Engineering Acoustics Special Session.
- Organizer and Co-Chair, ASA meeting, 1999, Engineering Acoustics Special Session.
- Organizer and Co-Chair, ASA meeting, 2000, Student Loudspeaker Design Competition.
- Chairman, ASA meeting, 2001, Architectural Acoustics Modeling and Imaging Special Session.
- Organizer and Chair, ASA meeting, 2001, Architectural Acoustics Cruise Ship Acoustics Special Session.
- Tutorial on Architectural Acoustics, Joint ASA/ICA/MCA Cancun meeting, December 2002.
- Invited Paper, November 2003 ASA meeting, "Sound Quality and Loudspeakers," Special Session on Sound Quality - When Sound is the Essential Quality.
- Organizer and Co-Chair, ASA meeting, 2004, Special Session on the Bell Laboratories and Acoustics.
- Invited Paper, June 2004 ASA meeting, "Textbooks on Acoustics," On the Occasion of His 90th Birthday, To Honor the Contributions of Leo L. Beranek to Acoustics and Teaching Special Session sponsored by all the Technical Committees and ASA Committees.
- Chairman, June 2004 ASA meeting, General Topics in Architectural Acoustics
- Invited Paper, June 2005 ASA meeting, "Barnum Hall - The Continuing Renovation of a Streamline Moderne Theater," Special Session on Preserving Acoustical Integrity in the Course of Renovation.
- Invited Paper, Winter 2007 ASA meeting, "Sound Systems for Large Scale Venues," with John Monitto, Special session on Sound Systems in Large Rooms and Stadia
- Member, Technical Committee on Architectural Acoustics, 1996 - 2010
- Member, Technical Committee on Engineering Acoustics, 1998 - 2010
- Member, Technical Committee on Physical Acoustics, 2000 - 2010
- Member, Books+ Committee, 1996 - present

Fellow, Audio Engineering Society
- Member, Technical Committee on Acoustics and Sound Reinforcement, 1988 to 2005.
- Chairman, Large Array Systems Session and Special JAES issue, 1987
- Chairman, Workshop on Auralization, 1993
- Co-Chairman, Workshop on Weather-Related Issues in Outdoor Sound Reinforcement, 1998
- Tutorial on Loudness, Los Angeles Chapter, March 2003

Senior Member, Institute of Electrical and Electronic Engineers

Member, Society of Motion Picture and Television Engineers
- Member, Standards Community TC-20F Film, TC-20F-30 WG Film Audio, TC-20F-40 Theatrical Projection, ST-SG Theater B-chain 1990 to present.

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Member, Institute of Noise Control Engineering

Licenses: Electrical Contractor's License, CA #342710
EIT, CA #37673

Publications: Preface to the Reprint Edition, "Principles and Applications of Room Acoustics", Lothar Cremer and Helmut A. Muller (translated by Theodore J. Shultz), Peninsula Publishers, Los Altos Hills, CA, reprint edition, to be re-published.

Patent reviews, Journal of the Acoustical Society of America, 2004 -present.

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Shaw, Neil A., "Seeing, Hearing & Listening - Part II", Live Sound International, 17(4), 58ff, April 2008

Shaw, Neil A., "Seeing, Hearing & Listening - Part I", Live Sound International, 17(3), 12ff, March 2008

Shaw, Neil A., "The Pre-history and Early History of Loudspeakers", part 4 of 4, Live Sound International, 16(8), 66ff, August 2007

Shaw, Neil A., "The Pre-history and Early History of Loudspeakers", part 3 of 4, Live Sound International, 16(7), 54ff, July 2007

Shaw, Neil A., "The Pre-history and Early History of Loudspeakers", part 2 of 4, Live Sound International, 15(12), 12ff, December 2006

Shaw, Neil A., "An Early History of Modern Power Amplifiers," Live Sound International, 15(2), 10ff, February 2006

Shaw, Neil A., "The Pre-history and Early History of Loudspeakers", part 1 of 4, Live Sound International, 14(4), 38ff, November 2005

"Audio" monthly column, Club System International magazine, 2000 - 2003.

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Shaw, Neil A., "Digital Delays, Part Three - Real World Applications for Real World Delay Units," Sound and Communications, 39(10), 16ff, October 1993.

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Meecham, W. C. and N. A. Shaw, "Jet Plane Noise Effects on Mortality Rates," Proceedings Internoise 86 Progress in Noise Control, Volume II, 1451-1455, 1986.

Shaw, N. A., "Effects of Jet Noise on Mortality Rates," Los Angeles County Department of Health, The Effects of Aircraft Noise on Health, June, 1981

Meecham, W. C. and N. A. Shaw, "Effects of Jet Noise On Mortality Rates," British Journal of Audiology, 13, 77-80, 1979.

Book Reviews:

"Acoustical Engineering," Harry F. Olson - Journal of the Audio Engineering Society, Vol. 40, No. 5, May 1992, Sound and Communications, Vol. 38, No. 4, April 27, 1992.

"Concert Sound - Tours, Technologies and Techniques," David Trubitt - Journal of the Audio Engineering Society.

"Hearing - An Introduction to Psychological and Physiological Acoustics," Stanley A. Gelfand - Sound and Communications, Vol. 37, No. 3, March 22, 1991.

"Room Acoustics," Henrich Kuttruff - Sound and Communications, Vol. 38, No. 2, February 28, 1992.

"The Science of Sound," Thomas D. Rossing - Sound and Communications, Vol. 37, No. 10, October 22, 1991.

"AIP Handbook of Condenser Microphones," George S. K. Wong and Tony F. W. Embleton, Editors - Journal of the Audio Engineering Society, Vol. 43, No. 6, June 1995.

"The ASA Edition of Speech and Hearing in Communication", Harvey Fletcher - Sound and Communication, Vol. 41, No. 9, September 25, 1995.

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"The Nature and Technology of Acoustic Space", Mikio Tohyama, Hideo Suzuki and Yoichi Ando - Journal of the Audio Engineering Society, Vol. 44, No. 3, March 1996.

"Concert and Opera Halls - How They Sound", Leo Beranek - Journal of the Audio Engineering Society, Vol. 44, No. 9, September 1996.

"Acoustics and Noise Control Handbook for Architects and Builders", Leland K. Irvine and Roy L. Richards - Journal of the Audio Engineering Society, Vol. 46, No. 5, May 1998.

"Encyclopedia of Acoustics", Edited by Malcolm J. Crocker - Journal of the Audio Engineering Society, Vol. 46, No. 9, September 1998.

"The New Stereo Soundbook, Ron Streicher and Alton Everest - Journal of the Acoustical Society of America, Vol. 105, No. 6, June 1999.

"Introduction to Electroacoustics and Audio Amplifier Design," W. Marshall Leach, Jr. - Journal of the Audio Engineering Society, Vol. 47, No. 7/8, July/August 1999, Sound and Communications, Vol. 45, No. 9, September 20, 1999.

"Architectural Acoustics - Principles and Design," Madan Mehta, Jim Johnson, and Jorge Rocafort - Journal of the Audio Engineering Society, Vol. 47, No. 10, October 1999.

"Architectural Acoustics: Blending Sound Sources, Sound Fields, and Listening," Yoichi Ando - Journal of the Audio Engineering Society, Vol. 48, No. ½, January/February 2000.

"Fundamental of Physical Acoustics," David T. Blackstock - Journal of the Audio Engineering Society, Vol. 48, No. 9, September 2000.

"The Science and Applications of Acoustics," Daniel R. Raichel - Journal of the Audio Engineering Society, Vol. 48, No. 10, October 2000.

"Sounds of Our Times," Robert T. Beyer - Journal of the Audio Engineering Society, Vol. 48, No. 11, November 2000.

"Acoustics: Basic Physics, Theory and Methods," Paul Filippi, Dominique Habalt, Jean-Pierre Lefebvre and Aime Bergassoli - Journal of the Audio Engineering Society, Vol. 49, No. 1+2, January/February 2001.

"Active Noise Control Primer," Scott D. Snyder - Journal of the Audio Engineering Society, Vol. 49, No. 5, May 2001.

"The Microphone Book," John Eargle - Sound & Communications, November 2001.

"Computer Speech Recognition, Compression, Synthesis," Manfred R. Schroeder - Journal of the Audio Engineering Society, Vol. 49, No. 12, December 2001.

"Audio Engineering For Sound Reinforcement," John Eargle and Chris Foreman - Journal of the Audio Engineering Society. Vol. 50, No. 12,

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December 2002.

"Pro Audio Reference," Dennis Bohn - Journal of the Audio Engineering Society, Vol. 51, No. 7/8, July/August 2003.

"Concert Halls and Opera Houses - Music, Acoustics, and Architecture," Leo L. Beranek - Journal of the Audio Engineering Society, Vol. 52, No. 5, May 2004

"Acoustic Absorbers and Diffusers - Theory, Design and Application," Trevor J. Cox and Peter D'Antonio - Journal of the Audio Engineering Society, Volume 53, No. 10, October 2005

"Formulas of Acoustics," F. P. Mechel - Journal of the Audio Engineering Society, Volume 53, No. 12, December 2005

"Communication Acoustics," Jens Blauert (editor) - Journal of the Audio Engineering Society, Volume 54, No.½, January/February 2006

"Acoustics and Psychoacoustics," David M. Howard and Jamie Angus - Journal of the Audio Engineering Society, Volume 54, No. 11, November 2006

"Pro Audio Reference," Second Edition, Dennis Bohn, Journal of the Audio Engineering Society - Journal of the Audio Engineering Society, Volume 54, No. 4, April 2007

"Worship, Acoustics, and Architecture," Ettore Cirillo and Francesco Martellotta - Journal of the Audio Engineering Society, Journal of the Audio Engineering Society, Volume 55, No. 11, November 2007

"Sound FX Unlocking the Creative Potential of Recording Studio Effects," Alexander U. Case - Journal of the Audio Engineering Society, Volume 55, No. 12, December 2007

"Surround Sound Up and Running," Tomlinson Holman - Journal of the Audio Engineering Society, Volume 56, No. 9, September 2008

"Sound Reproduction Loudspeakers and Rooms," Floyd E. Toole - Journal of the Audio Engineering Society, Volume 57, No.½, January/February 2009

"Handbook for Sound Engineers," 4th Edition, Glenn Ballou - Journal of the Audio Engineering Society, Volume 57, No. 7/8, July/August 2009

"Acoustics and the Performance of Music Manual for Acousticians, Audio Engineers, Musicians, Architects and Musical Instrument Makers," 5th Edition Jürgen Meyer (translated by Uwe Hanson) - Journal of the Audio Engineering Society, Volume 58, No. 3, March 2010

"Sound for Film and Television" 3rd Edition, Tomlinson Holman - Journal of the Audio Engineering Society, Volume 58, No. 11, November 2010

"The Acoustics of Performance Halls Spaces for Music from Carnegie Hall to the Hollywood Bowl," J. Christopher Jaffe - Journal of the Audio Engineering Society, Volume 59, No. 4, April 2011

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"Acoustics and Audio Technology," Mendel Kleiner - Journal of the Audio Engineering Society, to be published

"Grounds for Grounding," Elya B. Joffee and Kai-Sang Lock - Journal of the Audio Engineering Society, to be published

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Selected Product Development Projects - Neil A. Shaw

Aura Systems	1992 - 2005 Technical support for audio projects using inherently shielded neodymium speakers.
Peavey	1995 - 1997 Loudspeaker engineering for professional woofers and compression drivers, out-sourcing of electronics and speaker manufacturing, joint venture liaison.
Armstrong World Industries	1999 - 2002 Conception and product definition for active acoustic initiative. Product definition and development of ceiling tile speaker, and other projects.
Microsoft	1999 - 2000 Headset and headset element design for voice recognition product.
Cisco	1999 - 2000 Telephone and speaker-phone design for Internet telephone.
Intel	2000 Internet appliance sound system product
RPG	2001 - 2020 Technical and marketing support for this vendor of acoustical devices for architectural spaces.
Bohlender-Graebener	2001 - 2004 Technical support and loudspeaker engineering for planar diaphragm loudspeaker products.
Johns Manville	2002 Strategic product and market research and analysis.
Tri-path	2002 - 2006 Technical support and system engineering for digital audio power amplifiers.
Extron	2002 - 2003 Technical and material support for loudspeaker development and research.
Microsoft	2003 - 2006 Anechoic chamber design. Electroacoustic product testing protocol development.
University of Illinois	2008 - 2009 Transducer and power amplifier design and selection for food industry processing equipment.
Microsoft	2008 - 2009 Anechoic chamber design. Electroacoustic product testing protocol development.
KLA-Tencor	2010 Vibration isolation engineering for scanning electron microscope semiconductor wafer inspection equipment.
Microsoft	2011 Acoustic measurement and analysis for Kinect manufacturing end-of-line 100% test chamber.
ETC	2011 Noise analysis and noise control for electrically operated variable speed theater hoist equipment.

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Selected Projects - Neil A. Shaw:

Arcadia City Council Chambers	Arcadia, California
Grossmont Civic Auditorium	El Cajon, California
Center for Faith and Life, Luther College	Decorah, Iowa
Concert Hall, University of Kentucky	Lexington, Kentucky
Swimming Pool, University of Riyad	Riyad, Saudi Arabia
Oakland-Piedmont Municipal Courts	Oakland, California
2500 seat Auditorium, 700 seat Auditorium, 250 seat Library Hall, Mosque and Minaret, Gymnasium, Fine Arts Recital Hall, 100 seat Museum Hall, 500 seat Lecture Rooms, 250 seat Lecture Rooms, 1000 seat Banquet Hall, 200 seat Meeting Rooms, 100 seat Meeting Rooms, University of Riyad	Riyad, Saudi Arabia
Des Moines Civic Auditorium	Des Moines, Iowa
California School For the Blind	Hayward, California
South Coast Air Quality Management District Hearing Room	El Monte, California
First United Methodist Church	Santa Monica, California
George R. Moscone Convention Center	San Francisco, California
H. J. Kaiser Convention Center	Oakland, California
Carson Community Center	Carson, California
LAX Terminal One	Los Angeles, California
Crocker Bank Auditorium	Los Angeles, California
Wilshire Auditorium, Fullerton College	Fullerton, California
Salt Palace Convention Center Expansion	Salt Lake City, Utah
Metro Toronto Convention Center and Theater	Toronto, Ontario
Orpheum Theater Restoration	Davenport, Iowa
Athanaeum, Claremont College	Claremont, California
San Jose Federal Office Building	San Jose, California
Fairmont Hotel	San Jose, California
LAX Terminal Five	Los Angeles, California
First Presbyterian Church	Upland, California
Royal Saudi Air Force Hush Houses	Saudi Arabia
NCO Training Facility, March AFB	Riverside, California
Veterans Administration Out Patient Clinic	Los Angeles, California
Lied Center for the Performing Arts, University of Nebraska	Lincoln, Nebraska
MaMaison Hotel	Los Angeles, California
Escondido City Council Chambers	Escondido, California
Mercy Hospital	San Diego, California
Mercy Hospital	Sacramento, California
Jain Bhavan Worship Center	Santa Ana, California
Ojai Valley Inn	Ojai, California
Simon Wiesenthal Center and Holocaust Museum	Los Angeles, California
New Otani Hotel	Los Angeles, California
Oceanside City Council Chambers	Oceanside, California
Santa Monica Beach Hotel	Santa Monica, California
Greenwood Racetrack	Toronto, Ontario
Woodbine Racetrack	Toronto, Ontario
Mohawk Racetrack	Campbellville, Ontario
Toyota Training Center	Torrance, California
Fresno Art Center	Fresno, California
McLaren Children's Center	Los Angeles, California

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Lindbergh Field West Terminal Expansion	San Diego, California
Richard M. Nixon Presidential Library	Yorba Linda, California
Carnation Headquarters	Glendale, California
Los Angeles County Bar Association	Los Angeles, California
Los Angeles Federal Office Building	Los Angeles, California
Intercontinental Hotel	Los Angeles, California
Lake Avenue Congregational Church	Pasadena, California
Hewlett Packard Presentation Center	North Hollywood, California
Dance Recital Hall and Auditorium, California State University	Long Beach, California
Inyo County Superior Court	Independence, California
Adele Platt Conference Center, City of Hope Medical Center	Duarte, California
Los Angeles County Emergency Operation Center	Los Angeles, California
Antonio B Won Pat International Airport	Tamuning, Guam
Temple Adat Sholam	Westwood, California
Sound Stage 29/30, Paramount Pictures	Hollywood, California
Executive Screening Room, Theater, Dubbing Theater, Metro-Goldwyn-Mayer	Santa Monica, California
Lakeview Terrace Rehabilitation Facility, Phoenix House of Los Angeles	Lakeview Terrace, California
Physiological Acoustics Research Facility, UCLA Medical Center	Westwood, California
Performing Arts Center	Lancaster, California
Crystal Harmony, Crystal Cruise Lines	Los Angeles, California
Integrated Service Facility, NASA/Dryden Research Facility	Edwards, California
Theater, Metro-Goldwyn-Mayer	New York, New York
Santa Ana Theater	Santa Ana, California
Sammy Davis Jr. Festival Plaza	Las Vegas, Nevada
City Hall, Council Chamber	Santa Monica, California
Video Conference Facility, Sony Music	New York, New York
Legend of the Seas, Royal Caribbean Cruise Lines	Miami, Florida
Orange County Branch Library	Aliso Viejo, California
Screening Room, Warner Brothers Animation	Glendale, California
Screening Room, Turner Feature Animation	Glendale, California
Las Vegas Motor Speedway	North Las Vegas, Nevada
Large Screening Room, Metro-Goldwyn-Mayer	Santa Monica, California
Japanese American National Museum	Los Angeles, California
Carson City Courthouse	Carson City, Nevada
St. Mel Parish Center	Woodland Hills, California
Congregation Ner Tamid	Rancho Palos Verdes, California
Old Town Temecula Streetscape	Temecula, California
Grandeur of the Seas, Royal Caribbean Cruise Lines	Miami, Florida
Disney Magic, Disney Cruise Lines	Orlando, Florida
Coral Sky Amphitheater	West Palm Beach, Florida
First Chinese Baptist Church	Los Angeles, California
St. Mark Coptic Orthodox Church	Los Angeles, California
C-17 Assembly Facility, Douglas Aircraft Division, The Boeing Corporation	Long Beach, California
Crisci's Restaurant	Brooklyn, New York
JamSync Studios	Nashville, Tennessee
New Standard Post	Hollywood, California
Media Artists, Pty	Madras, India
The Lobster	Santa Monica, California

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International Rectifier	Tijuana, Baja California, Mexico
Antelope Valley Courthouse	Lancaster, California
Fe Bland Forum, Santa Barbara City College	Santa Barbara, California
Arizona Humane Society	Phoenix, Arizona
Cartoon Network	Glendale, California
Santa Monica High School	Santa Monica, California
Malibu High School	Malibu, California
Barnum Hall Auditorium	Santa Monica, California
Sobrato High School	Morgan Hill, California
Temple Beth El	Aliso Viejo, California
Sacramento East End Project	Sacramento, California
Gold Circle Films	Beverly Hills, California
Denver City Hall Extension	Denver, Colorado
Fullerton City Hall	Fullerton, California
Union Station Improvement	Los Angeles, California
Intimate Theater, California State University	Los Angeles, California
San Diego Convention Center, Sails Pavilion	San Diego, California
Temple Shir Ha-Ma'A Lot	Irvine, California
United States Courthouse	Fresno, California
Department of Education Office Complex, State of California	Sacramento, California
MGM Constellation Headquarters	Century City, California
Ketchum Advertising	Venice, California
Orange County Register	Santa Ana, California
28th Church of Christ, Scientist	Westwood, California
Temple Solel	Escondido, California
NT Audio Mixing and QC Rooms	Santa Monica, California
River Cats Restaurant	Sacramento, California
Caltrans District 7 Headquarters	Los Angeles, California
1221 Ocean Avenue	Santa Monica, California
Memorial Assembly Hall	Manhattan Beach, California
City of Manhattan Beach Annex	Manhattan Beach, California
Twohy Building	San Jose, California
Widget Post Production	Culver City, California
1st Church of Christ, Scientist	Beverly Hills, California
Sunrise Assisted Living	Pacific Palisades, California
Sunrise Assisted Living	Santa Monica, California
Sunrise Assisted Living	Woodland Hills, California
Academy of Motion Picture Arts and Sciences Boardroom	Beverly Hills, California
Getty Villa Outdoor Amphitheater	Los Angeles, California
Ressler Residence	Beverly Hills, California
American Honda	Torrance, California
Community Baptist Church	Manhattan Beach, California
Bernard Hodes Agency	Marina Del Ray, California
Houston's Restaurant	Santa Monica, California
Café R&D	Newport Beach, California
Getty Center Auditorium	Los Angeles, California
Mid-City Police Station	Los Angeles, California
College of Humanities, Arts, and Social Sciences Instruction and Research Facility, University of California	Riverside, California
Genomics Research Facility, University of California	Riverside, California
Panasonic Hollywood Laboratory	Universal City, California

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Sports Spectrum Club	Pacific Palisades, California
Sunrise Assisted Living	Simi Valley, California
Rose Bowl	Pasadena, California
First Presbyterian Church	Santa Monica, California
Los Angeles Fire Department Headquarters	Los Angeles, California
New York City Transit No. 7 Line Extension	New York, New York
Los Angeles County Metropolitan Transportation Authority Goldline	Los Angeles, California
South Lawn Project, University of Virginia	Charlottesville, Virginia
Shangri-La Hotel	Santa Monica, California
Pacific Star, Princess Cruise Lines	Santa Clarita, California
Allied Post	Santa Monica, California
Jet Propulsion Laboratory von Karman Auditorium	Pasadena, California
Self Realization Fellowship	Los Angeles, California
Temple Beth Am	Los Angeles, California
Broome Library, California State University, Channel Islands	Camarillo, California
California High-Speed Train Project	State of California
Morongo Band of Mission Indians Administrative Complex	Banning, California
The Buddy Group	Irvine, California
Café R&D	Santa Monica, California
Club 7969	West Hollywood, California
Brent's Deli	Westlake Village, California
Santa Cruz County Criminal Justice Complex	Nogales, Arizona
Porto's Bakery	Burbank, California
Microsoft Hardware Group Audio Test Laboratories	Redmond, Washington
University of California, Irvine, Arts Building	Irvine, California
Los Angeles Unified School District High School No. 9	South Gate, California
Notre Dame High School	Sherman Oaks, California
St. Mark Presbyterian Church	Newport Beach, California
Fame Academy Poly High School	Sun Valley, California
FAA Sonic Boom Simulator (with the Pennsylvania State University)	State College, Pennsylvania
Metropolitan Transit District Hearing Room	Los Angeles, California
St. Peter and St. Paul Coptic Church	Santa Monica, California
Lifehouse Properties	Pacific Palisades, California
Wilson Well No.2	San Gabriel, California
Habitat for Humanity Lynwood Housing	Lynwood, California
Whole Foods Plaza	Malibu, California
Habitat for Humanity Burbank Housing	Burbank, California
The Cork	Los Angeles, California
Cove Way Residence	Beverly Hills, California
Habitat for Humanity Lawndale Housing	Lawndale, California
Forest Lawn Chapel	Cypress, California
Rodney Bay and Gros Islet Villages	St. Lucia
Panasonic Avionics	Lake Forest, California
Capitol Records	Hollywood, California
Art of Living Foundation	Los Angeles, California
Conexant Corporation	Newport Beach, California
University of California, Santa Barbara Faculty Center	Santa Barbara, California
Bill and Melinda Gates Foundation	Seattle, Washington
J Restaurant and Lounge	Los Angeles, California
Newcom	Santa Monica, California

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American School in Vietnam	Hanoi, Vietnam
Apple Yellowstone Anechoic Chamber Facility	Cupertino, California
Barnum Hall Continuing Renovation	Santa Monica, California
Malibu High School Auditorium Renovation	Malibu, California
John Adams Middle School Auditorium Renovation	Santa Monica, California
Westminster Presbyterian Church	Newbury Park, California
American School in Bombay	Mumbai, India
Temple Judea	Tarzana, California
Holy Angel Church	San Marino, California
Kroc Institute for Peace and Justice University of San Diego	San Diego, California

7 June 2012

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ATTACHMENT C

May 2, 2021

Mr. Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on the Recirculated Draft Initial Study and Mitigated Negative Declaration for the SDG Commerce 217 Distribution Center Project

Dear Mr. Key:

This letter contains my comments on the Recirculated Draft Initial Study and Mitigated Negative Declaration ("IS/MND") prepared by the City of American Canyon ("City") for the SDG Commerce 217 Distribution Center Project ("Project"). SDG Commerce 217, LLC ("Applicant") proposes to develop a 217,294 square foot wine distribution center on a 10.39-acre parcel in the City of American Canyon. Construction of the Project would require approximately 38,000 cubic yards of fill, which would be obtained from an abutting parcel to the south.

I am an environmental biologist with 28 years of professional experience in wildlife biology and natural resources management. I have served as a biological resources expert for over 125 projects in California. My experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"), and submitting written comments in response to CEQA and NEPA documents. My work has included the preparation of written and oral testimony for the California Energy Commission, CPUC, and Federal courts. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University. A copy of my curriculum vitae is attached hereto.

The comments herein are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, my experience with other projects in Napa County, and the knowledge and experience I have acquired during my 28-year career in the field of natural resources management.

Baseline Setting

The IS/MND identifies five special-status species that could be impacted by the Project: western burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, and western pond turtle.[1] The Applicant's biological resource consultant, Monk & Associates, did not conduct focused surveys to determine whether any of these species use the Project site (or adjacent eucalyptus grove) as nesting habitat.[2,3]

The California Department of Fish and Wildlife ("CDFW") recommends two types of surveys to assess and mitigate a project's impacts on special-status species: (1) "detection surveys," and (2) "take avoidance" surveys. Detection surveys are designed to maximize detection of a given species, and thus require implementation of specially-timed, species-specific survey techniques. The intent of detection surveys is to provide reliable information on the abundance, distribution, and seasonal (or life history) use patterns of a species within the area that would be directly or indirectly affected by the project. Detection surveys provide the information the lead agency, public, and natural resource agencies need to: (a) effectively assess potential impacts, and (b) formulate effective mitigation measures.

Take avoidance surveys are conducted immediately prior to implementation of the project. The intent of take avoidance surveys is to: (a) determine whether there have been any changes in baseline conditions that affect implementation of mitigation. For example, take avoidance surveys might reveal that burrowing owls that had nested on the north side of the site, are now nesting on the south side of the site. In summary, detection surveys are conducted to satisfy the requirements of CEQA (and other regulatory review processes), whereas take avoidance surveys are conducted to ensure take avoidance when the project is actually constructed.

Detection surveys were not conducted for the Project. Instead, the IS/MND requires detection surveys as "mitigation," after the CEQA review process terminates. This approach is unacceptable because it precludes proper understanding of baseline conditions, and thus, the ability of the public and resource agencies to submit informed comments on the Project's impacts and proposed mitigation. Assuming a species may be present at the Project site (the approach taken in the IS/MND) is generally not an acceptable substitute for baseline survey data because it precludes understanding of the relative severity of the Project's impacts. For example, while the loss of nesting habitat for one pond turtle might not be significant, the loss of nesting habitat for five pond turtles would be very significant.

The need to establish baseline conditions prior to assessing impacts and formulating mitigation measures is emphasized in regulatory guidance documents. For example, CDFW's Staff Report on Burrowing Owl Mitigation states:

> The following three progressive steps are effective in evaluating whether projects will

[1] IS/MND, pp. 41 through 44.
[2] *Ibid*, p. 44.
[3] According to the Revised Biological Resource Analysis ("BRA") prepared by Monk & Associates (March 2, 2020), the probability of western pond turtles on the Project site is "none" (*see* BRA, Table 4). However, according to the IS/MND (p. 42): "there is a possibility of turtles nesting onsite."

> result in impacts to burrowing owls. The information gained from these steps will inform any subsequent avoidance, minimization and mitigation measures. The steps for project impact evaluations are: 1) habitat assessment, 2) surveys, and 3) impact assessment. ….Adequate information about burrowing owls present in and adjacent to an area that will be disturbed by a project or activity will enable the Department, reviewing agencies and the public to effectively assess potential impacts and will guide the development of avoidance, minimization, and mitigation measures…Detailed information, such as approximate home ranges of each individual or of family units, as well as foraging areas as related to the proposed project, will be important to document for evaluating impacts, planning avoidance measure implementation and for mitigation measure performance monitoring.[4]

Similarly, California Burrowing Owl Consortium mitigation guidelines state:

> There is often inadequate information about the presence of owls on a project site until ground disturbance is imminent. When this occurs there is usually insufficient time to evaluate impacts to owls and their habitat. The absence of standardized field survey methods *impairs adequate and consistent impact assessment during regulatory review processes, which in turn reduces the possibility of effective mitigation*.[5]

It is not possible to effectively assess Project impacts until focused detection surveys have been conducted. As a result, the City must require detection surveys that adhere to CDFW standards, and the results of those surveys need to be released in a revised CEQA document so they can be thoroughly vetted by the public, resource agencies, and decision makers during the CEQA review process.

PROJECT IMPACTS ISSUES

Swainson's Hawk

Loss of foraging habitat is one of the primary threats to Swainson's hawks in California.[6] In addition to generating a potentially significant impact under CEQA, the loss of foraging habitat from the Project site may result in the take (killing) of Swainson's hawks, which would be a violation of Section 2080 of California Fish and Game Code.[7] The IS/MND provides the following analysis of this issue:

> The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.[8]

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[4] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, pp. 5, 6 and 29.
[5] *See p. i in:* The California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. [emphasis added].
[6] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[7] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[8] IS/MND, p. 43.

There are several flaws with the City's analysis. First, the City's analysis relies on California Natural Diversity Database ("CNDDB") data and assumes that the nearest nesting location is 2.6 miles north of the Project site.[9] However, the IS/MND admits: "the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat."[10] CNDDB data on Swainson's hawk nest locations in Napa County have not been updated since 2013,[11] and the Applicant did not conduct surveys to determine the current status of Swainson's hawk nests in the vicinity of the Project site.[12] As a result, the City does not have the basis for its assumption that the nearest nesting location is 2.6 miles from the Project site, and thus, that the loss of foraging habitat from the Project site would not have a significant impact on the species.

Second, the Project site may provide important foraging habitat for Swainson's hawks even if the nearest nesting location is 2.6 miles away. Fleishman et al. (2016) found that the vast majority of adult Swainson's Hawks in the Natomas Basin (northern Central Valley, California) traveled distances up to 6.2 miles from the nest to forage.[13] Babcock found that Swainson's hawks in the Sacramento Valley foraged as far as 14 miles from the nest, and that ruderal fields was one of the vegetative cover types that ranked highest in foraging use.[14] Other studies have shown that Swainson's hawks may travel up to 18 miles from the nest to forage.[15]

Third, the fact that the Project site did not historically provide foraging habitat is irrelevant to its current function as foraging habitat for Swainson's hawks. To reverse the decline of Swainson's hawk populations, it is CDFW's policy that new development projects that adversely modify nesting or foraging habitat within 10 miles of an active nest should mitigate the project's impacts by providing compensatory mitigation.[16] According to CDFW, the 10-mile foraging radius recognizes the need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of development(s) consistent with Fish and Game Code Section 2053.[17]

Fourth, the IS/MND claims: "there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site." However, the IS/MND fails to provide evidence to support that claim or the implicit assumption that foraging habitats north of the Project site are sufficient to sustain the local Swainson's hawk

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[9] *Ibid*, p. 42.
[10] *Ibid.*
[11] California Natural Diversity Database. 2021. RareFind 5 [Internet]. California Department of Fish and Wildlife [Apr 2, 2021].
[12] IS/MND, p. 44.
[13] Fleishman E, Anderson J, Dickson DG, Krolick D, Estep JA, Anderson RL, Elphick CS, Dobkin DS, Bell DA. 2016. Space Use by Swainson's Hawk (*Buteo swainsoni*) in the Natomas Basin, California. Collabra, 2(1): 5, pp. 1–12.
[14] Babcock KW. 1995. Home Range and Habitat Use of Breeding Swainson's Hawks in the Sacramento Valley of California. Journal of Raptor Research 29:193–197.
[15] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.
[16] *Ibid.*
[17] *Ibid*, p. 2.

population. Based on my review of Google Earth imagery, much of the open space that remains "around the nesting location 2.6 miles north of the site and between this nesting location and the project site" is comprised of vineyards or other land cover types that provide little to no value as foraging habitat for Swainson's hawks.[18]

Fifth, there is no scientific evidence that the eucalyptus forest surrounding the Project site precludes the site from being "a foraging destination which would likely attract foraging Swainson's hawks." To the contrary, there is evidence that the Project site may attract foraging Swainson's hawks because it contains California voles (*Microtus californicus*)—the Swainson's hawk's primary prey.[19]

Sixth, Swainson's hawks have consistently been detected approximately 2,200 feet south of the Project site.[20] In addition, two Swainson's hawks were detected approximately 3,500 feet northeast of the Project site on April 16, 2021.[21] Therefore, either: (a) the Project site is within the foraging radius of the Swainson's hawks that nest 2.6 miles north of the Project site, or (b) there is an undocumented Swainson's hawk nest in the vicinity of the Project site. Both scenarios undermine the validity of the rationale for the City's determination that impacts to foraging habitat would not be significant.

Northern Harrier

One of the primary threats to northern harriers is the loss and degradation of nesting and foraging habitat.[22] According to the IS/MND: "[s]hould northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be potentially significant."[23] Although the IS/MND acknowledges northern harriers may nest on the Project site, it fails to analyze the significance of the Project's permanent impacts on nesting habitat (i.e., the analysis is limited to disturbance of nesting harriers).

The IS/MND states the following with respect to the loss of foraging habitat: "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a less-than-significant level."[24] The IS/MND's statement regarding historic conditions is incorrect because historically the Project site provided habitat

[18] California Department of Fish and Wildlife. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California.
[19] Monk & Associates. 2020 Mar 2. Biological Resource Analysis, pp. 6 and 12.
[20] eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed Apr 28, 2021). Swainson's hawks detected on: 19 Apr 2015; 25 Aug 2016; 14 Jul 2017; 18 Aug 2018; and 13 Jul 2019.
[21] *Ibid.*
[22] Shuford WD, Gardali T, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. pp. 149 through 155.
[23] IS/MND, p. 43.
[24] *Ibid*.

(for northern harriers) before the eucalyptus trees were planted (sometime between 1916 and 1942).[25] Nevertheless, the significance of the impact under CEQA is dependent on the environmental conditions at the time the CEQA document was published,[26] *not* the environmental conditions in 2012. Mitigation Measure BIO-3 is limited to measures designed to minimize disturbance to raptor nests during the avian nesting season; the mitigation measure does nothing to mitigate the Project's permanent impacts on northern harrier habitat. Because habitat loss is a primary threat to the northern harrier, potentially significant impacts on the species remain unmitigated.

White-tailed Kite

The IS/MND provides the following analysis of Project impacts to the white-tailed kite:

> The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a less-than-significant level.[27]

The City's analysis suffers the same flaws as the analysis it provided for the northern harrier: (1) the Project site historically provided foraging habitat (i.e., before the eucalyptus trees were planted); and (2) the City's analysis fails to apply the proper baseline conditions. White-tailed kites have relatively small home ranges[28] and seldom hunt more than 0.5 mile from their nests when breeding.[29] Habitat quality for white-tailed kites in California is largely dependent on the abundance and availability of California voles,[30] which are known to occur at the Project site.[31] Hawbecker (1940) provided evidence that a high population of voles was necessary for successful kite nesting, and that a nearby source of suitable food is just as necessary as the nest tree.[32] Therefore, if white-tailed kites nest on or near the Project site, they would be significantly impacted by the loss of foraging habitat (from the Project site). Mitigation Measure BIO-3 does not mitigate the impact because it is limited to actions designed to minimize construction-related disturbance to nests. As a result, potentially significant impacts on the white-tailed kite remain unmitigated.

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[25] United States Geological Survey. 1916 and 1942. *Mare Island, CA*. Topographic map.1:63,000. U.S. Department of the Interior, Reston, Virginia.
[26] IS/MND, p. 669.
[27] *Ibid*, p. 44.
[28] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595.
[29] California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2005. CWHR version 9.0 personal computer program. Sacramento, CA.
[30] Dunk JR, Cooper RJ. 1994. Territory size regulation in Black-shouldered Kites. Auk 111:588-595. *See also*, Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.
[31] IS/MND, p. 38.
[32] Hawbecker AC. 1940. The Nesting of the White-Tailed Kite in Southern Santa Cruz County, California. Condor 42(2):106-111.

Burrowing Owl

Habitat Impacts

"Essential Habitat" for burrowing owls includes nesting, foraging, wintering, and dispersal habitat.[33] Accordingly, CDFW's Staff Report on Burrowing Owl Mitigation states the following with regard to impact assessments:

> The impact assessment evaluates the potential loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages, including habitat supporting prey and host burrowers and other essential habitat attributes. This assessment determines if impacts to the species will result in significant impacts to the species locally, regionally and range-wide per CEQA Guidelines §15382 and Appendix G. The significance of the impact to habitat depends on the extent of habitat disturbed and length of time the habitat is unavailable (for example: minor – several days, medium – several weeks to months, high - breeding season affecting juvenile survival, or over winter affecting adult survival).[34]

Contrary to CDFW's guidance, the IS/MND provides no analysis of impacts to satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages. The impact assessment in the IS/MND is limited to the following:

> the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be potentially significant. Mitigation Measure BIO-1 would reduce this impact to a less-than-significant level.[35]

There are two problems with the City's analysis. First, Mitigation Measure BIO-1 would not reduce impacts on the nesting population to less-than-significant levels. Breeding burrowing owls are believed to be extirpated from Napa County.[36] Due to their strong site tenacity, burrowing owls rarely colonize new sites, or re-colonize historical sites from which they have been extirpated.[37] In other words, burrowing owls do not merely nest elsewhere when their nesting habitat is eliminated. As a result, the presence of nesting burrowing owls at the Project site would be extremely significant from a biological perspective, and elimination of the nesting habitat would be significant and unmitigable.

CDFW submitted comments on the first MND that was issued for the Project. CDFW's comment letter states: "[i]f the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided."[38] Thus, CDFW recommends compensatory mitigation if

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[33] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 24.
[34] *Ibid*, pp. 7 and 8.
[35] IS/MND, p. 42.
[36] Townsend SE, Lenihan C. 2003. Burrowing Owl Status in the Greater San Francisco Bay Area. Proceedings of the California Burrowing Owl Symposium. Bird Populations Monographs No. 1:60-70.
[37] Wilkerson RL, Siegel RB. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10:1-36.
[38] *See* IS/MND, p. 682.

the Project site is actively being used by burrowing owls, irrespective of how the owls are using the site (e.g., nesting, foraging, sheltering), or the season of use. Mitigation Measure BIO-1, however, only requires compensatory mitigation if *nesting* burrowing owls are detected on the Project site; compensatory mitigation is not required if the site is being used to satisfy other life history requirements. Because the City's impacts analysis is limited to nesting habitat, and because MM BIO-1 only requires compensatory mitigation for nesting owls, Project impacts to foraging habitat, dispersal and migration habitat, and wintering habitat remain potentially significant.

Impacts from Passive Relocation

The Project may involve excluding burrowing owls from their burrows in order to "passively relocate" them from the Project site and adjacent habitat.[39,40] The IS/MND fails to evaluate impacts to burrowing owls due to burrow exclusion, or to identify mitigation measures sufficient to reduce such impacts below a level of significance. Consistent with CDFW guidelines, burrow exclusion is a potentially significant impact under CEQA that must be analyzed.[41] Specifically, burrow exclusion may result in: (a) significant loss of habitat for reproduction, refuge from predators, and shelter from weather; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[42] Consequently, the City must disclose and analyze impacts associated with the "passive relocation" of burrowing owls.

The need for full analysis of potential impacts associated with passive relocation (i.e., burrow exclusion) of burrowing owls is further supported by research that indicates most relocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that relocation projects generally have failed to produce self-sustaining populations.[43] Investigators attribute the limited success of relocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[44]

Cumulative Impacts

The IS/MND states:

> A number of cumulative projects are proposed or under construction in the project area (City of American Canyon, Active Planning Projects, July 2020. The 330,000 sq. ft. Commerce 330 Distribution Center building is just south of the proposed project site. Copart Auto applied for a Conditional Use Permit to store vehicles at 1578 and 1660 Green Island Road. A new elementary school is under construction just southeast of the site at Commerce Blvd. and Eucalyptus Road. The only other large project planned is an

[39] IS/MND, p. 46 (MM BIO-1).
[40] Although not discussed in the IS/MND, burrow exclusion entails the installation of one-way doors on occupied burrows so owls can exit, but not re-enter, the burrows.
[41] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.
[42] *Ibid*, pp. 10 and 21.
[43] Smith BW, Belthoff JR. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391.
[44] *Ibid.*

> approximately 200,000 sq. ft. logistics center at 300 Boone Drive, near the Napa Airport, about a mile north of the site.[45]

The IS/MND indicates there are only four projects that are proposed or under construction in the City of American Canyon.[46] This does not comport with the "Active Project List" (dated March 2021) available on the City's website.[47] According to the Active Project List, there are several additional projects that would contribute to cumulative impacts. These include the Giovannoni Logistics Center, Oat Hill Multi-Family, Canyon Estates, and Watson Ranch Specific Plan projects. Cumulatively, these projects would impact several hundred acres of habitat for special-status species (e.g., Swainson's hawk). The IS/MND fails to disclose or analyze cumulative impacts due to *all* past, present, and probable future projects in American Canyon.

CEQA Guidelines § 15130(b)(3) state that lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. The geographic scope of the City's cumulative impacts analysis was the City of American Canyon.[48] The IS/MND fails to provide an explanation for this geographic limitation. Moreover, the cumulative impacts analysis is fundamentally flawed because the City applied two different geographical scales to its analysis. The IS/MND states:

> With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.[49]

The Lynch Canyon Preserve (1,039 acres) and the CDFW California Red-Legged Frog Preserve (317 acres) are not located within the City of American Canyon. It is not possible to accurately analyze cumulative impacts by using one geographic scope for open space preserves, but a smaller geographic scope for development projects. Furthermore, the IS/MND misrepresents the functions of the Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project as habitat. The Clark Ranch Project is designed to be a multi-use community park with a bike skills loop, dog park, equestrian riding area, and several buildings (among other features that are incompatible with wildlife conservation).[50] Therefore, the Clark Ranch Project would contribute to cumulative impacts (that were not contemplated in the IS/MND). The other three open space areas are negatively impacted by recreation activities,[51]

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[45] IS/MND, p. 119.
[46] *Ibid.*
[47] *See* <https://www.cityofamericancanyon.org/government/community-development/projects>.
[48] IS/MND, p. 119.
[49] *Ibid.*
[50] City of American Canyon. 2017 Nov 7. Clarke Ranch Master Plan. Exhibit A.
[51] *See* California Fish and Wildlife, Recreation Special Issue 2020.

are comprised primarily of salt ponds or wetlands, and generally do not provide habitat for the same suite of species as those that would be impacted by the Project.

The IS/MND provides the following analysis of cumulative impacts to biological resources:

> Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

Although the IS/MND states the Project would result in cumulative impacts to ruderal habitats, and that Project-related impacts would be considered cumulative with other projects, it fails to provide the City's determination on the significance of the cumulative impacts. In addition, the IS/MND fails to identify what type(s) of Project-related impacts would be considered cumulative, and which species would be subject to the cumulative impacts.

The City's determination regarding the significance of cumulative impacts to biological resources is vague and not supported by evidence. On the CEQA Environmental Checklist Form, the City indicates the impact would be "Less Than Significant." However, the subsequent text in the IS/MND states "[i]mplementation of the proposed project would result in cumulative impacts to ruderal habitats," but that "mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant."

The City's determination that mitigation measures prescribed in the MND would offset cumulative impacts to special-status species to less-than-significant levels is not supported by evidence or analysis. The Project would eliminate 10.39 acres of habitat. Habitat loss is the primary threat to special-status species that occur in the Project area. However, the mitigation measures proposed in the MND are almost entirely limited to measures (e.g., seasonal buffers) designed to avoid or minimize direct impacts to individual animals. Although the MND requires compensatory mitigation if nesting burrowing owls are detected onsite, it does not require compensatory mitigation if non-nesting burrowing owls are detected onsite, nor does it require compensatory mitigation if any other special-status species are detected onsite. As a result, the City's determination that the proposed mitigation would offset cumulative impacts to less-than-significant levels is not supported by evidence.

MITIGATION MEASURE ISSUES

Mitigation Measure BIO-1 (Burrowing Owl)

Mitigation Measure BIO-1 states: "[i]f passive relocation of non-nesting burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan and submit it to CDFW." The proposed mitigation is vague because it does not establish minimum standards for the content of the Relocation Plan, nor does it require CDFW's approval of the Relocation Plan. According to

CDFW's Staff Report on Burrowing Owl Mitigation: "burrowing owls should not be excluded from burrows unless or until:

- A Burrowing Owl Exclusion Plan (see Appendix E) is developed and approved by the applicable local DFG office;
- Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the Mitigating Impacts sections below. Temporary exclusion is mitigated in accordance with the item #1 under Mitigating Impacts below.
- Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion will occur immediately after the end of the breeding season.
- Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight)."[52]

Mitigation Measure BIO-1 does not require these elements, nor does it establish success criteria for burrowing owls that are relocated from the Project site.

Mitigation Measure BIO-1 further states:

> If a nesting season survey determines that a burrow or refugia on the project site is occupied by nesting burrowing owls, then compensatory mitigation in the form of a permanently protected, deed restricted set aside on open space land owned or obtained by the applicant shall be provided if such a protected area makes sense for protection of nesting owls. This permanently protected area would be recorded within 90 days after commencement of project construction. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

As described below, the compensatory mitigation requirements of Mitigation Measure BIO-1 are far too vague to ensure impacts on nesting burrowing owls are reduced to less-than-significant levels.

First, the IS/MND fails to identify how much compensatory mitigation would be required. Mitigating Project impacts to burrowing owl habitat requires compensatory mitigation at a ratio of at least 1:1. As stated in CDFW's Staff Report on Burrowing Owl Mitigation:

> As set forth in more detail in Appendix A, the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow.[53]

Second, the IS/MND fails to establish any criteria for selection of the compensatory mitigation site. These include: (a) geographic location, (b) habitat conditions, and (c) the status of burrowing owls at the site. These variables are critical to the mitigation site's ability to reduce

[52] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, p. 11.
[53] *Ibid*, p. 8.

Project impacts to less-than-significant levels. Most notably, permanent protection of a site that is not occupied by burrowing owls would not mitigate the Project's impacts to occupied nesting habitat.

Third, the IS/MND fails to establish a mechanism that would ensure the mitigation site is maintained and managed in perpetuity to conserve burrowing owls and their habitat. Burrowing owls are limited to habitats with relatively short vegetation and only sparse shrubs or taller vegetation.[54] Therefore, even if the Applicant acquires a mitigation site that currently contains burrowing owls, the site would not offset Project impacts unless the Applicant implements a mechanism (e.g., grazing or mowing) for maintaining short vegetation at the site. In addition, deed restrictions do not ensure habitat conservation in perpetuity because: (a) they can be changed or eliminated,[55] and (b) do not have a third party that can be designated to monitor and enforce the restriction.[56]

Fourth, the IS/MND fails to establish performance standards or monitoring and reporting requirements for the mitigation site. Thus, Mitigation Measure BIO-1 provides no assurances that the mitigation site would effectively compensate for the loss of burrowing owl habitat from the Project site.

Finally, Mitigation Measure BIO-1 requires compensatory mitigation only "if such a protected area makes sense for protection of nesting owls." This condition is vague and confusing. The IS/MND fails to explain the factors that the City would evaluate to determine whether a protected area "makes sense," nor does it explain how significant impacts to nesting burrowing owls would be mitigated if a protected area does not "makes sense."

Mitigation Measure BIO-2 (Swainson's Hawk)

CDFW has determined that compensatory mitigation is not required for projects in areas that have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.[57] For all other projects, the CDFW has concluded that the loss of foraging habitat may lead to the "take" of Swainson's hawks and that mitigation is required. According to CDFW mitigation guidelines, projects within five miles of an active nest tree shall provide habitat compensation at a 0.75:1 ratio.[58] Even if the City determines the Project would not cause a significant reduction in available foraging habitat for the Swainson's hawk territories that occur north of the Project site, habitat compensation is required to support the needs of additional territories as the population recovers.

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[54] Gervais JA, Rosenberg DK, Comrack LA. 2008. Burrowing Owl (*Athene cunicularia*). Pages 218-226 *In:* Shuford WD, Gardali T, editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
[55] County of Kern. 2016. Willow Springs Solar Array Project. Comment 1-Q from the California Department of Fish and Wildlife (dated 1 October 2015).
[56] Land Trust Alliance. 2001. LTA Fact Sheet: Conservation Easement v. Deed Restriction. Available at: <https://conservationtools.org/library_items/203-LTA-Fact-Sheet-Conservation-Easement-vs-Deed-Restriction>.
[57] California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. p. 13.
[58] *Ibid,* p. 12.

Mitigation Measure BIO-3 (Nesting Raptors)

Mitigation Measure BIO-3 states: "[i]f nesting raptors are identified during the [pre-construction] surveys, a qualified biologist shall determine appropriate, species-specific no-disturbance buffers around all active nests…To ensure the no-disturbance buffers are adequate, a qualified biologist shall monitor the active nests within and adjacent to the project site daily for a minimum of one week and then weekly during construction."

Mitigation Measure BIO-3 defines a qualified biologist as "a biologist with at least 2 years' experience conducting surveys for nesting raptors with detections." The response of nesting birds to human-related disturbance activities is dependent on numerous site-specific and species-specific variables. Consequently, determining the appropriate buffer distance requires knowledge of species-specific responses to various types of disturbance in various settings. Many biologists that have experience conducting raptor surveys have no experience with (or knowledge of) avian responses to disturbance. As a result, Mitigation Measure BIO-3 lacks assurances that the "qualified biologist" would establish appropriate, species-specific no-disturbance buffers around all active nests.

For buffer zones to be effective, they need to be based on empirical evidence of avian responses to disturbance. There is an overall lack of this type of empirical evidence.[59] As a result, monitoring is critical to validating the adequacy of a buffer. The IS/MND fails to identify the variables the biologist would monitor to ensure the adequacy of the no-disturbance buffers. Nevertheless, there is no scientific basis for the assumption that a nesting raptor can tolerate an inadequate nest buffer for one week (i.e., the proposed interval of construction monitoring), especially without adverse effects to reproductive success and productivity. This issue is compounded by the absence of any success standards, or monitoring and reporting requirements, for Mitigation Measure BIO-3. For these reasons, the actions proposed in Mitigation Measure BIO-3 do not ensure significant impacts to nesting raptors are avoided. To rectify this issue, the City must require nest buffers consistent with the best available scientific information.

Suter and Joness (1981) surveyed 74 raptor researchers to derive recommendations for nest site protection.[60] Based on the survey results, Suter and Joness (1981) recommended a buffer distance of at least one kilometer (3,281 feet) to prevent raptors from abandoning their nests in response to construction and similar noisy, extended activities.

Mitigation Measure BIO-4 (Nesting Passerines)

Mitigation Measure BIO-4 suffers the same flaws as Mitigation Measure BIO-3: (1) the mitigation measure fails to ensure that the biologist has the expertise needed to determine appropriate, species-specific no-disturbance buffers for active nests; and (2) weekly monitoring during construction is not sufficient to ensure significant impacts to nesting birds are avoided.

[59] Richardson CT, Miller CK. 1997. Recommendations for Protecting Raptors from Human Disturbance: A Review. Wildlife Society Bulletin 25(3):634-638.
[60] Suter GW III, Joness JL. 1981. Criteria for Golden Eagle, Ferruginous Hawk and Prairie Falcon Nest Site Protection. Raptor Research 15(1):12-18.

Mitigation Measure BIO-5 (Pond Turtle)

Mitigation Measure BIO-5 requires a pre-construction survey for western pond turtles. If western pond turtle nests are found during the survey: "the nest site plus a 50-foot buffer around the nest site shall be fenced with orange construction fence until eggs hatch and young turtles disperse to the adjacent North Slough." The proposed measure would be sufficient for turtle nests located less than 50 feet from the Project boundary. However, it would not be effective for turtle nests located in interior portions of the Project site. After traveling 50 feet, the turtles would need to travel through the construction zone to reach North Slough. These turtles would be subject to being killed or injured by construction activities. To rectify this issue, Mitigation Measure BIO-5 needs to be modified such that it requires installation of a no-disturbance dispersal corridor between the nest site and North Slough.

Conclusion

Substantial evidence demonstrates that the Project could have significant, unmitigated impacts on sensitive biological resources. The IS/MND that was prepared for the Project does not adequately disclose and analyze those impacts, nor does it provide the mitigation necessary to ensure significant impacts are reduced to less-than-significant levels. To comply with CEQA, the City needs to prepare an Environmental Impact Report for the Project.

Sincerely,



Scott Cashen, M.S.
Senior Biologist

Scott Cashen, M.S.
Senior Wildlife Biologist

Scott Cashen has 28 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with numerous taxa, ecoregions, biological resource issues, and environmental regulations. As a biological resources expert, Mr. Cashen is knowledgeable of the various agency-promulgated guidelines for field surveys, impact assessments, and mitigation. Mr. Cashen has led field investigations on several special-status species, including ones focusing on the yellow-legged frog, red-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and various forest carnivores.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process of over 100 solar, wind, biomass, and geothermal energy projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support. Mr. Cashen provided expert witness testimony on several of the Department of the Interior's "fast-tracked" renewable energy projects. His testimony on those projects helped lead agencies develop project alternatives and mitigation measures to reduce environmental impacts associated with the projects.

Mr. Cashen was a member of the independent scientific review panel for the Quincy Library Group project, the largest community forestry project in the United States. As a member of the panel, Mr. Cashen was responsible for advising the U.S. Forest Service on its scientific monitoring program, and for preparing a final report to Congress describing the effectiveness of the Herger-Feinstein Forest Recovery Act of 1998.

AREAS OF EXPERTISE

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy development
- Scientific field studies, grant writing and technical editing

EDUCATION

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)
Thesis: *Avian Use of Restored Wetlands in Pennsylvania*
B.S. Resource Management - The University of California, Berkeley (1992)

PROFESSIONAL EXPERIENCE

Litigation Support / Expert Witness

Mr. Cashen has served as a biological resources expert for over 125 projects subject to environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his clients with an assessment of biological resource issues. He then submits formal comments on the scientific and legal adequacy of the project's environmental documents (e.g., Environmental Impact Report). If needed, Mr. Cashen conducts field studies to generate evidence for legal testimony, or he can obtain supplemental testimony from his deep network of species-specific experts. Mr. Cashen has provided written and oral testimony to the California Energy Commission, California Public Utilities Commission, and U.S. district courts. His clients have included law firms, non-profit organizations, and citizen groups.

REPRESENTATIVE EXPERIENCE

Solar Energy

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- California Flats Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- McCoy Solar Project
- Mt. Signal and Calexico Solar
- Panoche Valley Solar
- San Joaquin Solar I & II
- San Luis Solar Project
- Stateline Solar Project
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project
- Willow Springs Solar

Geothermal Energy

- Casa Diablo IV Geothermal
- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Orni 21 Geothermal Project
- Western GeoPower Plant

Wind Energy

- Catalina Renewable Energy
- Ocotillo Wind Energy Project
- SD County Wind Energy
- Searchlight Wind Project
- Shu'luuk Wind Project
- Tres Vaqueros Repowering Project
- Tule Wind Project
- Vasco Winds Relicensing Project

Biomass Facilities

- CA Ethanol Project
- Colusa Biomass Project
- Tracy Green Energy Project

Other Development Projects

- Cal-Am Desalination Project
- Carnegie SVRA Expansion Project
- Lakeview Substation Project
- Monterey Bay Shores Ecoresort
- Phillips 66 Rail Spur
- Valero Benecia Crude By Rail
- World Logistics Center

Project Management

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of the projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

REPRESENTATIVE EXPERIENCE

Wildlife Studies

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (*CA State Parks*)
- "KV" Spotted Owl and Northern Goshawk Inventory: (*USFS, Plumas NF*)
- Amphibian Inventory Project: (*USFS, Plumas NF*)
- San Mateo Creek Steelhead Restoration Project: (*Trout Unlimited and CA Coastal Conservancy, Orange County*)
- Delta Meadows State Park Special-Status Species Inventory: (*CA State Parks, Locke*)

Natural Resources Management

- Mather Lake Resource Management Study and Plan – (*Sacramento County*)
- Placer County Vernal Pool Study – (*Placer County*)
- Weidemann Ranch Mitigation Project – (*Toll Brothers, Inc., San Ramon*)
- Ion Communities Biological Resource Assessments – (*Ion Communities, Riverside and San Bernardino Counties*)
- Del Rio Hills Biological Resource Assessment – (*The Wyro Company, Rio Vista*)

Forestry

- Forest Health Improvement Projects – (*CalFire, SD and Riverside Counties*)
- San Diego Bark Beetle Tree Removal Project – (*SDG&E, San Diego Co.*)
- San Diego Bark Beetle Tree Removal Project – (*San Diego County/NRCS*)
- Hillslope Monitoring Project – (*CalFire, throughout California*)

Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

REPRESENTATIVE EXPERIENCE

Biological Assessments/Biological Evaluations ("BA/BE")

- Aquatic Species BA/BE – Reliable Power Project (*SFPUC*)
- Terrestrial Species BA/BE – Reliable Power Project (*SFPUC*)
- Management Indicator Species Report – Reliable Power Project (*SFPUC*)
- Migratory Bird Report – Reliable Power Project (*SFPUC*)
- Terrestrial and Aquatic Species BA – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BE – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BA/BE – Public Lands Lease Application (*Society for the Conservation of Bighorn Sheep*)
- Terrestrial and Aquatic Species BA/BE – Simon Newman Ranch (*The Nature Conservancy*)
- Draft EIR (Vegetation and Special-Status Plants) - Wildland Fire Resiliency Program (*Midpeninsula Regional Open Space District*)

Avian

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory *(CA State Parks: Locke)*
- Study design and lead bird surveyor - Placer County Vernal Pool Study *(Placer County: throughout Placer County)*
- Surveyor - Willow flycatcher habitat mapping *(USFS: Plumas NF)*
- Surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects *(Ducks Unlimited/USGS: San Pablo Bay)*
- Study design and Lead Investigator - Bird use of restored wetlands research *(Pennsylvania Game Commission: throughout Pennsylvania)*
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County *(HCV Associates: Napa)*
- Surveyor - Baseline inventory of bird abundance following diesel spill *(LFR Levine-Fricke: Suisun Bay)*

- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site *(City of Fairfield: Fairfield, CA)*
- Surveyor - Burrowing owl relocation and monitoring *(US Navy: Dixon, CA)*
- Surveyor - Pre-construction burrowing owl surveys *(various clients: Livermore, San Ramon, Rio Vista, Napa, Victorville, Imperial County, San Diego County)*
- Surveyor - Backcountry bird inventory *(National Park Service: Eagle, Alaska)*
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor – Pre-construction surveys for nesting birds (*various clients and locations)*

Amphibian

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys *(USFS: Plumas NF)*
- Surveyor - Foothill yellow-legged frog surveys *(PG&E: North Fork Feather River)*
- Surveyor - Mountain yellow-legged frog surveys *(El Dorado Irrigation District: Desolation Wilderness)*
- Crew Leader - Bullfrog eradication *(Trout Unlimited: Cleveland NF)*

Fish and Aquatic Resources

- Surveyor - Hardhead minnow and other fish surveys *(USFS: Plumas NF)*
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping *(City of Fairfield: Fairfield, CA)*
- GPS Specialist - Salmonid spawning habitat mapping *(CDFG: Sacramento River)*
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use *(CA Coastal Conservancy: Gualala River estuary)*
- Crew Leader - Exotic species identification and eradication *(Trout Unlimited: Cleveland NF)*

Mammals

- Principal Investigator – Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)

- Scientific Advisor –Study on red panda occupancy and abundance in eastern Nepal *(The Red Panda Network: CA and Nepal)*
- Surveyor - Forest carnivore surveys *(University of CA: Tahoe NF)*
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals *(US Navy: Skagg's Island, CA)*
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

Natural Resource Investigations / Multiple Species Studies

- Scientific Review Team Member – Member of the scientific review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units *(CDF: San Diego, San Bernardino, and Riverside Counties)*
- Biological Resources Expert – Peer review of CEQA/NEPA documents (*various law firms, non-profit organizations, and citizen groups)*
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites *(SDG&E: San Diego County)*
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan *(Trout Unlimited: Cleveland NF)*
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park *(County of Sacramento: Sacramento, CA)*
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property *(Yuba County, CA)*
- Lead Investigator - Wildlife Strike Hazard Management Plan *(HCV Associates: Napa)*
- Lead Investigator - Del Rio Hills Biological Resource Assessment *(The Wyro Company: Rio Vista, CA)*
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California's Wildlife Habitat Relationships (CWHR) Model *(University of California: Tahoe NF)*

Forestry

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen's experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

REPRESENTATIVE EXPERIENCE

- Lead Consultant - CalFire fuels treatment projects *(SD and Riverside Counties)*
- Lead Consultant and supervisor of harvest activities – San Diego Gas and Electric Bark Beetle Tree Removal Project *(San Diego)*
- Crew Leader - Hillslope Monitoring Program *(CalFire: throughout California)*
- Consulting Forester – Forest inventories and timber harvest projects *(various clients throughout California)*

Grant Writing and Technical Editing

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

PERMITS

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS

The Wildlife Society

Cal Alumni Foresters

Mt. Diablo Audubon Society

OTHER AFFILIATIONS

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

TEACHING EXPERIENCE

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

PUBLICATIONS

Gutiérrez RJ, AS Cheng, DR Becker, S Cashen, et al. 2015. Legislated collaboration in a conservation conflict: a case study of the Quincy Library group in California, USA. Chapter 19 *in*: Redpath SR, et al. (eds). Conflicts in Conservation: Navigating Towards Solutions. Cambridge Univ. Press, Cambridge, UK.

Cheng AS, RJ Gutiérrez RJ, S Cashen, et al. 2016. Is There a Place for Legislating Place-Based Collaborative Forestry Proposals?: Examining the Herger-Feinstein Quincy Library Group Forest Recovery Act Pilot Project. Journal of Forestry.

ATTACHMENT D

SMITH ENGINEERING & MANAGEMENT

April 29, 2021

Mr. Darien Key
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Subject: SDG Commerce 217 Distribution Center Project

P21011

Dear Mr. Key:

Per your request, I reviewed the Recirculated Draft Initial Study/Mitigated Negative Declaration (the "ISMND") for the SDG Commerce 217 Distribution Project (the "Project") in the City of American Canyon (the "City") . My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

Potential Warehousing Uses of the Project Building Could Have Trip Generation Significantly Higher than Assumed in the ISMND Analysis

The ISMND and its Appendix F rely on studies of trip generation at six existing wine storage/distribution facilities in the Project's vicinity to estimate the proposed Project's motor vehicle trip generation. While we believe the trip generation measurements performed at the nearby buildings to be credible (in fact, the results are reasonably consistent with the Institute of Transportation Engineer's authoritative publication *Trip Generation, 10th Edition* data for Land

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Use Category 150-Warehouse and for Category 154-High Cube Logistics Warehouse), the problem is that this type of warehouse building is readily adaptable to much more traffic-intensive types of warehousing. In specific, this type of building could easily be used as what *Trip Generation, 10th Edition* characterizes as Land Use Category 156 – Parcel Hub Warehouse or, to use the terminology of a major operator of such facilities, Amazon, a "Last Mile" facility. These are facilities where goods are brought in directly from "fulfillment centers" or air freight terminals by heavy tractor-trailer truck rigs and trans-loaded to van-type vehicles for actual delivery to consumers. The difference in trip generation of a "parcel hub warehouse" and a "wine warehouse" as analyzed in the ISMND is highly significant. The ISMND estimates the trip generation for a wine warehouse in vehicles per thousand square feet of floor area as 1.69 daily, 0.16 in the AM peak and 0.125 in the PM peak. *Trip Generation, 10th Edition* indicates the trip generation for a "parcel hub warehouse" in vehicles per thousand square feet of floor area as 7.75 daily, 0.7 in the AM peak and 0.64 in the PM peak. In other words, used as a parcel hub instead of a wine warehouse, the proposed building would generate 4.6 times as much traffic daily, 4.4 times as much traffic in the AM peak and 5.1 times as much traffic in the PM peak as what is disclosed in the ISMND. The facts that the proposed warehouse is apparently a 'spec' building (the ISMND says it could be occupied by up to 3 tenants implying that there were no tenant commitments at the time of writing) and the proximity to heavy jet capable Napa County Airport strengthen the possibility that the building could end up being used as a parcel hub. Hence, to be adequate, the ISMND must consider the possibility of this plausible and more traffic intense use. Or, the Conditional Use Permit must limit the warehouse to being used solely as a wine storage warehouse.

The ISMND Transportation Section Fails To Address the Serious Operations and Safety Problems on S.R. 29 in the Project Vicinity

Because of its location, most motor vehicle traffic to and from the Project must ultimately use parts of State Highway 29 ("SR 29"). This State Highway experiences considerable operational and safety problems as is well documented in the *State Route 29 Comprehensive Multimodal Corridor Plan* dated May 2020. The City and its consultants, GHD, who prepared the transportation work supporting the ISMND know this as they both were participants in the above referenced SR 29 study. Yet the ISMND utterly fails to address the SR 29 issues or how the Project and others like it in the area contribute to the problem and can contribute to implementing the corridor study recommendations. Instead, it devotes much attention to trivial studies of level of service, traffic signal warrants and right turn lane warrants at a single local intersection, that of Commerce Boulevard with Green Island Road. The ISMND is defective in failing to acknowledge and address the problems in the SR 29 corridor and the Project as a cumulative contributor to them.

The ISMND Assumes Implausible Mitigation of the Project's Significant VMT Impacts

The ISMND transportation analysis, after considering highly disparate data sources regarding average employee trip lengths, finds that the Project, without mitigation, would generate an average of 16.28 daily vehicle miles traveled ("VMT") per employee compared to an impact significance threshold of 10.92 VMT per employee. Hence, without mitigation, the Project would have significant transportation impacts. Translated to aggregate vehicle miles traveled numbers, the ISMND finds that the Project's employees would generate 2214 VMT each weekday, exceeding the significance threshold of 1485 VMT and requires mitigation that eliminates 729 VMT daily in order for the Project to be said to have no significant impact with mitigation.

The ISMND goes on to assume that because the Project is committed to pave what the ISMND claims is an 800 foot gap in the area bikeway network, this action, based on a theoretical formulation, would induce commuters on between 76 and 310 daily commute trips[1] to shift from commuting by auto to bicycle (or splitting the difference between the high and low estimate a so-called average of 193 trips) resulting in a purported daily VMT saving of between again splitting the difference between high and low estimates) of 733 to 1004 miles. The ISMND asserts these theoretical VMT savings would be sufficient to fully mitigate the Project's the significant VMT impacts. However, one must consider what underlies the high and low estimates and the reasonableness of just averaging between them.

Both the high and low estimates are generated by a theoretical formula estimating the number of commuters who would be induced to travel by bike instead of auto as the result of a bikeway of certain length. The ISMND's low estimate reflects only the commuters induced to travel by bike solely by the 800 feet of paved path the Project proposes to provide. The high estimate credits the Project with the commute attractiveness of the entire 1.85 mile bikeway that has already existed for a number of years to the south of the 800 feet of bikeway the Project will pave. Averaging between an estimate that just reflects the length of bikeway the project will pave and one that credits the Project with the entire 1.85 miles of bikeway that already existed is simply not reasonable.

Also, the high estimate reflects a limited localized study by an Oregon research cooperative that found the average commute bike trip length was 5.2 miles. The low estimate reflects a national study by the American Association of State Highway and Transportation Officials (AASHTO) that found the average bike commute trip length was 3.8 miles. Splitting differences is in essence placing equal credence on a limited local study as on one with a national data base. The

[1] Commuters to the general area, not just to the Project itself.

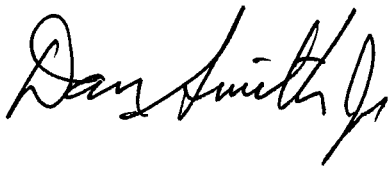
ISMND analysis also discloses by footnote that it assumes the bike commuters would do so 5 days per week for 47 weeks per year. This is in essence every single work day per year, discounting vacation, sick leave and holidays. It leaves no allowance for days of substantial rain or when rain is forecast to fall before quitting time, days of high winds, very cold days or extreme summer heatwaves, or days where the commuter intends to make a trip at lunch hour or immediately after work for which travel by bike may be unsuitable.

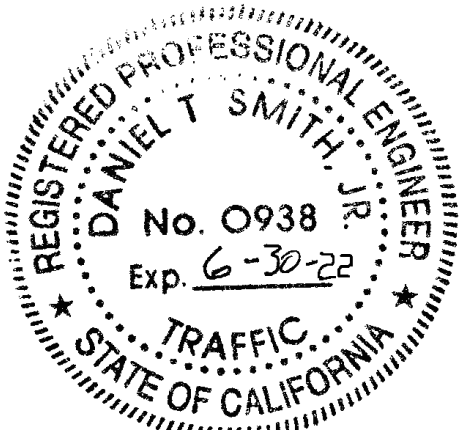
Finally, the notion that the Project is 'filling a gap' in the area bikeway network is an exaggeration. Aerial photo evidence shows that a bikeable has existed on the alignment of Commerce Boulevard at the supposed gap since the mid-1990s if not before. The Project is not supplying a missing link, it is just improving the pavement.

Given all of the above, it is unreasonable to suppose that the Project's significant VMT impacts will be mitigated by paving a few hundred feet of bikeway. Consequently, the Project cannot be approved under a mitigated negative declaration.

Sincerely,

Smith Engineering & Management
A California Corporation





Daniel T. Smith Jr., P.E.
President

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil)
California No. 938 (Traffic)
Nevada No. 7969 (Civil)
Arizona No. 22131 (Civil)
Washington No. 29337 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

ATTACHMENT E

INITIAL STUDY FOR THE SDG COMMERCE 330 WAREHOUSE PROJECT

(PL18-0010, PL18-0011)

Prepared for:

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Community Development Department
4381 Broadway, Ste. 201
American Canyon, CA 94503

Prepared by:

Grassetti Environmental Consulting
7008 Bristol Drive
Berkeley, CA 904705

Date: November 2018

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ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics	X	Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
X	Air Quality		Land Use/Planning		Tribal Cultural Resources
X	Biological Resources		Mineral Resources	X	Transportation/ Traffic
X	Cultural Resources	X	Noise	X	Utilities/Service Systems
X	Geology/Soils		Population/Housing		Mandatory Findings of Significance
	Greenhouse Gas Emissions				

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	**X**
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Brent Cooper

Brent Cooper, Community Development Director

4/19/18

Date

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A Air Quality Model Output Data
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C Traffic Memorandum
D Noise Appendices
E Will Serve Applications
F Mitigation Monitoring and Reporting Program (to be included in Final IS/MND)

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO2E	carbon dioxide equivalent
CWA	Clean Water Act
District	American Canyon Fire Protection District
DPR	California Department of Parks and Recreation
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MBTA	Migratory Bird Treaty Act
MDL	most likely descendant
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCALUCP	Napa County Airport Land Use Compatibility Plan
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
NWIC	Northwest Information Center
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SO_x	sulfur dioxide
SR-29	State Route 29
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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INITIAL STUDY FOR THE

SDG COMMERCE 330 WAREHOUSE PROJECT (PL18-0010, 0011)

This Initial Study has been prepared by the City of American Canyon, Community Development Department, 4381 Broadway, Ste. 201, American Canyon, CA 94503, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations).

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I – SUMMARY: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II – PROJECT DESCRIPTION: Includes a project background and detailed description of the proposed project.

SECTION III – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION IV – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Napa Junction Phase III EIR (SCH#2010082062).

SECTION V – MANDATORY FINDINGS OF SIGNIFICANCE: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

SECTION VI – REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

APPENDICES - Including applicable technical studies and the Mitigation Monitoring and Reporting Program (MMRP)

I. SUMMARY

Project Name and File Number:	SDG Commerce 330 Warehouse Project (Application PL18-0010, 11)
Project Location:	Commerce Boulevard in the City of American Canyon. APN 058-030-065
Project Applicant:	SDC Commerce 330 LLC Brian Doswald, Project Manager 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 bdoswald@icc-stravinski.com
Project Planner:	Tricia Stevens, Contract Project Planner; Brent Cooper, AICP, Community Development Director City of American Canyon 4381 Broadway, Ste. 201 American Canyon, CA 94503 (707) 647-4336
Property Owner:	American Canyon Flat Land Co., Inc. 7674 N. Woodson Ave. Fresno, CA 93711 (559) 908-6363
General Plan Designation:	Commercial Recreation (CR)
Zoning:	Recreation (REC)
Project Approvals:	Conditional Use Permit for 330,528 sq. ft. wine warehouse; Tentative Parcel Map to subdivide larger property into three parcels.
Date Initial Study Completed:	November 19, 2018

II. PROJECT DESCRIPTION

Project Location

The project site is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive, and due north of the City of American Canyon Clarke Ranch open space/recreation area (see Figure 1, Project Location Map). The property proposed for development is at the south end of the expanded Green Island Industrial Area. The property is generally trapezoidal in shape, approximately 15.24 acres in size and is the south parcel of a proposed tentative parcel map (see Figure 2, Proposed Tentative Parcel Map). Access to the project site is from SR-29 via Green Island Road to Commerce Blvd.

The project site is currently one 35.85-acre parcel (APN: 058-030-065). A tentative parcel map is proposed that would divide the one 35.85-acre parcel into three parcels. The parcel proposed for development as a wine warehouse would be the 15.24-acre south parcel. The other two parcels to the north would be approximately 10.16 and 10.39 acres in size. The remaining 0.6 acres would be in the *cul de sac* turnaround, shown as Parcel A. No development is currently proposed for the other two parcels. The proposed parcel map is shown on Figure 2.

Site Conditions

Since 1937 the site was occupied by a planted crop of trees and at some time after that but before the late 1950's a eucalyptus grove was planted. Until 2001 the site remained relatively unchanged. Then in 2001 until around 2012 the northwest corner of the site was used as a paintball field (Sherwood Forest Paintball Area) with the eucalyptus trees remaining in place. In 2004 a warehouse was built directly to the north of the site which included Commerce Boulevard Cul-de-sac Road Improvements on the northeast corner of the site. Also in 2004, the City of American Canyon installed underground utilities and a rock-paved access road through the middle of the eucalyptus grove adjacent to the east side of this site. This work also included the installation of a sanitary sewer force main that bisects the northeast corner of the site. This utility and rock road work included removal of eucalyptus trees as required. In 2012 the site was cleared and grubbed of the eucalyptus trees and shrubs, and is currently a gently sloping open site covered primarily with ruderal vegetation.

The project is bounded on the north by open grassland. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus tree grove and a wire fence; on the south is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space, partially covered eucalyptus trees, and including horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 68-foot wide City Public Access and Utility Easement, with underground sewer, water, reclaimed water and sewer force lines, and PG&E has underground power with vaults; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement (PUE); to the east of these

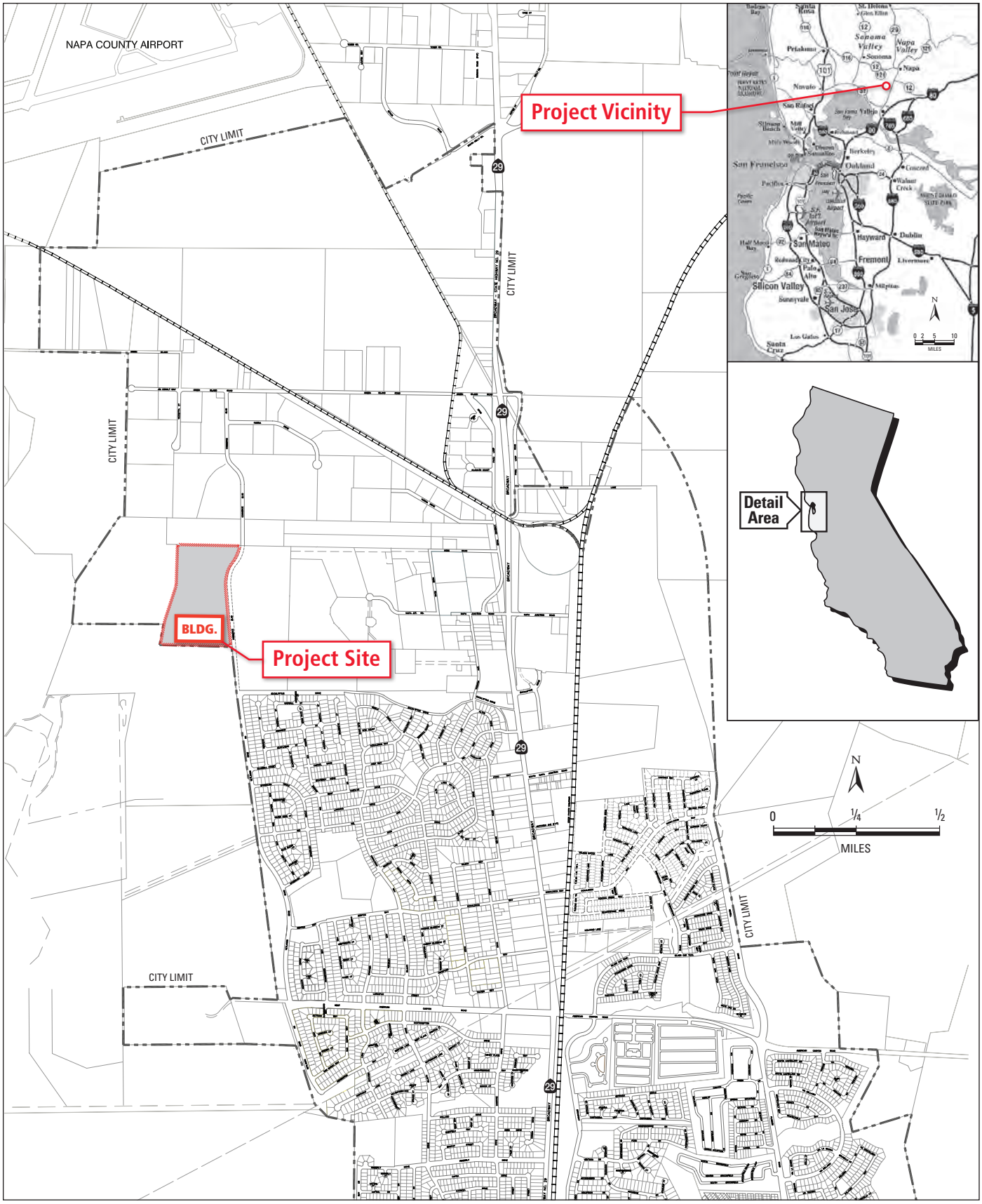

Figure 1

Project Location

Source: City of American Canyon General Plan

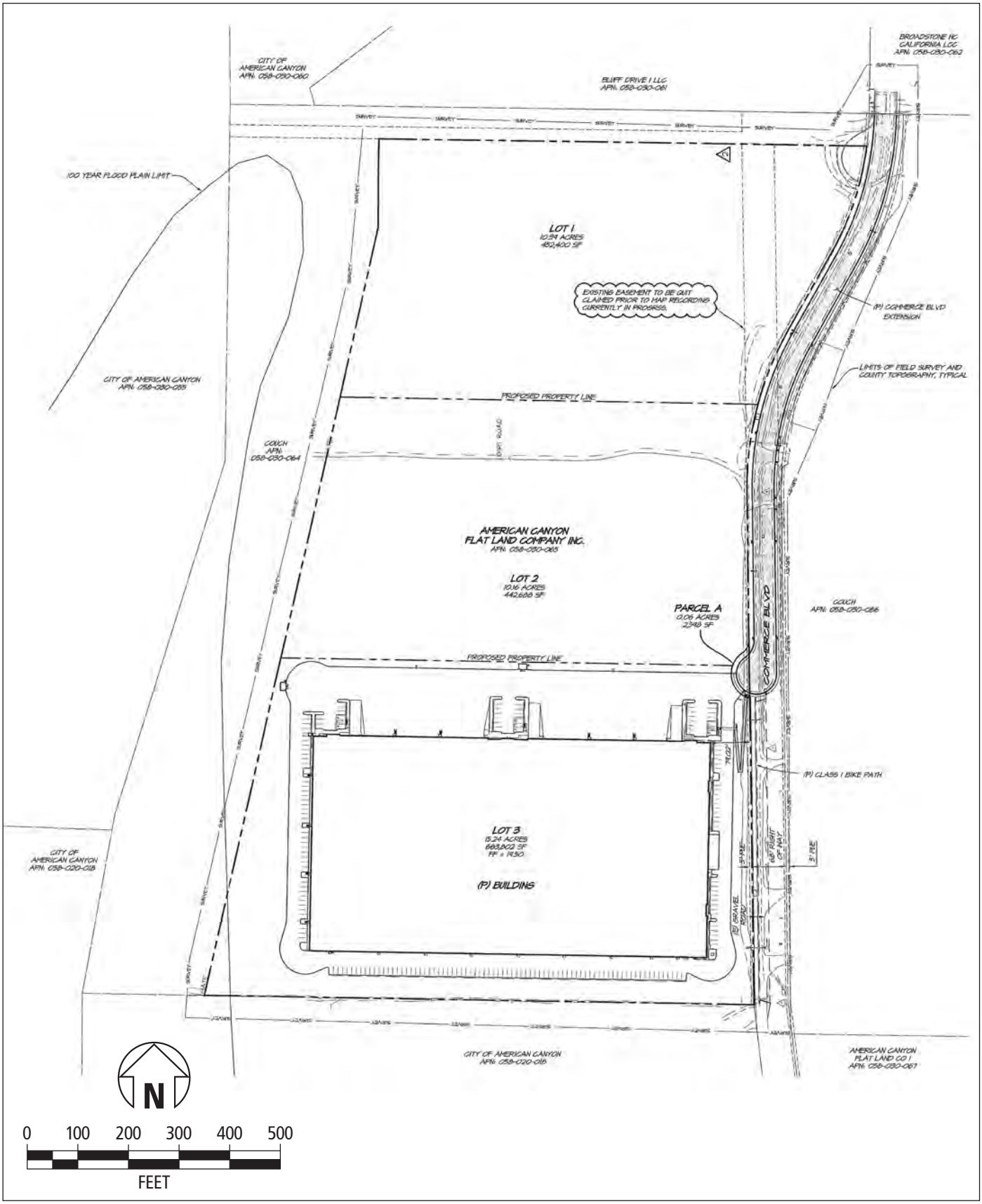

Figure 2

Tentative Parcel Map

Source: RSA+ Consulting Civil Engineers

easements is a 40-acre parcel owned by the Couch Family including a mobile home, dirt/gravel roads, various sheds and lean-to structures, and wire fences;

Current Zoning and General Plan Designations

The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). This Parcel is in the City's Recreation Zoning District (REC). A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries and as a conditionally permitted use. An amendment to the Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit".

Proposed Development

As discussed above, the project applicant proposes to subdivide the overall 35.85-acre parcel and develop a wine warehouse on the southern 15.24-acre parcel. The proposed warehouse development is described below.

Proposed Warehouse Building

The applicant proposes to develop a wine warehouse on the 15.24-acre parcel. The project would consist of one 330,528 square foot wine storage and distribution center on the 663,802 square foot site, which represents a 49.9% building coverage (0.499 FAR). The assumed 6,600 square feet of office space is an estimate as exact office build outs would be determined in the future and reviewed by the City during the Tenant improvement phase of the project. The building has the potential of accommodating multiple tenants with provisions for offices at two corners and midway on the north wall. It is anticipated that the warehouse would be used for wine storage and other wine-related storage and warehousing activities (i.e. bottles, corks, barrels, etc.). The proposed site plan is shown in Figure 3.

The building would be approximately 424 feet deep from north to south, and 780 feet wide from east to west. The building would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings to provide additional modulation. The average roof height of the building would be approximately 35 feet high and portions of the building exterior walls would have various heights to provide architectural relief. The building would be designed with earth-tone colors and in a style similar to the Green Island 258 Warehouse project and the Santa Clara/Yandell Warehouse, located on Green Island Road. Building elevations are shown on Figure 4.

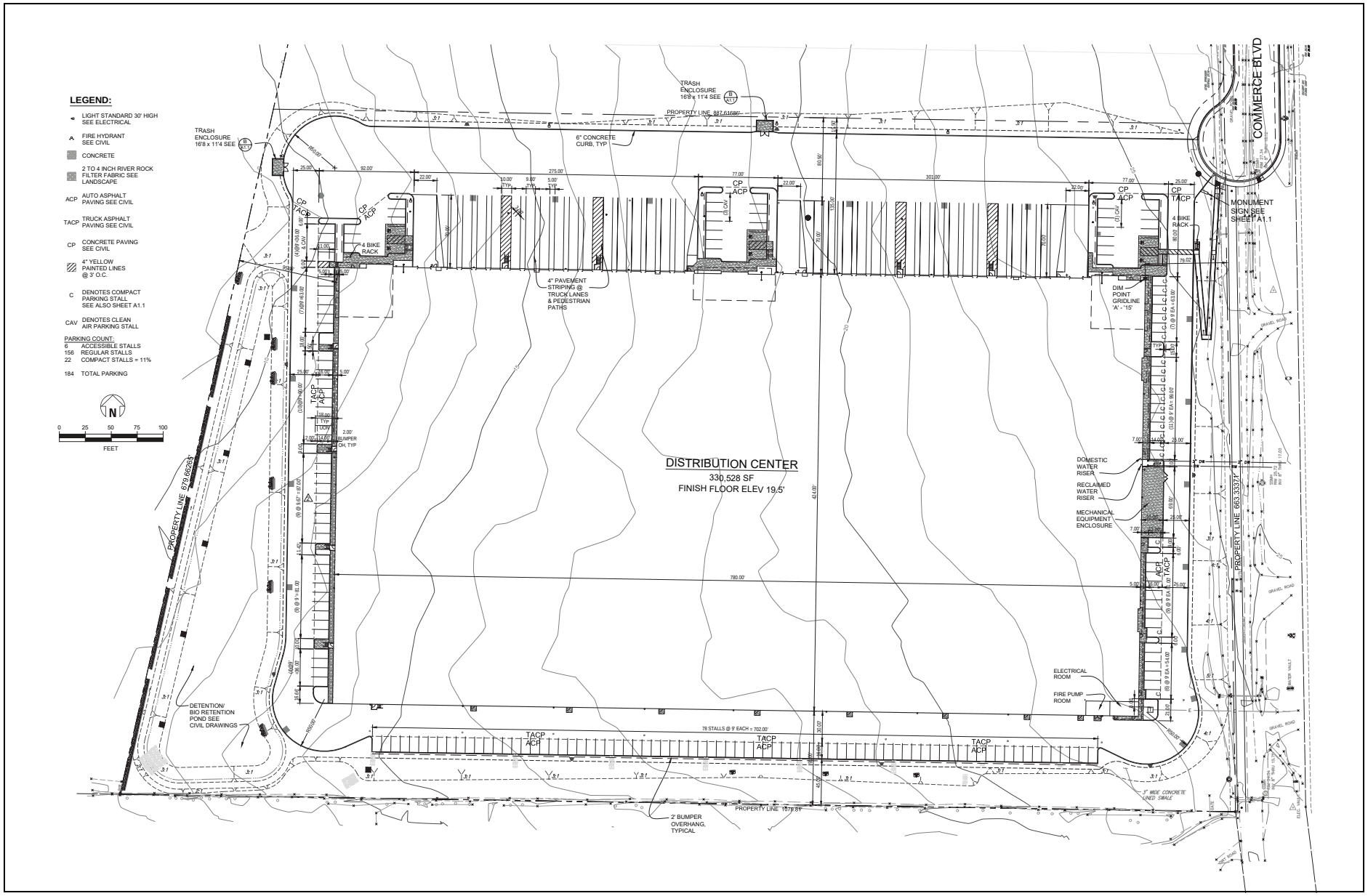

Figure 3

Site Plan

Source: Ward Architects, Inc.

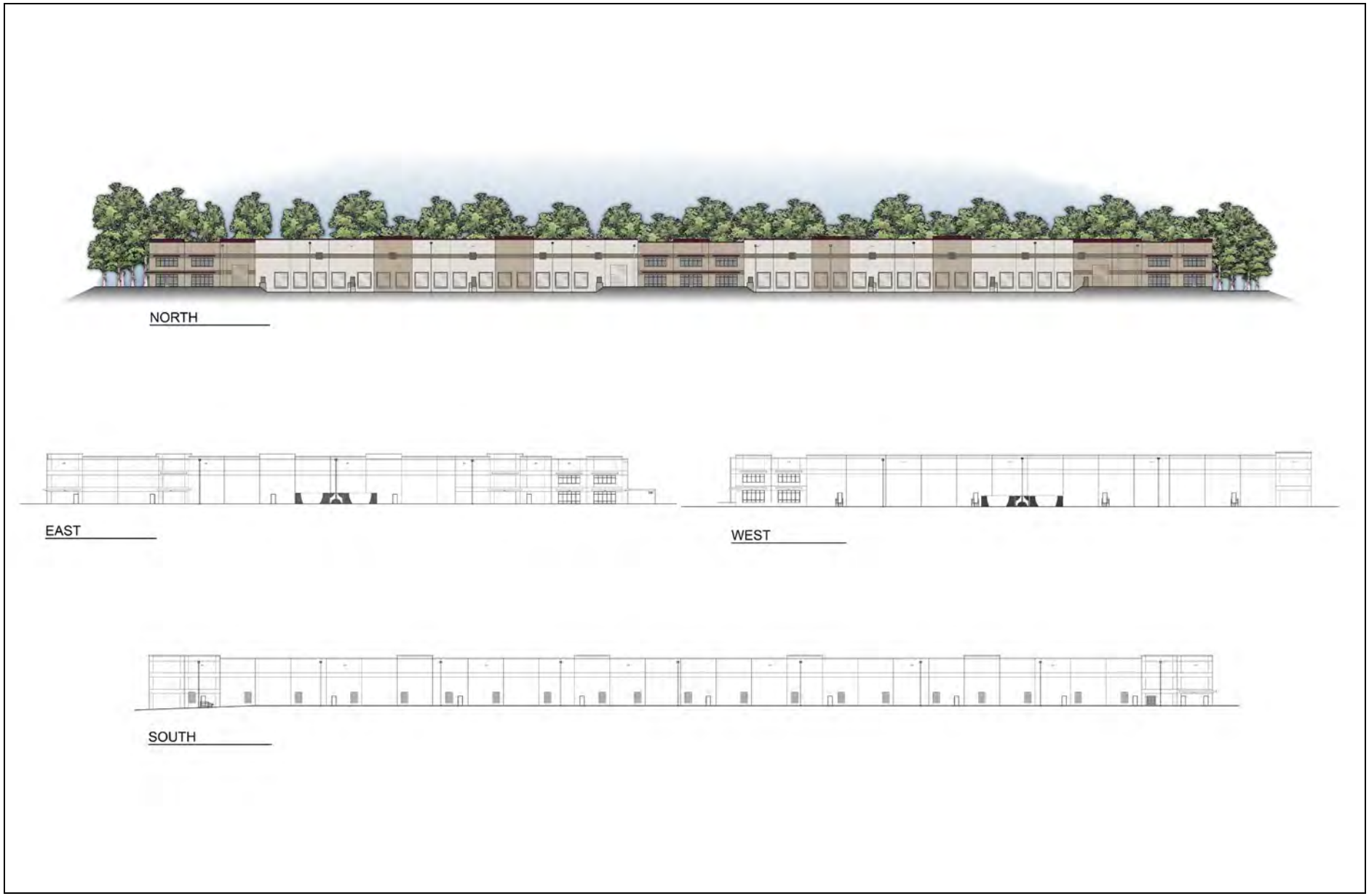

Figure 4

Elevations

Source: Ward Architects, Inc.

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

Parking and Truck Circulation

A total of 189 car and 32 truck dock parking spaces would be provided for the building. Of these parking stalls, 6 would be designated for handicap access with 3 stalls designated for van accessibility and 10 stalls for Clean Air Vehicle parking. The building would have a total of 32 truck loading docks. The developer would construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress would be provided around the full perimeter of the building.

Site circulation has been evaluated, specifically including fire truck movements and in-bound/ out-bound turning movements at the Commerce Boulevard entrance. This is discussed further in the Transportation section of this Initial Study.

Bicycle Facilities

Each end of the building would have a bike rack to accommodate up to 4 bicycles, 1 more than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

Lighting

Exterior lighting for the proposed project would include lighting on the building and on parking lot poles on the north side of the property. Parking lot lighting would be consistent with that which is required by the City of American Canyon. The lights would be "shoebox" fixtures, with a height of 30 feet, dimmable LED fixtures which are designed to direct the light towards the ground and reduce glare to surrounding properties. A photometric study has been prepared to analyze the light pole spacing to maximize light coverage and minimize excessive light spillage off-site and is available for review at the City Community Development Department.

Signage

The site plan shows one proposed monument sign, (approximately 8-foot wide by 5 -foot tall) located at the entry to the site from Commerce Blvd. The applicant would submit a separate Sign Permit

application for City approval of the monument sign, as this proposed sign is not submitted with this application.

Grading and Retaining Structures

Grading of the property would consist of cuts of approximately nine (9) feet and fills of approximately seven (7) feet. A retaining wall that ranges in height from about 2 to 4.5 feet would be constructed along a portion of the east side of the site to accommodate the grade differential. These walls would be engineered to meet the requirements of the California Building Code and are proposed to be a pre-cast concrete block system. Excavations and fills and protection of adjoining property would comply with Chapter 33 of the California Building Code. The Applicant would ensure that adequate erosion protection is installed (see Hydrology discussion).

Landscaping

Landscaping would be provided around the site perimeter, around the building, in parking islands, ends of parking aisles. The south side auto parking would have a 45-foot landscaped/swale setback as a buffer to the Clarke Ranch Property. Mechanical equipment would be placed on the east t side of the building and out of view from the Clarke Ranch property. The irrigation system would be connected to the City's reclaimed water system thus eliminating the use of the City's potable water for landscape purposes. The project would have approximately 70,000 square feet (+/- 1.60 acres) of landscaping.

Utilities and Drainage Facilities

Major utility services (sewer, water, electricity, phone, etc.) are existing along the Commerce Boulevard extension project frontage. The building would have 6" domestic sewer service stubbed to the three (3) office locations and a sewer pump lift station located near the northeast corner of the building tying into the existing City sewer main line in Commerce Blvd. extension. Domestic water service, fire water service and reclaimed water service would be brought to the east side of the building from existing City mains in Commerce Blvd. extension. Gas service can be tied into the existing gas stub in the Commerce Blvd. extension to the north. Electric and telephone service is available along the project frontage on the Commerce Blvd. extension. Electric and Telephone service would be extended underground within the subject property to the southeast corner of the building.

As part of the proposed project, the parcel's storm water runoff would be directed via pipes and a bio-swale into the newly created detention/bioretention pond. This storm water detention/bioretention pond and bio-swale are designed to treat the storm water in conformance with federal, state, and regional requirements. The vegetated swale on the south would be planted with plant material as specified by the hydrology engineer to retain and filter runoff from the site. The roof drains would be

connected to the proposed detention/bioretention pond and storm drain systems surrounding the building by way of down spouts on the exterior of the building that would be painted to blend in with the building façade.

Building Energy Efficiency

The building will be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

The fork lifts used within the buildings would be powered by electricity instead of the typical natural gas-powered fork lifts.

Interior lighting would be designed to meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion-sensor lighting would be installed for areas within the warehouse. This reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current PG&E incentives would be investigated and all attempts to incorporate them into the design would be made.

Construction Activities and Schedule

Construction of the proposed project would take place in one phase. Initial grading would be completed for the site and all underground utilities stubbed to the building pad. The detention/bio-retention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during the initial phases of construction. It is anticipated that from commencement of the initial grading it would take approximately 10 months to complete the construction of the building and associated facilities.

Typical construction equipment that would be used at the site would include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, 15 to 25 workers typically would be on- site, with a maximum near to 100 workers.

Proposed Building Uses

It is anticipated that the building might have approximately 50 full-time employees and up to 30 part-time employees working in up to 3 overlapping shifts and operating 12-18 hours a day during the peak season. These numbers are only approximations as there is no specific user identified with the

application; however, they are substantiated with similar uses. Warehousing and storage of wine and other wine related industries as a whole is not labor intensive on-site. The proposed uses for the building do not demand frequent client or user trips to the site and it can be estimated that approximately 3 to 5 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The proposed uses are generally of low intensity as the storage of wine is necessary for the aging process. The building is designed to accommodate four (4) tenants, however, our experience is that the building will generally have fewer tenants than planned. Office space within the buildings is incidental to the warehouse operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal months, typically June through November.

Proposed Access Improvements

The Project would be accessed from the existing Commerce Blvd. to the north off of Green Island Road. The existing truck turn-around cul-de-sac at the south end of Commerce Blvd. would be relocated approximately 1,100 feet to the south, at the northeast corner of the project site. Commerce Blvd. would be extended this same length and would be a two-lane road (44 feet wide) with concrete curbs and gutters on its east and west sides. The fire access gate would be relocated just south the new *cul-de-sa*c at the existing rock maintenance road to prohibit public access. The new Commerce Blvd. extension would have landscaping on the west side and street lights (both sides) in accordance with City Standards. The east side of the Commerce Blvd. extension would have a five-foot wide sidewalk to match Commerce Boulevard to the north, and a Class 2 bike path in the roadway. The east side frontage to the south of the new *cul-de-sac* would have a class 1 bike path on the west side, with the widened rock maintenance road.

Off-Site Wetlands

The proposed project would create a new off-site wetland to mitigate for a small existing isolated wetland (IW1) at the southeast corner of the property. A 0.05-acre newly created wetland habitat area is proposed on the Hanna Court 411 Warehouse Property – Open Space Easement Site (APN: 058-420-052), just north of the Hanna Court Warehouse access road to mitigate for 0.020 acres of “isolated” waters of the State (isolated seasonal wetlands) that would be affected by the project, which represents a 2.5:1 wetland replacement ratio. The soil within the mitigation wetland would be hydroseeded with a seed mix recommended by the consulting wetland biologist.

Application would be made to the Regional Water Quality Control Board for appropriate approvals, with the City as the lead agency.

Land Use Entitlements and other Agency Approvals

City of American Canyon

The applicant is requesting a Conditional Use Permit and a Tentative Parcel Map from the City of American Canyon for the project.

Other Agency Approvals

The project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Stormwater Pollution Prevention Plan and Permit.
- Regional Water Quality Control Board, San Francisco Bay Region, 401 Water Quality Certificate for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to isolated waters on the project site.
- Napa County Airport Land Use Commission, Avigation Easement (an Avigation and Hazard Easement Deed) extends over the whole of the project site.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			**X**	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			**X**	

a, c) The project site is currently undeveloped open land covered with sparse, weedy vegetation, with some small seasonal wetland areas. The project is bounded on the north by open grassland and beyond that is the developed Green Island commercial and industrial area, containing large modern warehouses with parking lots aesthetically similar to the proposed warehouse. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove. To the south is a line of mature eucalyptus trees and beyond that is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space. Clarke Ranch is utilized for horse-riding facilities operated by Spirit Horse Riding Center. Farther south on Commerce Boulevard is a residential neighborhood. To the east is a 40-acre parcel owned by the Couch Family including a mobile home and various lean-to buildings, and a large commercial recreational paintball facility known as American Canyon Paintball Jungle. A public school is proposed just southeast of the site, to the south of the paintball area, on open land at the corner of Eucalyptus Drive and Commerce Blvd Views of the project site from this eastern boundary can be seen in Figures 5-7.

Figure 5- View of the Site from cul-de-sac at northern part of Commerce Blvd. looking south. The eucalyptus line along the southern boundary constitutes the border between the Commerce 330 Parcel and the Clarke Ranch Site.



Figure 6 – View from the southwest corner of the site looking north.



Figure 7: View from the shoulder of the utility access road on the eastern site boundary looking west. Eucalyptus trees are at the western border of the site.



The site is visible from the northern end of Commerce Blvd., the unpaved extension of Commerce Blvd. from the south, as well as from the Couch property and the Paintball Jungle facility. Distant views of the site may be accessed from the crest of the Oat Hill. There are no views of the site from nearby residential neighborhoods as the property is screened from views by a dense stand of eucalyptus trees Clarke Ranch northern property frontage.

Implementation of the proposed project would replace the existing view of relatively level, undeveloped grassland with views of a new large warehouse structure and parking area. Views from the residential area from the South would be buffered by the line of mature eucalyptus trees along the Southern Boundary and by Clarke Ranch. In addition, the project's landscaping plan includes two rows of screening trees along the site's southern property line. Views of the hillsides and ridgelines visible from Eucalyptus Drive and Commerce Blvd. would not be disturbed.

The proposed project includes a landscape plan, which would soften views from both adjacent properties and Eucalyptus Drive. The project constitutes a visual extension of the existing warehouses that characterize views in the Green Island Road viewshed. Overall, the project would change the visual character of the site from one of a large, undeveloped field

to industrial. While this change would be substantial, the number of viewers affected would be small. For these reasons, the proposed project would not substantially degrade the visual character of the project site or its surroundings consistent. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

b) The project site is located in the City of American Canyon, east of SR-29. Highway SR-29 is designated as an Eligible State Scenic Highway by Caltrans. The City's General Plan specifies that the SR-29 corridor provides opportunities for enhancing the City's visual quality and includes a policy to preserve significant views from areas along major arterial roadways (City of American Canyon 1994, as amended through January 2018). The project site is about 5,000 feet west of the SR-29 highway and is fully shielded from any views by intervening hillside terrain.

Because the proposed project would not be visible in views from that highway, it would have ***no impact*** to vistas from a state scenic highway.

The project would not remove any existing trees, historic buildings or rock outcroppings that would be considered scenic resources. Because there are no city-designated scenic vistas or scenic resources on this site or nearby that the project could adversely affect, development of this site would result in ***no impact*** on these resources.

d) The proposed project includes exterior lighting.

Project lighting would include building lights and lights in the parking lot areas which would increase artificial light in the project area and potentially generate glare. On-site lighting would be shielded and designed to cast light downward, thereby reducing spillover light and glare on adjacent properties. The applicant has prepared a photometric plan showing that project lighting spillover beyond the project site would be minimal (Bosley Electric, 2018). The lighting would be required to adhere to the City of American Canyon's performance standards for street lighting and glare. In reviewing the Conditional Use Permit application for the proposed project, the City would consider the proposed use of outdoor lighting prior to approval. The building design would not introduce a source of glare associated with large expanses of glass. Therefore, impacts from light or glare would be ***less than significant***.

The project applicant would also be required to submit a sign program (indicating location of any lighted signs) to the City for review and approval. The project applicant would be required to implement the sign program, as approved by the City. Visual impact from signage would be ***less than significant***.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

a-e) The project site is undeveloped and located adjacent to a developed area of the City of American Canyon. The site has been rough graded and stripped of trees. The site is designated Recreation in the City's General Plan. Although portions of the site may have historically been used for small-scale agriculture, no such uses have occurred since at least the 1950s, when the site was planted with a eucalyptus grove. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. The most recent California Department of Conservation Important Farmland Maps for Napa County designates the site as Urban and Built Up Land (California Department of Conservation, California Important Farmland Finder,

accessed July 16, 2018 https://maps.conservation.ca.gov/DLRP/CIFF/). In addition, this site is located within the municipal boundaries of the City of American Canyon. There are no Williamson Act lands on the site. The proposed project would not involve any changes that could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use or loss of forest land.

There are no forest lands on the site, nor is the site designated or zoned for timberland resources. Therefore, implementation of the project would not involve the loss of any forest land.

Therefore, there would be ***no impact*** to agricultural and forestry resources.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?		**X**		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		**X**		
c) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		**X**		
d) Expose sensitive receptors to substantial pollutant concentrations?		**X**		
e) Create objectionable odors affecting a substantial number of people?			**X**	

The air quality analysis was performed using methodologies and assumptions recommended within the Bay Area Air Quality Management District (BAAQMD) *CEQA Air Quality Guidelines* (May 2017).[1] This section describes existing air quality and air pollutant construction and operational impacts.

Air quality pollutants evaluated are carbon monoxide (CO), reactive organic compounds (ROG), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5). Greenhouse gas (GHG) emissions are addressed in Section VII, Greenhouse Gas Emissions.

[1] The May 2017 BAAQMD *CEQA Guidelines* includes revisions made to the BAAQMD's *2010 Guidelines* to address the California Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Cal.4th 369. The May 2017 *CEQA Guidelines* update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The BAAQMD is currently working to update any outdated information in the Guidelines.

The project site is located within the San Francisco Bay Area Air Basin (Air Basin) under the jurisdiction of the BAAQMD. The BAAQMD is the local agency responsible for the administration and enforcement of air quality regulations for the area. The Air Basin is currently designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Air Basin is designated "attainment" or "unclassifiable" with respect to the other ambient air quality standards. Additional information regarding the air quality setting is found in Appendix A.

a) The BAAQMD's Clean Air Plan (2017 CAP) is the regional air quality plan for the Air Basin. The 2017 CAP updates the 2010 CAP, pursuant to air quality planning requirements defined in the California Health and Safety Code. The 2017 CAP provides a comprehensive strategy to improve air quality, protect public health, and protect the climate, utilizing all the tools and resources available to the BAAQMD. The BAAQMD recommends that the agency approving a project where a CAP consistency determination is required analyze a project with respect to the following questions. If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Bay Area. Therefore, the following criteria are used for determining the proposed project's consistency with the 2017 CAP:

Criterion 1: Does the proposed project support the primary goals of the 2017 CAP?

The primary goals of the 2017 CAP are to:

- Protect air quality and health at the regional and local scale
- Protect the climate

As discussed in this section and the GHG Emissions section of this Initial Study, all air quality and GHG emissions impacts would be less than significant after implementation of MM AQ-1 through AQ-4. Therefore, the proposed project supports the primary goals of the 2017 CAP.

Criterion 2: Does the proposed project include applicable control measures from the 2017 CAP?

The 2017 CAP's control strategy includes 85 control measures designed to reduce ozone precursors in order to fulfill ozone planning requirements, protect public health by reducing emissions of ozone precursors, particulate matter and toxic air contaminants, and to serve as a regional climate protection strategy by reducing GHG emissions across a full range of economic sectors. The proposed project would include features that support applicable control measures such as water conservation, green buildings, and bicycle access/facilities. Therefore, the proposed project includes applicable control measures from the 2017 CAP.

Criterion 3: Does the proposed project disrupt or hinder implementation of any 2017 CAP control measures?

The BAAQMD provides examples of how a project may cause the disruption or delay of control measures. Examples include a project that precludes an extension of a transit line or bike path, or proposes excessive parking requirements. The proposed project would not cause a disruption or delay of the 2017 CAP's control measures.

The proposed project with mitigation measures would support the primary goals of the 2017 CAP and would be consistent with applicable 2017 CAP control measures, and would not disrupt or hinder implementation of any 2017 CAP control measures. Therefore, the proposed project would have a ***less than significant impact with mitigation***.

b) Construction activities were assumed to commence in spring 2019 with site preparation and grading. Building construction, paving and coating would follow and construction would be complete in approximately winter 2020. The proposed project would be constructed in a single phase estimated to require approximately ten months.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. Air quality calculation details and CalEEMod output worksheets are included in Appendix A.

Table AQ-1 provides the estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's thresholds for construction exhaust emissions. As the construction phases (i.e., grading, building construction, paving, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. All construction-related emissions would be below the BAAQMD significance thresholds. The air quality analysis includes use of paint compliant with BAAQMD Regulation 8, Rule 3 for architectural coatings. Regulation 8, Rule 3 limits the VOC content of the paint.

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM10 and PM2.5. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local meteorological conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Nearby receptors could be adversely affected by dust generated during construction activities.

Table AQ-1
Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2018-2019	**18.5**	**36.5**	**1.6**	**1.5**	**28.7**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--
Proposed Project Mitigated Emissions					
2018-2019	**16.9**	**37.6**	**0.6**	**0.6**	**29.6**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. Mitigation Measures AQ-1 and AQ-2 address the implementation of best management practices to reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*. Mitigation Measure AQ-3 addresses compliance with BAAQMD regulations concerning architectural coating.

The construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include Mitigation Measures AQ-1 through AQ-3 per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant with mitigation***.

Following the completion of construction activities, the proposed project would generate VOC, NO_x, CO, PM10, and PM2.5 emissions from mobile and stationary sources, including vehicular traffic, off-road warehouse equipment (electric forklifts) and area sources (space heating, water heating, maintenance of the buildings and landscaping). Complete details of the emissions calculations are provided in Appendix A.

Estimated maximum daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and 3 and are compared to BAAQMD's thresholds of significance. As indicated, the estimated operational emissions that would be

associated with the proposed project would be below the BAAQMD's significance thresholds and would be ***less than significant***.

Table AQ-2
Estimated Daily Operational Emissions (pounds/day)

Condition	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Summer	11.1	22.0	4.7	2.0	28.2
Winter	10.9	22.4	4.7	2.0	28.5
Maximum Proposed Project	**11.1**	**22.4**	**4.7**	**2.0**	**28.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Table AQ-3
Estimated Annual Operational Emissions (tons/year)

	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Area	1.5	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.9	0.4	0.1	1.8
Off-Road Equipment (Forklifts)	0.2	2.0	0.2	0.1	1.8
Total Proposed Project	**1.8**	**2.9**	**0.6**	**0.3**	**3.6**
BAAQMD Significance Threshold	*10*	*10*	*15*	*10*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD has identified preliminary screening criteria for determining whether CO emissions would be exceeded. The screening criteria provide a conservative indication of whether the implementation of a project would result in CO emissions that are potentially significant. This methodology includes the following:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per day.

- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per day where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on the size of the proposed project and the anticipated resultant traffic volumes, the additional traffic would meet the screening criteria. Therefore, impacts that would be associated with long-term operational CO exhaust emissions would be ***less than significant***.

c) The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the BAAQMD's mass daily and annual significance thresholds. As shown in Tables AQ-1 through AQ-3, proposed project-related emissions would be below the thresholds with implementation of the recommended mitigations measures. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be ***less than significant with mitigation***.

d) The significance of impacts to sensitive receptors is dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) such as DPM or of having adverse health effects from exposure to non-carcinogenic TACs. A project is considered to be significant if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project's impact area. The nearest sensitive receptors, a residential neighborhood, is situated approximately 900 feet southeast of the proposed project boundary, with two-to-three homes that could potentially be within 1,000 feet of certain project construction phases (site preparation and grading activities).

The Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Site preparation and grading activities would last approximately 5 weeks and then subsequent construction phases (building construction and other construction activities) would be greater than 1,000 feet from the nearest sensitive receptor. Secondly, annual wind directions are frequently from the south-southwest (that is, wind blowing from the receptor towards the project site and rarely (northwesterly) from the project site towards the receptor).

To ensure the proposed project's health impacts are less than significant, this Initial Study implements the enhanced exhaust emissions reduction measures as Mitigation Measure AQ-4.

Implementation of Mitigation Measure AQ-4 would ensure the maximum cancer risk from project construction for a residential-adult and child receptors would be below 10 in a million. Thus, the cancer risk due to construction activities would be below the BAAQMD threshold of 10 per million and would be ***less than significant with mitigation***.

e) The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect a substantial number of people. Post construction odors would be minimal. Therefore, odor impacts associated with construction and operation of the proposed project would be ***less than significant***.

Mitigation Measures

Mitigation Measure AQ-1: The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ-2:. The construction contractor shall implement the following measures during construction to reduce construction-related exhaust emissions:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure AQ-3: Emissions of volatile organic compounds (VOC) due to the use of architectural coatings are regulated by the limits contained in Regulation 8: Organic Compounds, Rule 3: Architectural Coatings (Rule 8-3). The VOC architectural coating limits, which were effective on January 1, 2011, was projected to result in a 32 percent reduction of VOC emissions in the Bay Area associated with architectural coating applications. The project contractor shall use paints and solvents with a VOC content of 100 grams per liter or less for interior and 150 grams per liter or less for exterior surfaces.

Mitigation Measure AQ-4: The construction contractor shall implement the following measures during construction to further reduce construction-related exhaust emissions:

All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All off-road equipment shall have:
    a. Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and;
    b. Engines that are retrofitted with a CARB Level 2 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Background Information

A Biological Resource Analysis (BRA) was prepared by Monk & Associates (Monk & Associates 2018a) that provides a description of existing biological resources on the project site and identifies potentially significant impacts that could occur to sensitive biological resources from the construction

of the proposed project site. Monk & Associates also conducted a jurisdictional wetland delineation in 2016, which was verified by the Army Corps of Engineers (Corps) on May 16, 2018 (USACE 2018). A wetland mitigation plan was also prepared (Monk & Associates 2018b) that when implemented would compensate for impacts to waters of the State that will occur from development of the proposed project. The full reports are on-file at the City of American Canyon. Pacific Biology conducted a site visit on August 10, 2018 to confirm the biological conditions of the project site as described in the biological documentation prepared for the project.

The approximately 15-acre project site is bordered to the east by Jungle Paintball, a 40-acre paintball park, and a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space and large warehouses occurs north of the project site. The American Canyon Wastewater Treatment Plant and associated treatment ponds are located west of the project site. The Napa River and associated marsh habitat occurs greater than 300 feet west of the project site, and these habitats are separated from the site by a dense eucalyptus grove. Clark Ranch, open space owned by the City of American Canyon, borders the project site to the south, and Eucalyptus Drive and a residential subdivision are located further to the south.

The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Coyote brush (*Baccharis pilularis*), a native plant that responds to land disturbances, such as have occurred on the project site, is also common on the site.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), all of which have been observed on the project site by Monk & Associates.

Various species of *Eucalyptus* trees have been planted in California for windbreaks, wood, pulp, and other uses. These areas constitute a plantation community (Holland and Keil 1995) and are usually composed of a single species in a very dense planting. On the project site, blue gum eucalyptus trees (*Eucalyptus globulus*) were once abundant throughout; these trees are now restricted to the southern project site boundary where they grow in a linear row, and a dense grow of eucalyptus borders the site to the west. Blue gum trees tower over all of the species native to the area. The trees shade the ground and litter the soil surface with fallen branches, leaves, fruits, and bark.

Rainwater passing through the leaves and branches carry dissolved chemicals that add to the substances leached from the fallen litter producing a significant allelopathic (growth inhibiting) effect on understory vegetation. The net result is that very few other plant species are able to grow around or under the blue gum trees. Consequently, the understory is often sparse if present at all. Thus, in areas where blue gum trees have been planted, they have almost completely replaced the native vegetation (Holland and Keil 1995). Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees on the or bordering the project site.

There is a small (0.02 acre) seasonal wetland in the southeast corner of the project site. This isolated seasonal wetland is dominated by Italian rye grass, English plantain (*Plantago lanceolata*), Mediterranean grass, curly dock (*Rumex crispus*) and bristly ox-tongue; all of these plants are non-native species that are just as readily found in upland habitats as they are in wetland areas. Seasonal wetlands provide a temporary water source for amphibians such as the common Sierran tree frog (*Pseudacris sierra*) and California toad (*Anaxyrus boreas halophilus*) to mate, lay eggs, and forage through the winter and early spring months. Seasonal wetlands also provide drinking water for local wildlife such as the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*).

a) Special-status plant species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 8. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of nine special-status plant species are known to occur in the region of the project site (Monk & Associates 2018a). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris collects on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017 and 2018, special-status plants are not likely to be found onsite (Monk & Associates 2018a). Therefore, impacts to special-status plants would be less-than-significant.

   Special-status wildlife species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 8. No special-status wildlife records have been mapped on or adjacent to the project site. However, a total of 16 special-status wildlife species are known to occur in the region of the project site (Monk & Associates 2018a). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status species



LEGEND

- Special-Status Species (CNDDB August 2018)
- Critical Habitat - California Red-Legged Frog
- Critical Habitat - Soft Bird's-Beak
- Critical Habitat - Vernal Pool Fairy Shrimp
- Critical Habitat - Steelhead

FIGURE 8

Documented Special-Status Species
SDG Commerce 330 Warehouse Project

N
W E
S

0 0.75 1.5 Miles

NOTE: Point data shows centroid of CNDDB polygon

occurring onsite (Monk & Associates 2018a). However, due to the sensitivity of four of the special-status wildlife species known to occur in the area and/or potential habitat on the site, these species are further discussed below. Additional information regarding these special-status species, as well as species known from the region but for which no suitable habitat occurs on or in areas to be impacted by the proposed project, is provided in Table 4 from the Biological Resource Analysis prepared for the project site by Monk & Associates (2018a); (included as Appendix B).

California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a state species of special concern. The project site is located outside USFWS designated critical habitat for the species, but designated critical habitat occurs approximately 1.7 miles to the east. In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site (Monk & Associates 2018a). There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. There are no drainages onsite and the isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae (Monk & Associates 2018a). Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the highly disturbed conditions on the project site due to prior grading and tree removal activities and the other factors discussed above, this species is not expected to occur on the project site. Therefore, impacts to California red-legged frog would be ***less-than-significant***.

Western burrowing owl (*Athene cunicularia*) is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.5 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin (Monk & Associates 2018a). The mobility of the western burrowing owl enables the species to colonize the recent burrows. Monk & Associates (2018b) did not observe western burrowing owls or any indirect

evidence that burrowing owls are using or residing on the project site during any of the site surveys. However, the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl would be potentially significant. Mitigation Measure BIO-1 would be implemented to reduce this impact to a ***less-than-significant*** level.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species afforded protection pursuant to the California Endangered Species Act (CESA). While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800). The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing along the southern project site border and adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near the project site in future years and that nesting could be disturbed by construction activities. Therefore, impacts to nesting Swainson's hawks would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks. Although it is unlikely that the proposed project would impact nesting Swainson's hawk, Mitigation Measure BIO-2 (preconstruction surveys and buffers) is included to ensure that any potential impacts are reduced to a ***less-than-significant*** level.

Northern harrier (*Circus cyaneus*) is a California species of special concern. The closest CNDDB record was documented 2.7 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. However, the project site provides marginal nesting habitat for the northern harrier (Monk & Associates 2018a). Should northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3

would be implemented to reduce potential impacts to nesting northern harriers to a ***less-than-significant*** level.

White-tailed kite (*Elanus leucurus*) is a state Fully Protected species. It inhabits grasslands, agriculture fields, oak woodlands, savanna and riparian habitats in rural and urban areas. The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a ***less-than-significant*** level.

In addition to the above special-status bird species, construction of the proposed project has the potential to affect species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (§3503), such as tree or ground nesting raptors or nesting passerine birds. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project could cause nest abandonment and death of eggs or young. Passerine birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Similar to the raptors, construction activities could disturb or directly affect passerine birds, their eggs, and/or young. Therefore, impacts to nesting raptors and passerines are potentially significant, and Mitigation Measures BIO-3 and BIO-4 would reduce the impact to a ***less-than-significant*** level.

b) There is no riparian habitat at the project site, and no Streambed Alteration Agreement from CDFW would be necessary. Additionally, there are no sensitive plant communities on the project site. The project site is separated from the Napa River and associated marsh habitats by greater than 300 feet and by a dense eucalyptus grove. Therefore, related impacts are ***less than significant***. Wetlands are discussed below under c).

c) A formal wetland delineation was performed by Monk & Associates in in 2016, which was verified by the Army Corps of Engineers (Corps) on May 16, 2018. Based on the verified wetland delineation, the 0.02-acre seasonal wetland on the project site is “isolated” and is not under the jurisdiction of the Corps. However, this “isolated” wetland is considered a “Waters of the State” and is under the jurisdiction of the Regional Water Quality Control Board (RWQCB). The proposed project will result in impacts to the 0.02-acre of “isolated” wetlands (waters of the State) regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. Impacts to “waters of the State” from the proposed project would be regarded

as a significant impact**.** Mitigation Measure BIO-5 would be implemented to reduce this impact to a ***less-than-significant*** level.

d) Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not substantially interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the east. In addition, Clark Ranch to the south has frequent activity associated with a horse-riding facility, and warehouses and other development occur north of the project site. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife, and these areas would not be impacted by the proposed project. Therefore, the proposed project would not substantially affect wildlife movement and related impacts would be ***less than significant***

e) The mature eucalyptus trees along the southern and western project boundaries will remain. In the project site's interior there are no mature trees, but there are a few small stump-sprouting eucalyptus trees that will be removed for the project. Since these are essentially stumps that have some green foliage, they do not meet the definition of a mature tree that is protected pursuant to the City of American Canyon tree ordinance (Monk & Associates 2018a); therefore, no tree replacement should be required and related impacts are ***less than significant.***

f) There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans that include the proposed project site. Therefore, the project would have ***no impact*** to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

Mitigation Measure BIO-1: A preconstruction survey for burrowing owls shall be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

1) Burrowing owl surveys shall be conducted by walking the entire project site. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be seven meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approximately 160 feet) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.

2) If burrowing owls are detected on the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented:

   - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities should have a 500-meter buffer from occupied nests.
   - From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests.
   - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls are found in the project area, a qualified biologist shall delineate the extent of burrowing owl habitat on the site.

3) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site using CDFW-approved methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW approval.

Mitigation Measure BIO-2: Pre-construction surveys for nesting Swainson's hawks shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Mitigation Measure BIO-3: To ensure that impacts to tree or ground nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within the 14-day period prior to site disturbance. The raptor nesting surveys shall include examination of all trees and ruderal habitat or grassland within 200 feet of the project site.

2) If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site shall be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site shall be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and shall be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers shall be maintained

in place through the month of August and work within the buffer can commence on September 1st.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a nesting survey shall be conducted within 14 days prior to commencing construction/ grading or tree removal activities if this work would commence between February 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July, and some species can complete nesting later in August. Regardless, nesting buffers shall be maintained until September 1 unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to September 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report should be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before September 1st.

Mitigation Measure BIO-5: Based on the Corps verified map, 0.02-acre of isolated seasonal wetland will be impacted by the proposed project. The RWQCB has a Water Quality Order No. 2004-004-DWQ (General WDRs), *Standard General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction*. This project will apply for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to isolated waters on the project site. The requirements stipulated in this permit will become conditions of project approval.

The applicant is proposing to mitigate for project-related impacts to waters of the State at a 2:1 mitigation ratio as described in the *Wetland Mitigation Plan, SDF Commerce 330 Distribution Center, City of American Canyon, California* (Monk & Associates 2018b). The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. The mitigation wetlands shall be created, monitored, and evaluated for success as described in the wetland mitigation plan. The mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

a) A cultural resources investigation of the project area was undertaken by Solano Archaeological Services (SAS) which consisted of a record search conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System, a field survey, outreach to the Native American community, and study documentation. The NWIC research indicates that sixteen previous cultural resources investigations were conducted within or in the vicinity of the project area between 1975, and 2009. None of these studies or other research identified any prehistoric or historic-era sites, features, or artifacts within the project area. One site (CA-NAP-727H), a historic period ranch complex, was identified approximately 200 meters south of the project area. Additional archival research and a field survey conducted by SAS also did not identify the locations of any potential cultural or historical resources in the project area.

The Native American Heritage Commission (NAHC) conducted a search of Sacred Lands File the results of which indicate that no Native American historical resources or other culturally sensitive properties are known to be present within or near the project area. Outreach to tribal organizations and individual representatives per a contacts list provided by the NAHC also did not result in the identification of properties or locations possessing cultural significance to the Native American community.

Archival research, outreach to the Native American community, and a field survey did not identify the present of any historical resources within the project area. However, field surveys cannot always identify the presence of sub-surface cultural remains that could be significant

per CEQA criteria. As a result, presently unidentified historical resources could be present within the project area. Mitigation Measure CUL-1, below, would reduce any impacts to presently unidentified historical resources to a ***less-than-significant*** level.

b) As described in a), above, an NWIC record search, archival research, NAHC and Native American community input, and a field survey did not identify any prehistoric or historic-era cultural sites, features, artifacts, or culturally significant properties within the project area. However, there remains a possibility that project ground-disturbing activities could uncover evidence of Native American or early historic period use and/or occupation of the project area. Mitigation Measure CUL-1, below, would reduce any impacts to such resources to a ***less-than-significant*** level.

c) A review of the University of California Museum of Paleontology (UCMP) on-line database indicates that very few paleontological specimens have been collected from Napa County. Only one specimen, an example of *Magnoliposida* (a flowering plant) was found in the general vicinity (City of Napa) approximately six miles north of the project area (UCMP 2018). In addition, according to the Geologic Map of the Cuttings Wharf 7.5' Quadrangle (Bezore et al. 2002), the project area is located solely within late Quaternary alluvial fan deposits. Quaternary alluvium is often devoid of fossil remains due to its high-energy depositional regime, and the subaerial nature of that deposition which generally precludes rapid burial. Organic remains are left exposed to the elements and degrade rapidly before they can be buried. Given the lack of previous paleontological discoveries in and near the project area and the low sensitivity of the landform, it is unlikely that significant paleontological remains or unique geological features would be encountered during project ground-disturbing activities. Therefore, this impact would be ***less than significant*.**

d) Archival research, Native American community outreach, an NWIC record search, and a field survey did result in the documentation of any known human remains within the project area However, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Mitigation Measure CUL-2 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures

***Mitigation Measure CUL-1*:** If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance

in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

VI. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

A Geotechnical Investigation of the project site was prepared by Krazan and Associates, Inc.[2] (Krazan 2018). Krazan's geologists performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 26 borings to depths ranging from about 10 to 50 feet, followed by laboratory testing. Results of the Krazan study are summarized in responses to specific checklist questions below. The full report is available for review at the City Community Development Department.

a.i, ii, iii, iv) The project site is located in a seismically active region associated with the San Andreas Fault System. It is in close proximity to several major faults including the West Napa, Green Valley, Hayward-Rogers Creek, Mount Diablo Thrust, Calaveras, and San Andreas Faults (see Table GEO-1). Data presented by the Working Group on California Earthquake Probabilities (2008) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region between 2007 and 2036 to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It would be necessary to design and construct the proposed warehouse and parking lot in strict adherence with current standards for earthquake-resistant construction.

Although the site is in close proximity to several faults, it is not within the mapped California Earthquake Fault Zone or Alquist-Priolo Earthquake Fault Zone (Krazan 2018). It is approximately 3,200 feet east of the West Napa fault and 600 feet east of the California Earthquake Fault Zone for the West Napa Fault zone. Therefore, the risk of fault rupture at the site is low.

Table GEO-1
Active Fault Proximity to the Project Site

Fault	Direction from Site	Distance from Site (miles)
San Andreas	W	30
Hayward-Rogers Creek	W	11
Mt. Diablo Thrust	S	24
Green Valley	E	8
West Napa	W	0.8
Calaveras	NW	29

Source: Krazan & Associates, 2018

[2] Krazan & Associates, Inc. Geotechnical Engineering Investigation, Proposed SDG Commerce 330 Distribution Center, Commerce Boulevard, American Canyon, California. April 20, 2018.

For the West Napa Fault, the maximum credible earthquake on this fault is approximately 6.5 moment magnitude[3] based on empirical data and the length of the fault. The 2014 South Napa earthquake was located to the south of Napa and to the northwest of American Canyon on the West Napa Fault. It had a magnitude of 6.0 on the moment magnitude scale, and with a maximum Mercalli intensity of VIII (Severe); the event was the largest in the San Francisco Bay Area since the 1989 Loma Prieta earthquake.

Liquefaction is a 'liquefying' of the ground under strong seismic shaking. Liquefaction occurs in water-saturated, loose, granular soils (such as sandy soils). Because of active faults near the site and high acceleration the site may be subject to liquefaction hazards. Krazan evaluated the site's liquefaction potential and determined that soils above a depth of 5 feet below the ground surface have no liquefaction potential because of an absence of groundwater; soils between 5 and 10 feet below the ground surface were determined to have a low to very low liquefaction potential. Total and differential seismic-induced ground settlement were calculated not to exceed 1 inch and 0.75-inch, respectively. There are three potential consequences of liquefaction: bearing capacity failure, lateral spreading toward a free face (e.g. riverbank) and settlement. Bearing capacity failure is sudden and extreme settlement of foundations that typically occurs when the liquefied layer is relatively close (typically within two times the footing width, depending on the loads) to the bottom of the foundation. This impact can be reduced to ***a less-than-significant*** level by implementing the recommendations of the Krazan report, per Mitigation Measure GEO-1 (Krazan 2018).

Lateral spreading (or lurching) is another type of ground failure that is generally caused by liquefaction. It involves movement of large surficial blocks of soil as a result of subsurface liquefaction. Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, the potential for liquefaction-induced lateral spreading at the site is low.

Impacts associated with seismic shaking and associated ground failure issues can be reduced to a ***less-than-significant*** level by proper engineering and construction in accordance with the provisions of the Uniform Building Code and with other site stabilization, drainage, and, foundation design methods, as detailed in the Krazan report.

The project site is nearly flat, so landslide hazards would be minimal.

[3] "The **moment magnitude scale** (a successor to the Richter scale), is used by seismologists to compare the energy released by earthquakes. The constants in the equation are chosen so that estimates of moment magnitude roughly agree with estimates using other scales such as the Richter magnitude scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes. The USGS does not use this scale for earthquakes with a magnitude of less than 3.5." (Wikipedia, 2005)

b) The proposed project would require site stripping, grading and excavation/re-compaction of soils, therefore, construction of the proposed project would result in soil erosion or loss of topsoil. All construction practices would be in accordance with the State of California UBC Title 24, 2013 and measures to control soil erosion found in the general construction activities non-point source storm-water permit (See Hydrology section of this IS). The RWQCB requires that Best Management Practices be incorporated into projects to reduce wind and water erosion (see Mitigation Measure GEO-2). This impact would be reduced to ***less than significant with mitigation***.

c) See responses to items aii, iii, and iv, above.

d) The upper soils on the site are predominantly silty sandy clay, silty clay, or sandy clay. These soils appear to have a moderate swell potential. Mitigation Measure GEO-3, below, would reduce hazards associated with potentially expansive soils to a level that is ***less than significant***.

e) The project would not use septic tanks or other on-site land disposal systems. ***No impac***t would occur.

Mitigation Measures

Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2018). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile

- o Establishment of a single destination “wash-out” for construction subcontractors
- o Use of siltation fences
- o Use of sediment basins

Mitigation Measure GEO-3: **T**he applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2018). Krazan recommends that the upper 24 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. Pads and pavement subgrades shall be treated to reduce the effects of soil expansion.

VII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

The BAAQMD *CEQA Air Quality Guidelines* identify a project specific threshold of either 1,100 metric tons of carbon dioxide-equivalents[4] (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development) as resulting in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion.

a) The CalEEMod (Version 2016.3.2) model was used to quantify GHG emissions associated with proposed project construction activities (for informational purposes), as well as long-term operations associated with energy usage, area sources (landscape maintenance), water/wastewater conveyance, off-road mobile equipment (forklifts) and vehicles. Additional information regarding the GHG emissions setting and calculation details are found in Appendix A.

Estimated construction GHG emissions that would be associated with the proposed project are presented in Table GHG-1. The estimated construction GHG emissions are 652 metric tons of CO_2e (165 in 2018 and 487 in 2019). The BAAQMD does not recommend a threshold for GHG emissions from construction, so this analysis (similar to many other analyses prepared in the San Francisco Bay Area Air Basin) amortizes the construction emissions over the lifetime of the proposed project (30 years) and adds amortized construction emissions to the annual operational emissions. The 30-year amortized annual construction related GHG emissions would be approximately 22 metric tons of CO_2e.

[4] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

Table GHG-1 also provides the estimated operational GHG emissions that would be associated with the proposed project. The GHG construction (amortized) plus operational emissions would be approximately 892 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a ***less-than significant*** impact.

Table GHG-1
Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	22
Operations	
Area	<1
Energy	154
Mobile	504
Off-Road Equipment (Forklifts)	211
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**892**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

b) The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is Assembly Bill (AB) 32 and other State regulations with post-2020 goals such as Executive Order S-3-05 and B-30-15. The proposed project would result in a significant impact if it would be in conflict with AB 32 goals or post-2020 goals in other State regulations. The assumption is that AB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2020 goals and post-2020 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHGs. The proposed project has been reviewed relative to the AB 32 and associated regulations and it has been determined that the proposed project would not conflict with the goals of AB 32 and goals of other State regulations. Therefore, the proposed project would result in a ***less-than-significant*** impact.

VIII. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

A Phase I environmental site assessment (ESA) was conducted by ATC in June 2018 (ATC 2018). This ESA summarized the previous ESA's on the property conducted by Environmental Science Associates (October 2004), Kleinfelder (July 2005; December 2009), and ICES (April 2010). Those previous reports focused on the larger 106-acre Couch Property, of which the overall project site is 35.85 acres, with the proposed development site of about 15 acres. The ATC study also conducted additional site interviews, database reviews, and a new site reconnaissance. The results of that study are summarized in responses to the questions below.

a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials. Therefore***, no significant impacts*** would occur during construction activities.

The site was historically used for agricultural purposes and was occupied by a crop of planted Eucalyptus trees since sometime before circa late 1950's. Up until 2001 the site remained relatively unchanged. From 2001 until around 2012 the northwest corner of the site was used recreationally as a paintball field with the Eucalyptus trees remaining in place. In 2012 the property was cleared and grubbed of the Eucalyptus trees and shrubs.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of institutional land use. Small quantities of these hazardous materials would likely be used on site, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, chlorine (pool), and fertilizers. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

The City of American Canyon Fire Protection District and Napa County Sheriff would be the first responders in the event of a train derailment or spill. Fire and police are trained in how to address hazardous materials spills or fires and in emergency evacuation procedures in the event of a major emergency.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be **less than significant.**

c) The proposed project site is located approximately 0.8 miles from Napa Junction Elementary School. Implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. A new elementary school is proposed across Commerce Blvd., approximately 0.25 miles southeast of the site. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant*.**

d) Given the historical use of the property for agricultural purposes, potential concern is noted regarding the possible use of pesticides, herbicides and fertilizers. If these materials were stored, used and applied according to industry standards, they should not have significantly impacted the property. Evidence of large-scale use or disposal of pesticides, herbicides or fertilizers, such as mixing tanks, chemical storage areas, sprayers, etc. was not observed on the property. Evidence for the overuse of these materials, such as stressed vegetation or soil discoloration was not observed. The property has not been used for agricultural purposes since sometime prior to 2012. Therefore, ATC concluded that the historical use of the property for agricultural purposes and any potential residual pesticides, herbicides and fertilizers in the property soil does not represent a recognized environmental condition to the property (ATC 2018).

The eastern portion of the overall Couch property, to the east of the project site, where some past contamination had been noted, is buffered from the project parcel by the unpaved extension of Commerce Blvd. and about 70 feet of utility easements. It is possible that methamphetamine labs operated in the eucalyptus groves in the area of the Couch Property. Operations of these types of labs typically produce hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. The report by ATC did not note any stressed vegetation or soil staining at the 15-acre site of proposed development that would indicate a potential environmental condition from these chemicals of concern.

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the

review of regulatory agency database information. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a recognized environmental condition to the property.

The property is not listed within the Napa County Leaking Underground Storage Tank (LUST) database, and was not found in further database searches. However, Site Assessment was performed by Napa County in 1990 and the presence of underground storage tanks (USTs) was recorded (ATC 2018). The USTs are on the Eastern 40-acre parcel owned by the Couch Family. The property was reported to have three USTs sitting on the top of the ground in 2004, in an assessment by Environmental Science Associates. A Phase II soil investigation was conducted by Kleinfelder in July 2005, but groundwater sampling was not administered. The soil investigation found no hazards in concentrations above 2005 environmental screening levels except Chromium. The 130 milligrams per kilogram Chromium concentration is within new standards set by February 2016 environmental screening levels and thus constitutes a historical recognized environmental concern (ATC 2018). The current location of the USTs is unknown.

ATC concluded that a phase II soil investigation should be conducted; this is included in Mitigation Measure HZD-1. They also recommended a soil management plan be created; this recommendation is included in Mitigation Measure HZD-2. With implementation of mitigation measures HZD-1 and HZD-2 soil contamination is considered to represent ***a less than significant impact with mitigation***.

e) The Napa County Airport is located approximately 1.5 miles mile to the north of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the General Plan, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan, with a small part of the southern end of the site potentially in Zone E. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. Zone E is less restrictive, and allows all of the uses allowed in Zone D, plus certain additional uses.

Upon the City's approval of the project, an Avigation and Hazard Easement Deed extending over the whole of the property would be executed by the landowner and submitted to the Napa County Board of Supervisors for acceptance.

Therefore, the proposed project would not create aviation safety hazards for persons residing or working in the project vicinity, and impacts would be ***less than significant***.

f) The project is not located in the vicinity of a private airstrip. Therefore, there would ***be no impact*** associated with safety hazards from such airstrips.

g) The development of a wine warehouse on a 15.24-acre site at the end of Commerce Boulevard does not include any facilities or uses that would interfere with the City's emergency response or evacuation plans. The roadway extension would be developed per City standards. The project would be designed to facilitate emergency traffic through and around the site, in accordance with the City's Fire Protection District development standards. During construction, emergency routes would remain open and emergency response plans would not be affected. The impact would be ***less than significant.***

h) The project site is surrounded by parcels containing industrial and warehouse development, and open spaces with ruderal (weedy) vegetation, with marshlands to the West. These areas are not subject to wildlands fires. Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

There is a potential for the dry vegetation on this undeveloped site to catch fire during grading. Equipment could create sparks that would ignite vegetation. Standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire to a ***less-than significant*** level.

The American Canyon Fire Protection District would provide fire protection to the proposed project. The Fire District indicated in an email that mitigation fees would cover needs for fire services or facilities to serve the proposed project (Weeks 2018). For these reasons, the development of the proposed project would not expose persons or structures to wildland fire risks. Impacts would *be* ***less than significant***.

Mitigation Measures

Mitigation Measure HZD-1: Based on the fact that the locations of the former USTs on the eastern Couch parcel of land is unknown and the sampling done in the 2005 Kleinfelder Phase II soil investigation did not include groundwater sampling, the potential impacts from the USTs is a recognized environmental condition. Therefore, a Phase II soil investigation, including

groundwater sampling as applicable, shall be conducted, for the 15-acre proposed development site prior to approval of any building permits. All recommendations of that ESA shall be implemented as part of the project.

Mitigation Measure HZD-2: Following the Phase II ESA, a soil management plan shall be implemented. The plan would include contingencies for impacted areas. Also, if any septic systems and/or heating oil USTs are uncovered, they should be removed and disposed of per applicable regulations. In addition, if any wells are uncovered during development, it should be properly abandoned per applicable regulations

IX. Hydrology and Water Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

A Hydrology Report, and Stormwater Control Plan for the proposed project were prepared by RSA+ (2018a; 2018b). The project site is relatively flat with gentle slopes draining toward the west. Runoff from the property flows over the surface of the site to the west property line. Stormwater is ultimately conveyed to the Napa River (RSA+ 2018a). Downstream, the Napa River discharges into the San Pablo Bay through the Napa Sonoma Marsh.

a, c, d, f) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) Stormwater program to control Stormwater discharges, including those associated with construction activities. Authority for NPDES permitting has been delegated by the federal government to the California State Water Resources Control Board (SWRCB), which has nine regional boards; the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the project area, which is in Napa County. The NPDES Stormwater permitting program regulates Stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009DWQ). Development of the proposed project would require clearing ruderal vegetation and grading of the approximately 15.24-acre proposed development site. In addition, a new warehouse building, truck loading docks, and parking area would be constructed; landscaping would be installed; and bioretention facilities would be created. During construction activities there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's Stormwater system and local waterways. Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the proposed project also would require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. On-site portable toilets could leak or tip over and spill, releasing sanitary waste, bacteria, solids, nutrients, and pathogens. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would exceed the NPDES one-acre threshold; therefore, the project proponents would be required to comply with the CGP. The project applicant would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a less-than-significant level, as described in Mitigation Measure HYD-1.

As required under State Water Resources Control Board Order No. 2013-001 DWQ, the City of American Canyon requires regulated projects, such as this one to prepare a Stormwater Management Program (NPDES Permit No. CAS 612007). As one element of the program, the City requires regulated projects to address post construction stormwater quality. More specifically, the City of American Canyon requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP) in accordance with the Bay Area Stormwater Management Agencies Associated Post Construction Manual. The SWPC must include post-construction Stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWMP must also address ongoing maintenance of those facilities.

The project site currently has no impervious surfaces. Development of the proposed project would increase impervious surface coverage on the project site through construction of the warehouse building, parking areas, internal roadways and driveways, and sidewalks. The increase in impervious surface coverage would create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff transported to receiving waters. Runoff from the proposed landscaped areas may also contain residual pesticides and nutrients.

A Stormwater Control Plan has been prepared for the proposed project in accordance with the Bay Area Stormwater Management Agencies Association-Post Construction Manual. The proposed project would incorporate low impact development design strategies. A detention pond would be designed with biotreatment and constructed on the western property line of project site, and a vegetated swale would be installed along the south side of the proposed warehouse to convey flows from upstream off-site to downstream off-site. (RSA+ 2018b).

The project proposes to use recycled water for landscape irrigation. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. The City, as the purveyor of recycled water, is required

to comply with the State Water Resources Control Board's (SWRCB) General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water. Coverage under the State's General Waste Discharge Requirements (WDRs) for Recycled Water Use (Water Quality Order 2009-006-DWQ) is limited to treated municipal wastewater for non-potable uses. The General Permit establishes requirements to manage recycled water for landscape irrigation uses in a manner that is protective of public health and the environment. The City is responsible for overseeing the recycled water system and compliance with specific BMPs set forth by the SWRCB which include implementation of operations and a management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 1,000 gallons; proper design and operation of sprinkler heads; refraining from application during precipitation events; and management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater. In the event of an unauthorized discharge, the Executive Officer of the appropriate Regional Water Board shall be notified. In addition, as part of the site maintenance, the recycled water system is inspected monthly to verify there are no leaks or runoff from the landscaped area. The recycled water is managed by the City of American Canyon, and use of the recycled water by the proposed project would be a ***less-than-significant*** impact.

b) The proposed project would be served with potable water supplied by the City of American Canyon, and no additional groundwater wells or supplies would be required. Therefore, the proposed project would not contribute to depletion of groundwater supplies. The project's on-site drainage systems would consist of a detention pond and a vegetated detention swale. These features of the development would contribute to replenishing the groundwater supply. Therefore, the development of the proposed project would not interfere with groundwater recharge. As such, impacts would be ***less than significant***.

e) The proposed project's detention basin system would result in a net decrease in peak Stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 62.5 cubic feet per second (cfs) to 56.4 cfs with the proposed project. Potential impacts related to compliance with post-construction runoff would be would be reduced to ***less-than-significant*** with implementation of Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, which assure proper design, construction, and long-term maintenance of the Stormwater facilities.

g,h) The Federal Emergency Management Agency's Flood Insurance Rate Map No. 06055C0617F, Panel 617 out of 650 indicates that the project site is not located within a 100 year flood hazard area and is in an area of minimal flood hazard. Therefore, ***no impact*** would occur.

i) The project site is not located in a dam failure inundation zone, as depicted in the American Canyon General Plan (City of American Canyon 1994, as amended through January

2018). The project site is east of the Conn and Miliken Dams, Rector Reservoir, and Summit Reservoir inundation areas. The project site is not protected by any levees. These conditions preclude the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. Therefore, the proposed project would have ***no impact*** related to exposing people or structures to risks associated with levee or dam failure.

j) Seiches and tsunamis are seismically induced large waves of water. The project site is distant from any water bodies that could result in a seiche or tsunami. Similarly, mudflows are not a concern in this area of the City. Therefore, the proposed project would have ***no impact*** to future residents relative to inundation by seiche, tsunami or mudflow.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.

- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

Mitigation Measure HYD-5: The detention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

X. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

a) The project site is currently undeveloped open land covered mostly with ruderal vegetation, with some small wetland areas. The project is bounded on the north by open grassland. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove; on the south is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space, partially covered eucalyptus trees, and including horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 64-foot wide City Public Access and Utility Easement; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement (PUE); to the east of these easements is a 40-acre parcel owned by the Couch Family including a mobile home and various out-buildings, and a large commercial recreation facility (Paintball Jungle). Farther north on Commerce Blvd. are other warehouses similar to the proposed project. Farther south on Commerce is a residential neighborhood. A public school is proposed just southeast of the site, to the south of the paintball center, at the corner of Eucalyptus Drive and Commerce Blvd. The nearest established residential community is to the south of the proposed Commerce Blvd. extension, and would not be accessible via that extension. Therefore, the project would have no potential to divide any such community. Therefore, there would be ***no impact.***

b) The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). The General Plan describes typical

permitted used in the CR land use category as: *Recreation vehicle parks, interpretative nature centers and conference facilities, and similar uses*. (General Plan Land Use Element, Land Use Schedule Table, p. 1-9). The City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed SDG 330 Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan (email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018).

A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries and as a conditionally permitted use. The Zoning Ordinance defines "Winery" as including viticulture-related activities such as bottling, storage, logistics, distribution, wine packing, and wine-related services. Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19th, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit". The project is in compliance with the City's Zoning Code standards, with approval of a minor variation to height standards to allow a 37-foot height.

The following City General Plan land use policies applicable to the project are noted below.

Policy 1.2.2: Establish as a priority the development of projects that are contiguous with and infill the existing pattern of development, avoiding leap-frog development, except for large scale master-planned projects that are linked to and planned to be extensions of existing development and for which infrastructure and services are in place or funded.

> **Consistent:** The proposed project would be near the developed existing Green Island industrial/warehouse area. Although two open parcels would be created between the project and existing warehouses, it is likely that those would be similarly built out in the foreseeable future. Therefore, the project would be generally consistent with this policy.

Policy 1.3.4: Limit the total additional new development that can be accommodated in the City and its Urban Limit Line to the following provided that the highway improvements stipulated by the Circulation Element are implemented. Industrial development within the City is limited to 1,560,195 sq. ft., and within the Urban Limit Line the limit would be 5,778,500 sq. ft.

Policy 1.3.5 of the GP provides some flexibility in implementing Policy 1.3.4: Consider increases in development capacity when it can be demonstrated that additional transportation improvements have been implemented or are funded, or demands have

been reduced (based on highway level of service and vehicle trips), and such increases are consistent with community needs and desires. (I 1.9 and I 1.10)

Consistent: The project would contribute its fair share to traffic improvements that would assure that appropriate transportation improvements would be implemented. See Transportation/Traffic section of this IS for additional discussion.

Policy 1.22.3: 1.22.3 Permit development according to the following standards:
a. Labor-intensive uses: a maximum floor area ratio of 0.5.
b. Low labor uses (such as warehousing): a maximum floor area ratio of 0.7.

Consistent: The proposed project would have a floor area ratio of 0.498.

Policy 1.22.4: Require that development be designed to achieve a high level of quality and compatibility with existing uses including the consideration of the following:

1. architectural treatment of all building elevations;
2. use of extensive landscape along the primary street frontages and parking lots; and
3. enclosure of storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements. (I 1.1, I 1.4-I 1.7, I 1.11, and I 1.14)

Consistent: The project includes architectural treatments for consistency with nearby warehouse developments. It includes a landscape plan for the street frontages, site perimeter, and storage areas.

Policy 1.27.1: Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Plan (ALUP).

Consistent: The project site is located mostly within ALUP Compatibility Zone D; a small portion of the southern end of the site may be in Zone E (the ALUP Compatibility Map is of low resolution, and it is not possible to definitively determine the exact boundary of the two zones from that map). The proposed project use (warehousing) would comply with the conditions of the ALUP. Therefore, the project would be consistent with this policy.

Policy 1.27.2: Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.

Consistent: The proposed project site is mostly located within Zone D; a small part of the site may be in Zone E. Warehouse uses are permitted in these zones. In addition, the applicant proposes to place an Avigation Easement on the entire property. Therefore, the project would be consistent with this policy.

Policy 1.32.1: Require adherence to the *Design and Development Principles* prescribed in the General Plan and the City's Design Review Guidelines, which shall be updated periodically.

Consistent: The project has been designed to adhere to the *Design and Development Principles* prescribed in the General Plan as well as the City's Design Review Guidelines. Therefore, the project would be consistent with this policy.

Policy 1.32.2: Require that development projects subject to discretionary review submit and implement a landscape plan.

Consistent: Landscaping would be provided throughout the parking lot areas and along project site boundaries. Therefore, the project would be consistent with this policy.

Policy 1.32.4: Require developers to incorporate mature and specimen trees and other significant vegetation, which may exist on a site into the design of a development project for that site.

Consistent: The project includes a landscaping plan, which includes trees and other plants. There are no mature or specimen trees on the project site that can be incorporated as part of the project.

Policy 1.32.5: Require the use of drought-tolerant species in landscape design in accordance with the provisions of the Water Conservation and Landscape Act.

Consistent: Vegetative species included in the project landscape plan are generally native to California and are drought-tolerant where appropriate. Therefore, the project would be consistent with this policy.

Policy 1.32.6: Require that commercial, industrial, and multi-family residential development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.

Consistent: The proposed project would incorporate drought-conscious irrigation systems and maintain the health of the landscape consistent with Policy 1.32.6. Therefore, the project would be consistent with this policy.

Policy 1.32.7: Require that all commercial, industrial, multi-family, and common area landscape be adequately irrigated with automatic irrigation systems.

> **Consistent:** The proposed project would include the use of automatic irrigation systems. Therefore, the project would be consistent with this policy.

Policy 1.32.8: Promote the use of reclaimed water for the irrigation of public and private landscape, as available.

> **Consistent:** The proposed project would include an on-site irrigation system that would use recycled irrigation water. Therefore, the project would be consistent with this policy.

Policy 1.33.1: Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings.

> **Consistent:** The proposed project would be constructed in accordance with the City's building and other pertinent codes. Therefore, implementation of the proposed project would be consistent with this policy.

Policy 1.33.3: Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, and other pertinent elements.

> **Consistent:** The project would provide sufficient space for access, parking, and open space consistent with Policy 1.33.1. Therefore, the project would be consistent with this policy.

Policy 4.9.3: Require that sufficient and secure bicycle parking be provided in all parking areas.

> **Consistent:** Bicycle parking is provided as part of the project. Therefore, the project would be consistent with this policy.

Policy 5.5: In order to reduce light and glare, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) is designed using City engineering standards and/or Best Management Practices to prevent artificial lighting from illuminating adjacent private property in residential neighborhoods and/or natural areas. If isolated areas are identified as having excessive spillover post construction, specific mitigations shall be implemented, e.g. installation of glare shields.

Consistent: The proposed project includes lights in the parking lot and on the building. The lighting has been designed to minimize spillover light, per City requirements. A lighting study has been prepared by the applicant showing minimal spillover lighting.

Policy 6.4.1: Continue to implement an ordinance requiring built-in fire protection for most building types, including single- and multi-family residential, to:

- minimize the potential for loss of life and property
- allow for the provision of a high level of fire protection services while reducing the needs for additional staff and equipment.

Consistent: The proposed project would be constructed to meet City and State fire code requirements. The proposed project would not require additional fire staff or equipment.

Policy 6.9.2: Require that landscaping in proximity to commercial, industrial, multi-family, and public structures be sited to allow for security surveillance.

Consistent: Landscaping would be planted in accordance with City standards to allow for security surveillance.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

- Site Design
  - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
  - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
  - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
  - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas; and
  - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels.

Consistent: The proposed project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise).

Napa County Airport

The Napa County Airport Land Use Commission regulates land use around the Napa County Airport by requiring compliance with the Napa County Airport Land Use Compatibility Plan (NCALUCP). The City of American Canyon's General Plan and Zoning Ordinance were found to be consistent with the NCALUCP. The project is consistent with the City's General Plan. The project site is located in Zones D and E of the Airport's land use compatibility map, which permit development of warehouse uses. Please see a comprehensive discussion of this issue in response to Item VIII e), above.

The project has been designed consistent with all applicable City land use and planning documents adopted to avoid or mitigate an environmental effect, as discussed throughout this Initial Study. Therefore, the impact is ***less than significant*.**

c) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be ***no impact***.

XI. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

a, b) The project site is designated Commercial Recreation in the City's General Plan and consists of a vacant parcel. The site is not identified in the City's General Plan as a site containing locally important mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources. The project does not propose to excavate the site for mineral resources; therefore, no impacts related to mineral resources would result from construction of the project. The project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources.

XII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Existing Noise Levels and Sensitive Receptors

Noise-sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) include residential developments, schools, health care facilities, and libraries. Noise-sensitive receptors in the project vicinity include single-family residences southeast of the project site, with the closest residence being approximately 900 feet away and partially shielded by a noise barrier.

To quantify existing ambient noise levels at the project site and surrounding area, one long-term (72-hour) and several short-term (10-minute) noise measurements were conducted at and near the project site. The long-term meter was placed on the southern edge of the project site, and measured existing 24-hour noise levels. The short-term measurements were conducted at several locations on the project site to measure traffic noise from Eucalyptus Drive and Highway 29, and noise from adjacent properties.

The main source of noise in the project vicinity is aircraft noise from Napa County Airport. Secondary noise sources included traffic on nearby roadways, trains and train whistles, and pedestrians at the adjacent wetlands. The noise measurements are summarized in Table Noise-1, below. The Noise Appendix (Appendix D) includes noise measurement site locations, 24-hour noise plots and additional sound level data.

Table Noise-1: Existing Noise Levels in the Project Area

Location	Time Period	Noise Levels (dB[5])	Noise Sources
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Tuesday July 31, 12:00 a.m. through Thursday August 2, 11:59 p.m., 2018 72-hour measurement	Hourly Leq[6]s ranged from: 42-54 Ldn[7] s: 51, 52, 52 Hourly Lmax[8]s ranged from: 48-73	Unattended noise measurements do not specifically identify noise sources
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Monday July 30, 2018 12:08-12:18 p.m.	5-minute Leqs: 43, 42 5-minute Lmaxs: 49, 43	Airplanes were up to 49 dB. Quieter noises included distant traffic, back-up beeps, and roosters.
Site 1. Southern edge of project site. 480 feet west of the eastern property line.	Friday August 3, 2018 10:45-10:55 a.m.	5-minute Leqs: 44, 46 5-minute Lmaxs: 54, 55	Airplanes were up to 55 dB. Distant traffic was up to 47 dB. Quieter noises included back-up beeps and voices from Spirit Horse Riding Center.
Site 2. Southeast corner of Eucalyptus	Monday July 30, 2018	5-minute Leqs: 48, 51	Heavy truck passing by was 66 dB. Noise from

[5] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report would be A-weighted unless noted otherwise.

[6] The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[7] Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[8] Lmax is the instantaneous maximum noise level for a specified period of time.

Location	Time Period	Noise Levels (dB[5])	Noise Sources
Drive and Wetlands Edge Road. 25 feet south of the Eucalyptus centerline.	10:56-11:06 a.m.	5-minute Lmaxs: 61, 66	summer camp activities was up to 62 dB. Cars passing by were 55-58 dB. Airplanes were 50-51 dB. Quieter noises included a distant motorcycle.
Site 2. Southeast corner of Eucalyptus Drive and Wetlands Edge Road. 25 feet south of the Eucalyptus centerline.	Friday August 3, 2018 11:37-11:47 a.m.	5-minute Leqs: 53, 56 5-minute Lmaxs: 69, 75	Mail truck passing by was 75 dB. Other cars were up to 68 dB. Airplanes were up to 55 dB. A distant motorcycle was 50 dB. Quieter noises included passing cyclists and pedestrians.
Site 3. Eastern edge of project site. 350 feet north of the southern property line.	Monday July 30, 2018 11:21-11:31 a.m.	5-minute Leqs: 44, 49 5-minute Lmaxs: 50, 62	Airplanes were up to 62 dB. Quieter noises included train whistles, roosters, and cows. The ambient noise level was approximately 40 dB.
Site 3. Eastern edge of project site. 350 feet north of the southern property line.	Friday August 3, 2018 11:20-11:30 a.m.	5-minute Leqs: 52, 44 5-minute Lmaxs: 67, 53	Airplanes were up to 63 dB. Passing cars were up to 56 dB. Distant traffic was up to 46 dB. Quieter noises included voices from Spirit Horse Riding Center and roosters.
Site 4. Northern area of project site. 350 feet west of the eastern property line and 460 feet north of the southern property line.	Monday July 30, 2018 11:40-11:50 a.m.	5-minute Leqs: 42, 43 5-minute Lmaxs: 49, 59	Wind was up to 49 dB. Distant traffic was up to 45 dB. Quieter noises included a distant airplane, back-up beeps, and roosters.
Site 4. Northern area of project site. 350 feet west of the eastern property line and 460 feet north of the southern property line.	Friday August 3, 2018 11:05-11:15 a.m.	5-minute Leqs: 43, 46 5-minute Lmaxs: 53, 59	Airplane was 58 dB. Quieter noises included traffic, back-up beeps, and voices from Spirit Horse Riding Center.
Site 5. Western edge of project site. 200 feet north of the southern property line.	Monday July 30, 2018 12:26-12:36 p.m.	5-minute Leqs: 42, 42 5-minute Lmaxs: 48, 51	Nearby birds were up to 51 dB. Airplanes were up to 45 dB. Quieter noises included a train whistle and distant traffic, as well as pedestrian voices from the Bay Trail.
Site 5. Western edge of project site. 200 feet north of the southern property line.	Friday August 3, 2018 10:26-10:36 a.m.	5-minute Leqs: 44, 46 5-minute Lmaxs: 63, 58	Airplanes were up to 57 dB. Distant motorcycles were up to 50 dB. Quieter noises included distant traffic and back-up beeps.

Source: RCH Group, 2018

Regulatory Framework

The City of American Canyon addresses construction noise in Section 8.12.080 of the American Canyon Municipal Code. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties would not exceed those listed in Table Noise-2.

Policy 11.7.1 of the City's General Plan Noise Element limits construction activities adjacent to noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m. The Noise Element also requires construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses (Policy 11.7.2). Policy 11.2.4 of The Noise Element requires new industrial, commercial and related land uses to demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65dB in areas containing housing, schools, health care facilities, or other noise-sensitive land uses.

Table Noise-2: Noise Limits for Construction Activities (Lmax).

Timeframe	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dB	80 dB	85 dB
Daily: 7 p.m. to 7 a.m.	60 dB	65 dB	70 dB

Source: American Canyon Municipal Code, Chapter 8.12

a, c, d) Construction and operational noise impacts are addressed below.

Construction Noise

The project could result in temporary, short-term increases in noise levels during project construction. Noise-sensitive receptors near the project site include single-family residences (to the southeast). Residents in those homes could experience short-term increases in noise levels during construction of the project.

The maximum noise levels for various types of construction equipment that would be required to build the project are provided in Table Noise-3, below. Maximum noise levels generated by construction equipment used for the project would range from 74 to 85 dB at a distance of 50 feet. Table Noise-4 shows the maximum estimated noise levels at the nearest residence that could occur during construction.

Table Noise-3: Typical Noise Levels from Construction Equipment (Lmax)

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Auger Drill Rig	84
Backhoe	78
Bulldozer	82
Compactor (ground)	83
Crane	81
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Slurry Trenching Machine	80
Tractor	84
Welder/Torch	74

Source: *Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide,* 2006.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	900	54
Warehouse construction	1,000	53

Note: Noise levels were estimated using a reference noise level of 85 dB at 50 feet and attenuation rate of 7.5 dB per doubling of distance due to soft-site conditions at the project site.
Source: RCH Group 2018

As shown in Table Noise-1, ambient noise levels at the nearest residence (Site 2) were measured to be 48 to 56 dB, Leq. As shown in Table Noise-4, grading and paving activities would take place approximately 900 feet from the nearest residence and would generate maximum noise levels of approximately 54dB. The construction of the warehouse would take place approximately 1,000 feet from the residence and would generate maximum noise levels of approximately 53dB. Noise levels would be lower than these estimates most of the time, and maximum levels would only occur for a short duration when the construction equipment is at its closest point to the residence. Thus, noise levels resulting from project construction would be consistent with the ambient noise levels at the nearest residence, and would be far below the 65dB noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code.

The implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce construction noise to the maximum extent feasible and would reduce impacts from temporary construction noise to ***less than significant with mitigation***.

Operational Noise

Operational noise from the project would include automobile and truck traffic travel to and from the site, loading dock activities, and parking lot activities. The warehouse building's cooling system would bring in cool night air with intake louvers and fans. Cooling equipment would be located greater than 1,000 feet from the nearest residence to the southeast and the noise from the operation of mechanical equipment would not be audible at the residence over ambient noise levels in the project vicinity.

Noise from parking lot activities would occur at the project site intermittently when warehouse employees arrive at the beginning of a shift and leave at the end of a shift. Representative parking activities such as employees conversing and doors slamming generate maximum noise levels of 60-70 dB at 50 feet (LSA Associates, 2012). The project includes parking spaces approximately 1,000 feet from the nearest residence to the southeast and, given this distance, parking lot noise would attenuate to a level far below ambient noise levels before reaching the residence.

The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Boulevard and Green Island Road. The existing average traffic noise levels measured at Commerce Boulevard (Site 3) were 44 to 52 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 559 trips per day during weekdays (OmniMeans, 2016) including employee and truck trips. With about ten percent of these trips occurring during the peak traffic hour, the project would result in less than one trip per minute on Commerce Boulevard. Project traffic would result in a less than 3 dB increase, and would have a minimal effect upon ambient noise levels in the project vicinity.

Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.

The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-

truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).

Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be ***less than significant***.

b) Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table Noise-6. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry building (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers that could be above 0.5 ppv). Project construction would involve the use of a roller and a bulldozer, which could produce vibration levels of 0.210 and 0.089 ppv at 25 feet. Ground vibration generated by construction operations would be primarily associated with on-site trucks and excavation equipment and would result in vibration levels of less than 0.1 ppv at 25 feet. Construction activities would occur as close as approximately 900 feet from the nearest structure and the predicted vibration levels at the nearest structure would not exceed the 0.5 ppv threshold for residential and commercial structures. Therefore, vibrational impacts would be ***less than significant***.

e) The project site is located in Zone D of the Napa County Airport Land Use Compatibility Plan. Warehousing is listed in the American Canyon General Plan Noise Element as one of the uses that is normally acceptable in this zone. The project would not exceed the maximum density specified in the General Plan for Zone D and would be consistent with the land use designation in the Airport Land Use Plan and the General Plan's airport vicinity land use

compatibility criteria. The project would not expose people working on the project site to excessive noise levels. This impact would be considered ***less than significant***.

f) The project site is not located within the vicinity of a private airstrip. There are no private airstrips located in the City of American Canyon or near the city limits. Therefore, ***no impact*** would occur relative to exposing people to excessive airport related noise levels due to proximity to a private airport or airstrip.

Mitigation Measures

Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m.

Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

XIII. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			**X**	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

a) The proposed warehouse development would not directly increase the population because there is no housing component, but it would introduce new businesses to the area. As part of the project, infrastructure at the site would be expanded. This infrastructure would include an approximately 1100-foot-long paved roadway extension and widening of an existing rock-surfaced road, water and sewer main tie-ins, a sewer lift station, gas line extension, storm drainage facilities, and recycled water service. These improvements would serve the proposed project and the two additional parcels to be created by the tentative map. The project subdivision could induce similar warehouse development on the two parcels to be created to the north of the site. However, the number of new employees at each of these facilities would be small, similar to the project's employment (50 full-time employees and up to 30 part-time employees). Therefore, this impact would be considered ***less than significant***.

b, c) The project site is currently vacant and development of the proposed project would not displace existing housing or people. Therefore, there would be ***no impact*** associated with displacements.

XIV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?			**X**	
d) Parks?				**X**
e) Other public facilities?				**X**

a) As a light industrial/warehouse development, the proposed project would not directly increase the residential population of the City of American Canyon. The General Plan for the City evaluated impacts related to increased industrial development (City of American Canyon. 1994, as amended through January 2018).

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The ACFPD's goal is to respond to 90 percent of their calls in five minutes or less. The response time from this fire station is around five minutes, but may be longer depending on traffic and other variables. Therefore, the proposed development may exceed the District's target response time. In 2017, the ACFPD responded to 94 incidents in the Green Island Industrial area. In 32 percent of the incidents, response time of the first fire vehicle was within five minutes to this area. In 2013 the ACFPD and the City of American Canyon installed an emergency-vehicle-only left-turn lane onto Green Island Road from SR29 to improve access and response times for emergency vehicles into the industrial area (Weeks 2018, email correspondence).

The City covers needs for fire service and facilities through two different fees. The first fee, a Fire Mitigation Fee is a one-time assessment of new development, which is currently $0.5279 per square foot for industrial properties. The second fee is the Fire Service Fee, which is an annual assessment for each parcel based on a formula which includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. The ACFPD many need additional resources to address increased call volume and fire flow needed for the proposed project in the form of

additional facilities, apparatus, and staffing. With payment of the required Fire Service Fee, this impact would be reduced to a ***less-than-significant*** level (Weeks 2018).

b) The City of American Canyon contracts with the Napa County Sheriff's Department for staffing the American Canyon Police Department to provide police services. The California Highway Patrol is responsible for traffic related enforcement. The police headquarters are located at 911 Donaldson Way East, which is the same location as the fire district, approximately 2.1 miles from the project site. The Police Department has a force of 24 full-time sworn officers, two police technicians, and an administrative clerk (City of American Canyon 2018d).

Staff and equipment required to provide service to the proposed project would depend on the occupants of the industrial buildings. The Police Department generally does not require additional police personnel for warehouse projects. Such businesses typically provide some self-monitoring, such as video cameras in parking lots, which reduces police calls. The applicant would be responsible for mitigation/impact fees for the police station in accordance with the City of American Canyon's Mitigation Impact Fee schedule (City of American Canyon 2018b). With payment of the Mitigation Fee, the project would result in a ***less-than-significant impact*** on the City's police services.

c) The City of American Canyon is within the Napa Valley Unified School District (NVUSD). The proposed project would not affect schools, parks or other public facilities because this warehouse project would not directly increase the population. However, industrial developments in the City of American Canyon are required to pay school fees and a Civic Facilities Fee, in accordance with the City's Master Fee Schedule. With payment of the mitigation fees this potential impact would *be* ***less than significant***.

d) The proposed industrial project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. Pursuant to the City's General Plan Policy 7.1.1, the City has a minimum parkland standard of 5.0 acres per 1,000 residents. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore, the project would have ***no impacts*** to parks and recreation facilities**.**

e) No other public facilities would be required by the proposed project. Therefore, Therefore, the project would have ***no impacts*** to any such facilities**.**

XV. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

a, b) The proposed warehouse project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. The project would be on land designated for recreation, but would not affect any such uses or facilities. Therefore the project would have ***no impact*** to recreational facilities.

XVI. Transportation/Traffic

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X		
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?		X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

a, b) **Background/Existing Conditions**

A traffic analysis was conducted for the overall Green Island Road area, including Commerce Blvd, by Omni Means Engineering Solutions (Omni Means) in January 2016[9], and has been reviewed for adequacy by the City Public Works Department. It should be noted that the study did not include the Commerce 330 project, but did include all of the potentially affected intersections. A follow-up focused traffic analysis addressing the proposed project's impacts on the Green Island Road/Commerce Boulevard intersection was prepared by GHD on October 24, 2018[10]. That report found that the existing Levels of Service (LOS) at the Green Island Road/Commerce Boulevard intersection are LOS A in the morning peak hour and LOS B in the afternoon peak hour.

The 2016 Transportation Impact Analysis evaluated future conditions with and without the project. Consistent with the Napa Logistics Park Phase 2 Project Draft EIR the following projects were included in the analysis:

1. Napa Logistics Park Phase 1 and 2
2. Canyon Estates
3. Napa Airport Corporate Center
4. Napa Airport Corporate Center Phase I
5. Napa Junction III
6. Napa Logistics Park Phase I
7. Valley View Senior Housing
8. Village at Vintage Ranch
9. Green Island 258 Warehouse Project

The analysis showed that conditions at SR 29 and Green Island Road would drop from the current LOS C to LOS D in the AM peak hour. All other studied intersection operations would be at LOS B or C. No operations would be below LOS D.

[9] Omni Means Engineering Solutions, American Canyon Wine Warehouse Transportation Impact Analysis Report, January 2016.
[10] GHD, Traffic Impact Analysis Memorandum, 330 Commerce Boulevard Wine Storage Facility Project, October 24, 2018.

Table Traffic-1: Projected Background Conditions: Intersection Level of Service

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Paoli Loop Rd/Green Island Rd	TWSC	D	18.9	C	17.9	C
2	State Route 29 SB/Green Island Rd	On Ramp	D	15.5	B	28.2	D
3	State Route 29 NB/Paoli Loop Rd	On Ramp	D	28.2	D	18.3	C
Notes:							
1. TWSC = Two Way Stop Control							
2. LOS = Delay based on worst minor street approach for TWSC intersections							
3. Intersection was analyzed using HCS 2000 software instead of Synchro. This software was chosen because it can more accurately perform a merge analysis. This analysis is required for this intersection due to the ramp-style right-turn only configuration of this intersection. Intersection vehicle/capacity delay has been supplanted by a density measure.							

Source: Omni Means, January 2016

Project Impact

Existing Plus Project Conditions

To determine project trip generation, data were collected and analyzed for daily trips at seven locations with similar wine warehouse buildings (Omni Means, June 21, 2016; GHD, October 24, 2018). The seven study locations have an average of 1.54 daily trips per thousand square feet (ksf). Eliminating one outlier project, the remaining six projects resulted in an average of 1.69 daily trips/ksf. The project's traffic demands would be substantially similar to those that are currently found in the Green Island Industrial Park, and specifically, similar to those found on Hanna Drive and Commerce Boulevard. Based on traffic counts and peer reviewed studies of traffic in Green Island Industrial Park, the proposed project would be expected to contribute a total of 559 daily project trips with 53 trips in the AM peak hour and 43 trips in the PM peak hour (Onmi Means 2016; GHD 2018).

The City of American Canyon has identified a need for roadway improvements along Green Island Road. The City has proposed an expansion of the roadway by approximately 12 feet, making it a three-lane section to accommodate a two-way left turn lane down the center of Green Island Road. The applicant would be required to pay the City's Transportation Impact Fee. The project's impact on traffic on Green Island Road and associated intersections would therefore be ***less than significant***.

The 2018 GHD report evaluated turn pocket and traffic signal warrants for the intersection of Commerce and Green Island Road. That report projected no change from the existing LOS in either the AM or PM peak hour at the Green Island Road/Commerce Boulevard intersection. The intersection would continue to operate acceptably.

The Green Island Road/Commerce Boulevard intersection also has been evaluated for northbound right-turn movements and an exclusive right-turn lane. Based on existing peak hour count data at the intersection, the vast majority of turning movements from northbound Commerce Boulevard onto Green Island Road are right-turn movements (29 AM right-turns and 168 PM right-turns). With proposed project traffic, these movements are expected to increase to 49 AM right-turns and 195 PM right-turns. Essentially, the northbound approach lane of Commerce Boulevard at Green Island Road is functioning as an exclusive right-turn lane under existing conditions given the very low northbound left-turn movements at the intersection.

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane would be warranted at the intersection based on an overall approach volume of 207 vehicles (PM peak hour worst-case) and a projected northbound right-turn movement of 195 vehicles. Mitigation Measure TRA-1 would address this issue and reduce this impact to a ***less-than-significant level***.

The Green Island Road/Commerce Boulevard intersection was also evaluated for traffic signal control warrants with Existing and Existing Plus Project Conditions. The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants with Existing and Existing Plus Project Conditions. The CaMUTCD manual identifies up to nine warrants which can be used and states that "An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location"[11]. However, the manual goes on to state that "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated." The manual recommends engineering judgment should ultimately be used when deciding the appropriateness of signal controls.

Six of the nine warrants were evaluated (three warrants concerning coordinated signal system, roadway network, and railroad crossing locations were not relevant). There are three warrants based on vehicle volumes and none of the three are met with Existing Plus Project Volumes. These include the “peak hour volume,” “8-hour volume,” and “4-hour volume” warrants. Overall hourly approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

[11] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 3 (March 9, 2018).

Two warrants are based on pedestrian crossing volumes ("pedestrian volumes" and "adequate gaps" for pedestrians) which were applied to the pedestrian volumes in the area. However, while there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road; there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard are very light. During the AM and PM peak period only two pedestrians were observed and only one pedestrian crossed north-south on Green Island Road (jay-walked). Therefore, no pedestrian warrants are met at this time.

Finally, an accident search history was conducted for the Green Island Road/Commerce Boulevard intersection based on the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for last three calendar years (2015-2017). The crash experience warrant requires at least five accidents at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). Based on the accident search history for the last three full calendar years; the Green Island Road/Commerce Boulevard intersection does not experience significant vehicle conflicts (0 recorded accidents).

Cumulative Development Plus Project Conditions

The 2018 GHD report evaluated cumulative-plus-project conditions for the intersection of Commerce and Green Island Road. That report projected the AM and PM LOSs at the Green Island Road/Commerce Boulevard intersection would decline from A to C and B to D, respectively. Even with this decline, the intersection would continue to operate at acceptable LOSs, given the City's minimum acceptable LOS of D.

Impacts After Mitigation

With Mitigation TRA-1, which recommends installation of a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under Existing Plus Project and Cumulative Plus Project conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (11.2 seconds) to LOS B (10.3 seconds) with Existing Plus Project conditions. Under Cumulative Plus Project conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds). Therefore all intersection impacts would be reduced to a ***less-than-significant level with mitigation***.

c) The Napa County Airport is located approximately one mile northwest of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County 1991, revised 1999) identifies a series of zones

with associated recommendations in relation to the proximity to aircraft over-flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the ALUCP, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. A small portion of the site may be in Zone E, which is less restrictive than Zone D, and would allow the proposed project use.

Upon the City's approval of the project, an Avigation and Hazard Easement Deed extending over the whole of the property would be executed by the landowner and submitted to the Napa County Board of Supervisors for acceptance.

Therefore, the proposed project would not create aviation safety hazards for air traffic. Impacts would be ***less than significant***.

d, e) The project circulation plan is in compliance with standard traffic design standards and would not present any traffic hazards. The project's location at the end of Commerce Blvd. assures that traffic into and out of the site would not conflict with any other traffic movements. Internal circulation within the proposed project's parking and loading dock areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. A truck turn-around area is included in the internal circulation plan. The project design does not include any features that would create a hazardous condition. A sidewalk would be built along the project site's Commerce Road frontage. Impacts of the proposed project would be ***less than significant***.

The circulation plan has been designed to allow 40-foot fire trucks to access all sides of the building. The access point to the project site from Commerce Blvd. would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

A total of 189 car and 32 truck dock parking spaces will be provided for the building. Of these parking stalls, 6 will be designated for handicap access with 3 stalls designated for van accessibility and 10 stalls for Clean Air Vehicle parking. The building will have a total of 32 truck loading docks. The developer will construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress will be provided around the full perimeter of the building.

The City of Napa Fire Department, who conducts plan check and inspection for the American Canyon Fire Department, has reviewed and approved the single access design. Semi-trucks would not be allowed on the east, west and south sides of the Building. Only cars and Fire trucks would be allowed. Signage and the truck turnaround at the west end of the truck docks would assure these limitations on truck access are implemented. The City Engineering Department has also reviewed the single access design with the applicant and has no comments.

f) The City of American Canyon and Napa County adopted a Bicycle Plan in 2012 (City of American Canyon and Napa County Transportation and Planning Agency, American Canyon Bicycle Plan, January 2012). That plan (Figure 1) shows a proposed Primary Class II Bicycle Route and Class II Bike Lane on Green Island Road connecting to other areas of the City to the east and wetland and open space areas to the west and south.

The proposed project has been designed to encourage and support public transit as well as bicycle and pedestrian access to the site. Each end of the building will have a bike rack to accommodate up to 4 bicycles, 1 more than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

The site plan and nearby off-site improvements appear to be compatible with walking, bicycling, and transit use and do not appear to create additional conflicts with intersections, streets, and highways near the site. Therefore, the project would not conflict with any adopted plans, policies or programs that address alternative transportation and this impact would be ***less than significant***.

Mitigation Measures

Mitigation Measure TRA-1: As described above, Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-stripeing northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 4.2% (43 trips / 1,019 cumulative volumes—PM peak hour).

XVII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				X
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significar pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) I, ii. A Sacred Lands File search and SB-52 contact information request was forwarded to the Native American Heritage Commission (NAHC) on behalf of the City. The NAHC stated that there were no Tribal Cultural Resources (TCRs) or other potentially significant properties known to be present within or in the vicinity of the project area. In collaboration with the City, SAS contacted four tribal representatives per NAHC recommendations:

Charlie Wright, Chairperson (Cortina Rancheria – Klestal Dehe Band of Wintun Indians)

Jose Simon III, Chairperson (Middletown Rancheria)

Scott Gabaldon, Chairperson (Mishewal-Wappo Tribe of Alexander Valley)

Anthony Roberts, Chairperson (Yocha Dehe Wintun Nation)

Based on input from several of the above-listed individuals, additional contacts were made with Ms. Sally Peterson (Tribal Vice-Chair – Middletown Rancheria), and Mr. Raymond Rouse (GIS Specialist – Yocha Dehe Wintun Nation (Yocha Dehe). None of the initial contacts or subsequent contacts resulted in the identification of any TCRs or other culturally sensitive properties or locations in or near the project area. However, Ms. Peterson did request to be contacted if any Native American cultural resources were encountered during project implementation. Mr. Rouse stated that the Yocha Dehe would like to receive a copy of the final cultural resources report prepared for the project and requested that a specialist from the tribe provide archaeological/cultural sensitivity training to project construction crews.

Archival research, coordination with the NAHC, an archaeological field survey, and outreach to the Native American community did not result in the identification of any TCRs within or near the project area. Consequently, the project would have ***no impact*** on Tribal Cultural Resources

XVII. Utilities and Service Systems

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		X		
e) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

This analysis is based on the City of American Canyon Will Serve Water Application for the project dated June 08, 2018 (City of American Canyon 2018a).

a ,b, e) The City of American Canyon would provide wastewater collection, treatment, and disposal services for the proposed project. Wastewater from the City's service area is

treated at the American Canyon Wastewater Treatment Plant on Mezzetta Court. This secondary/tertiary treatment plant handles domestic and industrial wastewater flows, and employs a Membrane Bio Reactor and ultraviolet light disinfection to produce a very high-quality effluent exceeding the standards set by the discharge permit (City of American Canyon 2017, 2018c). The facility, which was commissioned in 2002, has the capacity to treat 2.5 mgd with a 5.0 mgd wet weather peak flow. American Canyon's current average dry and wet weather daily flows are estimated at 1.3 and 2.7 million gallons, respectively. These daily flow amounts represent 52 percent and 54 percent of the treatment plant's design capacities (Ambrose, email communication). The proposed project would have an estimated domestic sewer demand of 0.37 AFY (275 gallons/day average), or peak sewer demand of 9,106 gallons per day, which would be less than 0.7% of plant capacity. The domestic sewer demand exceeds potable water demand because a portion of the wastewater would be reclaimed water used for toilets and urinals.

To the south of the treatment plant, 20 acres of constructed wetlands hold effluent from the wastewater plant prior to discharge into the Napa River, which has been designated by the regional Water Quality Control Board (RWQCB) as an impaired waterway. During the wet season from November 1 through April 30, effluent is discharged to North Slough, a tributary to the Napa River. Effluent can be discharged to constructed freshwater wetlands all year round, which eventually overflows to the North Slough. Year round, a portion of the effluent is reclaimed for irrigation (currently approximately 200 AFY). No large spills have been reported from this plant since 2007 (Steve Moore, City of American Canyon Water System Manager, personal communications August 7, 2018).

Discharge volumes of wastewater to the Napa River have been reduced by a wastewater reclamation and recycled water project implemented by the City. Approximately 87 percent of the effluent from the wastewater treatment plant is diverted to the constructed wetlands and the remaining 13 percent is available as recycled water for industrial, agricultural, landscaping, and other uses. The system continues to expand as new recycled lines added and new users are connected. The Wastewater Treatment Plant complies with the California Department of Public Health requirements for tertiary recycled water (California Department of Public Health 2009).

A six-inch sanitary sewer line will connect three office locations within the warehouse to a sewer pump lift station located near the northeast corner of the building tying into the existing City sewer main line in the Commerce Blvd extension.

The proposed project's domestic discharge (no industrial discharge is proposed) would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater treatment facilities or expansion or upsizing of existing facilities. Therefore this impact would be ***less than significant.***

c) Stormwater runoff from the project site would be directed through natural surficial flow and a bioswale into a detention pond that would be constructed as part of the proposed project.

The proposed project would result in a net decrease in peak Stormwater (100-year, 24-hour storm event) runoff rates from the exiting 62.96 cubic feet per second (cfs) to the proposed project's peak runoff rate of 56.40 cfs from the site. New storm drainage facilities are described in IX Hydrology and Water Quality section based on a Hydrology Report (RSA 2018a), and Stormwater Control Plan (RSA 2018b) that were written for the proposed project. With the project's proposed storm drainage/detention facilities and Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, the impact from storm water facilities would be reduced to a ***less-than-significant*** level.

d) The City of American Canyon would provide water service to the site. The City receives water from the following sources:

- State Water Project (SWP);
- Permit (raw) water from the City of Vallejo;
- Treated water from the City of Vallejo;
- Emergency (raw) water from the City of Vallejo, and
- Recycled water from the City of American Canyon's wastewater treatment plant and Napa Sanitation District (City of American Canyon 2016a).

The amount of water delivered to the City of American Canyon from each of these sources can vary from year to year. For instance, deliveries from the SWP have varied between five percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount (City of American Canyon 2016a).

The City of American Canyon has two water treatment plants: a conventional sedimentation and filtration plant that was commissioned in 1976 and a membrane filtration plant, which has pores small enough to filter out contaminants, such as microorganisms, and that has been in use since 2004 (City of American Canyon 2016a). The proposed project's water demand of 1.84 AFY (0.30 AFY domestic and 1.54 AFY reclaimed interior and landscaping) could be handled by the existing water treatment plants.

California Water Code requires that water purveyors, such as the City of American Canyon, develop an Urban Water Management Plan (UWMP) and update it every five years. The City's Urban Water Management Plan of 2015 estimated an available year 2020 water supply of 5287 AFY, and a demand of 4412 AFY. (City of American Canyon 2015).

The Public Works Department of the City of American Canyon manages the City's water supply. As required by the City, the applicant submitted a Will-Serve Water Application to the Public Works Department for the proposed project. A Water Supply Report would be required by the City in accordance with the City's Methodology for Determining Zero Water Footprint and Developing Water Supply Reports. That report would address how water demand would

be offset and/or whether a payment of in lieu fee towards citywide water demand reduction would be acceptable to the City.

Based on the potable and reclaimed water use at the 718,000 square-foot Hanna Court wine storage warehouses at 644 and 677 Hanna Drive, approximately 1,700 feet south of the project site, the proposed project is estimated to use .308 AFY of domestic (potable) water. This is three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 275 gpd for the proposed warehouse).

Domestic water would be limited to drinking fountains, sinks, and dishwashers, if any. Most of the water required for the proposed project would be reclaimed water (1.54 AFY), which would be used for landscape irrigation, toilets and urinals. Peak domestic water demand would be 692 gpd and peak reclaimed water demand would be 8,415 gpd (Stravinski Development Group 2018). Implementation of Mitigation Measures UTIL-1 through UTIL-5, below would reduce the project impacts to *a **less-than-significant*** level.

f, g) During project construction and operation, the project would generate solid waste requiring disposal. Recology American Canyon provides solid waste and recycling collection services to the commercial and residential customers in American Canyon. Solid waste from American Canyon is delivered by Recology American Canyon to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. The transfer station is permitted to receive 1,440 tons of waste per day. From the Devlin Road Transfer Station, solid waste is sent to Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill has a maximum daily throughput of 3,500 tons/day and remaining capacity of 63.4 million cubic yards, which is 84 percent of the landfill's maximum permitted capacity. The anticipated closure date for the landfill is 2030 (CalRecycle 2018). Construction and demolition waste accepted at Keller Canyon Landfill is sorted for recyclable material, such as wood, plastics, and metal, which further helps to alleviate the amount of solid waste going to the landfill. Approximately 3-5 tons a month of reusable items are pulled aside and sent to St. Vincent de Paul in Eugene, Oregon (Napa Recycling and Waste Services 2018). The City of American Canyon is currently meeting its disposal rate waste diversion targets (CalRecycle 2018).

The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon.

Green waste from landscape maintenance is minimal because there are no cultivated grass areas that would need to be mowed. Green wastes would be removed from the site. Natural areas would be left in their native state. If required for fire abatement purposes,

high weeds would be cut and left to decompose on-site (Stravinski Development Group LLC 2018). Solid waste impacts would be ***less than significant***.

Mitigation Measures

Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

- Reducing existing potable water demands onsite
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
- Purchase new water supplies from other water providers

Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.

Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

- Drought-resistant vegetation
- Irrigation systems employing the following features:
  - Drip irrigation
  - Low-precipitation-rate sprinklers

  - Bubbler/soaker systems
  - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
  - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
  - Conservative sprinkler spacings that minimize overspray onto paved surfaces
  - Hydrozones that keep plants with similar water needs in the same irrigation zone
- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

V. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		**X**		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

a) The proposed project could affect special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. Although the site does not contain any known historic resources or prehistoric resources, unknown resources could potentially be affected by project implementation, as discussed above in Section V. Cultural Resources. Compliance with the mitigation measures for the unearthing of any unknown cultural resources as well as mitigation required for biological resources would ensure all potential impacts associated with biological and cultural resources would be reduced to ***less than significant***.

b) The proposed project would not result in cumulative impacts that could be cumulatively considerable and potentially affect the general public and the environment. No major new

projects are currently proposed with access to Commerce Blvd. or Green Island Road (City of American Canyon, Active Planning Projects, July 2018). A new elementary school is proposed just southeast of the site at Commerce Blvd. and Eucalyptus Road. That project is in the CEQA review process. The only other large project planned is an approximately 500,000 sq. ft. warehouse project at SR 29 and S. Kelly Road, near the Napa Airport, about a mile north of the site. A conditional use application for outdoor vehicle storage at 834 Green Island Road. It is unlikely that impacts of those projects other than the school would overlap those of this project, with the exception of regional air quality (addressed in this IS) and traffic along SR 29, which is addressed in the City's General Plan. It is possible that construction impacts from the new school could overlap those of the proposed project, however they are likely to be accessed from opposite ends of Commerce Boulevard, so overlap of noise and traffic would be minimal. The cumulative effects of the proposed project would therefore be ***less than significant*.**

It is possible that the two additional parcels to be created by the proposed tentative map would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, and air quality impacts of the proposed project. No projects are currently proposed for those sites, therefore assessment of those impacts would be speculative at this time. Environmental review of those project would be required to also consider the proposed project, if approved.

c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. Hazards associated with any soil contamination would be mitigated on site. The project's hazards would be less than significant, as described in Section VIII of this IS. The impact is considered ***less than significant*.**

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Appendix A

Air Quality Model Output Data

Appendix A

Air Quality and GHG Emissions Data and Supporting Information

A-1: Air Quality Setting

A-2: Air Quality Calculations

A-3: CalEEMod Output Files

A-4: Greenhouse Gas Setting

Appendix A-1

Air Quality Setting and Regulatory Context

The project site is located within the San Francisco Bay Area Air Basin (Air Basin), which encompasses Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties. The Air Basin is characterized by complex terrain which distorts normal wind flow patterns, consisting of coastal mountain ranges, inland valleys, and bays.

Regional Meteorology

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, stability, and air temperature, in combination with local surface topography (i.e., geographic features such as mountains, valleys, and San Francisco Bay), determine the effect of air pollutant emissions on local air quality.

The climate of the greater San Francisco Bay Area, including Napa County, is a Mediterranean-type climate characterized by warm, dry summers and mild, wet winters. The climate is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. In winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, air emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as sulfates and nitrates.

The proposed project site lies in the Napa Valley climatological sub-region of the Bay Area. The Napa Valley is between the Mayacamas Mountains to the west and the Vaca Mountains to the east. These mountains, with an average ridge line height of about 2,000 feet, are effective barriers to the prevailing northwesterlies. The valley is 27 miles long with Napa and Calistoga defining its southern and northern ends, respectively.[1]

An upvalley wind frequently develops during warm summer afternoons drawing from air flowing through the San Pablo Bay. During the evening, especially in the winter, downvalley drainage flow can occur. The prevailing winds are upvalley, southwest through south southeasterly, and occur approximately 50 percent of the time. The second most common winds are down valley drainage winds, north northwesterly through northeasterly, which occur approximately 25 percent of the time. Wind speeds are low with almost 50 percent of the winds between calm and four miles per hour (mph) and an average speed of about five mph. Only five

[1] BAAQMD. Climate, Physiography, And Air Pollution Potential – Bay Area and Its Subregions http://hank.baaqmd.gov/dst/papers/bay_area_climate.pdf

percent of the winds are between 16 and 18 mph which represent strong summer time up valley winds and winter storm winds. Summer average maximum temperatures at the southern end of the valley are in the low 80's with extremes in the high 80's, and at the northern end are in the low 90's with extremes in the high 90's. Winter high temperatures are in the high 50's and low 60's with low temperatures in the high to mid-30's. Sunshine is plentiful and annual average precipitation is 24 inches at Napa.

Summer and fall prevailing winds can transport non-local and locally generated ozone precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows setup by the surrounding mountains may also recirculate pollutants adding to the total burden. Also, the high frequency of light winds and associated stable conditions during the late fall and winter, contributes to the buildup of particulates and carbon monoxide (CO) from automobiles, agricultural burning, and fireplace burning.

Local Air Quality

The Bay Area Air Quality Management District (BAAQMD) maintains a network of monitoring stations within the Air Basin that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to and most representative of the project site is in Napa (Jefferson Street), approximately ten miles north of the proposed project site; where levels of ozone (O_3), particulate matter less than 10 micrometers (coarse or PM10), particulate matter less than 2.5 micrometers (fine or PM2.5), CO, and nitrogen dioxide (NO_2) are recorded.

Table A-1 summarizes the most recent three years of data (2015 through 2017) from the Napa air monitoring station. The federal PM2.5 standard was exceeded once in 2015. No State or federal standards were exceeded in 2016. The State ozone standard (24-hour) was exceeded once in 2017 and the federal ozone standard (8-hour) was exceeded twice in 2017. The federal PM2.5 standard was exceeded 13 times in 2017. No other State or federal air quality standards were exceeded during the three-year period.

The Bay Area is currently designated “nonattainment” for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Bay Area is designated “attainment” or “unclassifiable” with respect to the other ambient air quality standards.

Table A–1
Air Quality Data Summary (2015 through 2017)

Pollutant	Standard[a]	Monitoring Data by Year 2015	2016	2017
Ozone				
Highest 1 Hour Average (ppm)[b]	0.09	0.079	0.080	**0.098**
Days over State Standard		0	0	**1**
Highest 8 Hour Average (ppm)[b]	0.070	0.069	0.067	**0.084**
Days over National Standard		0	0	**2**
Nitrogen Dioxide (NO_2)				
Highest 1 Hour Average (ppm)[b]	0.180	0.043	0.039	0.053
Days over State Standard		0	0	0
Annual Average ($\mu g/m^3$)[b]	0.030/0.053	0.008	0.007	0.007
Carbon Monoxide (CO)				
Highest 1 Hour Average (ppm)[b]	9.0	3.3	2.2	5.6
Days over State Standard		0	0	0
Highest 8 Hour Average (ppm)[b]	20	1.6	1.5	4.7
Days over State Standard		0	0	0
Coarse Particulate Matter (PM10)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	50	50	33	--
Days over State Standard		0	0	0
State Annual Average ($\mu g/m^3$)[b]	20	18.6	16.6	--
Fine Particulate Matter (PM2.5)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	35	**38.2**	24.3	**199.1**
Days over National Standard		**1**	0	**13**
State Annual Average ($\mu g/m^3$)[b]	12	10.6	8.5	**13.7**

*NOTES: Values in **bold** are in excess of at least one applicable standard.*
Generally, state standards and national standards are not to be exceeded more than once per year.
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. A "—" denotes no information available.

Source: BAAQMD, Air Quality Summary Reports, April 17, 2018. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for

CARB's diesel regulations. Overall, cancer risk from toxic air contaminants (TAC) dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[2]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

The proposed project is within the city of American Canyon, which is not part of the seven CARE program impacted communities in the Bay Area. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, is approximately 160 cancer risk per million persons, while in American Canyon, the health impact is approximately 98 cancer risk per million persons.[3]

Nearby Sensitive Receptors

BAAQMD considers the relevant zone of influence for an assessment of air quality health risks to be within 1,000 feet of a project site. The project site is generally bound by open land to the north, a eucalyptus tree grove to the west, Clarke Ranch West Open Space to the south and a 64-foot wide City Public Access and Utility Easement to the east, with a mobile home and various sheds farther east. A residential neighborhood is approximately 900 feet southeast of the southern project site boundary. There are no schools or daycare centers within 1,000 feet of the proposed project.

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2 BAAQMD. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective & Path Forward (2004 – 2013). April 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

3 BAAQMD. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Air Quality Significance Thresholds

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G, and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant air quality impacts if it were to:

A. Conflict with or obstruct implementation of the applicable air quality plan;

B. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

C. Expose sensitive receptors to substantial pollutant concentrations;

D. Create objectionable odors affecting a substantial number of people; or

E. Result in a cumulatively considerable net increase of any nonattainment pollutant, and/or health impacts (including releasing emissions that exceed quantitative thresholds for ozone precursors).

The air quality analysis follows the methodology presented in the BAAQMD 2017 CEQA Guidelines. The thresholds of significance applied to assess project-level air quality impacts are:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10;
- Average daily operation emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM2.5 or 15 tons per year of PM10;
- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers; or
- Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Assessment of a significant cumulative impact if it would result in:

- Exposure of persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs during either construction or operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 $\mu g/m^3$.

The BAAQMD air quality significance thresholds are found in **Table A-2**.

The BAAQMD *CEQA Air Quality Guidelines* identify a project-specific threshold of either 1,100 metric tons of carbon dioxide equivalent (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with

a new development), which is also considered a cumulatively considerable contribution to the global GHG burden and, therefore, a significant cumulative impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion to proposed project GHG emissions.

Table A–2

BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Daily Operational Thresholds	Annual Operational Thresholds
Criteria Air Pollutants			
Reactive Organic Compounds (ROG)	54	54	10
Nitrogen Oxides (NOx)	54	54	10
Coarse Particulate matter (PM10)	82	82	15
Fine Particulate Matter (PM2.5)	54	54	10
Carbon Monoxide (CO)	NA	9.0 ppm (8-hour) and 20.0 ppm (1-hour)	
Fugitive Dust	Best Management Practices	NA	
Project Health Risk and Hazards			
Excess Cancer Risk	10 per million	10 per million	
Chronic Hazard Index	1.0	1.0	
Acute Hazard Index	1.0	1.0	
Incremental Annual Average PM2.5	0.3 μg/m^3	0.3 μg/m^3	
Cumulative Health Risk and Hazards			
Excess Cancer Risk	100 per million	100 per million	
Chronic Hazard Index	10.0	10.0	
Acute Hazard Index	10.0	10.0	
Incremental Annual Average PM2.5	0.8 μg/m^3	0.8 μg/m^3	
Greenhouse Gas Emissions			
Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		

SOURCE: BAAQMD *2017 CEQA Guidelines*

Appendix A-2

Air Quality Calculations

Construction Activities

Construction activities are expected to commence in October 2018 with site preparation and grading. Building construction would follow and paving and coating would occur during the summer of 2018. The proposed project would be constructed in a single phase estimated to require approximately ten months. **Table AQ-3** provides the estimated construction schedule for each phase: site preparation, grading, building construction, paving, and coating.

Table AQ–3

Estimated Construction Schedule

Phase	Description	Start	End	Working Days
1	Site Preparation	10/15/2018	10/19/2018	5
2	Grading	10/20/2018	11/16/2018	20
3	Building Construction	11/17/2018	7/26/2019	180
4	Paving	7/27/2018	8/23/2019	20
5	Architectural Coating	8/24/2018	9/6/2019	10

SOURCE: CalEEMod Version 2016.3.2.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. CalEEMod output worksheets are included in **Appendix A-2**.

The estimated construction equipment associated with the proposed project along with the number of pieces of equipment, daily hours of operation, horsepower (hp), and load factor (i.e., percent of full throttle) are shown in **Table A-4**.

Table A–4

Estimated Project Construction Equipment Usage

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Grading	Scrapers	2	8	367	0.48
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

SOURCE: CalEEMod Version 2016.3.2.

Based on CalEEMod, a total of approximately 87 vendor truck trips were estimated during building construction. During the construction, 15 to 25 workers would be at the site, with a maximum near 100 workers. **Table A-5** provides a list of the expected trips and trip lengths by construction phase of vendors and construction workers.

Table A–5

Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Site Preparation	18	0	0	10.8	7.3	20.0
Grading	20	0	0	10.8	7.3	20.0
Building Construction	222	88	0	10.8	7.3	20.0
Paving	15	0	0	10.8	7.3	20.0
Architectural Coating	44	0	0	10.8	7.3	20.0

SOURCE: CARB CalEEMod Version 2013.2.2.

The emissions generated from these construction activities include:

- Dust (including PM10 and PM2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces;

- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM10, and PM2.5) primarily from operation of heavy off-road construction equipment and construction worker automobile trips (primarily gasoline-operated); and
- VOC emissions from coating.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles, screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

Operations

The project site is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area. The property is generally trapezoidal in shape and is approximately 15.21 acres in size.

The proposed project would consist of a 330,528 square foot wine storage warehouse and 6,600 square feet of office space on the 15.21 acre site. Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated. It is anticipated that the proposed project would have approximately 50 full-time employees and up to 30 part-time employees and operate 12 to 18 hours a day during the peak season. Approximately 3 to 5 vehicles trips per day would be from clients or visitors to the site.

A total of 184 car and 32 truck dock parking spaces would be provided for the building. Of these parking stalls, 10 stalls would be designated for Clean Air Vehicle parking. The project's traffic demands would be 559 weekday daily project trips (1.69 trips per 1,000 SF).[1]

The proposed project would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the refrigeration system. This reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

[1] OmniMeans. *Green Island Wine Warehouse Trip Generation Comparison*. June 21, 2016.

In many climates, night temperatures are cool even when daytime temperatures exceed economizer limits. Taking advantage of this resource, the air handler and economizer can flush the building with night air to cool down the building mass. The cool mass then acts as a heat sink the following day.

Setting controls for night precooling can save a significant amount of energy, depending on location. Studies indicate cost savings range from five percent in Phoenix, Arizona, to 18 percent in Denver, Colorado, for a typical office building. Night precooling also reduces peak demand. Simulation analyses show that precooling a 100,000 square foot three-story building in Sacramento, California, would reduce energy use by 12.6 percent and cause a peak demand reduction of 31.3 percent.[2]

Interior lighting for the proposed project would be designed to meet Title 24 standards; however, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion sensor lighting for areas within the warehouse would be installed. This is beneficial as it reduces energy bills and reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current Pacific Gas & Electric incentives would be investigated and all attempts to incorporate them into the design would be made.

The fork lifts used within the warehouse would be powered by electricity instead of the typical natural gas powered fork lifts. This reduces the GHG emitted by the fork lift and is more efficient and less impactful on the air within the building. Each end of the building would have a bike rack to accommodate up to four bicycles, one more than the required seven stalls.

CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project[3] but scaled up to 330,528 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.

CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices.

GHG emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric's projected 2020 (year in which project becomes operational) CO_2 intensity rate. This intensity rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641 pounds of CO_2 per megawatt of electricity produced. The Pacific Gas & Electric's projected 2020 CO_2 intensity rate is 290 pounds of CO_2 per megawatt of electricity produced.[4]

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[2] Energy Star Building Upgrade Manual, Chapter 9, Revised January 2008, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/energy-star

[3] City of American Canyon. Initial Study for the SDG Green Island 258 Warehouse Project (PL 15-0019). January 25, 2016.

[4] Greenhouse Gas Emission Factors: Guidance for PG&E Customers, November 2015. http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf

Appendix A-4

Greenhouse Gas Setting and Regulatory Context

"Global warming" and "global climate change" are the terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century and its projected continuation. Warming of the climate system is now considered to be unequivocal (IPCC, 2007), with global surface temperature increasing approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase global average temperature between 2 and 11°F over the next 100 years.

Natural processes and human actions have been identified as the causes of this warming. The International Panel on Climate Change (IPCC) concludes that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward. After 1950, however, increasing GHG concentrations resulting from human activity such as fossil fuel burning and deforestation have been responsible for most of the observed temperature increase. These basic conclusions have been endorsed by more than 45 scientific societies and academies of science, including all of the national academies of science of the major industrialized countries. Since 2007, no scientific body of national or international standing has maintained a dissenting opinion.

Increases in GHG concentrations in the earth's atmosphere are thought to be the main cause of human-induced climate change. GHGs naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space. Some GHGs occur naturally and are necessary for keeping the earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have decreased the amount of solar radiation that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Gases that trap heat in the atmosphere are referred to as GHGs because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, CO_2, CH_4, and N_2O are also emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur

hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in "carbon dioxide-equivalent" measures (CO_2e).[1]

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.[2]

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On December 30, 2009, the Natural Resources Agency adopted amendments to the CEQA Guidelines, as required by SB 97. These CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Assembly Bill 1493

In 2002, Assembly Bill (AB) 1493 was passed, which required the CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, the CARB approved amendments to the California Code of Regulations (CCR) in 2004, adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1), require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight [GVW] rating of less than 10,000 pounds and that is designed primarily for the transportation of persons), beginning with model year 2009. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for model year 2016 are approximately 37 percent

[1] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

[2] 2006 Final Climate Action Team Report to the Governor and Legislature. March 2006. http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

lower than the limits for the first year of the regulations, model year 2009. For light-duty trucks with an LVW of 3,751 pounds to a GVW of 8,500 pounds, as well as for medium-duty passenger vehicles, GHG emissions will be reduced approximately 24 percent between 2009 and 2016.

Because the Pavley standards (named for the bill's author, state Senator Fran Pavley) would impose stricter standards than those under the Federal CAA, California applied to the USEPA for a waiver under the Federal CAA. This waiver was initially denied in 2008. In 2009, however, the USEPA granted the waiver.

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established Executive Order S-3-05, which sets forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations to achieve reductions in GHG to meet the 1990 emissions cap by 2020.

Climate Change Scoping Plan

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHG to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008 and must be updated every five years. The initial AB 32 Scoping Plan contains the main strategies California will use to reduce the GHG that cause climate change. The initial Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 program implementation fee regulation to fund the program. In August 2011, the initial Scoping Plan was approved by CARB.

The 2013 Scoping Plan Update builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The 2013 Update defines CARB climate change priorities for the next five years and sets the groundwork to reach California's long-term climate goals set forth in Executive Orders S-3-05 and B-16-2012. The 2013 Update highlights California progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. In the 2013 Update, nine key focus areas were identified (energy, transportation, agriculture, water, waste management, and natural and working lands), along with short-lived climate pollutants, green buildings, and the cap-and-trade program. On May 22, 2014, the First Update to the Climate Change Scoping Plan was approved by the Board, along with the finalized environmental documents.

Executive Order No. B-30-15

On April 29, 2015, Executive Order No. B-30-15 was issued to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Executive Order No. B-30-15 sets a new, interim, 2030 reduction goal intended to provide a smooth transition to the existing ultimate 2050 reduction goal set by Executive Order No. S-3-05 (signed by Governor Schwarzenegger in June 2005). It is designed so State agencies do not fall behind the pace of reductions necessary to reach the existing 2050 reduction goal. Executive Order No. B-30-15 orders "All State agencies with jurisdiction over sources of GHG emissions shall implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 targets." The Executive Order also states that "CARB shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent." CARB's second update to the Climate Change Scoping Plan (The 2017 Scoping Plan") reflects the 2030 reduction target and is described below.

Senate Bill 32

In September of 2016, Governor Brown signed Senate Bill (SB) 32 into law, which extended the goals of AB32 and set a goal 2030 goal of reducing GHG emissions 40 percent below 1990 levels by 2030. With SB 32, the Legislature passed companion legislation AB 197, which provided additional direction for developing the Scoping Plan.

In December of 2017, CARB adopted the second update to the Climate Change Scoping Plan, the 2017 Scoping Plan. The 2017 Scoping Plan provides a framework for achieving the 2030 target. The 2017 Scoping Plan Update builds upon the successful framework established by the initial Scoping Plan and the first update (the 2013 Update), while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The 2017 Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constraints and reduces emissions at covered sources. The 2017 Plan also noted that the Recycling and Waste Sector generates two percent of California's total GHG emissions.

California Green Building Standards Code

The 2016 California Green (CALGreen) Building Standards Code (California Code Regulations, Title 24, Part 11) is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. The 2016 Standards were effective January 1, 2017.

CALGreen does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. CALGreen also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, CALGreen is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impacts during and after construction.

CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. The following provides examples of CALGreen requirements:

- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles.

- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.

- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

- **Wastewater reduction.** Each building shall reduce the generation of wastewater by installation of water-conserving fixtures or using nonpotable water systems.

- **Water use savings.** 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40-percent reductions.

- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.

- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas.

- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

- **Building commissioning.** Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Greenhouse Gas Regional Emission Estimates

In 2013, the United States emitted about 6.673 billion tons of CO_2e. Of the four major sectors nationwide - residential, commercial, industrial, and transportation – electrical generation accounts for the highest fraction of GHG emissions (approximately 31 percent); these emissions are entirely generated from direct fossil fuel combustion. . United States emissions increased by 2.0 percent from 2012 to 2013. Recent trends can be attributed to multiple factors including increased emissions from electricity generation, an increase in miles traveled by on-road vehicles, an increase in industrial production and emissions in multiple sectors, and year-to-year changes in the prevailing weather. Greenhouse gas emissions in 2013 were 9 percent below 2005 levels.[3]

The composition of gross GHG emissions in the United States in 2013 (expressed in terms of CO_2e) were as follows:

- CO_2 accounted for 82 percent;

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[3] USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013, April 2015,* http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf

- CH_4 accounted for 10 percent;
- N_2O accounted for 5 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3 percent.[4]

California's gross emissions of GHG decreased by 1.6 percent from 466.3 million metric tons of CO_2e in 2000 to 458.7 million metric tons in 2012, with a maximum of 492.7 million metric tons in 2004. During the same period, California's population grew by 11 percent from 34 to 37.8 million people. As a result, California's per capita GHG emissions have generally decreased over the last 12 years from 13.7 in 2000 to 12.1 million metric tons of CO_2e per person in 2012.[5] California has one of the lowest per capita GHG emission rates in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The transportation sector remains the largest source of GHG emissions in 2012, accounting for 36 percent of California's GHG emission inventory. Contributions from the transportation sector include emissions from on-road and off-road vehicles, aviation, rail and water-borne vehicles, and some other minor sources. Transportation-related GHG emissions have dropped 12 percent since reaching a maximum in 2007. In 2012, emissions from the on-road category decreased by 0.5 percent from the previous year.[6]

In the San Francisco Bay Area, the transportation sector and industrial/commercial sector represent the largest sources of GHG emissions, accounting for 36.4 percent each of the Bay Area's 95.8 million tons of CO_2e in 2007. Electricity/co-generation sources account for about 15.9 percent of the Bay Area's GHG emissions, followed by residential fuel usage at about 7.1 percent. Off-road equipment and agricultural/farming sources currently account for approximately three percent and 1.2 percent of the total Bay Area GHG emissions, respectively.[7]

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4 USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013, April 2015,* http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf

5 CARB, *2014 Edition California Greenhouse Gas Emission Inventory 2000 – 2012*, May, 2014, http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

6 CARB, *2014 Edition California Greenhouse Gas Emission Inventory 2000 – 2012*, May, 2014, http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

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Appendix B

Biological Resources Reports

BIOLOGICAL RESOURCE ANALYSIS
SDG COMMERCE 330 DISTRIBUTION CENTER
CITY OF AMERICAN CANYON, CALIFORNIA

June 12, 2018

Prepared for

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Sheet C1. Site Plan for the SDG Commerce 330 Distribution Center, prepared by RSA, dated June 8, 2018

Sheet C4. Utility Plan for the SDG Commerce 330 Distribution Center, prepared by RSA, dated June 8, 2018

Exh – LS Detail. Level Spreader Detail, prepared by RSA, dated May 22, 2018

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resource analysis for the proposed SDG Commerce 330 Distribution Center project site (herein referred to as the project site) located in the City of American Canyon, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from the construction of a warehouse and associated parking on the project site.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW. Our analysis includes a formal delineation of "waters of the U.S." that was confirmed in 2012 and reverified by the Corps in 2017.

This biological resources analysis also provides mitigation measures for "potentially significant" and "significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of American Canyon for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The approximately 15-acre project site is located off an extension of Commerce Boulevard in the City of American Canyon, Napa County, California (Figures 1 and 2). The project site is bordered to the east by Jungle Paintball, a 40-acre paintball park, and a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space and large warehouses occurs north of the project site and the American Canyon Wastewater Treatment Plant is located west of the project site. Clark Ranch, open space owned by the City of American Canyon, borders the project site to the south, and Eucalyptus Drive and a residential subdivision are located further to the south. Figure 3 provides an aerial photograph that shows the project site features and the surrounding land use.

The 15-acre project site is part of a larger 35.85-acre parcel (formerly known as Lot 3) that is comprised of a highly disturbed, ruderal (weedy) plant community, with minor depressions that were likely created by the heavy equipment that was used to clear the site of blue gum eucalyptus (*Eucalyptus globulus*) trees in 2012.

3. PROPOSED PROJECT

The applicant proposes to construct a 330,528-square foot warehouse with associated parking areas and a detention basin on the 15-acre project site. Access to the warehouse will be provided

by extending Commerce Boulevard to the south with a cul-de-sac located at the northeastern corner of the 15-acre project site, as illustrated on the Preliminary Site Plan (see attached Sheet C1).

4. ANALYSIS METHODS

Prior to preparing this biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. The Corps Confirmed Reverification of Aquatic Resources Delineation Map is provided as Sheet 2.

During the site surveys and wetland delineations, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The results of our literature research and field reconnaissance are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography

The project site is relatively flat with elevations ranging from 8 to 20 feet above sea level. The ground is undulating due to past land use disturbances including eucalyptus tree removal in 2012. The site slopes gently to the west towards North Slough and the Napa River.

5.2 Hydrology

There are no drainages on the project site. The only indicators of hydrology found onsite are contained within one small topographic depression which the Corps confirmed to be an "isolated" seasonal wetland (i.e., not within their jurisdiction) (Sheet 2).

5.3 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website

(http://ucjeps.berkeley.edu/interchange/index.html). Table 2 is a list of wildlife species observed on the project site. Nomenclature for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (CDFW 2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

5.3.1 RUDERAL HERBACEOUS VEGETATION

On March 30, 2018, M&A biologists characterized the vegetation present on the project site. A complete list of plant species observed within the project site is presented in Table 1. The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, such as is found on the project site, is also common on this parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), all of which have been observed on the project site. Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that border the project site to the west, north and south.

5.3.2 EUCALYPTUS GROVE

Various species of *Eucalyptus* trees have been planted in California for windbreaks, wood, pulp, and other uses. These areas constitute a plantation community (Holland and Keil 1995) and are usually composed of a single species in a very dense planting. On the project site, blue gum eucalyptus trees (*Eucalyptus globulus*) were once abundant throughout; these trees are now restricted to the southern project site boundary where they grow in a linear row. Blue gum trees tower over all of the species native to the area. The trees shade the ground and litter the soil surface with fallen branches, leaves, fruits, and bark. Rainwater passing through the leaves and branches carry dissolved chemicals that add to the substances leached from the fallen litter producing a significant allelopathic (growth inhibiting) effect on understory vegetation. The net result is that very few other plant species are able to grow around or under the blue gum trees. Consequently, the understory is often sparse if present at all. Thus, in areas where blue gum trees have been planted, they have almost completely replaced the native vegetation (Holland and Keil 1995).

Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that border the project site to the west, north and south.

5.3.3 SEASONAL WETLANDS

The isolated seasonal wetland is dominated by Italian rye grass, English plantain (*Plantago lanceolata*), Mediterranean grass, curly dock (*Rumex crispus*) and bristly ox-tongue: all of these plants are non-native species that are just as readily found in upland habitats as they are in wetland areas.

Seasonal wetlands provide a temporary water source for amphibians such as the common Sierran tree frog (*Pseudacris sierra*) and California toad (*Anaxyrus boreas halophilus*) to mate, lay eggs, and forage through the winter and early spring months. Seasonal wetlands also provide drinking water for local wildlife such as the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*). By the summer months seasonal wetlands are undetectable to the untrained eye and may appear to be a part of the adjacent upland ruderal herbaceous community.

5.4 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the east. In addition, Clark Ranch to the south has frequent activity associated with a horse riding facility. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq*.; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);

- plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2001). The California Department of Fish and Wildlife (CDFW) recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);

- animals that are designated as "species of special concern" by CDFW (2018);

- Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

- Bat Species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as: "RED OR HIGH." This priority is justified by the WBWG as follows: "Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment."

In the paragraphs below we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized "take" (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a Federal listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the state Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized "take" (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to "take" a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the "take."

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered "rare." Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a "significant effect on the environment" (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an "Inventory" of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern, and are reviewed by CDFW and maintained on "watch lists."

Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)";
- .2 is "fairly endangered in California (20-80% of occurrences threatened)";
- .3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

6.2 Potential Special-Status Plants on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of nine special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris collects on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017 and 2018, special-status plants are not likely to be found onsite and mitigation for special-status plants should not be warranted.

6.3 Potential Special-Status Animals in the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within three miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animal records have ever been mapped on or adjacent to the project site. However, a total of 16 special-status animal species are known to occur in the region of the project site (Table 4). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status species occurring onsite. Regardless, due to the sensitivity of four of the special-status animal species known to occur in the area, we further discuss these species below.

6.3.1 California red-legged frog

The California red-legged frog (*Rana draytonii*) was federally-listed as threatened on May 23, 1996 (Federal Register 61: 25813-25833) and as such is protected pursuant to the Federal Endangered Species Act. On March 16, 2010 the USFWS issued the final designation for California red-legged frog Critical Habitat (USFWS 2010). *The project site does not fall within mapped critical habitat, although it is adjacent* (see Figure 5).

The California red-legged frog is also a state "species of special concern." While the state designation "species of special concern" does not provide any legally mandated protection, species of special concern must be considered in any project undergoing a CEQA review.

The California red-legged frog is typically found in ponds, slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. This frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. Populations probably cannot be maintained if all surface water disappears (i.e., no available surface water for egg laying and larval development habitat). Larval California red-legged frogs

require 11-20 weeks of permanent water to reach metamorphosis (i.e., to change from a tadpole into a frog), in water depths of 10 to 20 inches (USFWS 2002). Riparian vegetation such as willows and emergent vegetation such as cattails are preferred red-legged frog habitats, though not necessary for this species to be present. Populations of California red-legged frog will be reduced in size or eliminated from ponds supporting non-native species such as bullfrog, Centrarchid fish species (such as sunfish, bluegill, or large-mouth bass), and signal and red swamp crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*, respectively), all of which are known California red-legged frog predators. However, the presence of these non-native species does not preclude the presence of the California red-legged frog.

California red-legged frogs also use upland habitats for migration and dispersal. The USFWS *Recovery Plan for the California Red-Legged Frog* states that frog overland excursions via uplands can vary between 0.25-mile up to 3 miles during the wet season, and that frogs "have been observed to make long-distance movements that are straight-line, point to point migrations rather than using corridors for moving in between habitats" (USFWS 2002). The information presented in the USFWS' Recovery Plan was taken from a publication by Bulger et al. (2003) that recounts a study in coastal redwoods in Santa Cruz area. M&A believes that such overland straight-line migrations are primarily limited to periods of heavy rainfall or during periods when ambient conditions exhibit high moisture levels such as in fog belts along the coast. Working in Pointe Reyes National Seashore on the coast of California, Fellers and Kleeman (2007) found approximately 31 percent of California red-legged frogs moved more than 30 meters from their breeding sites and about 69 percent moved less than 30 meters from their breeding site during seasonal movement periods. Similarly, Bulger et al. (2003) found that 60 percent of their radio tagged frogs stayed within 30 meters of their breeding sites.

In locations that are characterized by hot and seasonally dry climates, the California red-legged frog is inclined to stay closer to its aquatic environments or will not migrate. Tatarian (2005) who studied an inland population of California red-legged frogs in eastern Contra Costa County where the climate is far drier than the coastal environment, found that all movements started after the first 0.5 cm of rain in the fall, with more terrestrial movements being made in the fall pre-breeding season (57%) than in the winter breeding season (32%) or spring post-breeding season (11%). Tatarian (op. cit.) also found that California red-legged frogs moved greater average distances aquatically (84.6 m) than terrestrially (27.7 m). Greater terrestrial distances were moved in the pre-breeding season (35.2 m) than in the breeding season (15.5 m) or post-breeding season (16.3 m) with the majority of movements occurring for only one of the 3-4 day survey periods. The majority of frogs (57%) were position faithful within a pool, indicating they did not migrate at all. These data suggest that long forays across the landscape found in coastal populations are less likely in dry inland locations.

The USFWS *Recovery Plan for the California Red-Legged Frog* states that populations are "most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal." "The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat" (USFWS 2002).

In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site, and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. There are no drainages onsite and the isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. *Therefore, the proposed project will not impact the California red-legged frog and mitigation should not be warranted.*

6.3.2 SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their active nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986). It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall (Schmutz et. al. 1984). Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads (Palmer 1988). Swainson's hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). They have also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded (CDFG 1994). The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats due to larger prey populations. In addition agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase

foraging success of Swainson's hawks by flushing prey (personal observations of G. Monk). During the nesting season Swainson's hawks usually forage within two miles of the nest. Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially, therefore it can occupy habitats with few or no perches except the nest tree (James 1992).

Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late-spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and the Swainson's hawk population appears to be dramatically responding in California. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round in the Davis area and in the Sacramento River Delta, resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since insecticide use over Argentinian wintering grounds was halted (G. Monk, personal observations). For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently.

The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing along the southern project site border and adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near this project site in future years. *Hence, prior to earth-disturbance or construction, nesting surveys must be conducted that confirm or negate this species' presence as a nesting bird on or adjacent to the project site. Accordingly, impacts to Swainson's hawk are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.3 WESTERN BURROWING OWL

The western burrowing owl (*Athene cunicularia hypugaea*) is a California "species of special concern." Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Otospermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows, or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

The closest CNDDB record was documented 2.5 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin. The mobility of the western burrowing owl enables the species to colonize the recent burrows. M&A did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys. Regardless, the project site provides marginal nesting habitat for the western burrowing owl. *In order to confirm or negate the presence of western burrowing owls on site, surveys must be conducted prior to the commencement of earth-moving or construction*. *Accordingly, impacts to western burrowing owl are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.4 NORTHERN HARRIER

The northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young, and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. This species is particularly vulnerable to ground predators such as coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and various snake species. Ground nesting birds in general are also subject to disturbance by agricultural practices. Northern harriers may forage over the project site and may nest in the open ruderal habitats onsite that provide suitable nesting habitat for this species. Hence, the proposed project could result in impacts to nesting northern harriers.

The closest CNDDB record was documented 2.7 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. Regardless, the project site provides marginal nesting habitat for the northern harrier. *In order to confirm or negate the presence of northern harriers on site, surveys must be conducted*

prior to the commencement of earth-moving or construction. Accordingly, impacts to northern harrier are regarded as potentially significant pursuant to the CEQA.

7. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the U.S. Fish and Wildlife Service and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the

USFWS can no longer require mitigation based on the probability that the species could use the site. Rather they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain a incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an "incidental take" permit that allows applicants to "take" federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under

Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 Responsible Agency

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

7.1.2 Applicability to the Proposed Project

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs. State Route 29 is located between the closest California red-legged frog record and the project site, and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity along any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. The isolated seasonal wetland habitat onsite does not hold water long enough to support California red-legged frogs, their eggs or their larvae. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. Therefore, the proposed project will not impact the California red-legged frog.

No other federally listed species are expected to occur on the project site. The project site does not provide fisheries habitat as it consists entirely of upland communities. Therefore, it can be stated with confidence that the proposed project would not impact federally listed plant, animal, or fish species.

7.2 Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to “take” (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

7.2.1 APPLICABILITY TO THE PROPOSED PROJECT

Western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk, and red-tailed hawk (*Buteo jamaicensis*), among other raptors (birds of prey) could nest in the eucalyptus grove in the immediate vicinity of the project site. These raptors would be protected by the Migratory Bird Treaty Act. Also, the common songbirds that could forage on the site would be protected pursuant to this Act. As long as there is no direct mortality of species protected pursuant to this Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations section below.

7.3 **California Endangered Species Act**

7.3.1 SECTION 2081 OF THE CALIFORNIA ENDANGERED SPECIES ACT

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a provision for "harm" (see discussion of FESA, above), CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state-listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFW will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity;
2) the impacts of the authorized take are minimized and fully mitigated;
3) measures required to minimize and fully mitigate the impacts of the authorized take:
    a) are roughly proportional in extent to the impact of the taking on the species;
    b) maintain the project applicant's objectives to the greatest extent possible; and,
    c) capable of successful implementation; and,
4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." *See* Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy*"* federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent with state law, and that all state-listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state-listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 Applicability to The Proposed Project

No state-listed plant species would likely occur on the project site due to an absence of habitat. While the majority of the project site is treeless and does not provide nesting habitat for the Swainson's hawk, suitable nesting habitat for this hawk exists in the eucalyptus trees along the project site's southern border and in the eucalyptus groves on the adjacent properties; thus, preconstruction nesting surveys will be necessary to ensure that earth-work or construction does not occur while this raptor is nesting nearby or that if it does, it does not disturb the nesting birds. If the proposed project follows the proposed mitigation measures as detailed in the Impacts and

Mitigation section below, *an Incidental Take Permit (ITP) from the CDFW should not be necessary for this project.*

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.4.1 Applicability to the Proposed Project

Raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these birds including their eggs, or young. Any active nests that were found during preconstruction surveys would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. More specifics on the size of buffers are provided below in the Impacts and Mitigations section.

7.5 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

7.5.1 Goal 8, Objective 8.1 and Policies 8.1.1 and 8.1.4

- **Goal 8:** Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.
- **Objective 8.1:** Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.
- **Policy 8.1.1:** Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
- **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

7.5.2 Applicability to the Proposed Project

Consistent with General Plan Policies 8.1.1 and 8.1.4, this report provides a detailed assessment of the biological resources present on the project site and proposed impacts to these resources associated with development of the site. Proposed mitigation measures are detailed below in the Project Impacts and Mitigation Measures section.

7.5.3 Objective 8.2 and Policy 8.2.1

- **Objective 8.2:** Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.
- **Policy 8.2.1:** Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

7.5.4 Applicability to the Proposed Project

Consistent with General Plan Policy 8.2.1, the project site has been evaluated for the presence of sensitive biological resources. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the project site.

7.5.5 Objective 8.3 and Policy 8.3.1

- **Objective 8.3:** Protect natural drainages and riparian corridors within the American Canyon Planning Area.
- **Policy 8.3.1:** Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:
    a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

7.5.6 Applicability to the Proposed Project

Consistent with Policy 8.3.1.a, since avoidance of the isolated seasonal wetland onsite is not possible while still achieving the project's goals, the applicant will create approximately 0.05-acre of wetland on a mitigation property that will be preserved in perpetuity via deed restriction to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. This replacement will be at a 2:1 (replacement to impacts)

ratio and is consistent with the City's General Plan and is in general conformance with regulatory agency policy.

7.5.7 POLICY 8.3.1 B

- **Policy 8.3.1 b:** Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).

7.5.8 APPLICABILITY TO THE PROPOSED PROJECT

The isolated wetland on the project site is located adjacent to the access road to the project site and cannot feasibility be avoided.

7.5.9 POLICY 8.3.1 E

- **Policy 8.3.1 e:** Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

7.5.10 APPLICABILITY TO THE PROPOSED PROJECT

The existing open space preserve (offsite mitigation site) is adequately buffered by a steep slope and embankment which prevents unauthorized access and use of this area.

7.5.11 POLICY 8.3.1 F

- **Policy 8.3.1 f:** Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

7.5.12 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.f, and Policy 8.3.1.g roads and utilities have been designed to avoid conflicts with biological resources on the project site with the exception of the seasonal wetland onsite which will have to be impacted to construct a practical project.

7.5.13 POLICY 8.3.1 G

- **Policy 8.3.1 g:** Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

7.5.1 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.g, the open space preserve will be protected in perpetuity via a deed restriction.

7.5.2 POLICY 8.3.1 H

- **Policy 8.3.1 h**: Future development shall mitigate unavoidable adverse impacts to waters of the United States, wetlands and riparian habitats (pursuant to the Federal Clean Water

Act and the California Fish and Game Code, Section 1600 et seq.) by replacement on an in-kind basis. Furthermore, replacement shall be based on a ratio determined by the California Department of Fish and Game and/or Army Corps of Engineers in order to account for the potentially diminished habitat values of replacement habitat. Such replacement should occur on the original development site, whenever possible. Alternatively, replacement can be effected, subject to state and federal regulatory approval, by creation or restoration of replacement habitats elsewhere (offsite but preferably within the City's Planning Area), protected in perpetuity by provision for an appropriate conservation easement or dedication.

7.5.1 Applicability to the Proposed Project

Consistent with Policy 8.3.1.h, the applicant will create approximately 0.05 acre of wetland to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. This replacement will be at a 2:1 (replacement to impacts) ratio and is consistent with General Plan and is in general conformance with regulatory agency policy.

7.5.2 Policies 8.3.5 and 8.3.6

- **Policy 8.3.5:** Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.
- **Policy 8.3.6:** Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

7.5.3 Applicability to the proposed project

There are no drainages on the project site or significant biological habitats onsite; hence, these policies do not apply to the proposed project.

7.5.4 Policy 8.4.3

- **Policy 8.4.3:** Encourage activities that improve the biological value and integrity of the City's natural resources through vegetation restoration, control of alien plants and animals, and landscape buffering.

7.5.5 Applicability to the proposed project

Consistent with Policy 8.4.3, the applicant will create approximately 0.05 acre of wetlands to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. This replacement will be at a 2:1

(replacement to impacts) ratio and is consistent with General Plan and is in general conformance with regulatory agency policy.

8. CITY OF AMERICAN CANYON –ORDINANCES

8.1 Trees (Ord. 18.40.110)

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

8.1.1 Applicability to the Proposed Project

The mature eucalyptus trees immediately south of the southern project site boundary will remain. In the project site's interior there are no trees but only a few small stump-sprouting eucalyptus trees that will be removed for the project. Since these are essentially stumps that have some green foliage, they do not meet the definition of a mature tree that is protected pursuant to the tree ordinance; therefore, no tree replacement should be required.

9. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFW to determine those areas within a project area that would be subject to their regulation.

9.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

9.1.1 Section 404 of the Clean Water Act

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(1) Extends to the mean high tide line, or
(2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
(2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
(3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

9.1.1.1 Significant Nexus of Tributaries

On December 2, 2008, the Corps and the Environmental Protection Agency (EPA) issued joint guidance on implementing the U.S. Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act. In this joint guidance these agencies provide guidance on where they will assert jurisdiction over waters of the U.S.

The EPA and Corps will assert jurisdiction over the following waters:

- Traditional navigable waters

- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (for example, typically three months).
- Wetlands that directly abut such tributaries.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and

- Significant nexus includes consideration of hydrologic and ecologic factors.

9.1.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

9.1.1.3 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the United States. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to "waters of the United States."

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of "waters of the United States" found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared

pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g. a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of "no net loss" of wetlands (waters of the United States) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., if a stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 Applicability to the Proposed Project

M&A originally prepared a preliminary wetland delineation map of the 35 acre parcel in 2006; however, this map was never submitted to the Corps. In 2011, a formal wetland delineation was conducted on July 14th and July 20th by M&A biologists Ms. Hope Kingma and Mr. Tim O'Donnell. The wetland delineation report and map were submitted to the Corps on August 22, 2011, requesting confirmation of the extent of Corps jurisdiction at the American Canyon Flat

Lands site. In a letter dated January 31, 2012 the extent of Corps jurisdiction was confirmed, based on a field investigation on September 21, 2011. That jurisdictional determination expired five (5) years from the date of that letter.

M&A biologists Ms. Hope Kingma and Mr. Devin Jokerst conducted another wetland delineation of the entire 35.85-acre parcel (known as Lot 3) which includes this project site on November 16, 2016 to re-verify the extent of jurisdictional areas on the site. M&A used the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the *Regional Supplement for the Arid West Region*. The jurisdictional determination request and the Draft Aquatic Resources Delineation Map (Sheet 2) were submitted to the Corps in December 2016. Mr. Bryan Matsumoto of the Corps conducted a site verification visit on May 18, 2017. On May 16, 2018 the Corps issued the jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the 35.43-acre parcel which includes the presence of 0.020-acre of "isolated" wetlands on the 35.85-acre parcel (known as Lot 3). The confirmed Jurisdictional Delineation Map (Sheet 2) and letter are attached. *The "isolated" wetland on the 15-acre project site does not fall under the Corps' jurisdiction pursuant to the SWANCC decision (see Section 9.1.1.2, above); however, the isolated wetland would still be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act, as discussed below.*

9.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

9.2.1 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in "waters of the State" (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is a NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

9.2.2 Applicability to the Proposed Project

The Corps' Confirmed Reverification Aquatic Resources Delineation Map, dated May 22, 2017 is provided as Sheet 2. Since the RWQCB does not have a formal method for technically defining what constitutes waters of the State, M&A expects that the RWQCB should remain consistent with the Corps' determination. The proposed project will impact the isolated wetland/waters of the State. This isolated wetland would be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act (see below).

9.2.3 PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act, Water Code § 13260, requires that "any person discharging waste, or proposing to discharge waste, that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1). The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (Water Code § 13050(e)). It should be noted that pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates "isolated wetlands," or those wetlands considered to be outside of the Corps' jurisdiction pursuant to the SWANCC decision (see Corps Section above).

The RWQCB generally considers filling in waters of the State to constitute "pollution." Pollution is defined as an alteration of the quality of the waters of the state by waste that unreasonably affects its beneficial uses (Water Code §13050(1)). The RWQCB litmus test for determining if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act is if the action could result in any "threat" to water quality.

The RWQCB requires complete pre- and post-development BMPs of any portion of the project site that is developed. This means that a water quality treatment plan for the pre- and post-developed project site must be prepared and implemented. Preconstruction requirements must be consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES). That is, a SWPPP must be developed prior to the time that a site is graded (see NPDES section below). In addition, a post construction BMPs plan, or a Stormwater Management Plan (SWMP) must be developed and incorporated into any site development plan.

9.2.4 APPLICABILITY TO THE PROPOSED PROJECT

Since any "threat" to water quality could conceivably be regulated pursuant to the Porter-Cologne Water Quality Control Act, care will be required when constructing the proposed project to be sure that adequate pre-and post-construction BMPs are incorporated into the project implementation plans.

While impacts to the "isolated" wetland on the project site are outside of Clean Water Act jurisdiction regulated by the Corps pursuant to Section 404 of the Clean Water Act and by the RWQCB pursuant to Section 401 of the Clean Water Act, impacts associated construction of the warehouse would nonetheless be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. The RWQCB has a Water Quality Order (Water Quality Order No. 2004-0004-DWQ) that provides coverage for "threats to waters of the State when there is no Clean Water Act jurisdiction (i.e., for projects that do not require a Corps permit). This type of permit has particular applicability if impacts include features outside of the Corps jurisdiction. To be eligible for coverage under Water Quality Order No. 2004-0004-DWQ, Finding 9 of the General WDRs specifies that projects regulated be restricted to not more than two-tenths of an acre (0.20) and 400 linear feet. In addition, Section II (A) regarding eligibility to use this Order states that the discharge shall not be subject to Section 404 of the CWA, or Section 10 of the Federal Rivers and Harbors Act. As such the proposed project should obtain a "Notice of Applicability (NOA)" from the RWQCB for use of Water Quality Order No. 2004-0004-DWQ. To obtain this coverage the applicant should submit a formal "Request for Concurrence of

Applicability of Proposed Project with State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ" to the RWQCB.

The proposed project will result in impacts to 0.02-acre of "isolated" wetlands (waters of the State). Any impacts to waters of the State would have to be mitigated to the satisfaction of the RWQCB prior to the time this resource agency would issue a permit for impacts to such features. The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. A detailed mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction.

It should also be noted that prior to issuance of any permit from the RWQCB, this agency will require submittal of a Notice of Determination from the City of American Canyon indicating that the proposed project has completed a review conducted pursuant to CEQA. The pertinent sections of the CEQA document (typically the biology section) are often submitted to the RWQCB for review prior to the time this agency will issue a permit for a proposed project.

9.3 California Department of Fish and Wildlife Protections

9.3.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
   (A) A detailed description of the project's location and a map.
   (B) The name, if any, of the river, stream, or lake affected.
   (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
   (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
   (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
   (F) Any other information required by CDFW" (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into

a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

9.3.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would likely be regulated by CDFW. Hence, a SBAA with CDFW would not be necessary for this project.

10. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

10.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs). It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

Types of Construction Activity Covered by the Construction General Permit

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several "post-construction" requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This "runoff reduction" approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development ("LID") design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA's 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other

activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

10.1.1 Applicability to The Proposed Project

To obtain coverage under the SWRCB administered Construction General Permit, the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify Best Management Practices (BMPs) for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015).

10.2 RWQCB Municipal Storm Water Permitting Programs

The federal Clean Water Act (CWA) was amended in 1987 to address urban stormwater runoff pollution of the nation's waters. In 1990, the U.S. Environmental Protection Agency (USEPA) promulgated rules establishing Phase 1 of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase 1 program for Municipal Separate Storm Sewer System (MS4s) requires operators that serve populations of 100,000 or greater to implement a stormwater management program to control polluted discharges from these MS4s. While Phase 1 of the municipal stormwater program has focused on large urban areas, Phase 2 of the municipal stormwater program was promulgated by the USEPA for smaller urban areas including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

MS4 permits require the discharger (or dischargers that are permitted by the MS4 permittees) to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

[1] CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

10.2.1 NPDES C.3 REQUIREMENTS

The NPDES C.3 requirements went into effect for any project (public or private) that is "deemed complete" by the City or County (Lead Agency) on or after February 15, 2005, and which will result in the creation or replacement (other than normal maintenance) of at least 10,000 square feet of impervious surface area (roofs, streets, patios, parking lots, etc. Provision C.3 requires the onsite treatment of stormwater prior to its discharge into downstream receiving waters. Note that these requirements are in addition to the existing NPDES requirements for erosion and sedimentation controls during project construction that are typically addressed through acquisition of coverage under the SWRCB administered Construction General Permit. The C.3 requirements are typically required to be implemented by MS4 permittees (and their constituencies).

Projects subject to Provision C3 must include the capture and onsite treatment of all stormwater from the site prior to its discharge, including rainwater falling on building rooftops. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable.* While the Clean Water Act does not define "maximum extent practicable," the Stormwater Quality Management Plans required as a condition of the municipal NPDES permits identify control measures (known as Best Management Plans, or BMPs) and, where applicable, performance standards, to establish the level of effort required to satisfy the maximum extent practicable criterion. It is ultimately up to the professional judgment of the reviewing municipal staff in the individual jurisdictions to determine whether a project's proposed stormwater controls will satisfy the maximum extent practicable criterion. However, there are numeric criteria used to ensure that treatment BMPs have been adequately sized to accommodate and treat a site's stormwater. The C3 requirements are quite extensive, and their complete explanation is not provided here. However, the following are minimums that should be understood and adhered to:

- The applicant must provide a detailed and realistic site design *and impervious surface area calculations*. This site design *and calculations* will be used by the Lead Agency (County or City) to determine/*verify* the amount of impervious surface area that is being created or replaced. It should include all proposed buildings, roads, walkways, parking lots, landscape areas, etc., that are being created or redeveloped. If large (greater than 10,000 square feet) lots are being created an effort will need to be made to determine the total impervious surface area that could be created on that parcel. For example, if only a portion of the lot is shown as a "building envelope" then the lead agency will need to consider that a driveway will have to be constructed to access the envelope and that the envelope will then be developed as shown. If the C.3 thresholds are met (creation/redevelopment of 10,000 square feet of impervious surface area), a Stormwater Control Plan (SWCP) (if required by the Lead Agency, or whatever steps for compliance with Provision C3 are required locally) must accompany the application.

- If a SWCP is required by the Lead Agency for the project it must be stamped by a Licensed Civil Engineer, Architect, or Landscape Architect.

10.2.2 APPLICABILITY TO THE PROPOSED PROJECT

The Water Board issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s. On November 19, 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies. Permittees in the San Francisco Bay area are included in a Municipal Regional Permit (MRP), issued to 76 cities, counties and flood control districts in 2009 and revised in 2015. Each of the Permittee's must file an Annual Report that is comprised of three parts: regional, countywide, and individual. Some requirements of the MRP are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all the MRP Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs have submitted Annual Report elements on the regional and countywide collaborative tasks, respectively, on behalf of the MRP Permittees and the individual MRP Permittees have also submitted Annual Report elements on the Permit Provisions they have implemented individually.

It is the applicant's responsibility to ensure that the project civil engineer prepares all required Storm Water Planning documents for submittal to the City of American Canyon to comply with its MS4 permit requirements. In addition, if the project includes a requirement to obtain a Clean Water Act Section 401 permit from the RWQCB, the Storm Water Management Plan (or equivalent plan) must be submitted to the RWQCB with the application package submitted for acquisition of a Section 401 permit (aka "water quality certification").

The applicant is proposing to treat all stormwater falling on imperious surfaces in Detention/Bioretention Facilities located in the southern and western sides of the project site (see Sheet C4). Once treated, stormwater would be conveyed to "level spreader outfalls" that will be installed along the western project site boundary. The detail for the level spreader is provided on the Exhibit LS.Detail. The level spreader outfalls consist of perforated pipe set on contour that will discharge flows uniformly across a gradual slope covered by riprap, which will mimic sheet flow conditions similar to current project site runoff. Accordingly, the project will not violate any water quality standards.

The applicant is currently in discussion with the City of American Canyon regarding a new municipal stormwater outfall that will be constructed in uplands adjacent to the marsh habitat at the confluence of North Slough and the Napa River, immediately south of the project parcel. Construction of the new municipal stormwater outfall will not result in impacts to waters of the U.S. or State. When this outfall is constructed, the applicant will divert some or all of the project site runoff from the level spreaders to the new municipal outfall.

11. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit

must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are "Categorical Exemptions" that apply to the proposed activity; thus the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a "Negative Declaration." If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a "Mitigated Negative Declaration" is typically prepared by the lead agency. Finally those projects that may have significant effects on the environment, or that have impacts that can't be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. "Rare" species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

This report has been prepared as a Biology section that is suitable for incorporation into an Mitigated Negative Declaration. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA and can be incorporated by the CEQA lead agency (in this case City of American Canyon) into an initial study or higher levels of CEQA review including incorporation into the biology section of an Environmental Impact Report.

12. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

12.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water,

minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other Federal, State, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality

Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers to include riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources including special-status animal species and waters of the United States and/or State. We follow each impact with a mitigation prescription that when implemented would reduce impacts to the greatest extent possible. This impact analysis is based on the Preliminary Site Plan (Sheet 1).

13.1 Impact BIO-1. Development of the Project Could Have a Potentially Significant Impact on Western Burrowing Owl (Potentially Significant)

The western burrowing owl is a California Species of Special Concern. This raptor (that is, bird of prey) is also protected under the Migratory Bird Treaty Act (50 CFR 10.13) and its nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5. While western burrowing owls have not been observed on the project site and their likelihood of presence on the project site is considered to be low, limited suitable nesting habitat occurs on the project site. Since the western burrowing owl is a mobile species that could move onto the project site prior to development, preconstruction surveys would be necessary to determine its presence. Thus, the project may result in impacts to the western burrowing owl; this would be a *potentially significant impact pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.2 Mitigation Measure BIO-1. Mitigation for Potential Impacts to Western Burrowing Owl

Based on the presence of this species in the project vicinity and the potential habitat found on the project site, a preconstruction survey for burrowing owls should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

a. Burrowing owl surveys should be conducted by walking the entire project site. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be 7 meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or

dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approximately 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows should be avoided during all seasons.

b. If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per CDFW's Staff Report (2012).

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- From October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.

Implementation of these mitigation measures would reduce potential impacts to burrowing owls to a level considered less than significant pursuant to CEQA.

13.3 Impact BIO-2. Development of the Project Would Have a Potentially Significant Impact on Nesting Swainson's hawks (Potentially Significant)

The Swainson's hawk is a state listed threatened species. While the Swainson's hawk has no special federal status it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's multiple project site surveys; however, the nesting population appears to be increasing (G. Monk general observations) throughout its nesting range in northern California and thus, it could conceivably nest in trees near the project site in the future.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (CDFG v. ACID, 8 CA App. 4, 41554) (CDFG 1994).

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the

project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be *potentially significant pursuant to CEQA.* This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure BIO-2. Mitigation for Potential Impacts to Nesting Swainson's Hawk

Preconstruction surveys shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to the project's initiation. The survey period timing and methodology shall be conducted in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of this mitigation measure would reduce potential impacts to nesting Swainson's hawk to a level considered less than significant pursuant to CEQA.

13.5 Impact BIO-3: Development of the Project Would Have a Potentially Significant Impact on Tree or Ground Nesting Raptors (Swainson's Hawk Excluded; See Impact BIO-2) (Potentially Significant)

Tree or ground nesting raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Nesting raptors are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13). All nesting raptors, their eggs and young are protected pursuant to California Fish and Game Code §3503.5. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project may impact nesting raptors which could result in nest abandonment and death of eggs or young. Therefore, impacts to nesting raptors are regarded as *potentially significant pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.6 Mitigation Measure BIO-3: Mitigation for Potential Impacts to Tree or Ground Nesting Raptors Except Swainson's Hawk.

To ensure that impacts to tree or ground nesting raptors are avoided or offset, the following mitigation measures will be implemented:

a. In order to avoid impacts to nesting raptors, a preconstruction nesting survey will be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey should be conducted within the 30 day period prior to site disturbance. The raptor nesting surveys will include examination of all trees and ruderal habitat within 200 feet of the project site.

b. If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site must be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site must be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer should be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist should prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity should occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers should be maintained in place through the month of August and work within the buffer can commence on September 1st.

c. If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) should be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer should remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey should be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer should remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Implementation of these mitigation measures would reduce potential impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

13.7 Impact BIO-4: Development of the Project Would Have a Potentially Significant Impact on Nesting Passerine Birds. (Potentially Significant)

Nesting passerine birds (i.e., perching birds) including nesting special-status passerine birds are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13) and by California Fish and Game Code §3503 and §3503.5 which protects nesting birds,

their eggs and young. These birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Accordingly, impacts to nesting passerine birds, their eggs, and/or young resulting from the proposed project are considered potentially significant. This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.8 Mitigation Measure BIO-4: Mitigation for Potential Impacts to Nesting Passerine Birds.

To ensure that impacts to nesting passerine birds are avoided or offset, a nesting survey shall be conducted 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before August 1st.

Implementation of this mitigation measure would reduce potential impacts to common and special-status nesting passerine birds to a level considered less than significant pursuant to CEQA.

13.9 Impact BIO-5. Development of the Project Would Have a Significant Impact on Waters of the State (Significant)

The proposed project will result in impacts to 0.02-acre of "isolated" wetlands (waters of the State) regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. Impacts to "waters of the State" from the proposed project would be regarded as a *significant impact***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.10 Mitigation Measure BIO-5. Mitigation for Impacts to Waters of the State

Based on the Corps confirmed map, 0.02-acre of isolated seasonal wetland will be impacted by the proposed project. The RWQCB has a Water Quality Order No. 2004-004-DWQ (General WDRs), *Standard General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction.* This project will apply for coverage under Water Quality Order No. 2004-0004-DWQ for impacts to

isolated waters on the project site. The requirements stipulated in this permit will become conditions of project approval.

The applicant is proposing to mitigate for project-related impacts to waters of the State at a 2:1 mitigation ratio. The applicant will create approximately 0.05-acre of wetland to mitigate impacts to approximately 0.02-acre of waters of the State associated with construction of the proposed project. The applicant proposes to mitigate impacts to RWQCB jurisdictional seasonal wetlands via creation of seasonal wetland on a mitigation property that will be preserved in perpetuity via deed restriction. A detailed mitigation and monitoring plan will be submitted to the RWQCB for approval prior to project construction. This wetland creation/mitigation would need to be approved by the RWQCB at the time the permit application is applied for/issued.

Implementation of this mitigation measure would reduce impacts to waters of the State to a level considered less than significant pursuant to the CEQA.

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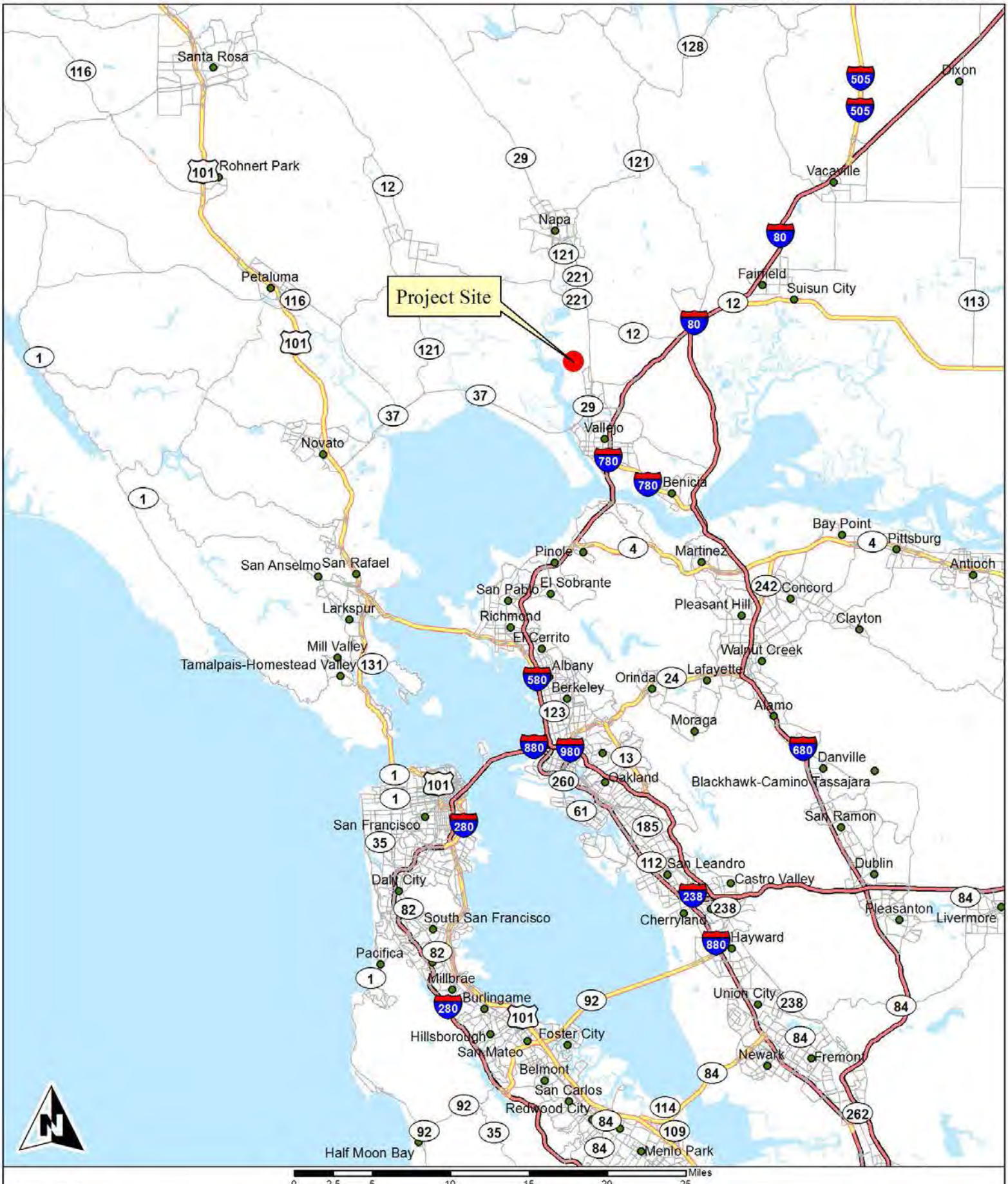

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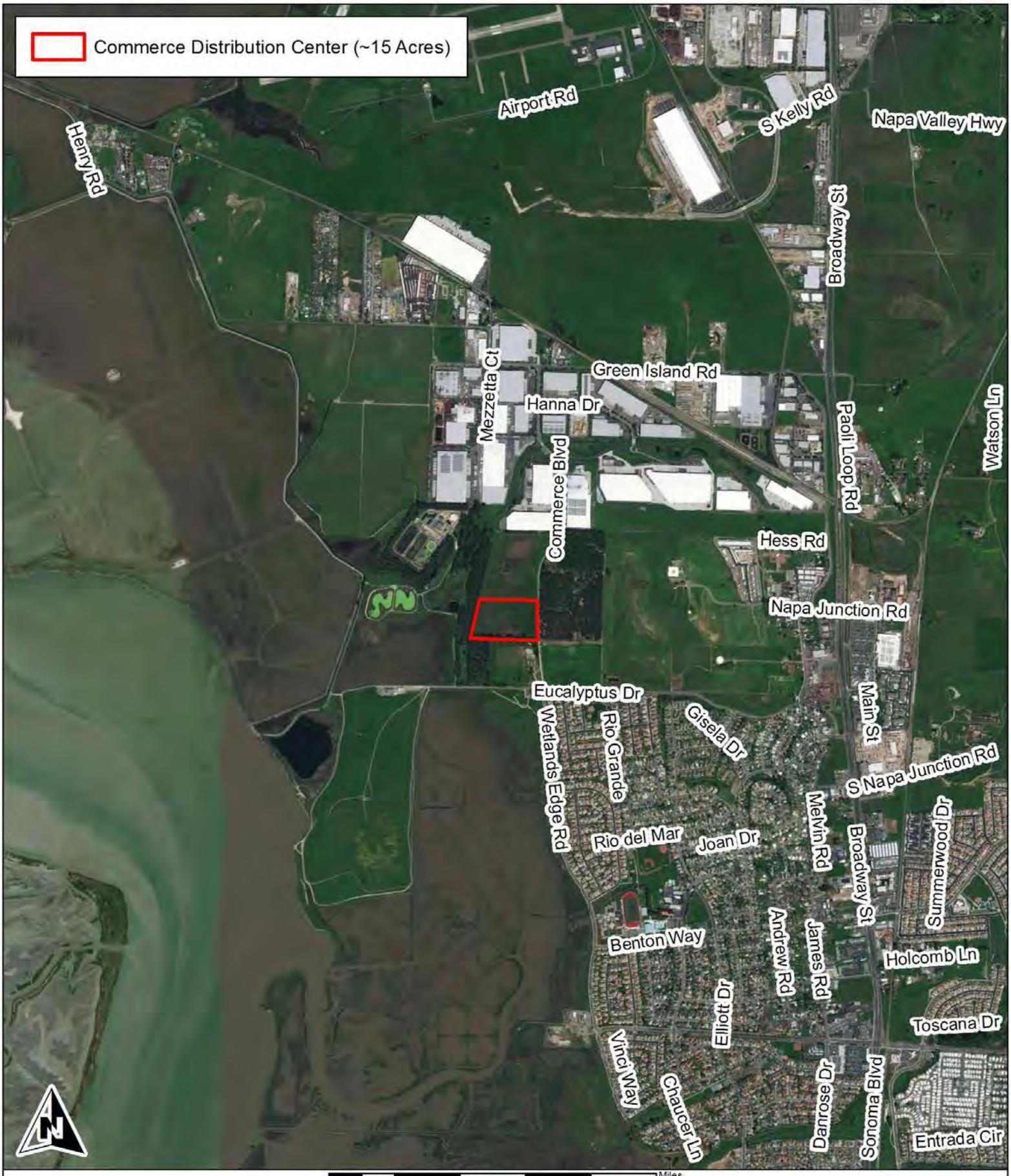
Figure 1. Regional Map of the SDG Commerce
330 Distribution Center Project Site
City of American Canyon, California

County: Napa
Map Preparation Date: March 2. 4279



Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Figure 2. SDG Commerce 330 Distribution Center Project Site Location.
City of American Canyon, California

38.184108 -122.274162
Section: 14, 23; T4N R4W
7.5-Minute Cuttings Wharf quadrangle
Aerial Photograph Source: ESRI
Map Preparation Date: March 22.



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Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
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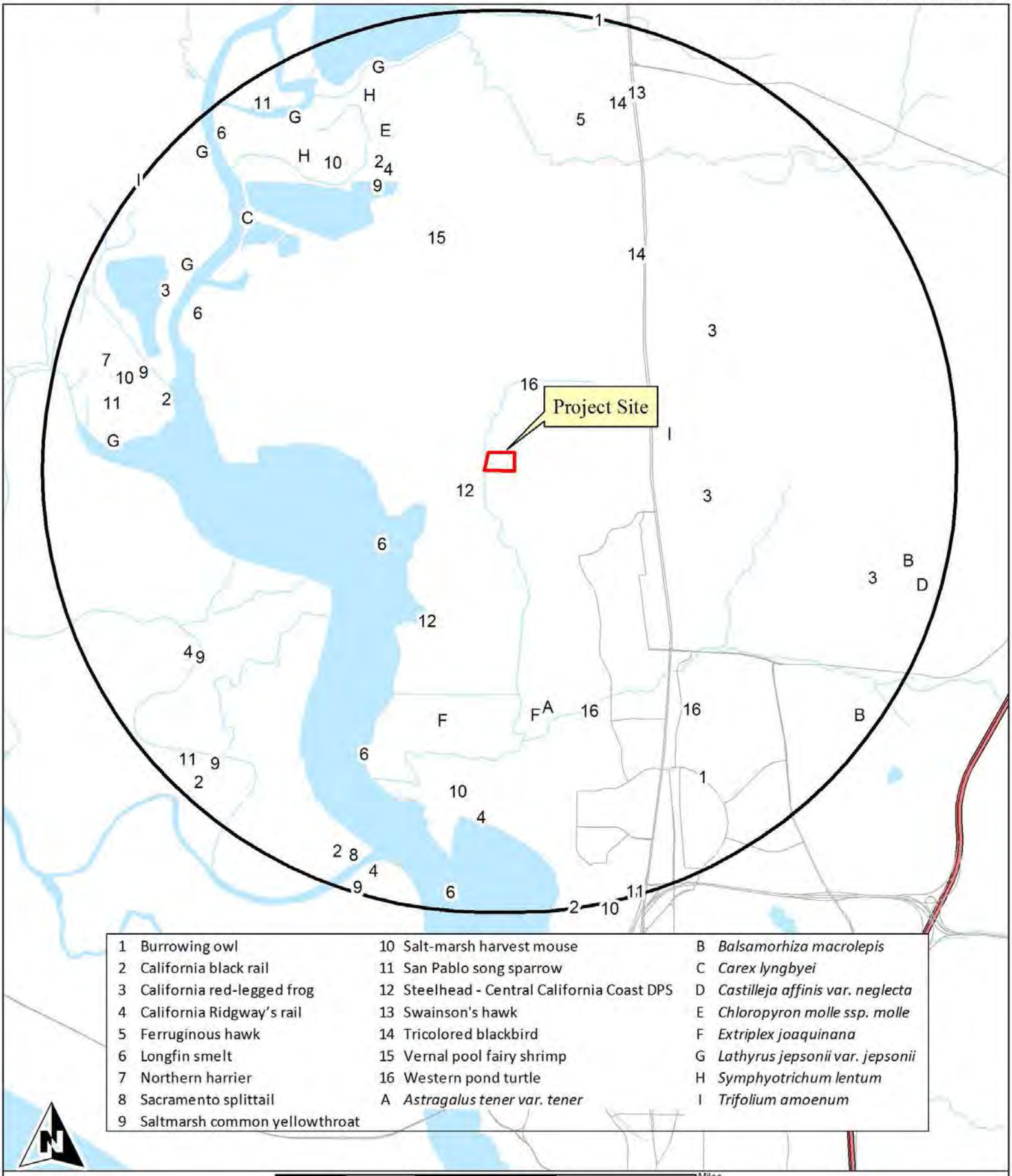
Figure 3. Aerial Photograph of the SDG
Commerce 330 Distribution Center Project Site.
City of American Canyon, California

Aerial Photograph Source: ESRI
Map Preparation Date: March 2



1	Burrowing owl	10	Salt-marsh harvest mouse	B	*Balsamorhiza macrolepis*
2	California black rail	11	San Pablo song sparrow	C	*Carex lyngbyei*
3	California red-legged frog	12	Steelhead - Central California Coast DPS	D	*Castilleja affinis var. neglecta*
4	California Ridgway's rail	13	Swainson's hawk	E	*Chloropyron molle ssp. molle*
5	Ferruginous hawk	14	Tricolored blackbird	F	*Extriplex joaquinana*
6	Longfin smelt	15	Vernal pool fairy shrimp	G	*Lathyrus jepsonii var. jepsonii*
7	Northern harrier	16	Western pond turtle	H	*Symphyotrichum lentum*
8	Sacramento splittail	A	*Astragalus tener var. tener*	I	*Trifolium amoenum*
9	Saltmarsh common yellowthroat				

N

0 0.475 0.95 1.9 2.85 Miles

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Environmental Consultants
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Figure 4. Known Special-Status CNDDB Records Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Map Preparation Date: March 22. 2018
3-Mile Radius
Source: CDFW, California Natural Diversity Data Bas

Table 1

Plant Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Angiosperms - Dicots

Apiaceae

Torilis sp.	sock destroyer

Asteraceae

Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
**Hypochaeris radicata*	Rough cat's-ear
**Sonchus asper subsp. asper*	Prickly sow-thistle

Brassicaceae

**Hirschfeldia incana*	Short-podded mustard
**Sinapis alba*	White mustard

Caryophyllaceae

**Stellaria media*	Common chickweed

Convolvulaceae

**Convolvulus arvensis*	Bindweed

Fabaceae

**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch

Geraniaceae

**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium

Montiaceae

Claytonia perfoliata	Miner's lettuce

Myrsinaceae

**Lysimachia arvensis*	Scarlet pimpernel

Orobanchaceae

**Parentucellia viscosa*	Yellow glandweed

Papaveraceae

**Fumaria parviflora*	Fumaria

Plantaginaceae

**Plantago lanceolata*	English plantain

Polygonaceae

**Rumex crispus*	Curly dock

Ranunculaceae

**Ranunculus muricatus*	Spiny-fruit buttercup

Rubiaceae

Galium aparine	Goose grass

* Indicates a non-native species

Table 1

Plant Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Angiosperms -Monocots

Iridaceae

Sisyrinchium californicum	Golden-eyed-grass

Juncaceae

Juncus occidentalis	Slender rush

Poaceae

**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Elymus triticoides	Creeping wildrye
**Festuca perennis*	perennial ryegrass
**Hordeum murinum*	Wall barley
Phalaris angusta	Canary timothy grass

* Indicates a non-native species

Table 2
Wildlife Species Observed on the SDG Commerce 330 Distribution Center Project Site.

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Birds	
Northern flicker	*Colaptes auratus*
Red-shouldered hawk	*Buteo lineatus*
Wild turkey	*Meleagris gallopavo*
Mourning dove	*Zenaida macroura*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
American crow	*Corvus brachyrhynchos*
Tree swallow	*Tachycineta bicolor*
Violet-green swallow	*Tachycineta thalassina*
Bushtit	*Psaltriparus minimus*
Western bluebird	*Sialia mexicana*
Red-winged blackbird	*Agelaius phoeniceus*
House finch	*Haemorhous mexicanus*
Mammals	
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Otospermophilus beecheyi*
Botta's pocket gopher	*Thomomys bottae*
California meadow vole	*Microtus californicus*

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; chaparral; valley and foothill grassland; [sometimes serpentinite]. 90 - 1555 meters	The closest record of this species is located 2.8 miles east of the project site (Occurrence No. 7).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Symphyotrichum lentum Suisun Marsh aster	Fed: - State: - CNPS: Rank 1B.2	August-November	Marshes and swamps (brackish and fresh water)	The closest record of this species is located 2.3 miles northwest of the project site (Occurrence No. 128).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Chenopodiaceae					
Extriplex joaquinana San Joaquin spearscale	Fed: - State: - CNPS: Rank 1B.2	April-October	Chenopod scrub; meadows; valley and foothill grassland; [alkaline].	The closest record of this species is located 1.6 miles south of the project site (Occurrence No. 37).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Cyperaceae					
Carex lyngbyei Lyngbye's sedge	Fed: - State: - CNPS: Rank 2	May-August	Marshes or swamps (brackish or freshwater)	The closest record of this species is located 2.3 miles northwest of the project site (Occurrence No. 28).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Fabaceae					
Astragalus tener tener Alkali milkvetch	Fed: - State: - CNPS: Rank 1B.2	March-June	Playas; mesic grasslands (adobe clay), vernal pools (alkaline).	The closest record of this species is located 1.6 miles south of the project site (Occurrence No. 50).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Lathyrus jepsonii jepsonii Delta tule pea	Fed: - State: - CNPS: Rank 1B.2	May-September	Marshes and swamps (freshwater and brackish).	The closest record of this species is located 2.5 miles northwest of the project site (Occurrence No. 13).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: Rank 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	The closest record of this species is located 1.1 miles east of the project site (Occurrence No. 23).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Orobanchaceae					
Castilleja affinis neglecta Tiburon paintbrush	Fed: FE State: CT CNPS: Rank 1B.2	April-June	Valley and foothill grassland [serpentinite]	The closest record of this species is located 2.8 miles southeast of the project site (Occurrence No. 5).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.
Chloropyron molle molle Soft salty bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	July-September	Marshes and swamps (coastal salt).	The closest record of this species is located 2.2 miles north of the project site (Occurrence No. 3).	None, negative survey findings during multiple surveys. Site is highly disturbed by tree removal.

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site.

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern

CNPS:
Rank 1A - Presumed extinct in California
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other:	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabit static rain-filled/vernal pools, small, clear water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression	Record for this species located 1.6 miles north of the project site (CNDDB Occurrence No. 232).	None. No vernal pools or suitable habitat onsite. No impacts to this species are anticipated.
Fish				
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Record for this species located 0.3 miles southwest of the project site (CNDDB Occurrence No. 4).	None. No streams or rivers on the project site. No impacts to this species are anticipated.
Longfin smelt *Spirinichus thaleichthys*	Fed: -- State: CT Other:	Endemic to the Sacramento-San Joaquin River system. Inhabits open waters in the Delta and Suisun Bay. After spawning, larvae are carried downstream to brackish nursery areas.	Record for this species located 1.1 miles east of the project site (CNDDB Occurrence No. 26).	None. No stream or river habitat located on the project site. No impacts to this species are anticipated.
Sacramento splittail *Pogonichthys macrolepidotus*	Fed: State: CSC Other:	Endemic to the lakes and rivers of the Central Valley; now confined to the delta, Suisun Bay, and associated marshes. Inhabits slow moving river sections and dead-end sloughs. Needs flooded vegetation for spawning.	Record for this species located 2.8 miles southwest of the project site (CNDDB Occurrence No. 12).	None. No streams or rivers on the project site. No impacts to this species are anticipated.
Amphibians				
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Record for this species located 1.4 miles east of the project site (CNDDB Occurrence No. 896).	Unlikely to occur onsite due to lack of suitable habitat and presence of a eucalytpus grove onsite for many decades. See text.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Reptiles				
Western pond turtle ** *Actinemys marmorata marmorata*	Fed: - State: CSC Other:	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County.	Record for this species located 0.5 miles north of the project site (CNDDB Occurrence No. 552).	None. No streams or open water onsite. No impacts to this species are anticipated.
Birds				
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other:	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging.	Record for this species located 2.6 miles north of the project site (CNDDB Occurrence No. 2744).	Low potential to nest in the eucalyptus adjacent to the project site. A pre-constuction nesting survey will be conducted. See text.
Ferruginous hawk *Buteo regalis*	Fed: -- State: WL Other:	Winter migrant to California where they prefer grasslands, cultivated fields and arid areas with an abundance of prey species, such as pocket gophers, black-tailed hares, and cottontails.	Record for this species located 2.4 miles north of the project site (CNDDB Occurrence No. 28).	None. This species does not nest in California. No impacts to this species are anticipated.
California black rail *Laterallus jamaicensis coturniculus*	Fed: -- State: CT Other:	Inhabits salt marshes bordering larger bays. Prefers tidal salt marshes of pickleweed.	Record for this species located 2.3 miles north of the project site (CNDDB Occurrence No. 13).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.
California Ridgway's rail *Rallus obsoletus obsoletus*	Fed: FE State: CE Other:	Inhabits salt water and brackish marshes with tidal sloughs in San Francisco Bay. Prefers dense pickleweed for cover, but forages for invertebrates along mud-bottomed sloughs.	Record for this species located 2.3 miles Northwest of the project site (CNDDB Occurrence No. 16).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Record for this species located 2.5 miles southeast of the project site (CNDDB Occurrence No. 109).	Low. Few burrows observed onsite. No owls were observed during suveys. A pre-constuction survey will be conducted. See text.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	Fed: - State: CSC Other:	Resident of freshwater and salt water marshes in the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	Record for this species located 2.3 miles north of the project site (CNDDB Occurrence No. 37).	None. No nesting habitat located on the project site. No impacts to this species are anticipated.
San Pablo song sparrow *Melospiza melodia samuelis*	Fed: -- State: CSC Other:	More properly known as Samuels Song Sparrow. Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the California marshes; nests in grindelia bordering slough channels.	Record for this species located 2.6 miles west of the project site (CNDDB Occurrence No. 17).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CC Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Record for this species located 1.6 miles northeast of the project site (CNDDB Occurrence No. 243).	None. Insufficent cover for nesting and no permanent open water onsite. No impacts to this species are anticipated.
Mammals				
Salt marsh harvest mouse *Reithrodontomys raviventris*	Fed: FE State: CE Other:	Inhabits saline marshes in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	Record for this species located 2.2 miles south of the project site (CNDDB Occurrence No. 150).	None. No marsh habitat located on the project site. No impacts to this species are anticipated.

Table 4

Special-Status Wildlife Speceis Known to Occur Within 3 Miles of the SDG Commerce 330 Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site

***Status**

Federal:	State:
FE - Federal Endangered	CE - California Endangered
FT - Federal Threatened	CT - California Threatened
FPE - Federal Proposed Endangered	CR - California Rare
FPT - Federal Proposed Threatened	CC - California Candidate
FC - Federal Candidate	CSC - California Species of Special Concern
FPD - Federally Proposed for delisting	FP - Fully Protected
	WL - Watch List. Not protected pursuant to CEQA

**The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.

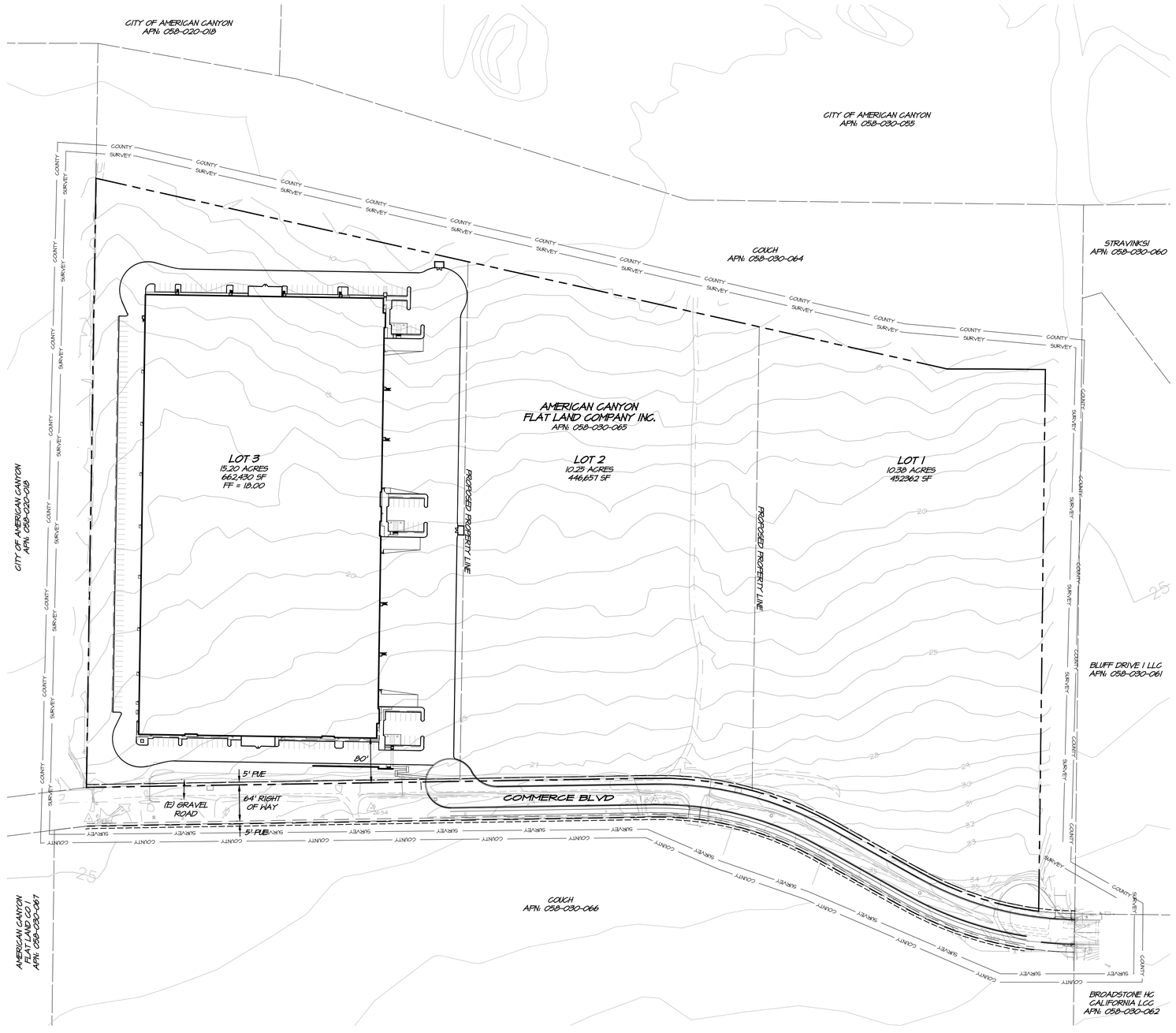
SDG 330 COMMERCE DISTRIBUTION CENTER

TENTATIVE PARCEL MAP & USE PERMIT MODIFICATION PLANS

GRAPHIC SCALE

100 0 100 200

(IN FEET)
1 inch = 100 FT



SYMBOL LEGEND

EXISTING

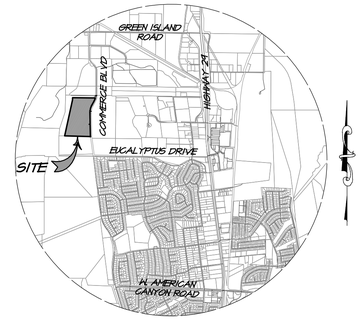
- SURVEY CONTROL STATION
- FOUND
- BRASS PIN
- FLOW LINE
- FENCE
- TREE (AS NOTED)
- WELL

PROPOSED

- SD — STORM DRAIN PIPE
- DRAIN INLET
- DS — DOWNSPOUT
- T-SPREADER
- TOP / TOE DAYLIGHT
- RETAINING WALL
- VERTICAL CURB
- CURB & GUTTER
- SS — SANITARY SEWER
- CO — CLEANOUT
- DW — DOMESTIC WATER
- FW — FIRE WATER
- RW — RECYCLED WATER
- FH — FIRE HYDRANT

ABBREVIATIONS

℄	CENTERLINE
CO	CLEANOUT
DW	DOMESTIC WATER
EP	EDGE OF PAVEMENT
EV	ELECTRIC VEHICLE
EX / (E)	EXISTING
FD	FOUND
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FW	FIRE WATER
GB	GRADE BREAK
HP	HIGH POINT
HWL	HIGH WATER LEVEL
INV	INVERT
IP	IRON PIPE
IW	IRRIGATION WATER
LF	LINEAL FEET/FOOT
LLA	LOT LINE ADJUSTMENT
LP	LOW POINT
MH	MANHOLE
OC	ON CENTER
OR	OFFICIAL RECORD
PL	PROPERTY LINE
(P)	PROPOSED NEW WORK
PW	PROCESS WATER
PWW	PROCESS WASTE WATER
R	RADIUS
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
ROW	RIGHT OF WAY
RW	RECYCLED WATER
S	SLOPE (FEET/FOOT)
S.A.D.	SEE ARCHITECTS DRAWINGS
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
WM	WATER METER



VICINITY MAP
SCALE: 1" = 3000'

PROJECT INFORMATION

CLIENT:	INDUSTRIAL & COMMERCIAL CONTRACTORS, INC. 413 W. YOSEMITE AVENUE, STE. 105 MADERA, CA 93637
CONTACT:	BRIAN DOSWALD
SITE ADDRESS:	COMMERCE BLVD. AMERICAN CANYON, CA 94503
CIVIL ENGINEER:	RSA+ 1515 FOURTH STREET NAPA, CA 94559
APN & AREA:	058-030-065 (35.85 ACRES)

SURVEY NOTES

1. TOPOGRAPHY BASED ON A FIELD SURVEY PERFORMED BY RSA+ IN MARCH, 2018. CONTOURS ARE SHOWN EVERY ONE FOOT (1'), HIGHLIGHTED EVERY FIVE FEET (5').
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83) 2011 EPOCH BASED UPON G.P.S. OBSERVATIONS ON NETWORK UTILIZING CONTINUALLY OPERATING REFERENCE STATION (C.O.R.S.) INFORMATION FROM THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.).

   VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3. BOUNDARY SHOWN IS RECORD INFORMATION PER BOOK 26 OR PARCEL MAPS AT PAGE 24, NAPA COUNTY RECORDS.

SHEET INDEX

C1.0	COVER SHEET
C1.1	TENTATIVE PARCEL MAP
C2.0	DEMOLITION AND LAYOUT PLAN
C3.0	GRADING PLAN
C3.1	COMMERCE BLVD PLAN
C3.2	COMMERCE BLVD PLAN
C4.0	UTILITY PLAN

NO.	DATE	REVISIONS	BY	APP'D

RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS + (1980)
1515 FOURTH STREET
NAPA, CALIFORNIA 94559
OFFICE (707) 252-3301
+ www.RSAcivil.com +

SDG COMMERCE 330 DISTRIBUTION CENTER
SITE PLAN
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
PAUL SARGENT WARNICK
No. 82758
Exp. 9-30-18
CIVIL ENGINEER
STATE OF CALIFORNIA

DATE	June 8, 2018
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4118010.0

SHEET NO.
C1.0
1 OF 7 SHEETS

R:\2018\4118010.0_SDG_Commerce_330\DESIGN\Entitlements\TPM\C1.0-COVER.dwg 06/08/2018 3:26:26PM Paul

COPYRIGHT RSA+

PRELIMINARY - NOT FOR CONSTRUCTION

4293

GRAPHIC SCALE

40 0 40 80

(IN FEET)
1 inch = 40 FT

2" DW
1.5" STUB OF W
2" RW
RPBP
WM
2" DW
RW
RW

1 WATER LINE DETAIL

SCALE: 1" = 10'

6" SANITARY SEWER STUB FOR FUTURE USE.

COMMERCE BLVD

CONNECT TO (E) SSMH INVERT 18.12±

6" SS 44LF S=0.02

SSMH RIM 25.91 INV 14.02

SSMH RIM 29.48 INV 8.04±

SSMH RIM 29.41 INV 8.04±

SDMH INV 10.26

SDCO INV 10.51

DI RIM 14.70 INV 10.75

DI RIM 14.70 INV 11.01

DI RIM 14.70 INV 11.19

SDCO INV 11.72

DI RIM 14.70 INV 11.94

DI RIM 14.70 INV 12.24

DI RIM 14.70 INV 12.50

SDCO INV 12.80

SDCO INV 13.10

18" SD 74 LF S=0.034

18" SD 70 LF S=0.0034

18" SD 76 LF S=0.0034

18" SD 86 LF S=0.0034

18" SD 87 LF S=0.0034

18" SD 65 LF S=0.0034

18" SD 87 LF S=0.0034

18" SD 76 LF S=0.003

18" SD 60 LF S=0.005

8" SD 67 LF S=0.041

4" SS S=0.005

SSCO INV 14.27

SSCO INV 14.50

6" SS S=0.005 MIN.

6" SS S=0.005 MIN.

6" SS S=0.005 MIN.

SSFM

SSCO INV 10.80

18" SD 30 LF S=0.075

8" SD 38 LF S=0.064

DI RIM 17.06 INV 15.06

4" SS S=0.02

SSCO INV 13.00

SSMH W/ DUPLEX GRINDER PUMPS INV 12.50

8" SD 67 LF S=0.024

8" SD 66 LF S=0.024

8" SD 76 LF S=0.022

8" SD 67 LF S=0.006

8" SD 67 LF S=0.041

8" SD 67 LF S=0.041

8" SD 67 LF S=0.041

8" SD 67 LF S=0.041

8" SD 67 LF S=0.041

8" SD 122 LF S=0.034

12" SD 58 LF S=0.005

INV 17.00

INV 13.00

INV 13.00

INV 13.00

INV 17.50

INV 13.00

INV 13.00

INV 12.31

INV 17.50

SSCO INV 13.00

4" SS S=0.051

LEVEL SPREADER OUTFALL 9.75

DI RIM 9.88

18" SD 16 LF S=0.0034

LEVEL SPREADER OUTFALL 9.20 CONF

8" SD 19 LF S=0.12

INV 14.50

8" SD 59 LF S=0.02

LEVEL SPREADER OUTFALL 10.15 CONF

8" SD 19 LF S=0.07

OUTLET STRUCTURE RIM 13.60 INV 11.50

INV 14.50

8" SD 59 LF S=0.02

LEVEL SPREADER OUTFALL 10.00 CONF

8" SD 19 LF S=0.075

LEVEL SPREADER OUTFALL 13.30

INV 14.50

8" SD 59 LF S=0.02

DETENTION/BIORETENTION POND HWL = 13.30' BOTTOM OF POND = 9.50' VOLUME = 1023.00 CF

LEVEL SPREADER OUTFALL 11.00 CONF

8" SD 20 LF S=0.025

6" FIRE WATER LATERAL, TYP. OF 4

OUTLET STRUCTURE RIM 13.60 INV 11.50

EVEL SPREADER FALL 11.50 CONF

9 LF S=0.028

OUTLET STRUCTURE RIM 13.60 INV 12.00

LEVEL SPREADER OUTFALL 10.00

6" SD 90 LF S=0.02

LEVEL SPREADER OUTFALL 13.20

BIORETENTION OUTLET STRUCTURE RIM 17.00 INV 15.00

(P) BUILDING
FF = 19.50

8" FIRE RISER LOCATION

8" FIRE RISER LOCATION

8" FIRE RISER LOCATION BY OTHERS, TYPICAL

INV 17.50
8" SD 25 LF S=0.28

8" SD 25 LF S=0.26

8" SD 25 LF S=0.25

8" SD 25 LF S=0.23

18" SD 25 LF S=0.21

8" SD 25 LF S=

8" SD 25 LF S=0.18

8" SD 25 LF S=0.166

8" SD 25 LF S=0.160

18" SD 42 LF S=0.0036

SDCO INV 10.54

SDCO INV 10.94

SDCO INV 11.34

SDCO INV 11.74

SDCO INV 12.14

SDCO INV 12.55

SDCO INV 12.45

SDCO INV 13.35

SDCO INV 13.76

SDCO INV 14.31

24" SD 101 LF S=0.0046

24" SD 90 LF S=0.0046

24" SD 88 LF S=0.0046

24" SD 88 LF S=0.0046

24" SD 86 LF S=0.0046

24" SD 90 LF S=0.0046

18" SD 88 LF S=0.0046

18" SD 88 LF S=0.0046

18" SD 91 LF S=0.0046

12" SD 76 LF S=0.0046

ELECTRIC LINE BY OTHERS

INV 17.50
8" SD 43 LF S=0.043

12" SD 80 LF S=0.0046

DI RIM 18.06 INV 15.83

SEE DETAIL 1

2" DW
RW
2" DW
RW

INV 17.50
8" SD 74 LF S=0.032

DI RIM 18.06 INV 15.26

12" SD 80 LF S=0.0046

DI RIM 18.06 INV 14.98

INV 17.50
8" SD 63 LF S=0.047

12" SD 80 LF S=0.0046

DI RIM 18.06 INV 14.52

12" SD 46 LF S=0.0046

8" SD 10 LF S=0.22

DI RIM 18.46 INV 16.46

INV 17.50

DI RIM 17.81 INV 14.12

(E) 16" RW

(E) 12" W

(E) 8" SS

(E) 18" SFM

(E) 18" SFM

46" EUC CLUSTER

52" EUC CLUSTER

6" EUC

14"x2 EUC

6"x10" EUC

6"x10" EUC

12" EUC

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PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	REVISIONS	BY	APP'D

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OFFICE (707) 252-3301
+ www.RSAcivil.com +

SDG COMMERCE 330 DISTRIBUTION CENTER
UTILITY PLAN
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER LOUIS SARGENT WANDER No. 82758 Exp. 9-30-18 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	June 8, 2018
DRAWN	LMM
DESIGNED	DJS
CHECKED	PSW
JOB NO.	4118010.0

SHEET NO.
C4.0
7 OF 7 SHEETS

K:\2018\4118010.0_SDG_commerce_330\DESIGN\Sheets\TPM\C4.0-UTIL.dwg 06/08/2018 3:52:04PM Paul

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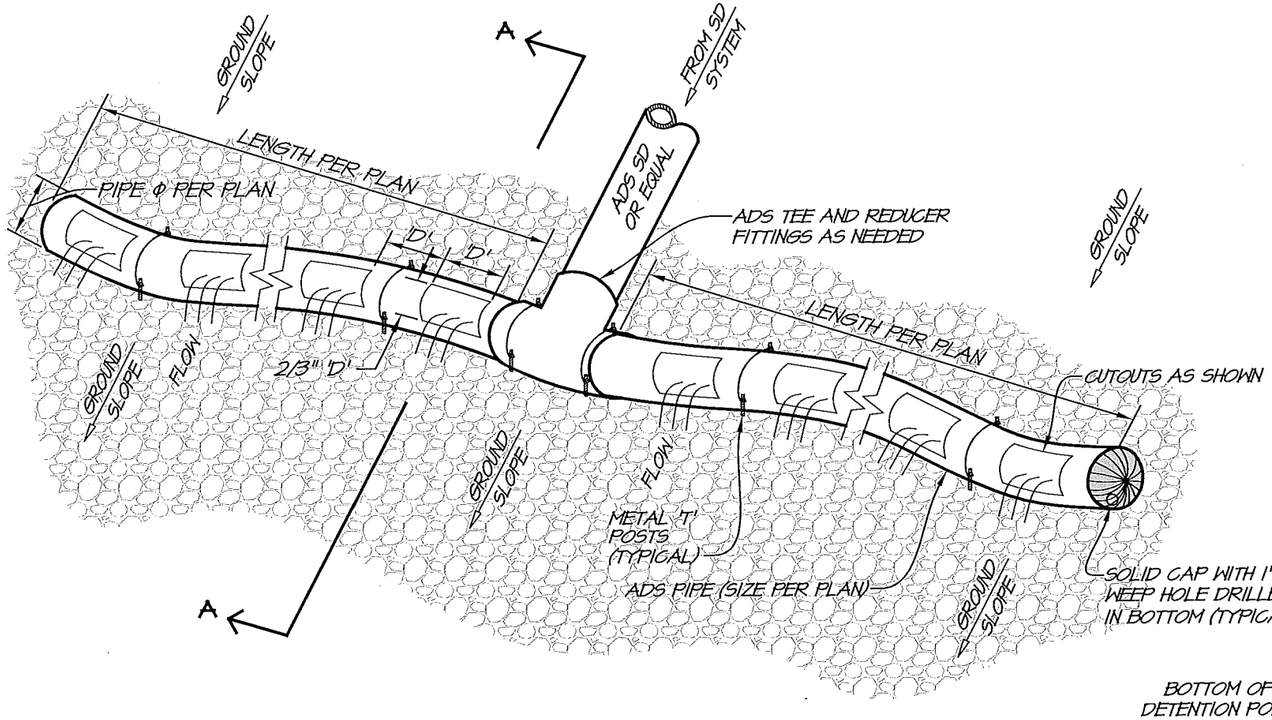
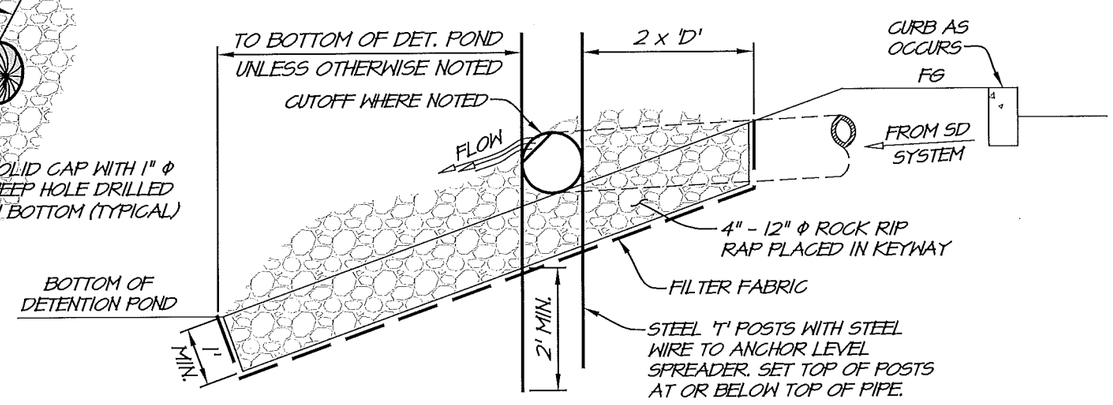
SDG COMMERCE 330 DISTRIBUTION CENTER

LEVEL SPREADER DETAIL

AMERICAN CANYON CALIFORNIA





NOTE

1. INSTALL LEVEL SPREADER ALONG CONTOUR IN LOCATION SHOWN ON PLAN.

SECTION A-A

1 STORM DRAIN LEVEL SPREADER DETAIL

NOT TO SCALE

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- Data Points
- Wetland (694 Sq. Ft., 0.016 Acre)
- Linear Wetlands (389 Lin. Ft., 1,167 Sq. Ft., 0.027 Acre)
- Isolated Wetands (RWQCB Jurisdiction) (874 Sq. Ft., 0.020 Acre)
- Plastic Pipe
- RCP
- Control Points
- Delineation Area: Lot 3 (35.8 Acres)

Wetland #	Sq. Ft.	Acres	Linear Wetland #	Lin. Ft.	Sq. Ft.	Acres
W 1	601	0.014	LW 1	113	339	0.008
W 2	93	0.002	LW 2	276	828	0.019

Isolated Wetland #	Sq. Ft.	Acres
IW 1	874	0.020

Approved Jurisdictional Determination, pursuant to Section 404 Clean Water Act

U.S. Army Corps of Engineers
San Francisco District
Regulatory Division

American Canyon Flat Lands
American Canyon, Napa County, California
(APNs: 058-030-067 and 058-030-065)

Accurate as depicted in legend

Section 404 jurisdiction verified only within the designated Delineation Area. Construction-related and isolated wetlands are not subject to Section 404 jurisdiction.

File ID. **2011-00322** Date: **March 6, 2018** Sheet 2 of 2

38.187836 -122.271692 Decimal Degrees

38.183213 -122.276052 Decimal Degrees

W 1
LW 1
W2
LW2
IW 1
3'
3'

0 50 100 200 300 400 500 Feet Scale: 1 inch = 100 feet

Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

Appendix C

Traffic Memoranda

Memorandum

October 24, 2018

To:	Mr. Neil Thompson Stravinski Development Group	Project:	330 Commerce Boulevard Wine Storage Facility Project
From:	Kamesh Vedula, P.E. Peter Galloway, Senior Transportation Planner	Ref/Job No.:	11181445
CC:		File No.:	C2106MEM006.DOCX

Subject: Traffic Impact Analysis Memorandum

Introduction

This traffic impact analysis memorandum (TIAM) has been prepared to present the results of a traffic impact analysis performed by GHD for a proposed new wine storage facility development at 330 Commerce Boulevard in the City of American Canyon. The term "project" used in this memorandum refers to the proposed new 330,528 square foot wine storage warehouse. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[1] The project site is located on Commerce Boulevard south of Green Island Road and Hanna Drive at the terminus of the roadway.

Included in this technical memorandum are analyses and discussion of the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this project:

- Existing Conditions
- Existing Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

[1] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

GHD
943 Reserve Drive Roseville California 95678 USA
T 916 782 8688 F 916 782 8689 W www.ghd.com

The following study intersection was identified and analyzed for this project:

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

The *Existing Conditions* analysis represents current operations of roadway and intersections based on newly collected traffic count data (October, 2018);

The *Existing Plus Project Conditions* represent the net increase in project trips that are then added to existing traffic volumes to quantify potential impacts from proposed project uses;

The *Cumulative (No Project) Conditions* represent future traffic conditions based on the City of American Canyon General Plan to the Year 2030;

The *Cumulative Plus Project Conditions* represent the net increase in project trips added to cumulative (no project) volumes to quantify impacts from proposed project uses. Care is given not to "double count" proposed project trips based on assumed land uses for the proposed project site used in City's General Plan.

Existing Traffic Volumes

Existing traffic volumes for this analysis are based on new daily and peak hour traffic volume data collected during the first week of October, 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road (see Appendices for Supporting Data Information).[2]

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the amount of heavy vehicles (truck traffic) was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

Analysis Level of Service Methodologies/Policies

City of American Canyon Traffic Study Thresholds of Significance

The City of American Canyon Traffic Study Thresholds of Significance establishes the following significance criteria for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

[2] National Data and Surveying Services (NDS), AM peak period (7:00-9:00), PM peak period (4:00-6:00) intersection count at the Green Island Road/Commerce Boulevard intersection, October 2, 2018. Average daily traffic (ADT) counts on Green Island Road (east and west of Commerce Boulevard) and Commerce Boulevard (north and south of Green Island Road, October 2, 3, 4, 2018.

"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."

Project-Specific Significance and Mitigation Thresholds

In accordance with the City of American Canyon Traffic Study Thresholds of Significance, the following thresholds of significance are used to determine if an impact is significant and requires mitigation:

Unsignalized Intersections:
The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS in the *No Project* condition to deteriorate to an unacceptable LOS in the *Plus Project* condition; or,
- Increase the delay by more than 5 seconds at an unsignalized intersection that is already operating or will operate at an unacceptable LOS in the *No Project* condition.

Existing Intersection Operations

Methodology

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. For all-way-stop-control intersections it is the average delay for all approaches.

Intersection levels-of-service have been based on the most recent Highway Capacity Manual (*HCM 6*) operations methodology for unsignalized all-way-stop-control intersections using *Synchro-Simtraffic* software (version 10). In addition, peak hour factors (PHF's) for each intersection approach have been incorporated into all existing and future intersection LOS calculations. The PHF is a measure of the traffic flow rate at each of the intersection's approaches. Based on field count data, these PHF's ranged from .75 to .87 dependent on the peak hour. Intersection approaches with lower approach volumes typically have lower (and more conservative) PHF's.

Intersection

Table 1 provides a summary of the *Existing* peak hour intersection delay and level of service at the Green Island Road/Commerce Boulevard intersection using the most recent Synchro model.

Table 1: Existing Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	9.5	A	10.6	B

Notes:
1. AWSC = All Way Stop Control
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.

As shown in Table 1, the Green Island Road/Commerce Boulevard intersection is currently operating at acceptable LOS during both peak hours.

Project Description

The proposed 330 Commerce Boulevard Wine Storage Facility project would be located in the City of American Canyon at the far south end of Commerce Boulevard (south of Green Island Road). Based on the latest correspondence and site plan from the project applicant the proposed project would consist of a 330,528 square foot wine storage warehouse. At this time, vehicle and truck access to/from the proposed facility would be to/from Commerce Boulevard via Green Island Road.

Project Trip Generation

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[3] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities. Using the same methodology for the AM peak hour (between 7:00-9:00) and PM peak hour (between 4:00-6:00) peak hour trip generation has been compared in Tables 2 and 3.

Table 2: AM and PM Peak Hour Trip Generation Comparison--Tuesday

Tuesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	10-May-16	61 / 42	0.15 / 0.11
787 Airpark Road	377		27 / 37	0.07 / 0.10
175 & 177 Tower Road	254		30 / 31	0.12 / 0.12
Commerce Boulevard	692	16-Feb-16	72 / 93	0.10 / 0.13
Hanna Drive	718		151 / 109	0.21 / 0.15
Lombard Drive	287		50 / 33	0.17 / 0.12
Six Site Combined Average Tuesday Trip Rate				**0.14 / 0.12**

[3] Omni-Means, Ltd., Trip Generation Rates---Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

Table 3: AM and PM Peak Hour Trip Generation Comparison---Wednesday

Wednesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips AM/PM Trips	Trip Rate Based on Observed Traffic (Trips/KSF) AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	11-May-16	57 / 34	0.14 / 0.09
787 Airpark Road	377		54 / 24	0.14 / 0.06
175 & 177 Tower Road	254		51 / 36	0.20 / 0.14
Commerce Boulevard	692	17-Feb-16	99 / 133	0.14 / 0.19
Hanna Drive	718		164 / 128	0.23 / 0.18
Lombard Drive	287		57 / 38	0.20 / 0.13
Six Site Combined Average Wednesday Trip Rate				**0.18 / 0.13**

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving the site prior to the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

As shown in Tables 2 and 3, the average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf , respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily and peak hour trip generation has been shown in Table 4.

Table 4: Project Trip Generation; Daily and Peak Hour

Observed Daily and Peak Hour Trip Rates	Unit[1]	Daily Trip Rate/Uni	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Wine Warehouse/Storage	ksf	1.69	0.16	60%	40%	0.13	35%	65%
Project Name	**Quantity**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	In	Out	Total	In	Out
330 Commerce Wine Storage	331	559	53	32	21	43	15	28
Net New Project Trips		**559**	**53**	**32**	**21**	**43**	**15**	**28**
Notes:								
1. 1 ksf = 1,000 square feet								
2. Trip rates based on daily traffic driveway counts at six (6) different wine warehouse/storage facilities in the Ameri								
focusing on the 24-hour and AM and PM peak hours between (7:00-9:00 am and 4:00-6:00 pm).								

As calculated in Table 4, the proposed project would be expected to generate 559 daily trips with 53 AM peak hour trips and 43 PM peak hour trips.

Project Distribution

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Based on these factors, it is estimated that 95% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard). The remaining 5% of the proposed project trips would be to/from the west via Green Island Road.

Existing Plus Project Traffic Conditions

Existing plus Project conditions were simulated by superimposing AM and PM peak hour traffic by the proposed project onto *Existing* intersection traffic volumes.

Intersection Operation

Table 5 provides a summary of *Existing Plus Project* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 5: Existing Plus Project Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.0	A	11.2	B
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 5, the study intersection of Green Island Road/Commerce Boulevard would operate acceptably during both the AM and PM peak hours with existing and proposed project traffic.

Signal Warrants

The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants with *Existing* and Existing *Plus Project* Conditions. The CaMUTCD manual identifies up to nine warrants which can be used and states that "*An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location*".[4] Traffic signals can have several advantages which are outlined in the manual. These include: maintaining orderly movement of traffic; increasing capacity, reducing the frequency of certain

[4] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 3 (March 9, 2018).

accident types (right-angles), provide continuous movement of traffic at a definite speed, and permit minor street traffic/pedestrians to cross the major street.

However, the manual goes on to state that "*The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated*." The manual recommends engineering judgment should ultimately be used when deciding the appropriateness of signal controls.

Six of the nine warrants were evaluated (three warrants concerning coordinated signal system, roadway network, and railroad crossing locations were not relevant). The signal warrant worksheets are attached in the Appendix.

There are three warrants based on vehicle volumes and none of the three are met with Existing Plus Project Volumes. These include the “peak hour volume,” “8-hour volume,” and “4-hour volume” warrants. Overall hourly approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

Two warrants are based on pedestrian crossing volumes (“pedestrian volumes” and “adequate gaps” for pedestrians) which were applied to the pedestrian volumes in the area. However, while there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road; there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard are very light. During the AM and PM peak period only two (2) pedestrians were observed and only one pedestrian crossed north-south on Green Island Road (jay-walked). Therefore, no pedestrian warrants are met at this time.

Finally, an accident search history was conducted for the Green Island Road/Commerce Boulevard intersection based on the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for last three calendar years (2015-2017). The crash experience warrant requires at least five accidents at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). Based on the accident search history for the last three full calendar years; the Green Island Road/Commerce Boulevard intersection does not experience significant vehicle conflicts (0 recorded accidents).

Right-Turn Lane Requirements

At the City’s request, the Green Island Road/Commerce Boulevard intersection has been evaluated for northbound right-turn movements and an exclusive right-turn lane. Based on existing peak hour count data at the intersection, the vast majority of turning movements from northbound Commerce Boulevard onto Green Island Road are right-turn movements (29 AM right-turns and 168 PM right-turns). With proposed project traffic, these movements are expected to increase to 49 AM right-turns and 195 PM right-turns. Essentially, the northbound approach lane of Commerce Boulevard at Green Island Road is functioning as an exclusive right-turn lane under existing conditions given the very low northbound left-turn movements at the intersection.

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane would be warranted at the intersection based on an overall approach volume of

207 vehicles (PM peak hour worst-case) and a projected northbound right-turn movement of 195 vehicles (see Appendices; Right-Turn Lane Volumes).[5]

Cumulative (No Project) Conditions

Cumulative (No Project) conditions were based on cumulative AM and PM peak hour volume projections found in the *Napa Logistics Park Phase 2 Project Draft EIR*. Peak hour volume projections for Green Island Road west of Paoli Loop Road were used for this analysis and encompass all future vehicle trips originating from industrial and light industrial areas in the Mezzetta Court, Jim Oswalt Way, Hanna Drive, and Commerce Boulevard areas. As a conservative measure, the *No Shift Change Reduction* volumes were utilized.

Intersection Operation

Table 6 provides a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Syncho-Simtraffic model.

Table 6: Cumulative (No Project) Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	14.6	B	29.6	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 6, the Green Island Road/Commerce Boulevard intersection would operate at acceptable LOS during both peak hours.

Cumulative Plus Project Conditions

Cumulative Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto *Cumulative (No Project)* intersection traffic volumes.

Intersection Operation

Table 7 provides a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Syncho-Simtraffic model.

[5] Transportation Research Board, Intersection Channelization Design Guide, Chapter 4, Guidelines for Design of Channelized Intersections, Figure 4-23, Traffic volume guidelines of right-turn lanes, 1995.

Table 7 Cumulative Plus Project: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	16.5	C	35.0	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As shown in Table 7, the Green Island Road/Commerce Boulevard intersection would continue to operate at acceptable LOS with *Cumulative Plus Project* volumes during both peak hours.

Summary/Mitigation

The proposed 330 Commerce Boulevard Wine Storage Facility project would not significantly affect AM and PM peak hour traffic operations at the Green Island Road/Commerce Boulevard intersection. With *Existing Plus Project* and *Cumulative Plus Project* volumes, the intersection would continue to operate at acceptable levels during the AM and PM peak hours (LOS D or better). Analyses of intersection signal warrant satisfaction at the Green Island Road/Commerce Boulevard location indicates that no signal warrant would be satisfied under *Existing Plus Project* volumes. At the City's request, the northbound right-turn lane from Commerce Boulevard was evaluated for operations. Based on TRB and AASHTO guidelines for the installation of a right-turn lane; Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). In response, the following measure is recommended:

- Widen and/or re-stripe northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 4.2% (43 trips / 1,019 cumulative volumes—PM peak hour).

  With recommended improvements for a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under *Existing Plus Project* and *Cumulative Plus Project* conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (11.2 seconds) to LOS B (10.3 seconds) with *Existing Plus Project* conditions. Under *Cumulative Plus Project* conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds).

Appendix D

Noise Appendices

American Canyon Commerce Boulevard Wine Storage Project

Noise Appendix

Technical Information

Site 1 – 24-Hour Noise Plots (3 pages)

Noise Measurement Locations Figure

RCH GROUP
11060 WHITE ROCK ROAD, SUITE 150-A RANCHO CORDOVA, CA 95670 (916)782-4427

NOISE APPENDIX

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the "loudness" of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[1]; day–night 24-hour average sound level (Ldn)[2] with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[3], also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

Table 1 identifies decibel levels for common sounds heard in the environment.

Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (Caltrans, 1998b). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

Temporary Construction Noise

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. **Table 2** shows typical noise levels from construction equipment. **Table 3** shows noise levels from construction activities, which typically range from 81 to 88 dB Leq at 50 feet, depending on the construction phase.

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[1]The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[2]Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[3]CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Table 1: Typical Noise Levels

Noise Level (dB)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: modified from Caltrans, 1998a

Groundborne Vibration

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment at a distance of 25 feet are summarized in **Table 4**. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inches per second (in/sec) or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a PPV threshold of 0.5 in/sec for residential and commercial structures, 0.25 in/sec for historic buildings and archaeological sites, and 0.2 in/sec for non-engineered timber and masonry buildings (FTA, 2006).

Table 2: Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Grader	85
Impact Pile Driver	101
Jackhammer	89
Loader	79
Paver	77
Pickup Truck	75
Roller	80

Source: FHWA, 2006

Table 3: Typical Construction Activities Noise Levels

Construction Phase	Noise Level (dB, Leq at 50 feet)
Ground Clearing	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.
Leq = equivalent sound level
Source: U.S. Environmental Protection Agency, Legal Compilation, 1973

Table 4: Representative Vibration Source Levels for Construction Equipment

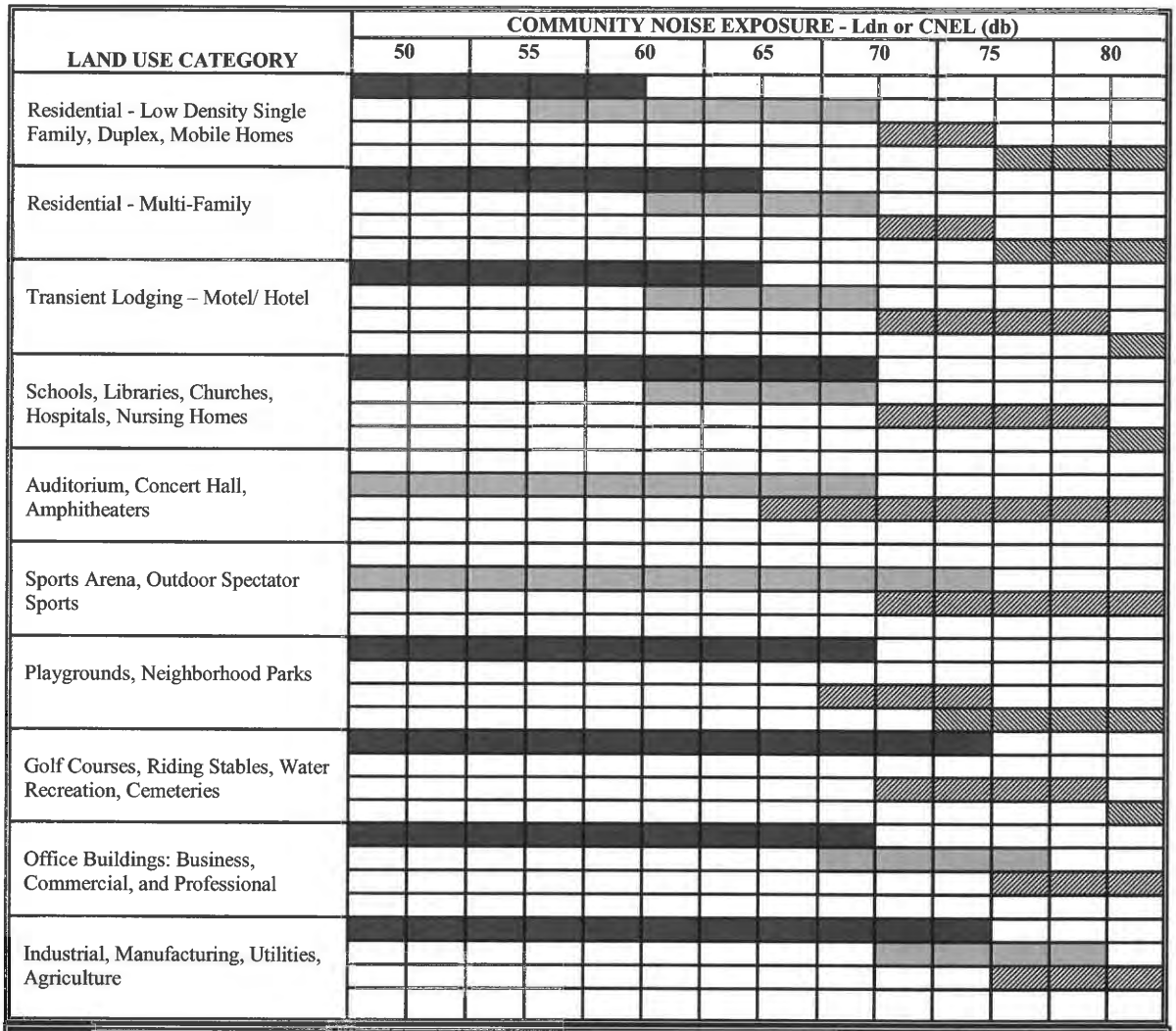
Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Large Bulldozer		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, 2006

State Guidelines

State Land Use Compatibility standards for Community Noise (**Table 5**) are provided in the State of California General Plan Guidelines.

Table 5: Land Use Compatibility for Community Noise Environment



	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: OPR, 2003

REFERENCES

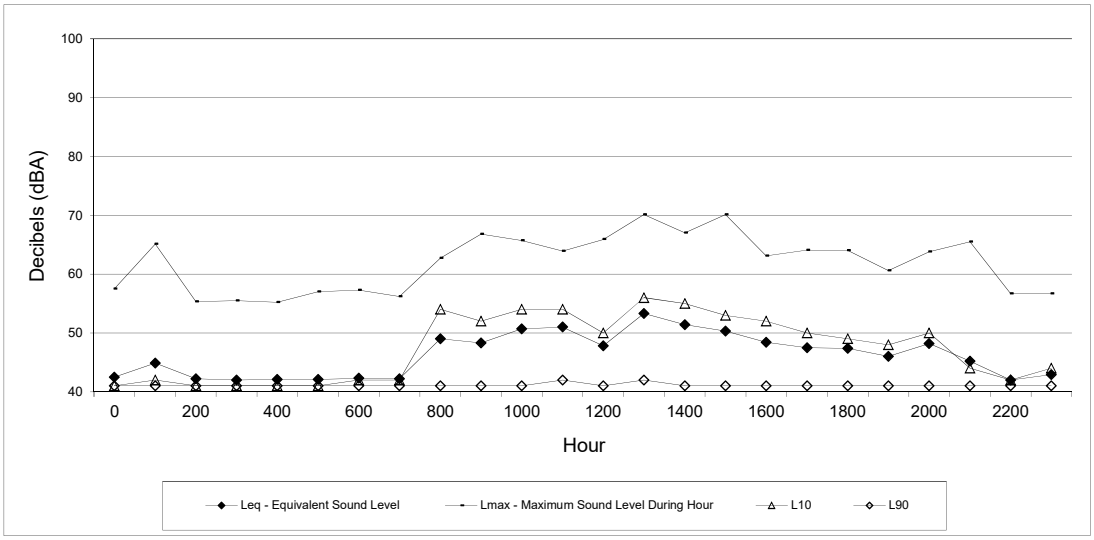
California Department of Transportation (Caltrans), 1998a. *Technical Noise Supplement*.

California Department of Transportation (Caltrans), 1998b. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October 1998.

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06).

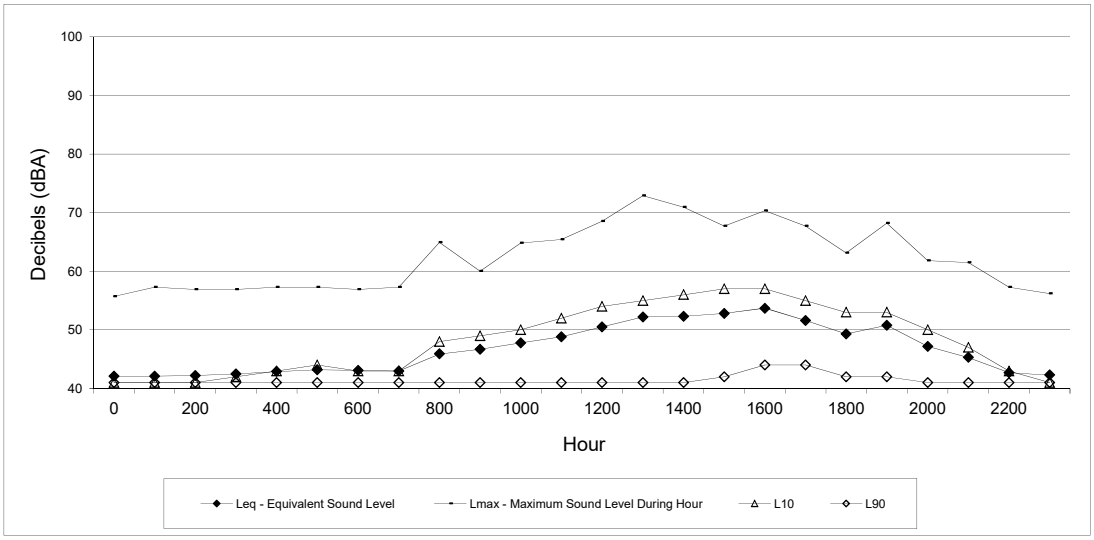
Governor's Office of Planning and Research (OPR), 2003. *State of California General Plan Guidelines*. Appendix A: Noise Element Guidelines.



Site 1: S edge of project site, 480 ft W of E property line
Tuesday July 31, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	43	58	41	41
100	45	65	42	41
200	42	55	41	41
300	42	56	41	41
400	42	55	41	41
500	42	57	41	41
600	42	57	42	41
700	42	56	42	41
800	49	63	54	41
900	48	67	52	41
1000	51	66	54	41
1100	51	64	54	42
1200	48	66	50	41
1300	53	70	56	42
1400	51	67	55	41
1500	50	70	53	41
1600	48	63	52	41
1700	48	64	50	41
1800	47	64	49	41
1900	46	61	48	41
2000	48	64	50	41
2100	45	66	44	41
2200	42	57	42	41
2300	43	57	44	41

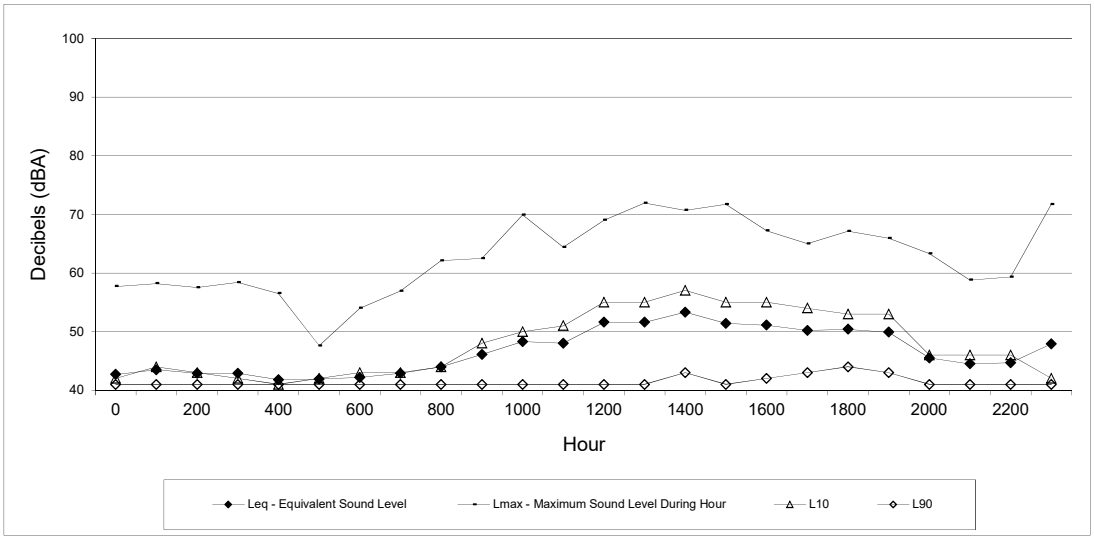
CNEL 51



Site 1: S edge of project site, 480 ft W of E property line
Wednesday August 1, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	42	56	41	41
100	42	57	41	41
200	42	57	41	41
300	43	57	42	41
400	43	57	43	41
500	43	57	44	41
600	43	57	43	41
700	43	57	43	41
800	46	65	48	41
900	47	60	49	41
1000	48	65	50	41
1100	49	65	52	41
1200	51	69	54	41
1300	52	73	55	41
1400	52	71	56	41
1500	53	68	57	42
1600	54	70	57	44
1700	52	68	55	44
1800	49	63	53	42
1900	51	68	53	42
2000	47	62	50	41
2100	45	62	47	41
2200	43	57	43	41
2300	42	56	41	41

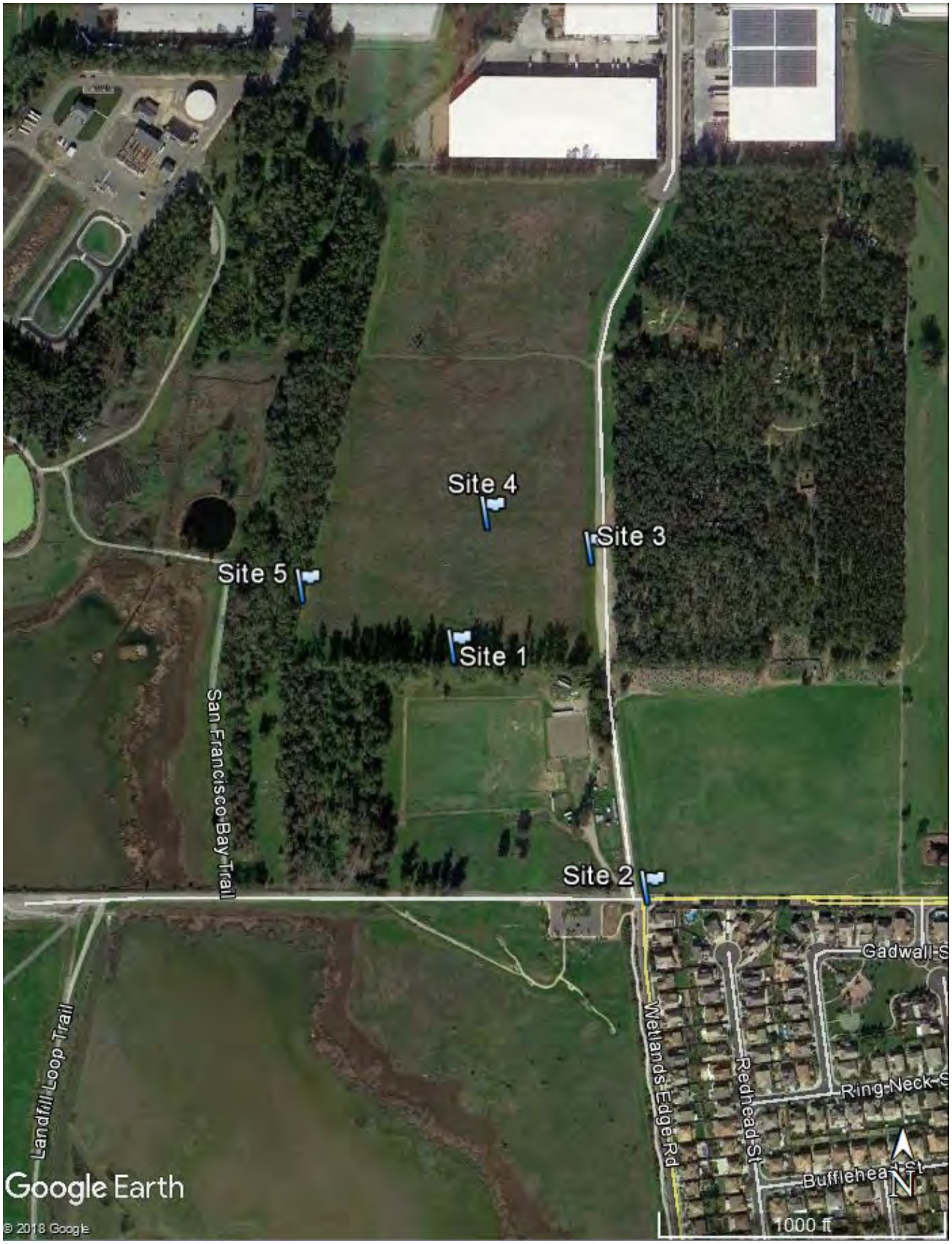
CNEL: 52



Site 1: S edge of project site, 480 ft W of E property line
Thursday August 2, 2018

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	43	58	42	41
100	44	58	44	41
200	43	58	43	41
300	43	58	42	41
400	42	57	41	41
500	42	48	42	41
600	42	54	43	41
700	43	57	43	41
800	44	62	44	41
900	46	63	48	41
1000	48	70	50	41
1100	48	64	51	41
1200	52	69	55	41
1300	52	72	55	41
1400	53	71	57	43
1500	51	72	55	41
1600	51	67	55	42
1700	50	65	54	43
1800	50	67	53	44
1900	50	66	53	43
2000	46	63	46	41
2100	45	59	46	41
2200	45	59	46	41
2300	48	72	42	41

CNEL: 52



American Canyon Commerce Blvd

SOURCE: Google Earth and RCH Group 2018

Noise Measurement Locations

Appendix E

Will-Serve Documentation

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT

City of American Canyon Will-Serve Application

Owner or Legal Representative's Name:	**Date:** 6/08/18
Company or Legal Entity Name: American Canyon Flatland Co., Inc.	**Applicant's Name:** SDG Commerce 330, LLC
Owner Address: 7674 N. Woodson Ave. Fresno, CA 93711	**Applicant Email:** bdoswald@icc-stravinski.com
Owner Email: rmmochizuki@yahoo.com	**Applicant Phone #:** (559) 674-0906
Owner Signature:	**Project Engineer:** RSA+
Project Name: SDG Commerce 330 Distribution Center	**Project Address:** Commerce Blvd. Extension North of Eucayptus Ave.
Project APN: 058-030-065	
Project Description: Warehouse storage and distribution of wine and wine industry goods.	

Permit Number:	**Time of Operation:**
Status of Environmental Clearance:	hours/day: 12-18
Permit Status:	days/week: 5
Land Use: Warehouse	months/year: 12
Property Zoning: Recreation	
Lot Size (acres): 15.2	**Building Size (sqft)** : 330,528

Anticipated Potable Water Demand

Average Day Demand* (annual):	**Maximum (Peak) Day Demand*:**
Domestic: 275 gpd Potable	Domestic: 629 gpd June Potable
Irrigation: 1,379 gpd Reclaimed	Irrigation: 5,672 gpd July Reclaimed
Industrial: 0 gpd	Industrial: gpd
Total: gpd	**Total: gpd**

***ATTACH REFERENCES USED AND CALCULATIONS FOR WATER DEMAND**

Comments:

Cost of Water Supply Report/Will-Serve Letters – The cost to process a Will-Serve application shall be fully borne by the applicant and will be based on the actual cost of staff time. If the City elects to use consultant services, the applicant shall pay the consultant's rate plus 15% for administrative overhead. An initial deposit of $2,000 shall be included at the time of application submission.

Owner & Applicant Acknowledgements and Notification

I declare under penalty of perjury that I am the owner of said property. I certify that all of the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application. I agree to pay all fees and recoverable costs for processing the application.

Property Owner Signature(s) _____ Date 06-20-2018

I declare under penalty of perjury that I have the written authority from property owner to file this application. I certify that all of the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application. I agree to pay all fees and recoverable costs due to the City for processing the application, whether it is approved, denied, or appealed.

Applicant Signature(s) _____ Date 6/18/18

Partnerships & Corporations

In the case of a partnership, all general and limited partners shall be identified. In the case of a corporation, all shareholders owning 10% or more of the stock and all officers and directors shall be identified.

Name	Address	Signature

Additional recipients of project correspondence

If you desire project correspondence and notice of meetings to be sent to parties other than the Applicant and Property Owner, please list their names, address and telephone numbers below.

Name	Address	Telephone number

Indemnification Agreement by Applicant

The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other document, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, Water Supply Report, Will-Serve Letter or any other document or approval related to the applicant's project.

The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

Brian Doswald
Applicant's printed name

_____ 6/18/18
Applicant's signature Date

HANNA COURT ACTUAL WATER CONSUMPTION

ACTUAL WATER CONSUMPTION

IN 100 CUBIC FOOT UNITS

			644 Hanna Drive		633	677 Hanna Drive	
Service Address:		Use:	Domestic	Reclaim	Fire	Domestic	Reclaim
Meter Number:			69115465	69115467	69650777	67995349	69115466
2014	Jan		10	90	0	2	55
	Feb		11	89	0	1	67
	Mar		11	85	0	1	136
	April		11	99	0	1	70
	May		14	71	0	2	56
	June		12	121	0	2	88
	July		13	200	0	1	117
	Aug		11	195	0	2	122
	Sep		10	179	0	1	130
	Oct		12	162	0	3	114
	Nov		13	185	0	2	133
	Dec		10	137	0	1	111
2015	Jan		9	68	0	1	24
	Feb		9	47	0	1	16
	Mar		9	64	0	1	48
	April		11	150	0	1	94
	May		15	75	0	1	30
	June		19	41	0	1	2
	July		16	89	0	0	52
	Aug		19	112	0	2	171
	Sep		15	131	0	1	235
	Oct		17	68	0	3	181
	Nov		17	126	0	2	130
	Dec		15	98	0	2	68
2016	Jan		14	82	0	2	70
	Feb		12	41	0	0	59
	Mar		15	23	0	1	71
	April		23	25	0	1	76
	May		18	38	0	0	37
	June		19	32	0	1	28
	July		14	31	0	0	41
	Aug		15	200	0	2	37
	Sep		15	316	0	0	27
	Oct		17	83	0	1	58
	Nov		16	140	0	1	20
	Dec		13	130	0	1	1
Annual Total Unit Consumption:			166.67	1274.33	0.00	15.00	925.00
Building Square Feet:			411,106			306,965	
Parcel Acreage:				28.79			21.53
Annual Total AF:			0.3826	2.9253	0	0.0344	2.1234
Domestic Gals/1,000 SF/YR:			303.33		0	0.0365	
Domestic Gals/1,000 SF/DAY:			0.8310				
Reclaim Acre Feet/YR/Acre:				0.1016			0.0986
Reclaim Acre Feet/DAY/Acre:				0.0003			

PROPOSED SDG COMMERCE BLVD 330 WAREHOUSE PROJECT

ANTICIPATED WATER CONSUMPTION

Domestic AF/YR For 330,528 SF:	0.3077		303.33*330.528/325,851 = 0.3077
Reclaim AF/YR For 15.2 acres:		1.5444	0.1016*15.2 = 1.5444
Average Domestic GALS/DAY For 330,000 SF:	275		Assumes 365 day year
Average Reclaim GALS/DAY For 15.2 acres:		1,379	Assumes 365 day year
Peak Domestic GALS/DAY For 330,528 SF:	629		Assumes 22 working days during peak m
Peak Reclaim GALS/DAY For 15.2 acres:		5,672	Assumes 22 days during peak month

DEVELOPER DEPOSIT PROJECT SET UP FORM

APPLICANT INFORMATION
(PLEASE PRINT)

APPLICANT NAME: SDG Commerce 330, LLC

ADDRESS: 413 W. Yosemite Avenue, Suite 105, Madera, CA 93637

PHONE: (559) 674-0906 E-MAIL bdoswald@icc-stravinski.com

CONTACT PERSON: Brian Doswald

BILLING INFORMATION
(PLEASE PRINT)

BILLING PARTY: Industrial & Commercial Contractors, LP

ADDRESS: 413 W. Yosemite Avenue, Suite 105, Madera, CA 93637

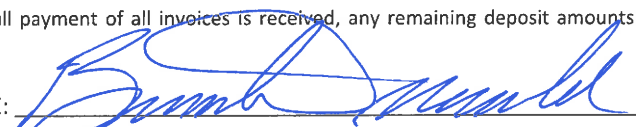
PHONE: (559) 674-0906 E-MAIL bdoswald@icc-stravinski.com

CONTACT PERSON: Brian Doswald

As an authorized representative of the applicant, I hereby consent by my signature below, that I understand the following:
The service of processing an application for a new or increased water demand through the City of American Canyon is of primary benefit to the applicant. The cost of processing an application is charged according to the hours spent by staff in reviewing and analyzing the project including checking plans, writing reports, conducting water audits, and verifying water demand estimates. The applicant receiving the benefit from the service shall pay the cost of these services. Total cost varies according to the size of the project and the complexity of the issues involved. At the City's sole discretion, a consultant may process the application. Pursuant to City Council Resolution 2008-79 for development applications, the applicant will pay all costs for consultant services inclusive of any applicable "in-house" administrative costs. Project specific expenditures such as City Attorney services, postage for mailing public notices, advertising, etc. have been excluded from the hourly rates. These project specific expenditures will be billed "at cost" on a project by project basis to the applicant.

The deposit creates an open account to which processing time is charged. Processing charges will automatically be drawn against the deposit funds until the minimum balance is remaining. All service charges will be invoiced to the applicant on a monthly basis. Accompanying the invoice will be a statement, which will include a description of services rendered during the billing period. Payment is due within 15 days of the invoice. **If payment is not received within 7 working days after the invoice due date, all development activities will be suspended until payment is received.**

At the conclusion of the Will-Serve process, after full payment of all invoices is received, any remaining deposit amounts will be refunded to the applicant.

DATE: 6/14/18 SIGNATURE: 

COMMUNITY DEVELOPMENT USE ONLY

NEW PROJECT DEPOSIT: $2,000

MINIMUM INITIAL DEPOSIT MET? (CHECK) ____ YES ____ NO

MINIMUM DEPOSIT AMOUNT: $200

DEPOSIT WAIVED – EXPLAIN:

_____

_____

PROJECT #_____

RECEIPT #_____

PROJECT NAME: _____

RELATED PROJECTS:

_____

_____

_____

☐ ADDITIONAL DEPOSIT (EXISTING PROJECT)

☐ CASH BOND $_____

☐ REOPEN OLD PROJECT

CITY STAFF: _____ DATE: _____

Appendix F

Mitigation Monitoring and Reporting Program

(to be included in Final IS/MND)

Attachment B: Lozeau Drury May 3, 2021 Comment Letter

B

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
michael@lozeaudrury.com

May 3, 2021 ***Via Email***

Leon Garcia, Mayor
Mark Joseph, Vice Mayor
Mariam Aboudamous
David Oro
Pierre Washington
American Canyon City Council
council@cityofamericancanyon.org

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Re: SDG Commerce 217 Distribution Center (PL20-0008) – Recirculated Mitigated Negative Declaration and Conditional Use Permit

Dear Mayor Garcia, Vice-Mayor Joseph, Council Members Aboudamous, Oro, and Washington and Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Recirculated Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). This comment letter supplements and incorporates by reference our previous written comments dated January 19, 2021 and February 25, 2021 (attached hereto as Exhibits C and D).

1 We have requested the assistance of Registered Professional Traffic Engineer Tom Brohard of Tom Brohard and Associates in reviewing the MND's discussion of the Project's increase in vehicle miles traveled ("VMT"), resulting transportation effects and the adequacy of the proposed mitigation measure. Tom Brohard and Associates Comments (April 30, 2021 (attached as Exhibit A.) Mr. Brohard prepared the attached expert comment regarding the Project's VMT analysis and identified numerous significant flaws in that analysis. Fundamentally, the claim that constructing an 800-foot bike lane would reduce VMT of commuters in nearby neighborhoods by 733 VMT daily is not supported by substantial evidence because it assumes that cyclists cannot currently ride on Commerce Avenue from Eucalyptus Drive to the existing bike lane adjacent to the SDG Commerce 330 building. Commuting cyclists already can ride without hindrance along that stretch of Commerce Avenue. As a result, the claimed VMT reductions of the new bike lane stretch are blatantly exaggerated by the Project and its consultant. As Mr. Brohard's analysis points out, a more realistic estimate of the VMT reductions based on guidance prepared on behalf of the California Air Resources Board ("CARB") would be a VMT reduction of 24 VMT. Using the methodology in the 2006 report

cited by the City's consultant – NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities" – Mr. Brohard calculates the bike lane would reduce VMT by 28 VMT. IN either case, the proposed 800-foot bike lane does not come close to mitigating the Project's increases in VMT. Because Mr. Brohard's expert comments are substantial evidence of a fair argument that the Project may have a significant transportation impact, the Council should elect not to approve the MND and instead instruct staff to prepare an environmental impact report ("EIR") for the Project.

1 (cont.)

A. The VMT Analysis Fails to Address the Numerous Non-commute Trips Generated by the Project.

The MND and Appendix F estimate that there will be 367 new daily trips generated by the Project, including "employee trips, visitor trips, delivery trips, and truck trips." (GHD Memorandum, p. 5 (March 21, 2021). GHD calculates that 37% of the total trips, i.e., 136 trips, are employee commute trips. (*Id*.) There is no information in the MND identifying which vehicle type the remaining 231 trips involve. The non-commute employee trips (e.g., lunch trips) as well as the delivery vehicle trips would all add additional VMTs to the project. As Mr. Brohard states, it is reasonable to estimate that up to half of those non-commute trips – 115 trips - are not semi-truck trips. (Brohard Comment, p. 2.) GHD states that the non-commute trip lengths are 23.8 miles. (GHD Memorandum, p. 18.) The VMTs associated with these non-commute Project trips may surpass the commute VMTs – 2,737 non-commute VMT vs. 2,214 commute VMT. (Brohard Comment, p. 2.) Those VMTs must be disclosed in order to evaluate the Project's VMT impacts and also for the City to consider how those trips should be factored into the VMT impact analysis. Because the MND omits any discussion of this transportation impact, it is insufficient as an informational document under CEQA.

2

B. Substantial Evidence of a Fair Argument Exists That the Project May Have a Significant Transportation Impacts.

As we noted in our prior comments, under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927, 931. "[I]t is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in original].) Likewise, as a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) Where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.)

3

(3) (cont.) Traffic engineer Brohard's expert review and comment is substantial evidence. His thorough critique of the GHD methodology to assess the VMT benefits of the proposed bike lane as well as his application of CARB guidance demonstrate a fair argument that the Project may have significant transportation impacts.

a. The MND's assertion that the proposed 800-foot bike lane should be credited with benefits for an additional 1.7 miles of existing bike lane is arbitrary and capricious.

MND Appendix F states that "the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29…." (GHD Memorandum, p. 22 (March 21, 2021).) Appendix F also claims that "[t]he Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus." (*Id*.) Neither of these assertions are supported by any substantial evidence. There was no investigation by the City or applicant of bike usage of the Wetlands Edge bike path or the number of bike commuters using that path. More importantly, recent photos of the roadway from Eucalyptus Drive to the existing bike path adjacent to SDG Commerce 330 shows that the route is entirely accessible to commuting cyclists. Photos obtained from the Napa County Bicycle Coalition show a well-maintained road that extends from Eucalyptus to the existing bike path. (Brohard Comments, Attachments.) The entrance to the bike path is signed instructing bikes to yield to pedestrians – a clear indication that the route is used by cyclists. (*Id*.) There is no evidence supporting the claim that bikes must ride out to SR 29 to travel to the north side of the Project site.

(4) GHD and the MND rely upon the false notion that commuting cyclists cannot access the existing bike path in order to claim that the 800-foot length of bike path proposed by the Project should get to take credit for inducing commuting cyclists all along the 1.7 mile stretch of the Wetlands Edge Bike Path extending south of Eucalyptus Drive. Because the underlying premise that there is no connection to the existing bike path is incorrect, the entire exercise to inflate the VMT mitigation benefits is not supported by substantial evidence. Even if there was no connection as claimed, the analysis conducted to attribute half of the benefits of an existing 1.7 miles of bike lane to an 800-foot stretch is entirely random and unsupported by any rational basis. (Brohard Comments, p. 3.) Moreover, the analysis is inconsistent with the NCHRP Report GHD purports to follow. GHD adds a zone extending out from 1601 to 2400 meters from the existing Wetlands Edge Bike Path. As Mr. Brohard explains, "the NCHRP Report 552 does not provide a basis for calculating induced bike commuters from a zone extending from 1601 to 2400 m from the proposed bike path." (Brohard Comments, p. 4.) Likewise, Mr. Brohard notes the flaw in GHD randomly averaging VMT forecasts of a presumed 1.85 mile long bike path and the proposed 800-feet bike path. (Id., pp. 7-8.) Limiting the NCHRP Report 552 methodology to the 800-feet bike lane proposed by the applicant leads to an estimate of 28 new bike commuters induced by the new bike lane. (*See* GHD Memorandum, p. 23 (March 21, 2021).)

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b. The commuting bike trip lengths of 5.2 miles claimed by the MND and GHD's analysis is not supported by any substantial evidence.

The VMT reduction claimed for the proposed bike lane is based on an assumption that commuting cyclists originating from the residential neighborhood south and east of Eucalyptus Drive will on average bike 5.2 miles to their place of employment. (GHD Memorandum, pp. 9, 24 (March 21, 2021).) GHD's third iteration of its analysis includes an alternative figure of a 3.8 mile average bicycle commute. (*Id*.) This number is purportedly supported by an AASHTO report which is not available for sale or otherwise on-line. (Brohard Comments, pp. 1-2.) Contrary to either of these self-serving estimates, there is no evidence in the record that a cyclist could travel more than about 0.75 miles north of Eucalyptus Drive. (*Id*., p. 6. *See* Google Earth Image dated October 2020 attached as Exhibit B). It appears that, once a cyclist reaches Green Island Road, he/she then would have to travel out to SR 29 in order to proceed north to the airport and beyond. Ironically, this is the true disconnect – not Commerce Avenue – to bike commutes proceeding north of Green Island Road. As a result, any cycling commute trips induced by the proposed 800-foot bike lane logically must be limited to .75 miles in length. (Brohard Comments, p. 6.)

5

c. Applying CARB methodology to estimating VMT reductions induced by a bike facility, the proposed bike lane would induce only bike commutes replacing 24 VMTs.

Mr. Brohard applies a methodology identified by CARB for estimating the number of bike trips induced by a new bike facility. (Brohard Comments, pp. 7-8.). Mr. Brohard's application of the CARB methodology estimates the proposed bike lane would induce new bike commuters that would reduce VMT from nearby neighborhoods by 24 VMT. Whether employing the VMT reduction of 729 VMT estimated by GHD or approximately 3,400 VMT after taking into account the other vehicle trips resulting from the Project, there is a fair argument that the VMT reduction based on new commuter cyclists on the proposed 800-foot bike lane does not come close to mitigating the Project's transportation impacts to a less than significant level.

6

In addition to these potential transportation impacts, LIUNA also previously submitted substantial evidence of fair arguments that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to LIUNA's appeal and these comments.

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

April 30, 2021

Tom Brohard and Associates

Mr. Michael Lozeau, Esq.
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Proposed Wine Distribution Center at 1075 Commerce Court in the City of American Canyon – Vehicle Miles Traveled (VMT) Issues

Dear Mr. Lozeau:

Tom Brohard, P.E., has reviewed the transportation aspects of the December 2020 Initial Study/Mitigated Negative Declaration (MND) to construct a 217,294 square foot wine distribution center at 1075 Commerce Court in the City of American Canyon. I also reviewed the February 21, 2021 Staff Report to the Planning Commission as well as the May 8, 2020 Traffic Impact Analysis Memorandum and the February 11, 2021 Focused Traffic Impact Analysis for Vehicle Miles Traveled (VMT) prepared by GHD. Various technical publications regarding VMT including NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities" published in 2006 by TRB, "Understanding and Measuring Bicycle Behavior: A Focus on Travel Time and Route Choice" published in December 2008 by the Oregon Transportation Research and Education Consortium, and "Quantification Methodology for California Climate Investments" published on November 1, 2019 by the California Air Resources Board were also reviewed.

From the February 21, 2021 Staff Report and Agenda Packet, the Proposed Wine Distribution Center will have 32 full-time and 18 part-time employees with 12 bicycle parking spaces on-site. Table 3.2 of the GHD Report calculates Project VMT for employees of the Proposed Project. According to the table, daily project trip generation will be 367 ADT including 136 employee trips (37%). The table then indicates the VMT reduction to meet the baseline threshold should be 729 VMT. Table 4.1 then summarizes GHD's conclusion that the Project's proposed 800-foot-long bike lane on Commerce Court would reduce VMT by commuters living in the residential areas to the south by 1,004 VMT by crediting the Project with 1.7 miles of already constructed bike facility to the south of Eucalyptus Avenue and an average one-way commuter bike trip length of 5.2 miles based on limited Oregon data, not California data.

Table 4.1 has now been revised again (Page 256 of the current Staff Report) to add a 3.8-mile bicycle commute which now results in a daily VMT reduction of 733. The 3.8-mile bicycle commute is footnoted to "Commuting in America 2013; Report 14. Bicycle and Walk Commute" AASHTO January 2015." This Report is not available from AASHTO for purchase or on their website. The revised conclusion for the VMT Reduction Analysis Findings (Page 257) then

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averages these additional calculations and erroneously concludes that "... using a blended average of the 'Minimum' and 'Maximum' assessment, which would result in a reduction in VMT of 733 to 1,004 vehicle trip miles, which is sufficient to reduce the total Project VMT to a value less than the threshold established in this memorandum." Averaging the averages is not appropriate.

The Focused VMT Analysis prepared by GHD upon which the recent Staff Report relies is fatally flawed. The estimate of VMT that will be generated by the Project is incomplete, leaving out the additional VMT that will be generated by non-commute, non-semi-truck trips that will result from the Project. In addition, excessive credit for an 800-foot-long bicycle path has been taken as the mitigation measure to reduce VMT for the Proposed Project. This letter points out various deficiencies, errors, and inconsistencies that must be addressed before the City of American Canyon considers the Wine Distribution Center Project at 1075 Commerce Court.

Education and Experience

Since receiving a Bachelor of Science in Engineering from Duke University in Durham, North Carolina in 1969, I have gained over 50 years of professional traffic engineering and transportation planning experience. I am licensed as a Professional Civil Engineer both in California and Hawaii and as a Professional Traffic Engineer in California. I formed Tom Brohard and Associates in 2000 and have served many diverse communities as the City Traffic Engineer and/or the Transportation Planner. During my career in both the public and private sectors, I have reviewed numerous environmental documents and traffic studies for various projects as shown in a short summary of my experience in the enclosed resume.

Vehicle Miles Traveled (VMT) Issues

Based on the information in the various documents, each of the following issues relating to calculation of VMT and proposed mitigation measures for the proposed Wine Distribution Center must be fully addressed and evaluated:

1) VMT Calculation Uses Only Employee Commute VMTs and Ignores Other Employee and Visitor VMTs

   As mentioned above, employee commute trips in Table 3.2 account for 37% of the daily project trip generation. This leaves 63% of the project trips as those generated by visitors or by employees outside of their commute trip. Each of these trips also generates VMT and represent more VMT than will be generated by just the employee commute trips. No mitigation measures have been proposed to reduce the majority of the VMT forecast for the Proposed Project.

There is no breakdown anywhere in the prior agenda packet of the percentage of semi-trucks versus passenger and light trucks that are expected to comprise the 231 daily non-commute trips expected at the facility. Assuming that half of those non-commute trips are non-automobile trips, the remaining 115 vehicle trips also must be included in the calculation of VMT to be added by the Project. GHD states that the average trip length for the non-commuter trips is 23.8 miles. Agenda Packet, p. 298 (Table A.3). Applying that average trip length, the Project's VMT for non-commute, non-semitruck trips amounts to 2,737 VMT. Assuming GHD's calculation of the Project's VMT generated by commuter trips is accurate the Project's total VMT would be 2,214 + 2,737 = 4,951 VMT. As a result, in order to achieve the baseline threshold of 1,485 VMT, the Project must reduce VMT in the relevant area by 3,466 VMT.

2) VMT Reduction Cannot Take Credit for Existing Bay Trail Bike Facility

GHD attempts to attribute VMT reductions to the Project for the Bay Trail bike facility that already is in place along Wetlands Edge Road extending south from Eucalyptus Drive. GHD claims that "The Wetlands Edge bike path is used recreationally, but has limited utility for commuter use, as it does not provide a connection between American Canyon residents west of SR 29 to employment destinations north of Eucalyptus." Feb. 25, 2021 Agenda Packet, p. 302. Likewise, GHD asserts that "the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable by only the most experienced and fearless riders." *Id.* Based on that assertion, GHD treats the proposed 800-foot-long bike facility as a 1.85-mile-long bike facility. *Id.* GHD then purports to apply the methodology for calculating facility benefits set forth in NCHRP Report 552 – "Guidelines for Analysis of Investments in Bicycle Facilities" (2006) for the 800-foot bike facility (the "Minimum" calculation) as well as a 1.85-mile-long facility (the "Maximum" calculation". *Id.,* pp. 301-304. GHD then asserts that "some commute benefit likely exists on the existing [Wetlands Edge] trail" and uses the average of the two calculations as the purported VMT increase that will result from the addition of the 800-foot-long bike path.

The NCHRP Report 552 is based upon data collected in 2000 in Minneapolis/Saint Paul, Minnesota. According to the report, a bicycle facility would have a statistically significant effect on persons living very close (less than 400 meters, ¼ mile) to the bicycle facility. In addition, those living within 400 and 800 meters, ¼ to ½ mile, would have increased, but not statistically significant, the odds of bicycle use.

GHD's analysis of the number of bike commuters on the proposed 800-foot-long bike facility on Commerce Court is flawed for a number of significant reasons as follows:

- First, there is no principled reason why a developer constructing a short length of bike trail should be able to take credit for VMT reductions resulting from 1.7 miles of already constructed bike path built by someone else (perhaps even with taxpayer funds). Even if it were true that, but for the 800-foot-long bike path, bike commuters on the existing path would increase exponentially, SDG should not receive VMT credits for other entities' work and expenditures.

- Second, GHD cites no evidence for its assertion that the stretch of road between Eucalyptus Drive and the SDG 330 Commerce bike path does not provide a bike connection and is not navigable by bike. Half of that distance will be a newly paved road adjacent to the elementary school for which construction is being completed this summer. The northern portion of this segment is a well-maintained, compacted dirt surface as it reaches the SDG 330 facility. The enclosed photos of this segment indicate that it is easily navigated by a bicyclist. As a result, the whole premise of GHD's analysis that it should get credit for other facilities beyond the proposed 800-foot-long facility because the stretch of Commerce Court is impassable or an obstruction to bike commuters is not supported by any evidence.

- Third, GHD's ad hoc calculations of new bike commuters from the 800-foot-long bike path are inconsistent with the methodology in NCHRP Report 552. The NCHRP Report 552 provides a basis for calculating potential new bike commuters from three zones which are employed in its equation. The three zones are zero to 400 meters from the facility, 401 to 800 meters from the facility, and 800 to 1600 meters from the facility. The NHRCP provides an equation employing "likelihood multipliers" it models for those three zones. NCHRP Report 552, pp. 38-39. For each zone, the equation to determine induced commuter cyclists is:

  New commuters = $\sum$(Existing Commuters * (L_d - 1))

  d = 400, 800, 1,600 and L_{400m} = 2.93, L_{800m} = 2.11, L_{1600m} = 1.39

  Existing commuters = 0 within 400; 9 from 401 to 800; 47 from 801 to 1,600 (number of existing commuters provided by GHD)

  New commuters = (0 * 1.93) + (9 * 1.11) + (47 * 0.39)
  New commuters = 0 + 10 + 18
  New commuters = 28

  Id., p. 39. Contrary to GHD's analysis, the NCHRP Report 552 does not provide a basis for calculating induced bike commuters from a zone extending from 1601 to 2400 m from the proposed bike path. There is no evidence of any subsequent updates or amendments to NCHRP Report

552 providing any basis for a likelihood multiplier for the additional extended zone added by GHD.

Applying the above NCHRP Report 552 equation for calculating induced bike commuters from the 800-foot-long bike facility proposed by SDG results in an estimated 28 new bike commuters induced by the facility.

3) Commuter Bike Trip Lengths Are Overstated by GHD

GHD assumes that commuter bicycle trip lengths from the neighborhoods to the south of the Project will be on average 5.2 miles in length each way. The premise of the proposed 800-foot bike facility is to facilitate bicycle riders commuting to businesses north of the Project.

a) Oregon Study Does Not Support Assumed 5.2-mile Commute Length

GHD relies on a report entitled "Understanding and Measuring Bicycle Behavior: A Focus on Travel Time and Route Choice", December 2008 to estimate bike commute trip lengths in American Canyon in the vicinity of the Project. The Oregon Transportation Research and Education Consortium published this report based upon data involving 164 adults collected in Portland between March and November 2007. The overall median trip distance was 2.8 miles with 25% of trips to/from work. Work trips had a median distance (middle number) of 3.8 miles and a mean distance (arithmetic average) of 5.2 miles. In describing limitations of this report, the Study itself states "One limitation is that the study was only conducted in one region. Caution must always be used when conclusions based upon data from one area are used to make recommendations for another area."

From the Portland, Oregon data, Table B.2, VMT Reduction Associated with Induced Demand/Bicycle Mode Shift, indicates the average one-way commute trip length will be 5.2 miles with the construction of the proposed 800' long bicycle connection. GHD does not explain or support why a relatively small sample of bicycle observations from 2007 in Portland should be used to forecast trip lengths in the City of American Canyon, California.

It is not appropriate to use outdated information and data from Portland, Oregon. to forecast possible VMT reductions associated with the 800-foot-long bicycle path proposed in American Canyon, California.

b) No Evidence Bike Commuters to Employment Could Travel 5.2 Miles

A large portion of the City's bike network plan between the Project and

the Napa Airport is not yet proposed, funded, or built that would connect Green Island Road to Devlin Road. Currently, that stretch of the City's bike path network is open fields and there is no indication that gap in the network will be constructed any time in the foreseeable future.

The City of American Canyon most recently updated its Bicycle Plan within the Circulation Element of its General Plan on February 4, 2020. The enclosed figure illustrates the City's current Bicycle Plan map.

At the February 21, 2021 Planning Commission meeting, the Project Applicant presented the enclosed graphic depicting a Commuter Bike Route through the area connecting the single-family residences to the south with the industrial development to the north of the Proposed Project. I have reviewed this route as shown on the most recent Google Earth aerial photos taken in 2019. Most of the bicycle facilities are not signed or marked in accordance with the accepted standards published by Caltrans in the latest edition of the 2014 Manual of Uniform Traffic Control Devices. The yellow line to the north of the Project site is the missing bike facility necessary to link Green Island Road to Devlin Road. Without this stretch, the farthest a typical bike commuter could travel to work north on Commerce Court would be to the businesses clustered at Green Island Road and Commerce Court.

While bicyclists can ride in streets where roadways and streets exist, they cannot ride through fields on private property where no roadway or bikeway facilities exist. As identified above, there is a significant missing link between Devlin Road and Green Island Road. This missing link restricts and essentially eliminates bicycle access to the industrial area north of Green Island Road. The residential area will only be connected to the very southern portion of the industrial area and will not connect to the Napa County Airport area. The average trip length to the accessible portions of the industrial area then drops to only 0.75 miles north of Eucalyptus Drive, significantly less than the 2.8 miles shown on the Applicant's Commuter Bike Route Map or the 5.2 miles it claims the average bike commuter would travel using the new 800-foot-long bike facility. When properly applying the NCHRP Report 552 or using the applicable CARB data and methodology as discussed below, the value of the connection in reducing VMT is much less than identified by GHD.

The bike commuter trip length for calculating the proposed 800-foot bike facility's VMT reductions from induced bike commutes should be limited to 0.75 miles - the actual physical limit on bike commute lengths to the north of the proposed bike path. Even if the bike facility link between Green Island Road and Devlin Road was foreseeable, the predicted bike commute trip length should either be based on data collected from

existing bike commuters in American Canyon or should rely on the value of 1.5 miles employed by CARB in its VMT methodology. "Quantification Methodology for California Climate Investments for the Affordable Housing and Sustainable Communities Program" (Nov. 1, 2019).

4) Induced Bike Facility VMT Does Not Mitigate the Project's VMT

The correct use of the NCHRP Report 552 calculation of induced bike commuters indicates that 28 additional bike commuters could be expected from the proposed 800-foot-long bike facility on Commerce Drive. An average bike commute of 0.75 miles to businesses north of the Project generates a displaced VMT of 42 (0.75 * 2 * 28) = bike commuter VMT). Using CARB's bike commute trip length of 1.5 miles would double to 84 VMT. That VMT reduction is far short of the necessary, though truncated, reduction calculated by GHD of 729 VMT. It also does not come close to the reduction of 3,466 VMT necessary to mitigate the Project's commuter trips as well as non-commuter automobile and light truck trips.

CARB's "Quantification Methodology for California Climate Investments for the Affordable Housing and Sustainable Communities Program" at Pages 18 and 19 (attached) provides a formula for VMT reductions from a new bicycle facility using the following equation:

VMT Displaced = D * ADT * (A + C) * L where:

D = Default annual days of use of new facility
ADT = Average two-way daily traffic on road parallel to facility
A = Adjustment factor for active transportation (from table)
C = Credit for key destinations near facility (see Table 6)
L = Average length of auto trip displaced (1.5 miles for cycling)

Applying this formula also establishes that the Project has not mitigated its significant VMT impacts. For consistency, I have also used 235 days per year for commuters which equates to 47 weeks of commuting. For ADT, I have assumed 20 vehicles per day on the portion of Commerce Boulevard parallel to the proposed 800-foot-long facility. This stretch of Commerce Boulevard is a dead end. The only cars would be associated with the existing paintball facility. When the new school opens this year, traffic would be limited to and from the student pick-up area on a portion of Commerce Boulevard near Eucalyptus Avenue. Absent any data provided by the City or applicant, it is reasonable to estimate about 20 vehicles per day driving this stretch of road parallel to the proposed bike facility. For the A value, I used 0.0019 from Table 5 and 0.0015 from Table 6. Putting the numbers into the formula for VMT displaced yields and solving the equation yields:

VMT Displaced = 235 * 20 * (0.0019 + 0.0015) * 1.5 = 24

Using the California Air Resources Board formula indicates that the proposed bicycle link will cause a shift of 24 VMT from auto trips to cycling on the proposed bicycle path. Even assuming 100 vehicles will travel on the adjacent stretch of Commerce Drive results in an estimated VMT reduction of 120 VMT using the CARB formula.

To be effective in offsetting VMT from the Proposed Project, at least 729 VMT need to be reduced according to GHD and as noted above, 3,466 VMT need to be reduced applying all of the VMTs induced by the Project. With only from 24 to 84 VMT forecast to be induced by the proper application of the NCHRP Report 552 methodology or the CARB equation, the 800-foot-long bike facility connection by itself is insufficient and additional mitigation measures are required.

5) Random Averaging of Minimum and Maximum VMT Forecasts Is Not Supported by Analysis or Facts

Without any meaningful explanation, GHD averages their minimum 800' actual bike facility length and maximum 1.85-mile combined bike facility length to forecast daily VMT reduction associated with the 800-foot-long bicycle path. The random decision to average the minimum and maximum VMT forecasts is not supported by any reasoned analysis or facts.

In their most recent report, GHD now averages the averages and concludes that the daily VMT reduction will be 733 VMT with a 3.8-mile bicycle commute from a publication that is not available from AASHTO or 1,004 VMT by using an unrealistically long average one-way trip length of 5.2 miles. Neither of these purported VMT reductions are supported by substantial evidence, and GHD continues to find "new" reports to support their incorrect conclusion that the total Project VMT will be less than the required threshold.

6) Additional VMT Mitigation Measures Are Required

GHD has failed to properly calculate VMT for the proposed bike lane. As demonstrated above, the Project exceeds the applicable VMT significance thresholds. Neither the applicant nor the City can categorically ignore the significant VMTs generated by the Project's visitors. Mitigation measures are required to also reduce these daily trips as Conditions of Approval. Further study must be undertaken, particularly regarding VMT, and more detailed information must be provided to properly identify and address mitigation measures for excessive and unmitigated VMT that will be created by the Proposed Project.

If you have questions regarding these comments, please contact me at your convenience.

Respectfully submitted,

Tom Brohard and Associates





Tom Brohard, PE
Principal

Enclosures
- Resume
- NCHRP Report 552 "Guidelines for Analysis of Investments in Bicycle Facilities"
- Photos Taken March 8, 2021 - Commerce Court south of SDG 330 Commerce Warehouse
- American Canyon Bicycle Plan, Adopted February 4, 2020
- Commuter Bike Route, SDG Commerce 217 Distribution Facility
- CARB Quantification of VMT Reduction for New Bicycle Facility

Tom Brohard, PE

Licenses: 1975 / Professional Engineer / California – Civil, No. 24577
1977 / Professional Engineer / California – Traffic, No. 724
2006 / Professional Engineer / Hawaii – Civil, No. 12321

Education: 1969 / BSE / Civil Engineering / Duke University

Experience: 50 Years

Memberships: 1977 / Institute of Transportation Engineers – Fellow, Life
1978 / Orange County Traffic Engineers Council - Chair 1982-1983
1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Big Bear Lake..... 2006 - 2015
- Indio..... 2005 - 2019
- Huntington Beach ..... 1998 - 2004
- Lawndale..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Fernando..... 2004 - 2019
- San Marcos..... 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $10 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

In his 14 years of service to the City of Indio, Tom accomplished the following:

- Oversaw preparation and adoption of the 2008 Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain conditions.

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street and on Monroe Street over I-10 as well as justifications for protected-permissive left turn phasing at I-10 on-ramps, the first such installations in Caltrans District 8 in Riverside County; reviewed plans and provided assistance during construction of both $2 million projects to install traffic signals and widen three of four ramps at these two interchanges under Caltrans encroachment permits.

- Reviewed traffic signal, signing, striping, and work area traffic control plans for the County's $45 million I-10 Interchange Improvement Project at Jefferson Street.

- Reviewed traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvements of the I-10 Interchanges at Jefferson Street, Monroe Street, Jackson Street and Golf Center Parkway.

- Oversaw preparation of plans, specifications, and contract documents and provided construction assistance for over 70 traffic signal installations and modifications.

- Reviewed and approved over 2,000 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects.

- Oversaw preparation of a City-wide traffic safety study of conditions at all schools.

- Obtained $47,000 grant from the California Office of Traffic Safety and implemented the City's Traffic Collision Database System. Annually reviews "Top 25" collision locations and provides traffic engineering recommendations to reduce collisions.

- Prepared over 1,500 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping.

- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 500 street segments.

- Reviewed and approved traffic impact studies for more than 35 major projects and special events including the annual Coachella and Stagecoach Music Festivals.

- Developed and implemented the City's Golf Cart Transportation Program.

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP REPORT 552

Guidelines for Analysis of Investments in Bicycle Facilities

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CHAPTER 4

BENEFIT-COST ANALYSIS OF BICYCLE FACILITIES

INTRODUCTION AND PURPOSE

Based on the research conducted for this project, the team crafted a set of guidelines to be used by transportation professionals and government agencies to better integrate the planning of bicycle facilities into the transportation planning process. The web-based guidelines will assist state DOTs and other state, regional, and local agencies in considering bicycling in all transportation projects. Additionally, the guidelines will support local agencies' review of bicycle projects as part of the transportation improvement plan.

Transportation planners will be able to use the guidelines for the following purposes:

- Estimating the likely cost of specific facilities based on type and on key characteristics,
- Estimating how a facility will impact the overall bicycling environment in an area, and implicitly how it will affect the amount of riding based on characteristics of the facility and of the surrounding area,
- If information is available for calibration, estimating the usage of a facility (and the change in usage of complementary and competing facilities), and
- Estimating the specific types of benefits and their relative sizes based on characteristics of the facility and of the surrounding area.

TRANSLATING DEMAND AND BENEFITS RESEARCH INTO GUIDELINES

Demand

Estimating the use of a new facility rests on two main assumptions. First, all existing commuter bicyclists near a new facility will shift from some other facility to the new one. Second, the new facility will induce new bicyclists as a function of the number of existing bicyclists. Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

Estimates of existing bicycling demand are based on U.S. census journey to work mode shares. Establish the number of residents within 400-, 800-, and 1,600-m buffers of the facility by multiplying the area of each buffer by a user-supplied population density. Multiply the number of residents in each buffer (R) by 0.4, assuming the national averages of 80% of residents are adults and 50% of adults are commuters, to calculate the number of daily commuters. Then multiply this number of commuters in each buffer by the region's bicycle commute share (C). Use the bicycle commute share for the Metropolitan Statistical Area (MSA) as the default value; the user has the option to enter a commute share for the specific area if it is known.

$$\text{Daily existing bicycle commuters} = R \cdot C \cdot 0.4$$

Adult commuters represent only a portion of adult bicyclists. The team compared U.S. census commute shares to NHTS data and found that the total adult bicycling rate ranges from the census commute rate at the low end to 0.6% plus three times the commute rate at the high end (Appendix A). This allows the use of readily available census commute shares to extrapolate total adult bicycling rates (T).

$$T_{\text{high}} = 0.6 + 3C$$

$$T_{\text{moderate}} = 0.4 + 1.2C$$

$$T_{\text{low}} = C$$

Multiply the estimated low, moderate, and high rates by the number of adults—estimated to be 80% of the population—in each buffer to arrive at the total number of daily adult cyclists.

$$\text{Total daily existing adult cyclists} = T_j \cdot R \cdot 0.8$$

Additional research (Appendix B) found that people who live near a facility are more likely to bike than those that do not; multipliers were developed to describe these probabilities. Multiplying the numbers of both commuters and total adult cyclists by the likelihood multipliers found in this research for various buffers around the proposed facility provides an estimated number of induced cyclists in each group.

$$\text{New commuters} = \sum\left(\text{Existing commuters} * \left(L_d - 1\right)\right)$$
$$d = 400,\ 800,\ 1{,}600$$
$$\text{New adult cyclists} = \sum\left(\text{Existing adult cyclists} * \left(L_d - 1\right)\right)$$
$$d = 400,\ 800,\ 1{,}600$$

Where

$L_{400m} = 2.93$
$L_{800m} = 2.11$
$L_{1600m} = 1.39$

Mobility Benefit

This research, based on stated preference analysis, found that bicycle commuters are willing to spend, on average 20.38 extra minutes per trip to travel on an off-street bicycle trail when the alternative is riding on a street with parked cars (*6*). Commuters are willing to spend 18.02 min (M) for an on-street bicycle lane without parking and 15.83 min for a lane with parking. Assuming an hourly value of time (V) of \$12, the per-trip benefit is \$4.08, \$3.60, and \$3.17, respectively. Multiply the per-trip benefit for the appropriate facility by the number of daily existing *and* induced commuters, then double it to include trips both to and from work. This results in a daily mobility benefit. Multiplying the daily benefit by 50 weeks per year and 5 days per week results in the following annual benefit:

$$\text{Annual mobility event} = M \cdot V/60 \cdot \left(\text{existing commuters} + \text{new commuters}\right) \cdot 50 \cdot 5 \cdot 2$$

It should be noted that this methodology assumes that no bicycle facility previously existed nearby, aside from streets with parking. In the this equation, V is divided by 60 because the M is in minutes and V is in hours; dividing V by 60 converts it to minutes so that the result can easily be multiplied by the minutes.

Health Benefit

An annual per-capita cost savings from physical activity of \$128 is determined by taking the median value of 10 studies (Appendix E). Then multiply \$128 by the total number of new bicyclists to arrive at an annual health benefit.

$$\text{Annual health benefit} = \text{total new cyclists} \cdot \$128$$

Recreation Benefit

The "typical" day involves about 1 hr of total bicycling activity, which is valued at \$10 (D), based on a wide variety of studies of outdoor recreational activities (Appendix G). From both NHTS and Twin Cities TBI, the average adult cycling day includes about 40 min of cycling. This is the amount used, plus some preparation and cleanup time. Multiply this by the number of new cyclists minus the number of new commuters. (The value of the facility to new commuters is counted in the mobility benefit.)

$$\text{Annual recreation benefit} = D \cdot 365 \cdot \left(\text{new cyclists} - \text{new commuters}\right)$$

Reduced Auto Use Benefits

These benefits apply only to commuter and other utilitarian travel, because it is assumed that recreational riding does not replace auto travel. These include reduced congestion, reduced air pollution, and user cost savings. Multiply the total benefit per mile by the number of new commuters, multiplied by the average round trip length from NHTS (L).

Then consider two offsetting adjustments that ultimately leave the total number unchanged. First, there are utilitarian riders in addition to commuters and some of these trips will replace auto trips. Second, not all new bike commuters and utilitarian riders would have made the trip by car; evidence from NHTS suggests that something less than half of bike commuters use driving as their secondary commuting mode. For simplicity, assume that these two factors offset each other, and thus the total amount of new bike commuter mileage is a reasonable number to use to represent the total amount of new bike riding substituting for driving.

The benefit per mile of replacing auto travel with bicycle travel is a function of location and the time of day. There will be no congestion-reduction benefits in places or at times when there is no congestion. Pollution-reduction benefits will be higher in more densely populated areas and lower elsewhere. User cost savings will be higher during peak periods when stop-and-go traffic increases the cost of driving.

Based on reasoning documented in Appendix G, congestion savings will be 0 to 5 cents per mile and pollution savings from 1 to 5 cents per mile depending on conditions. Assume the high end of this range in central city areas, the middle range in suburban areas, and the low end in small towns and rural areas. For simplicity, assume that all commuting and utilitarian trips are during congested periods. User cost savings were determined to be 3 cents per mile during congested peak periods and 0 otherwise; thus, these are scaled by location in the same way as congestion savings.

Overall, the savings per mile (S) is 13 cents in urban areas, 8 cents in suburban areas, and 1 cent in small towns and rural areas.

$$\text{Reduced auto use benefit} = \text{new commuters} \cdot L \cdot S \cdot 50 \cdot 5$$


NO MOTOR VEHICLES
CONSTRUCTION ZONE
NO
ACCESS


NO
MOTOR
VEHICLES
YIELD
TO
PEDS
PAINTBALL
JUNGLE
707-322-2439
Family Fun!
Kids Low Impact
Parties + Groups
Team Building



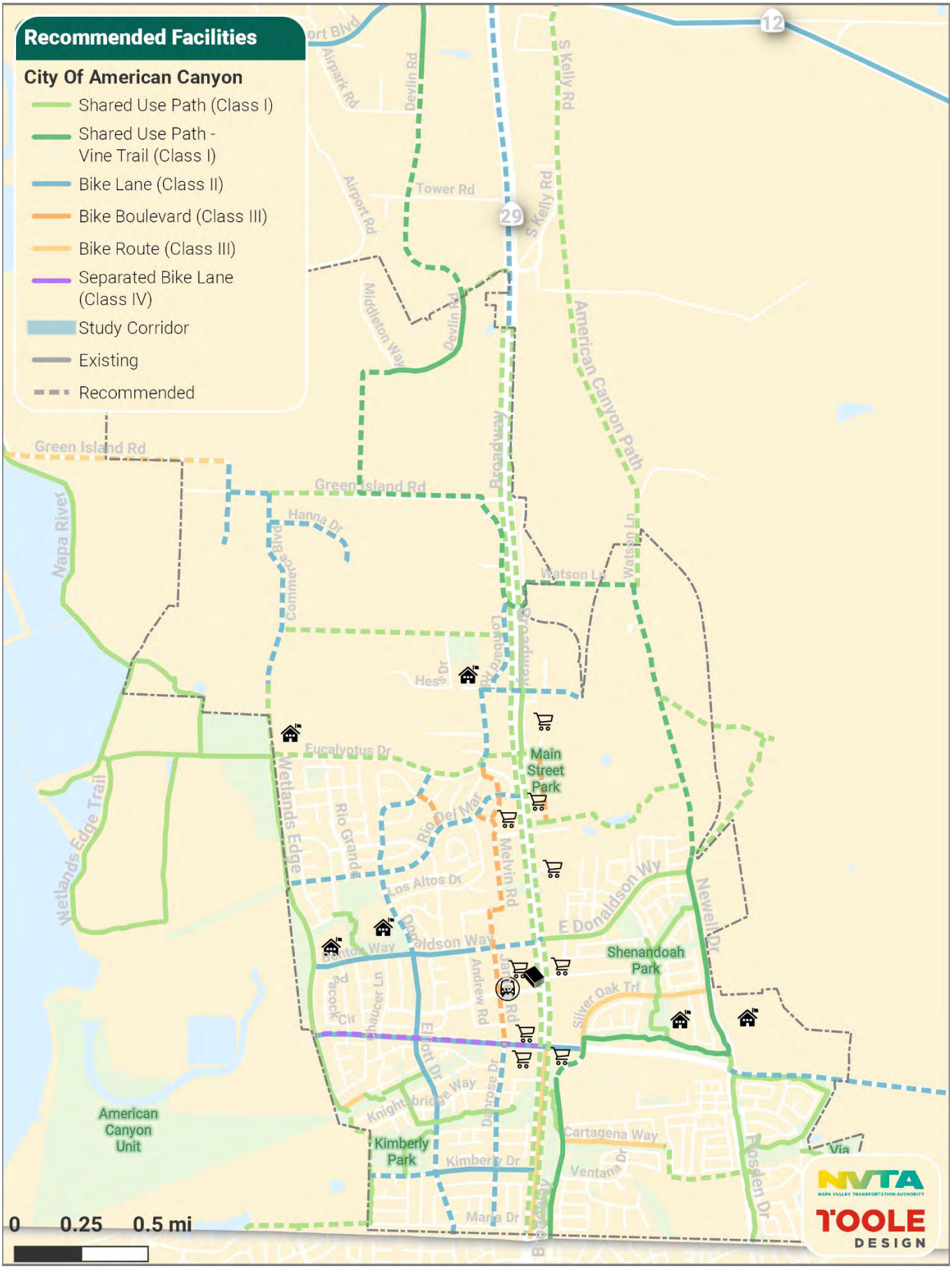
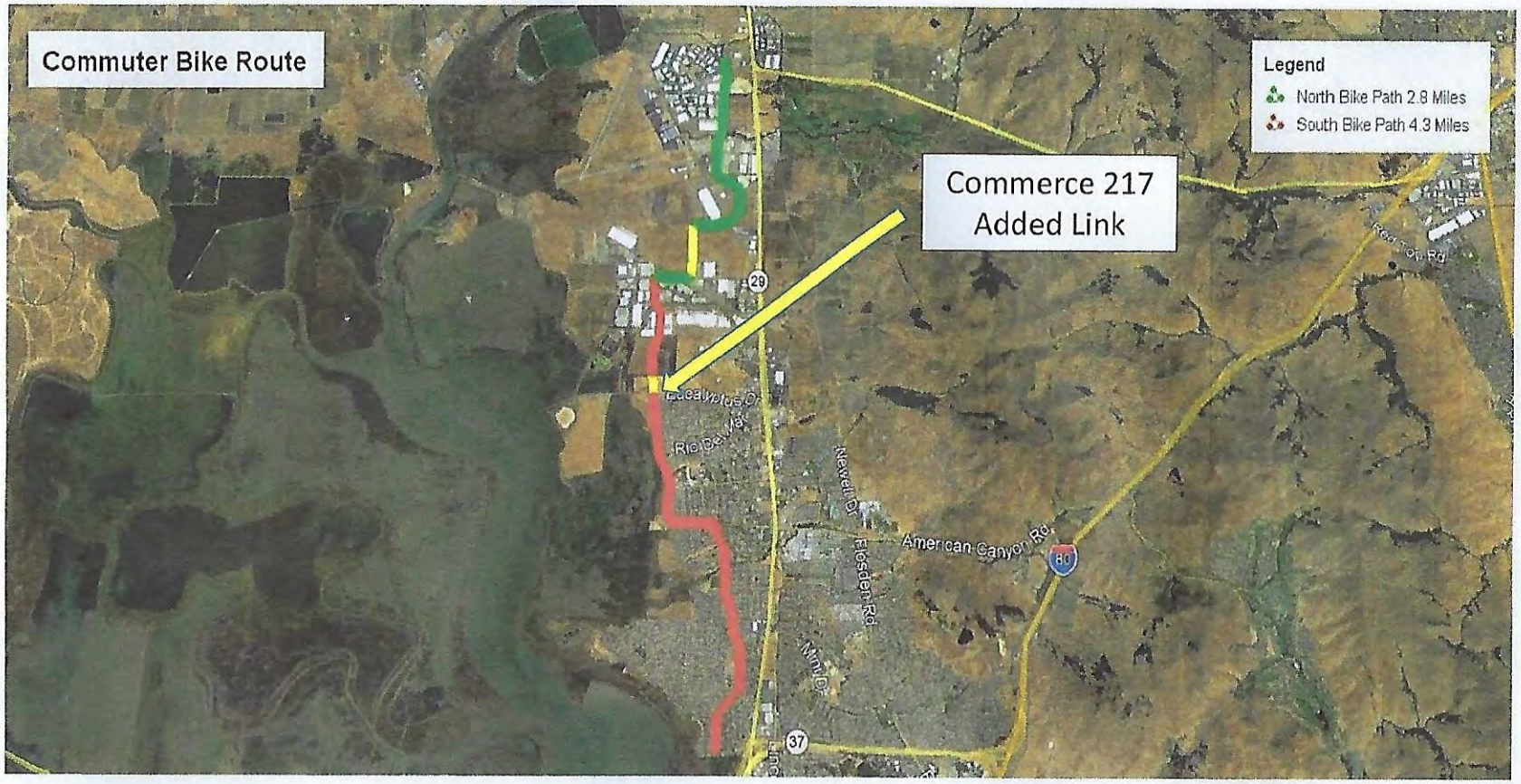


Figure AC.12. Proposed Bicycle Network



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SDG COMMERCE 217 DISTRIBUTION CENTER

AMERICAN CANYON, CA

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California Air Resources Board

Quantification Methodology

Strategic Growth Council
Affordable Housing and Sustainable Communities Program

California Climate Investments

November 1, 2019

C. New Bicycle Facility or Walkway

The emission reductions from new bicycle facilities or walkways are calculated as the emission reductions from displaced autos.

Equation 22: VMT Reductions from Bicycle Facility or Walkway

$$VMT\ Displaced = D * ADT * (A + C) * L$$

Where,		Units
VMT Displaced	= Annual passenger VMT replaced by cycling or walking trips	miles/year
D	= Default annual days of use of new facility (200 days)	days/year
ADT	= Average two-way daily traffic on road parallel to facility	vehicle trips/day
A	= Adjustment factor for active transportation (see Table 5)	unitless
C	= Credit for Key Destinations near facility (see Table 6)	unitless
L	= Average length of auto trip replaced (1.5 miles for cycling; 0.3 miles for walking)	miles

Table 5. Active Transportation Adjustment Factors

Average Daily Traffic (vehicle trips per day)	One-way Facility Length[18] (miles)	Adjustment Factor for Population > 250,000 or Non-university Town with Population < 250,000	Adjustment Factor University Town with Population < 250,000
1 to 12,000	≤ 1	0.0019	0.0104
	1.01 to 2	0.0029	0.0155
	> 2	0.0038	0.0207
12,001 to 24,000	≤ 1	0.0014	0.0073
	1.01 to 2	0.0020	0.0109
	> 2	0.0027	0.0145
24,001 to 30,000	≤ 1	0.0010	0.0052
	1.01 to 2	0.0014	0.0078
	> 2	0.0019	0.0104

[18] The length of bicycle facilities and walkways should be measured in one direction because average daily traffic accounts for two-way traffic volume. Crosswalks should not be included in the length of sidewalks since they are accounted for as traffic calming measures.

Table 6. Key Destination Credits

Number of Key Destinations	Credit Within ½ Mile of Facility	Credit Within ¼ Mile of Facility
0 to 2	0	0
3	0.0005	0.001
4 to 6	0.0010	0.002
≥ 7	0.0015	0.003

Equation 23: Auto Emission Reductions from Bicycle Facility or Walkway

$$Auto\ Emission\ Reductions = \left(\frac{VMT\ Displaced * EF_{Yr1} + VMT\ Displaced * EF_{YrF}}{2}\right) * UL * U^{-1}$$

Where,			Units
Auto Emission Reductions	=	Auto GHG or criteria and toxic air pollutant emission reductions for useful life of bicycle facility or walkway	$MTCO_2e$ or lbs
VMT Displaced	=	Annual passenger VMT replaced by cycling or walking trips, from Equation 22	miles/year
EF_{Yr1}	=	County-specific auto vehicle emission factor for first year of useful life	g/mile
EF_{YrF}	=	County-specific auto vehicle emission factor for final year of useful life	g/mile
UL	=	Useful life of bicycle facility or walkway (20 years for Class I bike path or walkway; 15 years for Class II bike lane or Class IV separated bikeway)	years
U	=	Unit conversion factor (1,000,000 for grams to metric tons; 453.59 for grams to pounds)	g/MT or g/lb

EXHIBIT B


Middleton
Middleton
S Kelly Rd
Devlin Rd
San Francisco Bay Trail
Hanna Dr
29
Watson Ln
Napa Junction
Napa Junction
Hess Rd
Lombard Rd
Commerce Blvd
Theresa Ave
Mai St
Eucalyptus Dr
Medeiros Ln
Google Earth

EXHIBIT C

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February 25, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration (February 25, 2021 Planning Commission Meeting, Agenda Item No. 5.2

Dear Commissioners and Mr. He:

Please accept this brief comment on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). Thank you for the responses prepared to our earlier comments submitted to the Commission on January 17, 2021.

We appreciate the acknowledgement in the responses that the original VMT analysis was incorrect and employed bike trip lengths that could not be substantiated in fact or based on any effort to gather information on bike commuting in general or in the American Canyon area. It appears, however, that the City's consultant, in responding to those obvious shortcomings, has now embellished its VMT mitigation analysis with numerous other unsubstantiated claims and speculation. Rather than an objective analysis of the actual incremental VMT reductions that will

result from an 800-foot stretch of bike lane connecting two existing bike lanes, the effort seeks, without evidentiary basis, to achieve a desired outcome. The notion that an 800-foot connecting bike lane will, by itself, induce 96 new bike commuters to commute to jobs to the north of the Project and reduce VMTs by 1004 is farfetched. The only way the consultant generates such a number is by ignoring the terms of the federal guidance it claims to be applying, blatantly attempting to assign benefits of other parties' bike lane construction efforts to the applicant, and making believe that, without the connector bike lane, bike commuters from the neighborhood south of the Project heading north must ride on the shoulder of State Route 29. All of these efforts to invent a justification for not requiring sufficient VMT reductions to mitigate the Project's increases in VMT are not supported by the cited guidance or facts. These supplemental comments highlight this continued concern and the remaining fair argument that the Project may have significant environmental impacts from its unmitigated increase in VMTs.

1. GHD's analysis is inconsistent with the NCHRP guidelines it cites.

GHD claims to base its analysis of VMT reductions attributable to the bike lane connector on National Cooperative Highway Research Program Report 552, "Guidelines for Analysis of Investment in Bicycle Facilities." ("NCHRP Report"). The method set forth in the NCHRP Report for estimating induced bike commutes from a new bike facility relies on bike commuters from three buffer distances from a bike facility who would most likely use the facility. (NCHRP Report, p. 38.) These three buffers are less than 400 meters, 400 to 799 meters and 800 to 1599 meters. (*Id*., pp. 38, Appendix B, B-6.) As the NCHRP Report explains:

> Research for this project uncovered that people are more likely to ride a bicycle if they live within 1,600 m (1 mi) of a facility than if they live outside that distance (Appendix B). The likelihood of bicycling increases even more at 800 m and 400 m. The team therefore estimates existing and induced demand using 400-, 800-, and 1600-m buffers around a facility.

(*Id*.) The analysis identifies the population within each of those buffer areas and estimates the number of bike commuters in each buffer using the project region's "bicycle commute share." (*Id*.) The analysis also provides a method to calculate the total adult cyclists in the buffer areas. (*Id*.) The NCHRP Report developed "likelihood multipliers" for each of the three buffer zones to account for the fact that "people who live near a facility are more likely to bike than those that do not…." *Id*., pp. 38-39. A different likelihood multiplier is provided for each of the three NCHRP buffer zones.

Rather than abide by the NCHRP Report's methodology, GHD took the liberty of adding a buffer zone beyond 1600 meters – from 1600 to 2400 meters from the proposed bike lane. (Agenda Packet ("AP"), pp. 302-303.) Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and ***expert opinion supported by facts***." (CEQA Guidelines, § 15384(b) (emphasis added).) Because there is no justification based on the NCHRP Report to inflate induced bike commuter use by randomly expanding the buffers to include people living 1600 to 2400 meters away from a proposed bike lane, GHD's analysis is not based on substantial evidence.

The inconsistencies of GHD's analysis with the NCHRP Report do not however end there. In its analysis, GHD does not include the closest buffer zone identified in the NCHRP Report – 0 – 400 meters. Instead, it uses a 0 – 799 meter buffer, an 800 to 1599 meter buffer and its third made-up buffer from 1600 meters to 2400 meters. However, in calculating how many of the residents in each of these areas are induced to use the new bike lane, GHD then applies the NCHRP's "likelihood multipliers" for the original NCHRP buffer distances. GHD references the likelihood multipliers "[e]stablished by NCHRP 552 research; see Appendix B." AP, p. 304. However, the NCHRP Report and its Appendix B do not establish a likelihood multiplier for GHD's newly minted buffer zone from 1600 to 2400 meters from a facility. So, GHD could not have been applying a number from the NCHRP Report to that area. GHD does not explain which likelihood multipliers it applied to the three zones it selected. If GHD applied the three multipliers calculated by NCHRP for the 400, 800 and 1600 buffer zones to GHD's 800, 1600, and 2400 buffer zones, there would be no evidentiary basis for GHD's new, induced bike commuter computation. In any event, GHD provides no evidence supporting its application of a multiplier factor for the fictitious buffer it seeks to add surreptitiously to the NCHRP Report's methodology. GHD also does not provide evidence of which likelihood multipliers it applied to the 800 meter and 1600 meter zones in its analysis. Without this evidence, the analysis is not substantial evidence.

2. GHD's effort to credit the Project with mitigation for the already completed Bay Trail bike facility adjacent to Wetlands Edge Road is entirely arbitrary and is not supported by evidence that the bike lane gap along 800-feet of Commerce Court is "non-traversable."

GHD further attempts to inflate the VMTs attributable to the proposed 800 feet bike lane by claiming the VMT analysis should include all bike commuters induced by the 1.7 miles of Bay Trail bike access that was constructed along the western side of Wetlands Edge Road many years ago. (AP, pp. 290, 302.) According to GHD, the 800-feet stretch of Commerce Boulevard where it proposes to add bike lanes currently blocks or limits would-be bike commuters heading north from using the Bay Trail bike lanes to the west of Wetlands Edge Road.

First, there is no evidence that the 800-feet stretch of Commerce Boulevard currently blocks or will block any bike commuters from heading north towards the businesses clustered at the north end of Commerce Boulevard or even further north. The MND does not describe in any way the current condition of that road or, more importantly, the condition that will exist upon the completion of the Napa Junction Elementary School project at the corner of Commerce Boulevard and Eucalyptus. The elementary school is scheduled for occupancy this fall. (AP, p. 101.) Construction of the SDG Warehouse project is expected to be ongoing after the school is completed and open. (*Id*., p. 124.)

The school project includes reconstructing Commerce Boulevard alongside the school property. (*See* Napa Junction Elementary School Replacement Project Draft Environmental Impact Report, p. 10-28 [available at https://drive.google.com/open?id=13Ny2i9F6u2R6NFJBqlifGoNeUqaUoqTk]; *see also id*., p.

10-29 ("the proposed project would improve the roadway with asphalt concrete pavement and sidewalk"); Figures 3-5, 3-15 and 3-16 (plans showing bike lanes on Commerce Blvd.) Despite this brand new roadway running from Eucalyptus Avenue north to the existing SDG Commerce 330, GHD contends that this stretch of Commerce Boulevard is a "'non -traversable' gap between the residential areas of American Canyon and the employment centers north that precludes viable bicycle commuting choices." (AP, p. 287.) Only from this premise does GHD then claim that bike commuters cannot get through this stretch of Commerce Boulevard and must instead head to State Route 29 "since the only connection to employment destinations north of Eucalyptus today is along the shoulders of SR 29 – a route navigable the only the most experienced and fearless riders." (AP, p. 302.) Contrary to GHD's assertions, a newly constructed stretch of Commerce Boulevard adjacent to the elementary school does not pose any barrier to bike commuters to travel between Eucalyptus Avenue and the bike path across from SDG Commerce 330. As a result, GHD's and the final MND's assertions that the proposed new bike lanes will unlock additional potential from the 1.7 miles of existing bikeway along Wetlands Edge Road is not supported by any substantial evidence. Well before the Project is completed, any commuting biker will be able to peddle unobstructed along the brand-new stretch of Commerce Boulevard whether the new bikeway is constructed or not.

Even if the stretch of Commerce Boulevard adjacent to the new elementary school did pose some limited impediment to bikers that required them to slow down for 800 feet does not justify GHD's random proposal to attribute half of the VMT reductions of an already completed 1.7 mile bikeway to the Project. This blatant effort to inflate the VMT benefits of the Project's proposed 800-foot bike lane has no basis in fact and is not a mitigation measure attributable to the Project.

Applying the NCHRP buffer zones that are actually included in that methodology (800 and 1600 meters) and the actual length of the bike facility proposed by the Project (800 feet), and assuming the rest of GHD's calculations are correct, the number of new bike commuters induced by the 800-foot bike lane is at most 22 cyclists. Assuming GHD's estimate of bike commute distance is reasonable, that amounts to, at most, a VMT reduction of 229 VMTs. As a result, substantial evidence of a fair argument exists that the Project's VMT increases may have a significant environmental impact.

3. GHD's estimate of commuter bike trip lengths does not eliminate the substantial evidence of a fair argument that average bike commute lengths in California are 1.5 miles as published by the California Air Resources Board.

GHD relies on a study of Portland, Oregon to borrow an estimated bike commute length for American Canyon. (AP, p. 290, citing "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice", Oregon Transportation Research and Education Consortium, OTREC -RR -08 -03, December 2008.) GHD provides no rationale in its report why Portland bicycle commute lengths would be representative of American Canyon bicycle commute lengths. This is despite a CARB approved distance of 1.5 miles for bike trips used to calculate VMT reductions from bikeways. (AP, p. 684.) There is no substantial evidence to support the use of bike commute distances from a highly urbanized area like Portland versus a

more rural/suburban setting such as American Canyon. Using 1.5 miles as the lower end of a bike commute distance estimates yields a mere 33 VMT reduction form the 800-feet bike lane.

4. **The inclusion of the new VMT calculations and efforts to justify the limited bike lane mitigation require the City to recirculate the MND for public review and comment.**

The law is well-established that even if an EIR is not required, a revised negative declaration must be circulated for full public review if it adds new mitigation measures or identifies new impacts. *Gentry v. Murrieta*, 36 Cal.App.4th 1359, 1392, 1411, 1417. The MND's substantial 'changes to its VMT analysis and new mitigation proposals based on the so-called non-traversability of Commerce Boulevard are significant changes to the MND that should be recirculated to the public for review and comment.

Despite the responses to our earlier comments, substantial evidence of a fair argument still exists in the record that the Project may have significant health risks and impacts on wildlife. For all of these reasons and those discussed in our prior comment, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you for your attention to these supplemental comments.

Sincerely,



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EXHIBIT D

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January 19, 2021

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Re: SDG Commerce 217 Distribution Center (PL20-0008) - Mitigated Negative Declaration

Dear Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project").

After reviewing the MND prepared for the Project along with our experts, we believe there is a fair argument that the Project may have significant adverse environmental impacts and that an environmental impact report ("EIR") should therefore be prepared pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000, et seq.

LIUNA submits herewith the expert comments of wildlife ecologist Dr. Shawn Smallwood. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit A. LIUNA also submits herewith comments on the Project's air and greenhouse gas emissions from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comments and the resumes of their consultants are attached hereto as Exhibit B.

PROJECT DESCRIPTION

The Project proposes to issue a conditional use permit to construct and operate a 217,294 square foot wine distribution center on a 10.39-acre parcel in close proximity to the Napa River and an area identified by the Audubon Society as an "Important Bird Area." In addition to the 10.39 acre building site, the Project also involves excavation and operation of a borrow area

covering most of the adjacent 10.17 acre parcel immediately to the south of the building site. The proposed building would be bordered by 134 parking stalls on the north edge of the building parcel and 21 truck docking bays on the north side of the proposed building. The building would be heavily insulated and refrigerated. Grading and filling will occur throughout the Project site as well as most of the adjacent borrow area parcel. During construction, about 17,000 cubic yards of stockpiled soil will be transported and another 21,000 cubic yards of soil will be excavated from the adjacent site. Construction of the project would be done in a single phase lasting approximately 9.5 months. Types of heavy diesel equipment to be used to construct the facility will include a self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. Operation of the Project is estimated to generate a total of 367 daily project trips and, prior to mitigation, increase the daily vehicle miles travelled ("VMT") in the area by 2,355 VMT. The closest residence is about 500 feet from the Project's borrow area.

LEGAL STANDARDS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["*CBE v. SCAQMD*"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens,* 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors,* 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (Pub. Resources Code, § 21080(d); see also *Pocket Protectors,* 124 Cal.App.4th at 927.) In limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs., § 15371 ["CEQA Guidelines"]), only if there is not even a "fair

argument" that the project will have a significant environmental effect. (Pub. Resources Code, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Public Resources Code §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a *reasonable possibility* of a significant effect on the environment. (Pub. Resources Code, §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors,* 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (CEQA Guidelines, § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a ***preference for resolving doubts in favor of environmental review***." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emphasis in

original].)

As a matter of law, "substantial evidence includes . . . expert opinion." (Pub. Resources Code, § 21080(e)(1); CEQA Guidelines, § 15064(f)(5).) CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. (CEQA Guidelines § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*,124 Cal.App.4th at 935.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; see also CEQA Guidelines, § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.,* 13 Cal.3d at 83.) In *Pocket Protectors*, the court explained how expert opinion is considered. The Court limited agencies and courts to weighing the admissibility of the evidence. (*Pocket Protectors,* 124 Cal.App.4th at 935.) In the context of reviewing a negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." (*Id*.) Where a disagreement arises regarding the validity of a negative declaration, the courts require an EIR. As the Court explained, "[i]t is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." (*Id*.)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines, § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ["*Save Our Peninsula*"].)

A threshold of significance may be useful to determine whether an environmental impact normally should be considered significant. (CEQA Guidelines, § 15064.7(a).) "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (*CBE v. California Resources* Agency, 103 Cal.App.4th at 111.)

"A threshold of significance is not conclusive, however, and does not relieve a public agency of the duty to consider the evidence under the fair argument standard." (*Mejia v. City of*

Los Angeles (2005) 130 Cal.App.4th 322, 342; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109; *CBE v. California Resources Agency*, 103 Cal.App.4th at 110-114; CEQA Guidelines, § 15064(b).) A public agency cannot, as the City does here, apply a threshold of significance or regulatory standard "in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect." (*CBE v. California Resources Agency*, 103 Cal.App.4th at 114.)

ANALYSIS

I. There is a Fair Argument That the Project May Have Significant Traffic and GHG Impacts Because the Purported Mitigation Measure for VMT is Not Supported by Substantial Evidence and Defies Common Sense.

The MND's analysis of the Project's VMT impacts is not based on substantial evidence because it relies upon entirely unrealistic assumptions about the distance a bike commuter would ride to and from work. The MND would have one believe that by constructing a 300 feet long Tier 1 bike lane down the street from the Project, 32 commuters would no longer drive an average of 34.6 miles to and from work, but would instead ***bike 34.6 miles*** to and from work. (MND, Appendix, GHD Draft Technical Memorandum, p. 6 (Nov. 19, 2020) ("VMT Memo").

The MND identifies a threshold of significance for assessing a Project's VMT-related impacts of requiring a 15 percent reduction in VMT for the Project "compared with current regional VMT generation for similar uses." (MND, p. 91.) Relying on an analysis conducted by GHD, the MND identifies that the "[c]ountywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT." (*Id*.) Based on these numbers, the MND states that the "average daily project trip length has been calculated to be 17.3 miles, with a total daily 2,355 VMT." (*Id*.) The MND identifies a baseline threshold of 1,354 VMT as the VMT level that is 15 percent less than the County's average VMT. (VMT Memo, p. 4.). Thus, in order to be consistent with the 15 percent reduction from the average VMT threshold, the MND states that the Project must reduce its estimated VMT of 2,355 by 1,001 VMT. (*Id*.)

GHD then recommends a single measure purporting to achieve this dramatic reduction in the Project's estimated VMT. GHD and the MND state that extending by a mere 300 feet the Class I bike path on Commerce Court, which currently runs past the existing SDG Commerce 330 warehouse, to connect to the northern driveway of the elementary school under construction would reduce the Project's VMT by 1,119 VMT. (*Id*., p. 6.) GHD's rationale for this assertion is based, in part, on an estimate of the number of new bike commuters that would be added to the City's bike network by the addition of the 300-foot connector lane. GHD estimates the new lane would entice 32 new bike commuters. (*Id*., p. 18.) GHD then claims that these 32 new bike commuters would take the place of 32 car commuters who otherwise would each have driven 34.6 miles to and from work. (*Id*.)

Assuming GHD's estimate of 32 new commuters biking to work as a result of constructing the 300-feet bike lane is correct, the car trip lengths that GHD claims those users' bike trips would replace are preposterous. There is no evidence that the new bike commuters

who would be enticed onto their bikes by the new 300-feet of bike lane would include any car commuter who currently travels 17.3 miles to and from their work. The 17.3 mile figure applied by GHD has nothing to do with the average length of bike commuter trips. Instead, that number is the average trip length for commuters traveling by ***automobile*** calculated for the project area. (*Id*., p. 4.)

The average length of a bike commuter trip is much lower than the average length of a commute by car. The California Air Resources Board ("CARB") has published a quantification methodology to estimate VMT reductions associated with bike facilities. (CARB, Quantification Methodology (Nov. 1, 2019) (attached as Exhibit C).) Equation 22 of that guidance provides a formula for estimating "VMT Reductions for Bicycle Facility or Walkway." (Id., p. 18.) GHD completely ignores this guidance in its analysis. Putting that aside, CARB's factors include its expert determination of the average bike trip length to be used in a VMT reduction calculation. CARB pins the "[a]verage length of auto trip replaced" at "1.5 miles for cycling." (*Id*. *See also* ITS Report, p. 5. *See id.*, p. 7 ("The trip length factor, L, is based on the average length of bicycle trips taken for any purpose, using the default 1.5-mile average from most recent California Household Travel Survey data") (attached as Exhibit D).)

Even assuming GHD's overly simplistic equation is otherwise correct, applying CARB's 1.5 mile average of auto trip replaced by a bike trip dramatically reduces the MND's inflated VMT reduction claim. Based on a realistic trip length for bicycles that would use the 300-feet lane, and according to GHD's truncated equation, the new 300-feet bike lane would only reduce VMT by 97.5 VMT (65 daily commute trips by new bike commuters x 1.5 bicycle trip length). Thus, GHD's claim that the 300-foot length of bike lane would miraculously remove 1,119 VMTs from Commerce Court is entirely without basis in evidence or common sense. Instead, that modest bike facility would only remove about 97.5 VMT, leaving the Project over 900 VMT short of the 15 percent reduction from the County average necessary to eliminate the Project's significant transportation impacts. As a result, the MND is inconsistent with the CEQA Guidelines, 14 Cal.Admin Code § 15064.3 which requires that "[a]ny assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project." Moreover, there is a fair argument that the Project may have significant transportation impacts requiring the preparation of a full EIR.

II. An EIR is Required because the Project will have Significant Impacts on Biological Resources.

A. THE MND Fails to Adequately Analyze Impacts to Biological Resources Because It Relies Upon an Incomplete Baseline and the Project May Have Adverse Impacts on Numerous Sensitive Species Currently Using the Site or Adjacent Areas.

On January 23, 2019 and January 5, 2021, Dr. Shawn Smallwood visited the site. (Smallwood Comments, p. 1.) His first-hand observations of wildlife at the site as well as his review of reliable bird sightings reported on eBird demonstrate that the MND relies upon a

truncated list of species present at the site and fails to address impacts on numerous sensitive species that currently use the site. Dr. Smallwood's observations and expert comments are substantial evidence that the Project may have significant biological impacts, including adverse impacts on bald eagles, northern harriers, peregrine falcons, Cooper's hawks, red-tailed hawks, great horned owls, Swainson's hawks, burrowing owls, Nuttall's woodpecker, and other bird species. (*Id*., p. 2.)

During his brief visit on January 23, 2019, Dr. Smallwood observed a bald eagle flying over and hunting the site and identified a northern harrier and Cooper's hawk foraging on the project site. (Smallwood Comments, pp. 2, 5.) He also observed numerous other bird species. (*Id*., pp. 2-9.) Many species were not just passing by the site but actively engaged in using the habitat available there. (*Id*., p. 2.) For example, Dr. Smallwood observed many species spending considerable time at the site and displaying courtship or territorial behaviors indicative of breeding. (*Id*.) Such species included red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. (*Id*.) He also observed a great-horned owl perched immediately adjacent to the site. (*Id*.)

Dr. Smallwood also has gathered information regarding numerous bird sightings in and around the site that are posted on a web-based service called eBird. (Smallwood Comments, pp. 13-16.) Dr. Smallwood's experience with this service indicates that it is reliable source of bird sighting information, being based on the observations of reputable birders. (*See id*., p. 16.) He also points out the limitations of the MND only relying upon the California Natural Diversity Data Base ("CNDDB") to document the potential presence of wildlife species at and around the Project site. (*Id*., pp. 11, 16.) Numerous additional sensitive species are identified near the site that are not addressed in the biological report or the MND, including the endangered Willow flycatcher and species of concern including the Oak titmouse, Loggerhead shrike, tricolored blackbirds and many others. (*Id*., pp. 13-15.)

As a result of the omission of numerous sensitive species using the site and evidence of even more additional species in the immediate vicinity of the site, the MND's evaluation of the project's biological impacts is not supported by substantial evidence. Dr. Smallwood's observations and expert comment is substantial evidence of a fair argument that the project may have an adverse impact on bald eagles, various hawks, and other species currently utilizing the site for courtship, foraging habitat and for movement.

The MND does mention a number of species, including Swainson's hawks and burrowing owls. However, the biological report fails to disclose information that these species have been observed much closer to the project site than is indicated in the MND or the biological report. (Smallwood Comments, p. 16.) For example, the MND indicates that Swainson's hawks and burrowing owls are, respectively, 2.5 and 2.6 miles away from the project site. However, Dr. Smallwood identifies sightings of these two species within 0.2 miles of the site. As he states, this indicates a high likelihood that these species are using this open foraging area as well.

The MND is particularly unreliable regarding its treatment of another species of special concern, the Northern harrier. As Dr. Smallwood explains:

> Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

(Smallwood Comments, p. 16.)

Regarding impacts to burrowing owls, the MND improperly downplays potential impacts by claiming that, although the site contains many ground squirrel burrows that are frequently relied upon by burrowing owls, their significance is downplayed because Monk & Associates claims they are of "recent origin." (Smallwood Comments, p. 12.) Dr. Smallwood, relying on his own studies of burrowing owls, refutes the relevance of the age of ground squirrel burrows to their likely use by burrowing owls. (*Id*.)

Likewise, the MND relies on a claim that because the site was cleared of eucalyptus trees in 2012, that somehow that activity over eight years ago continues to affect the site's use by wildlife. The MND asserts that "[t]he loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat." (MND, p. 33.) Dr. Smallwood discusses the scientific problems with this assertion, concluding that "[t]he [MND] misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today." (Smallwood Comments, p. 12.)

Dr. Smallwood notes the likely presence of bats utilizing the site for foraging and movement. (Smallwood Comments, p. 16.) The MND claims that the Project will not impact bats because the Project site "contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." (MND. p. 34.) However, as Dr. Smallwood points out, "Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground." (Smallwood Comments, p. 16.)

Dr. Smallwood notes that the MND and accompanying biological report fail to provide the information necessary to corroborate the level of effort and adequacy of the reconnaissance level survey done by the City's consultant. As Dr. Smallwood explains:

> Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

(Smallwood Comments, p. 10.) This exacerbates the absence of substantial evidence to justify the MND's wildlife baseline.

Dr. Smallwood also debunks the MND's effort to bolster the cursory biological

assessment with a so-called peer review. As Dr. Smallwood notes, no description of the peer-review nor any responses to review comments is provided in the MND and the date of the peer review appears inconsistent with the date of Monk & Associates site visit. (Smallwood Comments, p. 10.)

The evidence of nearby sightings of numerous sensitive species and the flaws in the MND and accompanying biological report identified by Dr. Smallwood support a fair argument that the Project may have adverse impacts on their foraging and movement. For this reason and those discussed above, an EIR must be prepared to address impacts to these many sensitive bird and bat species.

B. The Project will have a Significant Impact on Wildlife Movement and Habitat Fragmentation.

The MND fails to adequately analyze the Project's impact on wildlife movement. Instead, the MND improperly dismisses the Project's potential to impact wildlife movement by claiming there needs to be a "corridor" on the site to effect wildlife movement, that other nearby areas are better movement areas, or otherwise asserting without evidence that this particular large warehouse would not disrupt wildlife movement. As Dr. Smallwood states:

> The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others.

(Smallwood Comments, p. 20.) Dr. Smallwood's direct observations and expert opinion are substantial evidence of a fair argument that the Project may have adverse impacts on wildlife movement at the site and in the vicinity.

C. The MND Fails to Analyze the Project's Impacts on Wildlife from Additional Traffic Generated by the Project.

The MND contains no analysis of the impacts of the Project's added road traffic on special-status species of wildlife, including species such as the California red-legged frog and California tiger salamanders. (Smallwood Comments, p. 20-21.) Regardless of whether these species live on site, these and other special status species must cross roadways that will experience increased traffic volume as a result of the Project. (*Id.*)

As Dr. Smallwood explains, "[i]ncreased use of existing roads will increase wildlife

fatalities…." (*Id*., p. 20.)

> The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23January 2019I saw two road-killed striped skunks on American Canyon Drive, and on 15 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road–a road likely to be used by trucks and cars servicing the project. California red-legged frogs (Rana draytonii), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the [MND] is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (Ambystoma californiense), and American badgers (Taxidea taxus) that, regardless of whether they live on the site, mustcross roadways that will experience increased traffic volume caused by this project.

(*Id*.) Given the fair argument of a threat to wildlife posed by existing traffic and additional traffic from the Project, as discussed by Dr. Smallwood, an EIR is necessary to evaluate the direct and cumulative impacts of the Project's vehicle collisions with wildlife.

D. The MND Fails to Analyze the Project's Impacts from the use of Pest Control Measures.

The MND does not discuss the potential impact of using pesticides inside and outside of the proposed warehouse. As a wine storage distribution facility, there will likely be steps taken to abate pests. There are many businesses that provide services for controlling stored products pests, perching birds, and rodents and other mammal pests within and around distribution warehouses. (Smallwood, p. 21.) These businesses advertise exclusion strategies and fumigation for stored products pests, glue boards for rodents, and other measures including anticoagulant poisons and acute toxicants. "[T]he use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging." (*Id*.) "[P]est control involving toxicants can result in the spread of toxicants beyond the project site." (*Id*.)

An EIR is needed to analyze the potential impacts of animal damage control associated with the proposed Project. Anticipated animal control strategies at the Project should be detailed, and impacts mitigated.

E. The Project will have Cumulative Impacts on Biological Resources.

Dr. Smallwood concludes that the Project will have a significant cumulative impact on biological resources. (Smallwood Comments, p. 22.) An EIR is needed to fully analyze and mitigate the Project's cumulative biological impacts, including not only future projects but the existing impacts as well.

III. The IS Utilized Unsubstantiated Input and Output Parameters to Estimate Project Emissions.

A. The MND fails to explain how the City Calculated the Project's Average Daily Construction Emissions of ROGs and NOx.

The MND and Appendix B fail to provide sufficient information for a reviewer to understand and corroborate how the average daily emissions during construction were derived. As SWAPE explains, it is entirely unclear where the emissions estimates reported in the MND come from, because the estimates do not match those provided in any of the CalEEMod output files. (SWAPE Comments, pp. 2-3.) The MND provides the Project's emissions estimates in pounds per day. (MND, p. 22.) This indicates that the estimates should have come from either the winter or summer output file. (SWAPE Comments, pp. 2-3.) However, reviewing both the summer and winter output files and the emissions estimates, SWAPE's review could not match either. Insufficient details are provided in the MND either to inform the reader of the full extent of the air pollution and impacts that will result from the Project or how the insignificant determination was calculated and derived. The MND does not disclose a valid average daily emission calculation. For this reason, there is a fair argument that the Project may have significant air quality impacts.

B. The MND Used Improper Modeling Inputs, Including for Water Use for Parking and Solid Waste Generation.

Review of the Project's CalEEMod output files also demonstrates that the Project Applicant fails to adequately support substantial reductions in several air quality modelling inputs. In particular, the input for water use rate is decreased by almost 100 percent from the default value of 50,248,312.50 gallons per year ("gpy") to a mere 768 gpy. (SWAPE Comments, p. 8.) However, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gpd or 249,295 gpy. Thus, the model underestimates the Project's total yearly water demand by approximately 239,186 gpy.

SWAPE also points out the lack of justification for the reduction in modeling inputs for solid waste generation by the Project. It is not explained how the Project would have dramatically lower solid waste rates than other typical projects. (SWAPE Comments, pp. 7-8.) Likewise, further corroboration that there would not be any weekend trips occurring at the facility or the lack of any potential for natural gas use by the Project should be further corroborated and explained in the MND. (*Id*., pp. 5-7.) Lastly, the modelling relies on surface watering and limited vehicle speeds among other BMPs identified by BAAQMD. However, nothing in the MND sets forth these measures as mandatory BMPs or conditions of the Project. (*Id*., pp. 9-11; MND, p. 23.) Because of the uncertainty resulting from inadequate justifications or miscalculation of annual water use, the MND's reliance on the CalEEMod analysis is not supported by substantial evidence that eliminates a fair argument that the Project may have significant air quality impacts.

IV. SWAPE's CalEEMod Modeling Run Indicates a Fair Argument That the Project May Have a Significant Air Quality Impact.

SWAPE reran the CalEEMod run for the Project adjusting for the deficiencies in the inputs that it identified. (SWAPE Comments, p. 11.) The resulting model result indicates that the Project may exceed the BAAQGM daily emission threshold of 54 lbs/day. This is substantial evidence of a fair argument that the Project may have a significant air quality impact.

V. The IS Inadequately Evaluates Emissions of Diesel Particulate Matter.

Diesel particulate matter ("DPM") is a known human carcinogen. The MND attempts to piggy-back on a health risk assessment performed for the nearby SDG Commerce 330 warehouse. (MND, p. 26.) This effort to borrow the HRA performed for that other project is problematic for a number of reasons.

A. The HRA Fails to Account for the Fact That the Nearest Sensitive Receptor to the Project's Emissions is Located Only 500 Feet From the Soil Borrow Site.

Although the MND notes that there is "one residence about 1,000 feet east of the site (on the Couch property)," this is referring to the site of the proposed warehouse building. (MND, p. 74.) In fact, the closest receptor is only 500-feet from the borrow pit portion of the Project. (*Id*., p. 77 (Table Noise-4).) For the SDG Commerce 330 project, the sensitive receptor distance was about 900 feet. Because the closest receptor to the Project's affected area is only 500 feet, a new health risk assessment specific to the Project must be prepared. (SWAPE Comments, pp. 12-14.) Based on the current MND, there remains a fair argument that the Project may have a significant health risk impact on the nearest sensitive receptor.

B. SWAPE's Analysis Provides Substantial Evidence of a Fair Argument that the Project may have Significant Health Risk Impacts from its Emissions of Toxic Air Contaminants.

Based on the limited information provided by the MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to adults, infants, children and nearby residents over the course of a 30-year residential lifetime of, respectively, 11 in one million, 86 in one million, 73 in one million, and 180 in one million, all in excess of BAAQMD's threshold. (SWAPE Comment, pp. 14-18.) Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

VI. There is a Fair Argument That the Project May Have Significant GHG Impacts.

SWAPE also reviewed the MND's discussion of the Project's potential GHG impacts. In addition to the deficiencies in the air modelling discussed above, a number of glaring problems with the analysis demonstrates that a fair argument remains that the Project may have significant GHG impacts.

A. The MND's Reliance on the 1,100 MT CO2e Per Year Threshold is Only Designed to Achieve the GHG Reductions Required by 2020 and is Insufficient to Align the Project With the State's 2030 GHG Reduction Targets.

As the BAAQMD states in its 2017 CEQA guidelines, BAAQMD based its GHG "bright line" significance threshold on the amount of GHG reductions that were necessary in the Bay area to achieve the AB 32 reduction goals by 2020. (BAAQMD CEQA Guidelines, p. D-16 (available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.) The threshold referenced in the MND is a bright-line threshold of 1,100 MT CO2e. (*Id.*, p. D-21. *See* SWAPE Comments, pp. 19-20.) That threshold was only intended to ensure compliance with AB 32's reduction goals required by 2020. (*Id.*) The 2020 GHG reduction goals sought to reduce business as usual GHG emissions to 1990 levels. In 2018, the Air Resources Board established the subsequent GHG reduction goal to reduce 1990 levels by another 40 percent by 2030. (California's 2017 Climate Change Scoping Plan, Executive Summary (Nov. 2017) (available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017_es.pdf).) That is the current goal with which the Project must ensure consistency order to claim no fair argument of a potential GHG impact.

As SWAPE points out, the Association of Environmental Professionals ("AEP") has derived a threshold of significance that is consistent with achieving the 2030 GHG reduction goals for projects coming online after 2020. AEP and SWAPE identify a "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO2 equivalents per service population per year ("MT CO2e/SP/year") as a threshold of significance necessary for any specific project to be consistent with the 2030 reduction goals. As AEP states:

> Once the state has a full plan for 2030 (which is expected in 2017), and then a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target. A more conservative approach would be to apply a 2030 threshold based on SB 32 for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update.

(*Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016, p. 40 (available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf).)

Applying the Project's estimate that it will create 50 new jobs, SWAPE calculates the

2030 Land Use Efficiency Threshold for the project to be 11.80 MT CO2e/SP/year - well in excess of the calculated significance threshold of 2.6 MT CO2e/SP/year. (SWAPE Comments, pp. 20-21.) Based on this substantial evidence, there is a fair argument that the Project may have significant GHG impacts.

B. The Project's Failure to Reduce its Expected VMT and Its Levels of VMT Per Capita are Evidence of a Fair Argument That the Project May Have Significant GHG Emission Impacts.

In addition to failing to reduce its VMT by fifteen percent of the Project area average, as discussed above, the MND also is inconsistent with CARB's 2017 Scoping Plan's guidance on evaluating GHG impacts using a Project's VMT per capita calculations. CARB has provided County- and State-based VMT per capita baseline calculations and the necessary per capita reductions necessary to be consistent with the Scoping Plan's GHG reduction targets. (SWAPE Comments, p. 22, n. 44.) SWAPE has applied that guideline to calculate the Project's VMT per capita. (*Id.,* p. 22 & Attachment C.) Using the tables provided by CARB, SWAPE calculates that VMT per capita within Napa County must be reduced to 19.37 in order to be consistent with the 2030 GHG reduction target. (*Id*., p. 22.) SWAPE calculates the Project's daily VMT per capita to be 33.21, well in excess of the VMT per capita levels necessary to meet the State reduction goals for 2030. (*id*., p. 22.) As a result, the MND is incorrect in asserting that the Project is consistent with the 2017 Scoping Plan and AB 32. SWAPE's analysis is substantial evidence of a fair argument that the Project may have significant GHG emission impacts.

CONCLUSION

For the foregoing reasons, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. LIUNA reserves the right to supplement these comments in advance of and during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). Thank you for your attention to these comments.

Sincerely,

Michael R Lozeau

Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Brent Cooper, Community Development Coordinator
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

14 January 2020

RE: SDG Commerce 217 Warehouse

Dear Mr. Cooper,

I write to comment on the biological resources study (Monk & Associates 2020) and Initial Study ("IS") (City of American Canyon 2020) prepared for the proposed SDG Commerce 217 Warehouse project at 1075 Commerce Court, which I understand would be 217,294 square feet of new distribution warehousing on 10.39 acres (11.23 acres according to 'For Sale' sign on property).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-five years, including at many proposed project sites. My CV is attached.

SITE VISIT

I visited the proposed project site on 5 January 2021 for 62 minutes starting at 08:23 hours. Prior to the construction of SDG Commerce 330, I had also visited the site on 23 January 2019 from 06:15 hours to 10:50 hours. Both times I walked along Commerce Way, the first time in cool, sunny weather and the second time in fog. During my first visit I detected 41 species of vertebrate wildlife within 155 minutes, and during my second visit I detected 9 species within 65 minutes (Table 1). I also walked a portion of the Napa River and Bay Trails south and west of the site for 125 minutes in 2021 and for an unrecorded time in 2019. At and near the site I detected 61 species of vertebrate wildlife between my two visits. Add my observations to those of Monk & Associates (2020), and the list grows to 86 vertebrate species of wildlife seen at or near the site

over only a few surveys in the last two years. The project area is rich in wildlife. Had I stayed longer, or had I visited during additional times of year and times of day, I would have seen many more species of wildlife. Given the abundance of roost sites amongst the surrounding eucalyptus groves, I expect multiple species of bats are present. An EIR needs to be prepared to address potential project impacts on wildlife.

In 2019, I saw a juvenile bald eagle fly over the project site (Photos 1 and 2). Bald eagles are protected by the Bald and Golden Eagle Protection Act and the California Endangered Species Act. In 2021, I saw a peregrine falcon just west of the project site, but it was too fast for me to photograph it. I saw a northern harrier (Photo 3) and Cooper's hawk (Photo 4) on the project site, both species of which have been assigned special-status in addition to the 'birds of prey' statute. I saw American kestrels (Photos 5 and 6), Anna's hummingbirds (Photo 7 and 8), pied-billed grebes (Photo 9), mourning doves (Photo 10), a house wren (Photo 11), golden-crowned sparrows (Photo 12), white-crowned sparrows (Photos 13 and 14), Say's phoebe (Photo 15), red-winged blackbirds (Photo 16), fox sparrows (Photo 17), and song sparrows (Photo 18).

Some animals flew over, including Canada geese, mallards, Herring gulls, ring-billed gulls, and swallows. Most, however, spent considerable time on and around the site. Some species displayed courtship or territorial behaviors indicative of breeding, including red-winged blackbirds, Say's phoebe, red-tailed hawks, and American kestrels. In 2019, a juvenile bald eagle hunted the site by carefully using the Eucalyptus trees for cover, but numerous small birds raised a ruckus, alerting of the eagle's approach. Also foraging on site were the northern harrier and Cooper's hawk in 2019. In 2019, two American kestrels harassed a perched great-horned owl, who hooted for about 10 minutes after the kestrels relented.

PROJECT DESCRIPTION

The Napa River and Bay Trails wrap around the project from the south to the west. The site is next to an Audubon Society-designated Important Bird Area.

BASELINE ASSESSMENT

Project Description: The IS (page 6) did not reveal the nearness of Clark Ranch and Napa River and Bay Trails as surrounding land uses, instead attempting to cast the 300-foot distance as a mitigating buffer (*See, e.g.* IS, p. 34). Clark Ranch has been dedicated as open space. The Napa River and Bay Trails not only provide public access to wildlife viewing, but is also designated by Audubon Society as one of its Important Bird Areas ("IBA"). An EIR is needed to address project impacts on the IBA, Napa River and Bay Trails, and Clark Ranch.

Table 1. Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse. The offsite visit was made during my 2021 survey, and includes a walk along Napa River and Bay Trails just south and west of the project site.

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Canada goose	*Branta canadensis*		2019		
Mallard	*Anas platyrhynchos*		2019		
Northern shoveler	*Anas clypeata*				Yes
American coot	*Fulica americana*				Yes
Pied-billed grebe	*Podilymbus podiceps*				Yes
Black-necked stilt	*Himantopus mexicanus*				Yes
American avocet	*Recurvirostra americanus*				Yes
Long-billed dowitcher	*Limnodromus scolopaceus*				Yes
Least sandpiper	*Caladris minutilla*				Yes
California quail	*Callipepla californica*		2019		
Turkey vulture	*Cathartes aura*	FGC 3503.5			Yes
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, CE, CFP	2019		
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5	2019		
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5	2019	2021	Yes
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5			Yes
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	2019		Yes
American kestrel	*Falco sparverius*	FGC 3503.5.5	2019		Yes
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5			Yes
Herring gull	*Larus argentatus*		2019		Yes
Ring-billed gull	*Larus delawarensis*		2019		Yes
Mourning dove	*Zenaida macroura*		2019		Yes
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	2019		
Great-horned owl	*Bubo virginianus*	CDFW 3503.5	2019		
Black-chinned hummingbird	*Archilochus alexandri*		2019		
Anna's hummingbird	*Calypte anna*		2019	2021	Yes
Northern flicker	*Colaptes auratus*		2019	2021	Yes
Nuttall's woodpecker	*Picoides nuttallii*	BCC	2019		Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
Say's phoebe	*Sayornis saya*		2019		Yes
Black phoebe	*Sayornis nigricans*		2019		Yes
Hutton's vireo	*Vireo huttoni*		2019		
Barn swallow	*Hirundo rustica*		2019		
Northern rough-winged swallow	*Stelgidopteryx serripennis*		2019		
Bushtit	*Psatriparus minimus*		2019	2021	
House wren	*Troglodytes aedon*		2019		
Marsh wren	*Cistothorus palustris*				Yes
California scrub-jay	*Aphelocoma californica*		2019		
Common raven	*Corvus corax*		2019		Yes
American crow	*Corvus brachyrhynchos*		2019	2021	
Western bluebird	*Sialia mexicana*		2019		
Northern mockingbird	*Mimus polyglottos*		2019		Yes
European starling	*Sturnus vulgaris*	Non-native	2019	2021	Yes
Yellow-rumped warbler	*Setophaga coronata*		2019	2021	Yes
California towhee	*Pipilo crissalis*		2019		Yes
Song sparrow	*Melospiza melodia*				Yes
Lincoln's sparrow	*Melospiza lincolnii*				Yes
White-crowned sparrow	*Zonotrichia leucophrys*		2019		Yes
Golden-crowned sparrow	*Zonotrichia atricapilla*		2019		Yes
Fox sparrow	*Passerella iliaca*				Yes
Dark-eyed junco	*Junco hyemalis*		2019	2021	Yes
Western meadowlark	*Sturnella neglecta*		2019		
Red-winged blackbird	*Agelaius phoeniceus*		2019		Yes
Brown-headed cowbird	*Molothrus ater*				Yes
Brewer's blackbird	*Euphagus cyanocephalus*		2019		Yes
American goldfinch	*Carduelis tristis*		2019		
Lesser goldfinch	*Carduelis psaltria*				Yes
House finch	*Carpodacus mexicanus*		2019		Yes
Sierran treefrog	*Pseudacris sierra*		2019		Yes
Botta's pocket gopher	*Thomomys bottae*				Yes

Species	*Scientific name*	Status[1]	Visit Onsite		Offsite
California ground squirrel	*Otospermophilus beecheyi*				Yes
Raccoon	*Procyon lotor*			2021	

[1] Listed as BGEPA = federal Bald and Golden Eagle Protection Act, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), SSC3 = California Species of Special Concern priority level 3, TWL = Taxa to Watch List (Shuford and Gardali 2008).





Photos 1 and 2. A bald eagle flew along the eucalyptus trees surrounding the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area this winter.





Photos 3 and 4. Cooper's hawk (left) and northern harrier (right) fly over the project site, 23 January 2019.





Photos 5 and 6. American kestrel perches on a Eucalyptus branch on southern boundary of proposed project site, 23 January 2019 (left) and on a pole just south of the project site on 5 January 2021 (right).





Photos 7 and 8, right. Anna's hummingbird perched next to the site of the proposed project on a foggy day, 5 January 2021.





Photos 9 and 10. Pied-billed grebe (left) and mourning dove (right) next to the site of the proposed project, 5 January 2021.



Photo 11, left. House wren next to the site of the proposed project, 23 January 2019.



Photo 12, right. Golden-crowned sparrow next to the site of the proposed project, 5 January 2021.

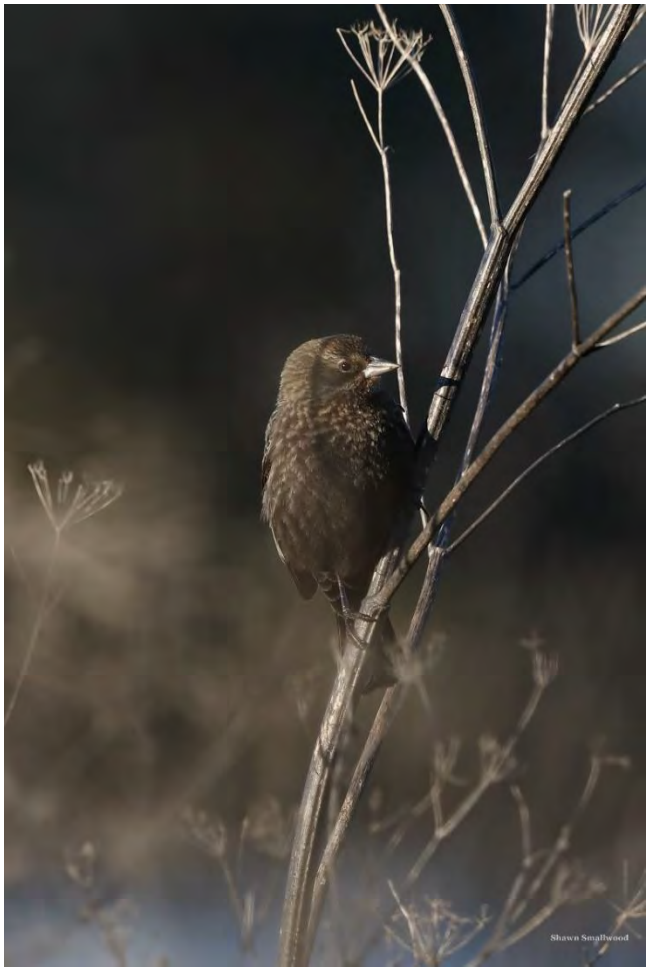




Photos 13 and 14. Male and female white-crowned sparrows next to the site of the proposed project, 5 January 2021.

Photos 15 and 16. Say's phoebe (left), triumphant after driving out a black phoebe, and red-winged blackbird (right) at the project site, 23 January 2019.









Photos 17 and 18. Fox sparrow (left) and song sparrow (right) next to the site of the proposed project, 5 January 2021.

Reconnaissance surveys: Monk & Associates (2020) performed surveys on the site on 19 and 27 December 2019. However, Monk & Associates reported no details of their surveys, such as who exactly did the surveys, when they arrived, how long they stayed, and what methods they used. The reporting did not include the most basic information that a wildlife ecologist would need for assessing whether the survey truly met due diligence standards.

Peer review: The IS (page 29) assures that Monk & Associates (2020) was peer reviewed. However, the date of the site visit in support of the peer review was 10 August 2018, which was prior to the Monk & Associates surveys of 2019. and prior to their 2020 report. If the date was correct for the peer-review site visit, then it is unclear what was peer-reviewed.

In claiming Monk & Associates (2020) was peer reviewed, the IS misapplies a process routinely used by scientists to improve their work. The purpose of peer review is to (1) improve the reporting of scientific research results, and (2) contribute to an editor's decision over whether to accept or reject a manuscript, or to require minor or major revisions before making the decision to accept or reject. The conclusions of peer reviewers are not necessarily right while the authors' conclusions are wrong. Peer review comments contribute to the scientific process by adding additional perspectives that the authors can use to improve their product, despite whether the product was rejected by the institution administering the peer review. Peer reviews also assess manuscripts according to scientific standards and to written guidelines maintained by the organization to which the manuscript was submitted. Peer review comments are supposed to be constructive. The important point here is that a "peer review" provided by Vollmar Natural Lands Consulting would have contributed nothing to Monk & Associates (2020) unless it resulted in constructive revisions to the report. Perhaps improvements were made to the report, but the reader cannot tell because the IS provides no report of the peer-review nor any responses to review comments.

To qualify as independent peer review, the administrator of the peer review as well as the reviewers themselves must not benefit financially or professionally from the outcome of the review. There must not be any hint of bias for a review to be considered independent. Another qualification is that the reviewers must be the authors' peers, meaning that reviewers possess sufficient experience performing research on the same or similar topic area as the authors, and that the reviewers understand the theoretical foundation of the topic at hand and the research challenges faced by the authors. In my experience, targeted reviews are prone to bias because the paid reviewer understands the desired outcome; it is in the reviewer's financial interest to review the client's work product favorably if the reviewer is to acquire repeat business. City of American Canyon needs to explain its relationship with Vollmar Natural Lands Consulting and between Vollmar Natural Lands Consulting and Monk & Associates.

Determinations of occurrence likelihoods: Monk & Associates (2020) mostly relied on California Natural Diversity Data Base (CNDDB) records to assess the likelihood of occurrence of special-status wildlife species whose geographic range maps

overlap the project site. Whereas consulting CNDDB is fine for confirming presence of a species, it is inappropriate for determining absence and hence narrowing a list of potentially occurring species. CNDDB is voluntary and not based on scientific sampling or equal access to properties. The limitations of CNDDB are well-known, and they are summarized in a warning presented by CDFW on the CNDDB web site (https://www.wildlife.ca.gov/Data/CNDDB/About): "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers*..." Therefore, the foundation of many conclusions in the is consists partly of a misapplication of CNDDB and needs to be replaced by a sound methodology in an EIR.

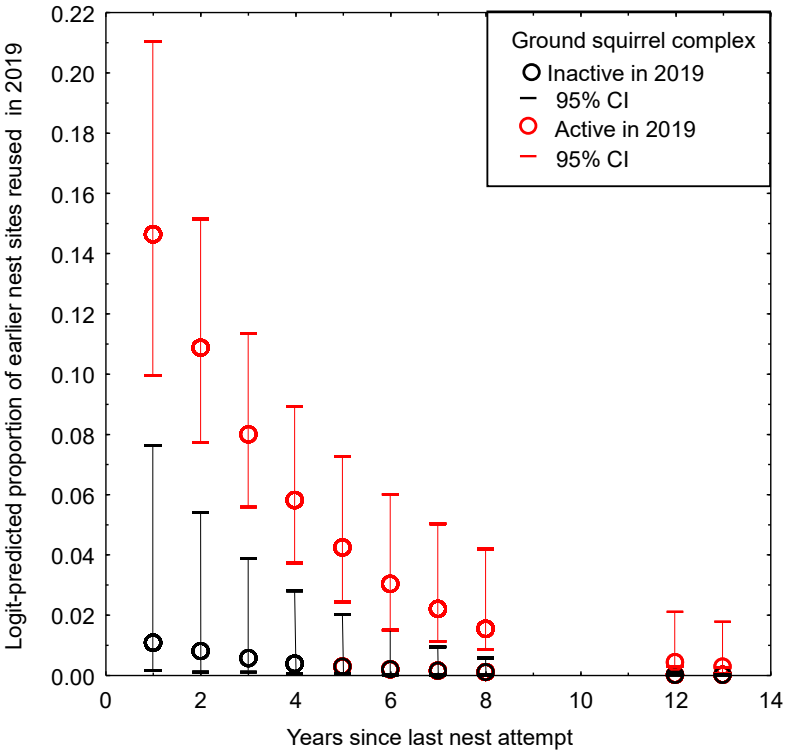
Consulting eBird reveals many sightings of special-status species near the project site (Table 2), many of which Monk & Associates (2020) conclude are less likely to occur at the site due to distant nearest-CNDDB records. My review of eBird and iNaturalist reveals 66 special-status species of vertebrate wildlife likely to rely on the site at one time or another, 15 of which have been confirmed at or near the site during surveys performed by Monk & Associates (2020) and myself (Table 2). The IS, on the other hand, identifies only 3 such species as unlikely to occur at the site, including northern harrier which I saw on site, and Swainson's hawk and burrowing owl which have both been reported nearby in eBird. The IS falls grossly short of a comprehensive and accurate assessment of occurrence likelihoods of special-status species.

The inadequacy of IS's assessment of species occurrences stems mostly from two fallacious arguments: (1) that the site is unsuitable for nesting, and (2) the site was previously disturbed by the removal of a eucalyptus grove. The first fallacy is that habitat can be divided distinctly by functionality. Specific to this project, the IS distinguishes nesting habitat as the only type of habitat to be concerned about. But no animals can breed without finding sufficient forage, cover and stopover opportunities; no species can breed without surviving both the breeding and nonbreeding seasons. There is no clear distinction between types of habitat, as every portion of an animal's habitat is critical to its survival and its productivity.

The second fallacy is that some previous disturbance – the removal of a eucalyptus grove in this case – diminishes or destroys habitat of a species today. CEQA reviews are supposed to be based on existing conditions, rather than to some past event that a project proponent can claim without evidence to have prevented the site from ever again being used by a species. This CEQA standard noted, I must add that the scientific literature is full of examples of wildlife populating places that have been severely disturbed, such as the slopes of Mount St. Helens following the 1980 eruption, and wildlife reinhabiting the forests surrounding Ukraine's Chernobyl Nuclear Plant since its meltdown and massive radioactive release. Multiple scientific journals focus on habitat restoration, which involves deliberate, major disturbances to generate new complexes of

vegetation intended to benefit wildlife. The IS misleads where it claims that the removal of a eucalyptus grove years ago doomed the occurrence of wildlife species there today. The IS (page 32) further misleads that only ground squirrel burrows of ancient origin are useful to burrowing owls. Specifically, the IS claims burrowing owls are unlikely because "...ground squirrel burrows are few and of recent origin (Monk & Associates 2020)." The IS cites no evidence in support of this notion. It is also inconsistent with my research experience. For example, in a revisit to nearly 800 burrowing owl nest sites I had mapped over 9 years in the Altamont Pass Wind Resource Area, I found reuse of the nest sites in 2019 to have been much greater within actively used ground squirrel burrows previously used more recently (Figure 1). Further misleading is the IS's argument that "Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys." This is misleading because negative findings cannot be supported in the absence of detection surveys such as those recommended by CDFW (2012). It does not matter that Monk & Associates found no evidence of burrowing owls because they did not perform the appropriate detection surveys.

Figure 1. Proportion of revisited burrows that were either actively or inactively used by ground squirrels and where burrowing owls attempted re-nesting in 2019 declined quickly with years since the previous nest attempt.



The IS (page 33) claims that the loss of foraging habitat of northern harrier is "not considered substantial." However, the IS provides no evidence in support this conclusion. By what measure is the loss of foraging habitat judged substantial? Further, this conclusion neglects the possibility that the site is used by northern harrier for nesting as well as foraging. I saw a northern harrier fly over the site – the same site where the IS also says northern harriers would be unlikely to occur. The IS's analysis of potential impacts to northern harrier is flawed.

Table 2. Species reported on eBird (https://eBird.org) or iNaturalist on or near the proposed project site, where those in bold font were also seen on or near the site by myself or Monk & Associates (2020).

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Western pond turtle	*Actinemys marmorata*	SSC	None	Nearby
Pallid bat	*Antrozous pallidus*	SSC, WBWG H		Nearby
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG H		Nearby
Western red bat	*Lasiurus blossevillii*	SSC, WBWG H		In region
Fringed myotis	*Myotis thysanodes*	SSC, WBWG H		In region
Yuma myotis	*Myotis yumanensis*	SSC, WBWG LM		In region
Long-eared myotis	*Myotis evotis*	WBWG M		In region
Small-footed myotis	*Myotis cililabrum*	WBWG M		In region
American badger	*Taxidea taxus*	SSC		In region
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	TWL		Nearby
Redhead	*Aythya americana*	SSC2		Very close
American white pelican	*Pelecanus erythrorhynchos*	SSC1		Very close
Double-crested cormorant	*Phalacrocorax auritus*	TWL		Very close
White-faced ibis	*Plegadis chihi*	TWL		Very close
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC3		Very close
Marbled godwit	*Limosa fedua*	BCC		Very close
Snowy plover	*Charadrius alexandrinus*	SSC3		Very close
Long-billed curlew	*Numenius americanus*	BCC, TWL		Very close
Whimbrel	*Numenius phaeopus*	BCC		Very close
California gull	*Larus californicus*	TWL		Very close
Caspian tern	*Hydroprogne caspia*	TWL		Very close
Black tern	*Chlidonias niger*	SSC2		Nearby
California least tern	*Sterna antillarum browni*	FE, CE		Very close
Turkey vulture	*Cathartes aura*	FGC 3503.5		Very close
Osprey	*Pandion haliaetus*	TWL, FGC 3503.5		Very close
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE		Very close
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP		Very close

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5		Very close
Rough-legged hawk	*Buteo regalis*	FGC 3503.5		Nearby
Ferruginous hawk	*Buteo regalis*	TWL, FGC 3503.5	None	Very close
Swainson's hawk	*Buteo swainsoni*	BCC, CT, FGC 3503.5	Unlikely	Very close
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5		Very close
Sharp-shinned hawk	*Accipiter striatus*	TWL, FGC 3503.5		Very close
Cooper's hawk	*Accipiter cooperi*	TWL, FGC 3503.5		Very close
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	Unlikely	Very close
White-tailed kite	*Elanus leucurus*	CFP, TWL		Very close
American kestrel	*Falco sparverius*	FGC 3503.5		Very close
Merlin	*Falco columbarius*	TWL, FGC 3503.5		Very close
Prairie falcon	*Falco mexicanus*	TWL, FGC 3503.5		Very close
Peregrine falcon	*Falco peregrinus*	CFP, FGC 3503.5	None	Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2	Unlikely	Nearby
Great-horned owl	*Bubo virginianus*	FGC 3503.5		Very close
Long-eared owl	*Asio otus*	SSC3, FGC 3503.5		Nearby
Short-eared owl	*Asio flammeus*	SSC3, FGC 3503.5		Nearby
Barn owl	*Tyto alba*	FGC 3503.5,		Very close
Western screech-owl	*Megascops kennicotti*	FGC 3503.5		Nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
Lewis's woodpecker	*Melanerpes lewis*	BCC		Nearby
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Vaux's swift	*Chaetura vauxi*	SCC2		Very close
Willow flycatcher	*Empidonax traillii extimus*	FE, CE		Very close
Olive-sided flycatcher	*Contopus cooperi*	SSC2		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2		Very close
Horned lark	*Eremophila alpestris*	TWL		Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		Nearby
Purple martin	*Progne subis*	SSC2		Nearby

Species	Scientific name	Status[1]	Occurrence likelihood	
			Monk & Associates	eBird or iNaturalist
Yellow warbler	*Setophaga petechia*	SSC2		Very close
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3	None	Very close
Savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2		Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	None	Very close
Summer tanager	*Piranga rubra*	SSC1		Very close
Tricolored blackbird	*Agelaius tricolor*	CT	None	Very close
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close

[1] Listed as FT & FE = federal threatened and endangered, BGEPA = Bald and Golden Eagle Protection Act, BCC = U.S. Fish and Wildlife Service Bird species of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CT & CE = California threatened and endangered, CFP = California Fully Protected (FGC Code 3511), FGC 3503.5 = California Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008), WBWG = Western Bat Working Group with low, medium and high conservation priorities.

The IS (page 34) is also wrong in its conclusion of no impact to bats. The argument is that the site "...contains no roosting or nesting habitat because it has no trees, rock faces, structures, or cliffs." Trees surround the site. Bats undoubtedly roost in those trees. The site supports those roosts by providing forage. Night roosts of pallid bat, in particular, are typically located close to forage on open ground.

By relying solely on CNDDB for determining occurrence likelihoods, the IS overlooks occurrences reported in other data bases. For example, whereas nearest CNDDB records have Swainson's hawks and burrowing owls 2.5 and 2.6 miles away from the project site, eBird records show these species much closer. According to eBird, a Swainson's hawk was seen only 0.2 miles from the project site. Given the space used by Swainson's hawks, there should be no doubt that a Swainson's hawk 0.2 miles away would have also used the project site. Burrowing owls were seen by multiple observers only 0.2 miles from the project site. One of the observers is a good bird observer with whom I have worked for many years; his observation was as trustworthy.

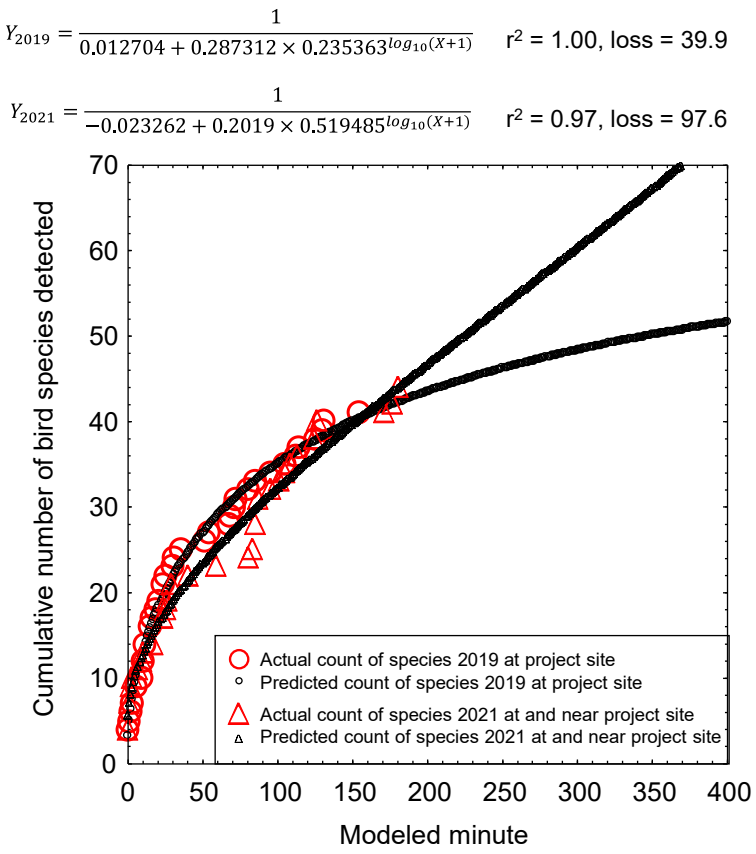
Relying on CNDDB records, Monk & Associates (2020) claim the nearest northern harrier location was 2.7 miles away. However, not only did I see a northern harrier fly over the project site, but multiple other observers reported northern harrier sightings nearby.

Additional special-status species neglected by Monk & Associates include peregrine falcon and loggerhead shrike, both of which have been reported multiple times on eBird as having been seen near the project site. I saw a peregrine falcon right next to the site. And there are multiple others in addition to these species. I assert that Monk & Associates (2020) inadequately assessed potential project impacts to wildlife. Relying on CNDDB was inappropriate and inadequate. And after making multiple site visits, the number of wildlife species detected by Monk & Associates numbered only 25, whereas mine numbered more than twice as many.

That the environmental setting has yet to be accurately characterized is further supported by known trends in species detections with survey effort. Figure 2 shows my counts of species detected at the site with time into each of my two surveys – it simply shows the cumulative number of species detected with increasing survey time. Just as I have seen for many other survey efforts, nonlinear regression models fit the data very well, explaining 97% of the variation in the data in 2021 and nearly 100% of the variation in the data in 2019, and for both surveys they showed progress towards the inevitable asymptotes of the nonlinear prediction curve where the same survey methods will eventually detect no more species. I note that the 2019 count of species was specific to the project site, whereas my 2021 count of species included areas around the project site. One model shows that had I continued doing what I was doing on 23 January 2019, I would have eventually detected about 55 species of terrestrial vertebrate wildlife on the project site, or more than double the number detected by Monk & Associates (2020). The other model shows that had I continued doing what I was doing on 5 January 2021, I would eventually have detected hundreds of terrestrial vertebrate

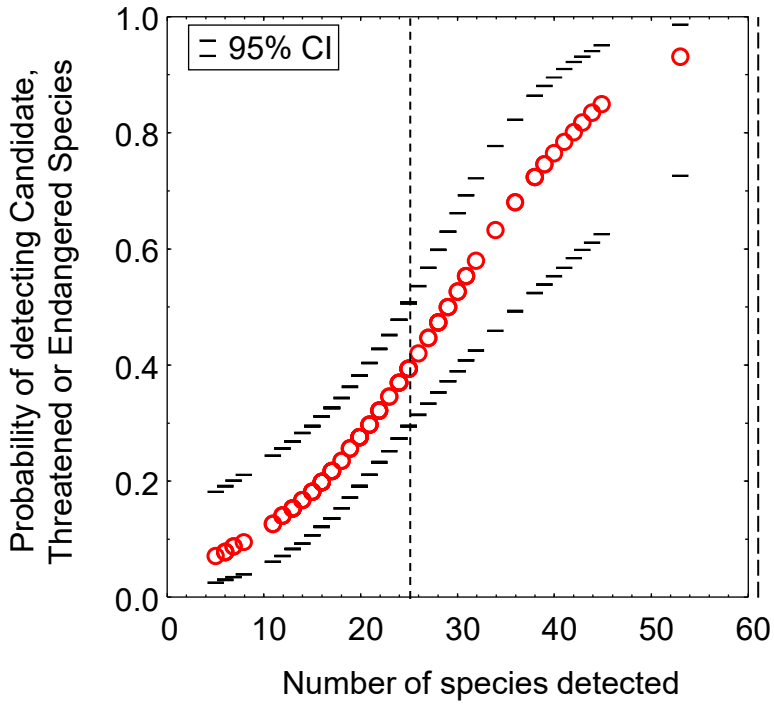
wildlife in the project area, confirming the wisdom of Audubon Society's designation of an IBA there.

Figure 2. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scan on 23 January 2019 and 5 January 2021. Note that the relationships would differ if the surveys were based on another method, another time of day, or during another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.



The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by the fact that special-status species tend to be rarer than common species. Special-status species also tend to be more cryptic, fossorial, or active during nocturnal periods when general biological surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of increasing number of vertebrate wildlife species detected (Figure 3). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As demonstrated in Figure 2, the number of species detected is a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected. The survey effort committed to the project site by City of American Canyon carried a 40% chance of detecting a listed species, whereas the effort committed by myself carried a nearly 100% chance of detecting a listed species. In fact, I detected 2 listed species, one on site and one just offsite, so my model prediction was accurate. Monk & Associates beat the odds by detecting white-tailed kite – a California Fully Protected species. Had we surveyed longer or using different methods, we would have detected more listed species. A fair argument can be made for the need to prepare an EIR to more comprehensive and more carefully analyze baseline conditions and potential project impacts to wildlife.

Figure 3. Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 106 site visits throughout California. The vertical short-dashed line represents the number of species detected by Monk & Associates (2020), whereas the vertical short-dashed line depicts the number I detected between two site visits.



Habitat Loss

A recent study documented a 29% decline in overall bird abundance across North America over the last 48 years – a decline driven by multiple factors including habitat loss and habitat fragmentation (Rosenberg et al. 2019). Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity. For example, studies in grassland/wetland/woodland complexes documented total bird nesting densities of 32.8 nests per acre (Young 1948) and 35.8 nests per acre (Yahner 1982), averaged at 34.3 nests per acre. Assuming the project site in the absence of wetlands immediately on site, would support a third of the total nesting density measured by Young (1948) and Yahner (1982), a density of 11.4 nests per acre multiplied against the project's take of 11.23 acres would predict the loss of 128 bird nest sites. After 100 years and further assuming an average bird generation time of 5 years, and assuming an average 2.9 chicks fledged per nest (Young 1948), the lost capacity of both breeders and annual fledgling production would total 42,240 {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years per generation)}. These predicted losses would be substantial, and would qualify as significant impacts that have yet to be addressed by City of American Canyon. A fair argument can be made for the need to prepare an EIR to analyze the impacts of habitat destruction.

Habitat fragmentation, which is the reduction of connectivity of remaining habitat patches on a landscape, can further diminish the productive capacity of a site

(Smallwood 2015). Habitat fragmentation is one of the cumulative effects of this project that needs to be analyzed in an EIR.

Wildlife Movement

The IS accurately defines the concept of a wildlife corridor as a connector between already-fragmented habitat patches (see Smallwood 2015), but then inaccurately asserts that significant impacts to wildlife movement in a region can only happen with the interference of an existing wildlife corridor. One problem with this assertion is that a finding of significance would first require that habitat in the project area had already been fragmented and then a corridor constructed to reduce the effects of fragmentation. The assertion precludes a finding of significance where habitat has not been fragmented and no corridor constructed. The IS asserts a false CEQA standard for determining whether a project would interfere with wildlife movement in the region.

The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The existence of a wildlife corridor is unnecessary for a project to interfere with wildlife movement in the region.

The IS (page 35) also speculates that the site's history of disturbance in the form of tree removal somehow precludes any possible project interference with wildlife movement. This speculation, however, is vulnerable to abuse, because it could be extended to any earlier site condition when terrestrial wildlife might not have been able to move across it, such as when it might have been under the sea. The site's use for movement by wildlife needs to be analyzed based on conditions existing at the time of the environmental review, consistent with CEQA's standard.

The IS (page 35) further speculates that wildlife movement in the region is prevented by "...continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south." Paint ball facilities do not prevent wildlife movement. I have recorded many wildlife observations at a paint ball facility near where I live, and have noticed no effect on bird activity. Northern harriers, white-tailed kites, American kestrels, Swanson's hawks, and many other species perch on site, using it for foraging, territory patrol and stopover habitat. The IS cites no evidence that paintball facilities interfere with wildlife movement or would do so on adjacent properties.

The IS (page 35) speculates even further by claiming, "The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife..." But without evidence that a eucalyptus grove is more valuable to wildlife movement, this claim is nothing more than

convenient speculation. I can agree that the marsh would be more valuable for wetland-adapted species, but not for all species.

The project would obviously interfere with wildlife movement in the region. Having studied millions of GPS telemetry data from 35 golden eagles tracked since 2013, I noticed a strong avoidance of anthropogenic structures such as warehouses and residential neighborhoods. I assume bald eagles express a similar level of avoidance. If this is assumption is true, then the bald eagle I saw fly over the site in 2019 might not do so again since the SDG Commerce 330 warehouse was built. Many other species would continue to fly over the project site despite the neighboring warehouse. I have recorded many observations of animals moving across fields next to warehouses, including red-tailed hawks, peregrine falcons, and many others. A fair argument can be made for the need to prepare an EIR to analyze the project's impacts on wildlife movement in the region.

Traffic Impacts on Wildlife

According to City of American Canyon (2020:88), the project would generate 367 daily vehicle trips. No analysis is provided in the IS of this traffic's impacts to wildlife in the area. The traffic would effectively extend the project's footprint well beyond the floor space, as trucks and cars traveling to and from the warehouse will drive over roads and highways that are also crossed by wildlife. On 23 January 2019 I saw two road-killed striped skunks on American Canyon Drive, and on 5 January 2021 I saw a road-killed striped skunk and an opossum killed on the same road – a road likely to be used by trucks and cars servicing the project. California red-legged frogs (*Rana draytonii*), which Monk & Associates (2020) concluded will suffer no impacts because CNDDB records are lacking west of Highway 29, will cross roads used by vehicles servicing the project. A shortfall of the IS is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including California red-legged frog, California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*) that, regardless of whether they live on the site, must cross roadways that will experience increased traffic volume caused by this project.

Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

In a recent study of traffic-caused wildlife mortality, investigators found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches along a 2.5 mile stretch of Vasco Road in Contra Costa County, California (Mendelsohn et al. 2009). Using carcass detection trials performed on land immediately adjacent to the traffic mortality study (Brown et al. 2016) to adjust the found fatalities for the proportion of fatalities not found due to scavenger removal and searcher error, the

estimated traffic-caused fatalities was 12,187. This fatality estimate translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads to and from the project site would similarly result in intense local impacts on wildlife.

Wildlife roadkill is not randomly distributed, so can be predicted. Causal factors include types of roadway, human population density, and temperature (Chen and Wu 2014), as well as time of day and adjacency and extent of vegetation cover (Chen and Wu 2014, Bartonička et al. 2018), and intersections with streams and riparian vegetation (Bartonička et al. 2018). For example, species of mammalian Carnivora are killed by vehicle traffic within 0.1 miles of stream crossings >40 times other than expected (K. S. Smallwood, 1989-2018 unpublished data). These factors also point the way toward mitigation measures, which should be formulated in an EIR.

Pest Control and Target and Non-target Mortality

As I understand it, the proposed project would store and distribute wine. The Initial Study did not mention the likelihood that pest control would be needed to protect stored products. Because multiple businesses advertise their services on the internet for controlling stored products pests, perching birds, and rodent and other mammal pests within and around warehousing and food processing buildings (e.g., https://www.catseyepest.com/pest-control/ commercial-pest-control/warehouse-and-distribution-facilities, http://advancedipm .com /commercial/ commercial-pest-management-for-warehouses-and-distribution-centers/, https://www.terminix.com/blog/commercial/how-pests-impact-warehouses/, I assume pest control would be necessary. These types of businesses advertise exclusion strategies, as well as fumigation for stored products pests, glue boards for rodents, and 'other measures.' Having a background in animal damage control, I am familiar with 'other methods,' including the use of anticoagulant poisons and acute toxicants such as strychnine. In my experience, the use of toxicants can harm non-target wildlife through direct exposure and indirect exposure via predation and scavenging (also see Gabriel et al. 2012). In other words, pest control involving toxicants can result in the spread of toxicants beyond the project site.

I reviewed the scientific literature on animal damage control associated with distribution warehousing. Little to no serious scientific attention has been directed toward animal damage control in these settings. That businesses are advertising their animal damage control services in these settings indicates either an awareness or an assumption that damage from wildlife is an issue. It is important, therefore, that an EIR be prepared to address the potential impacts of animal damage control associated with this proposed project. Industry practices related to animal damage control should be detailed, as well as anticipated practices at this project. Potential impacts caused by these practices need to be assessed, and suitable mitigation measures formulated along with assurances that they will be implemented.

Cumulative Impacts

City of American Canyon (2019:97) concludes the project will result in no cumulative impacts because only one other new project is planned. The cumulative impacts analysis is flawed by considering only the single new project, and none of those under construction or already built. Had City of American Canyon listed all projects -- past, present and reasonably foreseeable projects -- then the need for a serious cumulative effects analysis would emerge as obvious. City of American Canyon has sprawled across nearly all of the available spaces between neighbor cities, hills to the east and San Pablo Bay to the west, leaving a fragmented mosaic of fields and woodlots as stop-over habitat for use by birds and bats. The project would also obviously be seen as adding more traffic extending the project's and the region's impacts far beyond their respective footprints.

When it comes to wildlife, cumulative effects can often be interpreted as effects on the numerical capacity (Smallwood 2015), breeding success, genetic diversity, or other population performance metrics expressed at the regional scale. In the case of migrating birds, the project's cumulative effects could be measured as numerical reductions of breeding birds at far-off breeding sites, as migrating adults and next-year's recruits lose access to stop-over habitat. These effects could be predicted and measured. If birds were to lose all stop-over habitat across City of American Canyon, then the numerical capacity of migration might decline for multiple species. Unfortunately, little is known about stop-over habitat requirements, such as how often migrants lose their lives for lack of stop-over habitat. Nevertheless, crude assessments are possible and imperative.

An EIR needs to be prepared to appropriately analyze the project's contribution to cumulative impacts. It also needs to present mitigation measures to minimize impacts, or to compensate for cumulative impacts. An EIR should assess the combined impacts of all projects, including this one. An EIR is needed to formulate appropriate mitigation for cumulative traffic-caused wildlife mortality.

MITIGATION MEASURES

MM BIO-1 I concur that preconstruction surveys are needed for burrowing owls. However, a preconstruction survey cannot serve as a surrogate for detection surveys. Preconstruction surveys have a specific purpose, which is take-avoidance salvage of readily detectable individuals in immediate jeopardy of harm just prior to construction. The purposes of detection surveys are to detect the species if it is present, to support determinations of absence, and to inform the CEQA review, preconstruction surveys about where the species is likely to be found on the project site, and the formulation of mitigation. To be consistent with the CDFW (2012) guidelines on burrowing owl mitigation, detection surveys are needed for burrowing owls and they need to be performed according to the guidelines. After the detection surveys are completed, then an impacts analysis is needed, and so is the formulation of mitigation measures, which might include compensatory mitigation. Based on the outcome of

detection surveys, an EIR should be prepared to adequately address impacts and mitigation related to burrowing owls.

MM BIO-2 I concur that preconstruction surveys are needed for Swainson's hawks. However, detection surveys are also needed. It is already established on eBird that Swainson's hawks are in the area and that at minimum the project would remove foraging habitat. This impact needs to be analyzed in an EIR and mitigated.

MM BIO-3 I concur that preconstruction surveys are needed for nesting raptors. However, detection surveys are needed first. Preconstruction surveys are intended to buffer or salvage nests immediately threatened by the tractor blade, but they do not inform of how many nests will be taken. The magnitude of the impact must be known or estimated in order to formulate appropriate minimization and compensatory mitigation. Detection surveys are needed to inform an EIR, which is needed to analyze potential impacts to nesting raptors.

MM BIO-4 I concur that preconstruction surveys are needed for nesting passerine birds. However, detection surveys are needed first. The same issues apply here as those I raised in MM BIO-1 through MM BIO-3. I will add that additional bird species might nest on the project site other than raptors and passerines. Killdeer might nest there, in addition to others. Detection surveys are needed for nests of all species protected by both the California and federal Migratory Bird Treaty Acts.

Additional Comments on Mitigation

The IS provides no mitigation for adverse impacts on regional movement of wildlife, nor for cumulative impacts on wildlife or even for direct impacts. At a minimum, an EIR needs to include substantial compensatory mitigation in response to the project's impacts on habitat loss and wildlife movement, including impacts to birds using the site as stop-over or staging during migration.

Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding of research to identify fatality patterns and effective impact reduction measures.

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by the increased trip generation of cars and trucks. Many animals need treatment caused by collision injuries and an increasing number appear to be injured by the turbulence of passing trucks.

Mitigation measures are also needed for management of vertebrate pests on the project site. The project site is adjacent to Clark Ranch and to Napa River and Bay Trails, so any pest control on site needs to be prevented from spilling over into designated open spaces.

The IS (page 11) says, "The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation…" I suggest the building, if constructed, should include PV solar panels to the extent the roof can sustain. The project would use electrical energy, which if not generated on site will likely come from renewable energy sources. Utility-scale renewable energy is known to kill many members of many species of birds and bats. Onsite generation would kill many fewer birds and bats, if any (no fatalities have been documented to date as a result of collisions with rooftop solar).

Thank you for your attention,



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Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 665 professional publications, including:
- 88 peer reviewed publications
- 24 in non-reviewed proceedings
- 551 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

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- Oak Valley Town Center EIR Addendum, Calimesa (2020; 23);

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- Stockton Avenue Hotel and Condominiums Project Tiering to EIR, San Jose (2020; 19);
- Cityline Sub-block 3 South Staff Report, Sunyvale (2020; 22);
- Station East Residential/Mixed Use EIR, Union City (2020; 21);
- Multi-Sport Complex & Southeast Industrial Annexation Suppl. EIR, Elk Grove (2020; 24);
- Sun Lakes Village North EIR Amendment 5, Banning, Riverside County (2020; 27);
- 2nd comments on 1296 Lawrence Station Road, Sunnyvale (2020; 4);
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- Mesa Wind Project EA, Desert Hot Springs (2020; 31);
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- Replies on Wister Solar Energy Facility EIR, Imperial County (2020; 12);
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- Declaration on DDG Visalia Warehouse project (2020; 5);
- Terraces of Lafayette EIR Addendum (2020; 24);
- AMG Industrial Annex IS/MND, Los Banos (2020; 15);
- Replies to responses on Casmalia and Linden Warehouse (2020; 15);
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- Steeno Warehouse IS/MND, Hesperia (2020; 19);
- UCSF Comprehensive Parnassus Heights Plan EIR (2020; 24);
- North Pointe Business Center MND, Fresno (2020; 14);
- Casmalia and Linden Warehouse IS, Fontana (2020; 15);
- Rubidoux Commerce Center Project IS/MND, Jurupa Valley (2020; 27);
- Haun and Holland Mixed Use Center MND, Menifee (2020; 23);
- First Industrial Logistics Center II, Moreno Valley IS/MND (2020; 23);
- GLP Store Warehouse Project Staff Report (2020; 15);
- Replies on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 29);
- 2nd comments on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 34);
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- Levine-Fricke Softball Field Improvement Addendum, UC Berkeley (2020; 16);
- Greenlaw Partners Warehouse and Distribution Center Staff Report, Palmdale (2020; 14);

- Humboldt Wind Energy Project DEIR (2019; 25);
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- 1700 Dell Avenue Office Project, Campbell (2019, 28);
- 1180 Main Street Office Project MND, Redwood City (2019; 19:
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- Park & Broadway Design Review, San Diego (2019; 19);
- Pinnacle Pacific Heights Design Review, San Diego (2019; 19);
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- Preserve at Torrey Highlands EIR, San Diego (2019; 24);
- Santana West Project EIR Addendum, San Jose (2019; 18);
- The Ranch at Eastvale EIR Addendum, Riverside County (2020; 19);
- Hageman Warehouse IS/MND, Bakersfield (2019; 13);
- Oakley Logistics Center EIR, Antioch (2019; 22);
- 27 South First Street IS, San Jose (2019; 23);
- 2nd replies on Times Mirror Square Project EIR, Los Angeles (2020; 11);
- Replies on Times Mirror Square Project EIR, Los Angeles (2020; 13);
- Times Mirror Square Project EIR, Los Angeles (2019; 18);
- East Monte Vista & Aviator General Plan Amend EIR Addendum, Vacaville (2019; 22);
- Hillcrest LRDP EIR, La Jolla (2019; 36);
- 555 Portola Road CUP, Portola Valley (2019; 11);
- Johnson Drive Economic Development Zone SEIR, Pleasanton (2019; 27);
- 1750 Broadway Project CEQA Exemption, Oakland (2019; 19);
- Mor Furniture Project MND, Murietta Hot Springs (2019; 27);
- Harbor View Project EIR, Redwood City (2019; 26);
- Visalia Logistics Center (2019; 13);
- Cordelia Industrial Buildings MND (2019; 14);
- Scheu Distribution Center IS/ND, Rancho Cucamonga (2019; 13);
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- Olympic Holdings Inland Center Warehouse Project MND, Rancho Cucamonga (2019; 14);
- Replies to responses on Lawrence Equipment Industrial Warehouse, Banning (2019; 19);
- PARS Global Storage MND, Murietta (2019; 13);
- Slover Warehouse EIR Addendum, Fontana (2019; 16);
- Seefried Warehouse Project IS/MND, Lathrop (2019; 19)
- World Logistics Center Site Visit, Moreno Valley (2019; 19);
- Merced Landfill Gas-To-Energy Project IS/MND (2019; 12);
- West Village Expansion FEIR, UC Davis (2019; 11);
- Site visit, Doheny Ocean Desalination EIR, Dana Point (2019; 11);
- Replies to responses on Avalon West Valley Expansion EIR, San Jose (2019; 10);
- Avalon West Valley Expansion EIR, San Jose (2019; 22);
- Sunroad – Otay 50 EIR Addendum, San Diego (2019; 26);

- Del Rey Pointe Residential Project IS/MND, Los Angeles (2019; 34);
- 1 AMD Redevelopment EIR, Sunnyvale (2019; 22);
- Lawrence Equipment Industrial Warehouse IS/MND, Banning (2019; 14);
- SDG Commerce 330 Warehouse IS, American Canyon (2019; 21);
- PAMA Business Center IS/MND, Moreno Valley (2019; 23);
- Cupertino Village Hotel IS (2019; 24);
- Lake House IS/ND, Lodi (2019; 33);
- Campo Wind Project DEIS, San Diego County (DEIS, (2019; 14);
- Stirling Warehouse MND site visit, Victorville (2019; 7);
- Green Valley II Mixed-Use Project EIR, Fairfield (2019; 36);
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- LDK Warehouse MND, Vacaville (2018; 30);
- Gateway Crossings FEIR, Santa Clara (2018; 23);
- South Hayward Development IS/MND (2018; 9);
- CBU Specific Plan Amendment, Riverside (2018; 27);
- 2nd replies to responses on Dove Hill Road Assisted Living Project MND (2018; 11);
- Replies to responses on Dove Hill Road Assisted Living Project MND (2018; 7);
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- Deer Ridge/Shadow Lakes Golf Course EIR, Brentwood (2018; 21);
- Pyramid Asphalt BLM Finding of No Significance, Imperial County (2018; 22);
- Amáre Apartments IS/MND, Martinez (2018; 15);
- Petaluma Hill Road Cannabis MND, Santa Rosa (2018; 21);
- 2nd comments on Zeiss Innovation Center IS/MND, Dublin (2018: 12);
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- San Bernardino Logistics Center IS (2018; 19);
- CUP2017-16, Costco IS/MND, Clovis (2018; 11);
- Desert Land Ventures Specific Plan EIR, Desert Hot Springs (2018; 18);
- Ventura Hilton IS/MND (2018; 30);
- North of California Street Master Plan Project IS, Mountain View (2018: 11);
- Tamarind Warehouse MND, Fontana (2018; 16);
- Lathrop Gateway Business Park EIR Addendum (2018; 23);
- Centerpointe Commerce Center IS, Moreno Valley (2019; 18);
- Amazon Warehouse Notice of Exemption, Bakersfield (2018; 13);
- CenterPoint Building 3 project Staff Report, Manteca (2018; 23);
- Cessna & Aviator Warehouse IS/MND, Vacaville (2018; 24);
- Napa Airport Corporate Center EIR, American Canyon (2018, 15);
- 800 Opal Warehouse Initial Study, Mentone, San Bernardino County (2018; 18);
- 2695 W. Winton Ave Industrial Project IS, Hayward (2018; 22);
- Trinity Cannabis Cultivation and Manufacturing Facility DEIR, Calexico (2018; 15);
- Shoe Palace Expansion IS/MND, Morgan Hill (2018; 21);
- Newark Warehouse at Morton Salt Plant Staff Report (2018; 15);
- Northlake Specific Plan FEIR "Peer Review", Los Angeles County (2018; 9);
- Replies to responses on Northlake Specific Plan SEIR, Los Angeles County (2018; 13);
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- Pyramid Asphalt IS, Imperial County (Declaration) (2017; 5);
- San Gorgonio Crossings EIR, Riverside County (2017; 22);
- Replies to responses on Jupiter Project IS and MND, Apple Valley (2017; 12);
- Proposed World Logistics Center Mitigation Measures, Moreno Valley (2017, 2019; 12);
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- Central SoMa Plan DEIR (2017; 14);
- Suggested mitigation for trail impacts on northern spotted owl, Marin County (2016; 5);
- Colony Commerce Center Specific Plan DEIR, Ontario (2016; 16);
- Fairway Trails Improvements MND, Marin County (2016; 13);
- Review of Avian-Solar Science Plan (2016; 28);
- Replies on Pyramid Asphalt IS, Imperial County (2016; 5);

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- Santa Anita Warehouse MND, Rancho Cucamonga (2016; 12);
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- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9);
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- Columbia Business Center MND, Riverside (2015; 8);
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- Elkhorn Valley Wind Power Project Impacts, Oregon (2015; 143);
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- Replies on the Addison Wind Energy Project DEIR, Mojave (2014, 15);
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- Seven Mile Hill and Glenrock/Rolling Hills impacts + Addendum, Wyoming (2014; 105);
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- Kingbird Solar Photovoltaic Project EIR, Kern County (2013, 19);
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- Tule Wind project FEIR/FEIS (Declaration) (2013; 31);
- Sunlight Partners LANDPRO Solar Project MND (2013; 11);
- Declaration in opposition to BLM fracking (2013; 5);
- Blythe Energy Project (solar) CEC Staff Assessment (2013;16);
- Rosamond Solar Project EIR Addendum, Kern County (2013; 13);
- Pioneer Green Solar Project EIR, Bakersfield (2013; 13);
- Replies on Soccer Center Solar Project MND (2013; 6);
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- Campo Verde Solar project FEIR, Imperial Valley (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8);
- North Steens Transmission Line FEIS, Oregon (Declaration) (2012; 62);
- Summer Solar and Springtime Solar Projects Ism Lancaster (2012; 8);
- J&J Ranch, 24 Adobe Lane Environmental Review, Orinda (2012; 14);
- Replies on Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 8);
- Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 9);
- Desert Harvest Solar Project EIS, near Joshua Tree (2012; 15);
- Solar Gen 2 Array Project DEIR, El Centro (2012; 16);
- Ocotillo Sol Project EIS, Imperial Valley (2012; 4);
- Beacon Photovoltaic Project DEIR, Kern County (2012; 5);
- Butte Water District 2012 Water Transfer Program IS/MND (2012; 11);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16);
- City of Elk Grove Sphere of Influence EIR (2011; 28);
- Sutter Landing Park Solar Photovoltaic Project MND, Sacramento (2011; 9);

- Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4);
- Ivanpah Solar Electric Generating System (ISEGS) (Declaration) (2011; 9);
- Draft Eagle Conservation Plan Guidance, USFWS (2011; 13);
- Niles Canyon Safety Improvement Project EIR/EA (2011; 16);
- Route 84 Safety Improvement Project (Declaration) (2011; 7);
- Rebuttal on Whistling Ridge Wind Energy Power DEIS, Skamania County, (2010; 6);
- Whistling Ridge Wind Energy Power DEIS, Skamania County, Washington (2010; 41);
- Klickitat County's Decisions on Windy Flats West Wind Energy Project (2010; 17);
- St. John's Church Project DEIR, Orinda (2010; 14);
- Results Radio Zone File #2009-001 IS/MND, Conaway site, Davis (2010; 20);
- Rio del Oro Specific Plan Project FEIR, Rancho Cordova (2010;12);
- Results Radio Zone File #2009-001, Mace Blvd site, Davis (2009; 10);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Second Declaration) (2008; 17);
- Draft 1A Summary Report to CAISO (2008; 10);
- Hilton Manor Project Categorical Exemption, County of Placer (2009; 9);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142);
- Delta Shores Project EIR, south Sacramento (2009; 11 + addendum 2);
- Declaration in Support of Care's Petition to Modify D.07-09-040 (2008; 3);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Declaration) (2008; 16);
- Colusa Generating Station, California Energy Commission PSA (2007; 24);
- Rio del Oro Specific Plan Project Recirculated DEIR, Mather (2008: 66);
- Replies on Regional University Specific Plan EIR, Roseville (2008; 20);
- Regional University Specific Plan EIR, Roseville (2008: 33);
- Clark Precast, LLC's "Sugarland" project, ND, Woodland (2008: 15);
- Cape Wind Project DEIS, Nantucket (2008; 157);
- Yuba Highlands Specific Plan EIR, Spenceville, Yuba County (2006; 37);
- Replies to responses on North Table Mountain MND, Butte County (2006; 5);
- North Table Mountain MND, Butte County (2006; 15);
- Windy Point Wind Farm EIS (2006; 14 and Powerpoint slide replies);
- Shiloh I Wind Power Project EIR, Rio Vista (2005; 18);

- Buena Vista Wind Energy Project NOP, Byron (2004; 15);
- Callahan Estates Subdivision ND, Winters (2004; 11);
- Winters Highlands Subdivision IS/ND (2004; 9);
- Winters Highlands Subdivision IS/ND (2004; 13);
- Creekside Highlands Project, Tract 7270 ND (2004; 21);
- Petition to California Fish and Game Commission to list Burrowing Owl (2003; 10);
- Altamont Pass Wind Resource Area CUP renewals, Alameda County (2003; 41);
- UC Davis Long Range Development Plan: Neighborhood Master Plan (2003; 23);
- Anderson Marketplace Draft Environmental Impact Report (2003; 18);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003; 6);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002; 23);
- Replies on East Altamont Energy Center evidentiary hearing (2002; 9);
- Revised Draft Environmental Impact Report, The Promenade (2002; 7);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002; 3);
- UC Merced -- Declaration (2002; 5);
- Replies on Atwood Ranch Unit III Subdivision FEIR (2003; 22);
- Atwood Ranch Unit III Subdivision EIR (2002; 19);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002; 20);
- Silver Bend Apartments IS/MND, Placer County (2002; 13);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001; 26);
- Colusa County Power Plant IS, Maxwell (2001; 6);
- Dog Park at Catlin Park, Folsom, California (2001; 5);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000; 10);
- Metcalf Energy Center, California Energy Commission FSA (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000; 4);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9).
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Sunset Skyranch Airport Use Permit IS/MND (1999);
- Ballona West Bluffs Project Environmental Impact Report (1999; oral presentation);
- Draft Recovery Plan for Giant Garter Snake (Fed. Reg. 64(176): 49497-49498) (1999; 8);
- Draft Recovery Plan for Arroyo Southwestern Toad (1998);
- Pacific Lumber Co. (Headwaters) HCP & EIR, Fortuna (1998; 28);
- Natomas Basin HCP Permit Amendment, Sacramento (1998);
- San Diego Multi-Species Conservation Program FEIS/FEIR (1997; 10);

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8);
- Covell Village PEIR, Davis (2005; 19);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping (2003; 7.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Dog detections of bat and bird fatalities at wind farms in the Altamont Pass Wind Resource Area. East Bay Regional Park District 2019 Stewardship Seminar, Oakland, California, 13 November 2019.

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat

Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh,

Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19,

2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.

Journal	Journal
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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January 19, 2021

Michael R. Lozeau
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Subject: Comments on SDG Commerce 217 Distribution Center Project (SCH No. 2020120302)

Dear Mr. Lozeau,

We have reviewed the December 2020 Draft Initial Study/Mitigated Negative Declaration ("IS/MND") for the SDG Commerce 217 Distribution Center Project ("Project") located in the City of American Canyon ("City"). The Project proposes to construct a 217,294-SF wine distribution center, including 4,350-SF of office space, as well as 134 vehicle and 21 truck dock parking spaces, on the 10.39-acre site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Incorrect Analysis of Construction Emissions

The Bay Area Air Quality Management District ("BAAQMD") provides significance thresholds to evaluate air pollutant emissions in the form of pounds per day ("lbs/day") and tons per year ("tons/year"). CalEEMod provides three types of output files – winter, summer, and annual. Specifically, the CalEEMod User's Guide states:

"CalEEMod provides a simple platform to calculate both construction emissions and operational emissions from a land use project. It can calculate both the *daily* maximum and *annual* average for criteria pollutants as well as annual greenhouse gas (GHG) emissions" (emphasis added).[1]

While the annual output files provide *annual* emissions in tons/year, both the winter and summer output files provide *daily* emissions estimates in lbs/day. As such, the IS/MND should have relied upon the emissions estimates provided by the Project's summer and winter output files in order to determine the significance of the Project's air quality impact. However, review of the IS/MND and CalEEMod output files, provided in Appendix B-3 to the IS/MND, demonstrates that the emissions estimates purported by the IS/MND are inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files.

Specifically, the IS/MND estimates that the Project would result in construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 13.6-, 24.6-, 1.0-, 0.9-, and 19.5-lbs/day, respectively (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, review of the "SDG Commerce 217 Wine Storage Project" winter output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.64-, 40.55-, 2.05-, 1.88-, and 22.64-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 72).

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1.

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6355	40.5472	22.6449	0.0540	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6355**	**40.5472**	**22.6449**	**0.0540**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

Similarly, review of the "SDG Commerce 217 Wine Storage Project" summer output file demonstrates that the model estimates daily construction-related ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and CO emissions of 155.63-, 40.54-, 2.05-, 1.88-, and 22.55-lbs/day, respectively (see excerpt below) (Appendix B-3, pp. 46).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As you can see in the excerpts above, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. This is incorrect, as CEQA requires disclosure of the full extent of a project's impacts prior to mitigation in order to accurately disclose the severity of an impact. By relying on incorrect and underestimated emissions estimates, the IS/MND's air quality analysis is incorrect, and the subsequent less-than-significant air quality impact conclusion should not be relied upon.

Failure to Identify Significant Air Quality Impact

The IS/MND concludes that the Project would not result in a significant impact due to mitigated construction-related ROG emissions (see excerpt below) (p. 22, Table AQ-1).

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

However, as previously discussed, the emissions estimates purported by the IS/MND are underestimated and inconsistent with the emissions estimates provided by the summer and winter CalEEMod output files. As a result, in order to correctly evaluate the Project's estimated daily emissions based on the BAAQMD threshold in lbs/day, we reviewed the IS/MND's winter CalEEMod output file, which estimates *daily* ROG emissions of approximately 156 lbs/day (see excerpt below) (Appendix B-3, pp. 72).

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2021	155.6296	40.5366	22.5509	0.0553	9.0890	2.0454	11.1344	4.5956	1.8818	6.4774
Maximum	**155.6296**	**40.5366**	**22.5509**	**0.0553**	**9.0890**	**2.0454**	**11.1344**	**4.5956**	**1.8818**	**6.4774**

As the above excerpt demonstrates, the *daily* construction-related ROG emissions estimate provided by the "SDG Commerce 217 Wine Storage Project" winter output file clearly exceeds the BAAQMD threshold of 54 lbs/day, contrary to what is stated in the IS/MND. Thus, the IS/MND's conclusion that the Project's construction-related ROG emissions would result in a less-than-significant air quality impact is incorrect. An EIR should be prepared to adequately evaluate and mitigate the Project's significant construction-related ROG emissions.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 22).[2] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project

[2] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[4]

When reviewing the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reductions to Saturday and Sunday Trip Rates

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default Saturday and Sunday operational vehicle trip rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00

As you can see in the excerpt above, the model assumes the Project's Saturday and Sunday operational vehicle trip rate would be zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Monday Thru Friday Operations" (Appendix B-3, pp. 14, 44, 70). However, the IS/MND fails to mention or substantiate the claim that the Project will only be operational Monday through Friday. Furthermore, the Air Quality Calculations ("AQ Calculations"), provided as Appendix B-2 to the IS/MND, state:

> "It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours *a day* during the peak season" (emphasis added) (Appendix B-2, pp. 10).

As the excerpt above demonstrates, the AQ Calculations fail to specify that Project operations will only occur on weekdays. As such, we cannot verify the revised Saturday and Sunday trip rates. These unsubstantiated reductions present an issue, as CalEEMod uses vehicle trip rates to calculate the

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.
[4] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.
[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

Project's emissions associated with operational motor vehicle emissions.[6] By including unsubstantiated reductions to the Project's Saturday and Sunday operational vehicle trip rates, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Energy Use Values

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes unsubstantiated reductions to the default energy use values (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.62	0.00
tblEnergyUse	NT24E	7.99	0.00
tblEnergyUse	NT24NG	3.06	0.00
tblEnergyUse	T24E	0.14	3.00
tblEnergyUse	T24NG	0.73	0.00

As you can see in the excerpt above, the lighting energy electricity ("LightingElect"), the non-Title 24 electricity energy intensity ("NT24E"), the non-Title 24 natural gas energy intensity ("NT24NG"), and the Title 24 natural gas energy intensity ("T24NG") values were each reduced to 0 kilowatt hours per land use size per year ("KWhr/size/year"). Furthermore, the Title 24 electricity energy intensity ("T24E") was increased to 3 KWhr/size/year. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[7] According to the User Entered Comments and Non-Default Data table, the justification provided for these changes is: "Energy use scaled down from SDG Commerce 330 Project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the AQ Calculations state:

> "CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.
>
> CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices" (pp. 11).

However, these justifications are insufficient. The AQ Calculations cannot claim that "[t]he SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings" without providing sufficient calculations or an adequate source. Similarly, the AQ Calculations cannot simply state that natural gas usage was adjusted to zero without providing an adequate source or additional information. According to the CalEEMod User's Guide:

[6] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 28.
[7] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[8]

Here, however, the IS/MND fails to provide *substantial evidence* for the revised energy use values, and as a result, the changes are unsubstantiated.

These unsubstantiated reductions present an issue, as CalEEMod uses the energy use values to calculate the Project's emissions associated with building electricity and non-hearth natural gas usage.[9] By including unsubstantiated changes to the Project's energy use values, the model may underestimate the Project's energy-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Solid Waste Generation Rate

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes a manual reduction to the Project's default solid generation rate (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	204.25	2.00

As you can see in the excerpt above, the solid waste generation rate is decreased by approximately 99%, from the default value of 204.25- to 2.00-tons per year ("tons/year"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "minimal solid waste generated" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon" (p. 100).

However, these justifications are insufficient for two reasons. First, while the IS/MND indicates that "[t]he warehouses project would produce small quantities solid waste," the IS/MND fails to provide an estimate of how much solid waste the warehouses would produce (p. 100). Second, the IS/MND fails to mention or provide a source for the 99% reduction to the solid waste generation rate. As such, we cannot verify the revised solid waste generation rate.

This unsubstantiated reduction presents an issue, as CalEEMod uses the solid waste generation rates to calculate the Project's operation greenhouse gas ("GHG") emissions associated with the disposal of solid

[8] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.
[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43
[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

waste into landfills.[11] Thus, by including an unsubstantiated reduction to the Project's solid waste generation rate, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Indoor Water Use Rate

Review of the CalEEMod output files demonstrates the "SDG Commerce 217 Wine Storage Project" model includes manual changes to the default indoor and outdoor water use rates (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblWater	IndoorWaterUseRate	50,248,312.50	768.00
tblWater	OutdoorWaterUseRate	0.00	9,341.00

As you can see in the excerpt above, the indoor water use rate was decreased by nearly 100%, from the default value of 50,248,312.50- to 768-gallons per year ("gpy"), while the outdoor water use rate was increased by 9,341 gpy. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Water use scaled down from SDG Commerce 330 project" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "[T]he proposed project is estimated to have an average potable *water daily demand of 142 gallons/day (gpd)*, and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. *In addition, it will use about 541 gpd of recycled water*" (emphasis added) (p. 100).

As the above excerpt demonstrates, the Project is estimated to require an average of 142 gallons per day ("gpd") of potable water and 541 gpd of recycled water, resulting in a total daily water demand of 683 gallons per day ("gpd"),[13] or 249,295 gpy.[14] Thus, the model underestimates the Project's total daily water demand by approximately 239,186 gpy.[15] As a result, the indoor and outdoor water use rates inputted into the model are underestimated and inconsistent with the information provided by the IS/MND.

This underestimation presents an issue, as CalEEMod uses the water use rates to calculate the Project's GHG emissions associated with the supply and treatment of water.[16] Thus, by including underestimated

[11] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 46.
[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[13] Calculated by: (142 gallons per day) + (541 recycled gallons per day) = 683 total gpd.
[14] Calculated by: (683 gallons per day) * (365 days) = 249,295 gallons per year.
[15] (249,295 gallons per year) – (768 indoor gallons per year) – (9,341 outdoor gallons per year) = 239,186 gallons per year.
[16] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 44-45.

indoor and outdoor water use rates, the model underestimates the Project's operational emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "SDG Commerce 217 Wine Storage Project" model includes the following construction-related mitigation measures: "Water Exposed Area" and "Reduce Vehicle Speed on Unpaved Roads" (see excerpt below) (Appendix B-3, pp. 21, 51, 77).

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Furthermore, the model includes a 15 miles per hour ("MPH") vehicle speed (see excerpt below) (Appendix B-3, pp. 15, 45, 71).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[17] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "BAAQMD basic fugitive dust measures" (Appendix B-3, pp. 14, 44, 70). Furthermore, the IS/MND states:

> "The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
> - All haul trucks transporting soil, sand, or other loose material off site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
> - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
> - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
> - A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency

[17] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

contact information shall also be visible to ensure compliance with applicable regulations…

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***" (p. 23).

However, these justifications are insufficient for three reasons.

First, simply because the IS/MND states the Project would implement the BAAQMD's best management practices ("BMPs") does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[18]

As you can see in the excerpt above, mitigation measures "are not part of the original project design" and are intended to go "above-and-beyond" existing regulatory requirements. As such, the inclusion of these measures, based on the Project's compliance with the BAAQMD's BMPs, is unsubstantiated.

Second, regarding these BMPs, BAAQMD guidance states:

> "For fugitive dust emissions, staff *recommends* following the current best management practices approach which has been a pragmatic and effective approach to the control of fugitive dust emissions" (emphasis added).[19]

As you can see in the excerpt above, while these BMPs are recommended, they are not explicitly required by the BAAQMD. As a result, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site.

Third, AEP guidance states:

> "While not 'mitigation', a good practice is *to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP)*. Often the

[18] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.
[19] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-47.

> MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, *it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact*" (emphasis added).[20]

As you can see in the excerpts above, *project design features are not mitigation measures and may be eliminated from the Project's design*. Thus, as the above-mentioned construction-related mitigation measures are not *formally* included as mitigation measures, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the above-mentioned construction-related mitigation measures is incorrect, and the model should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to determine the construction-related and operational emissions associated with the Project, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/MND. In our updated model, we omitted the unsubstantiated changes to the Saturday and Sunday operational vehicle trip rates, energy use values, and solid waste generation rates; corrected the indoor and outdoor water use rates; and excluded the unsubstantiated construction-related mitigation measures. Our updated analysis demonstrates that the NO_x emissions associated with Project construction exceed the 54-lbs/day threshold set by the BAAQMD, as referenced by Appendix B to the IS/MND (see table below) (Appendix B-1, pp. 7).

Construction Model	**NO_X**
SWAPE	61.54
IS/MND	40.55
% Increase	52%
BAAQMD Regional Threshold (lbs/day)	**54**
Threshold Exceeded?	***Yes***

As you can see in the excerpt above, when modeled correctly, the Project's construction-related NO_x emissions increase by approximately 52% and exceed the BAAQMD significance threshold. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/MND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

[20] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the proposed Project would result in a less-than-significant health risk impact, without conducting a quantified construction or operational health risk assessment ("HRA") (p. 26). Specifically, the IS/MND states:

> "Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD" (p. 26).

Furthermore, the IS/MND states:

> "A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation" (p. 26).

Finally, the IS/MND concludes:

> "The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***" (p. 26).

However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the IS/MND's claim that health risk impacts would be less than significant, because construction activities would be located approximately 1,500 feet from the nearest school, is incorrect. According to BAAQMD guidelines, "BAAQMD recommends that all receptors located within a 1,000 foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks or hazards from the proposed new source."[21] Here, the IS/MND states that there is "one residence about 1,000 feet east of the site" (p. 26). Moreover, further review of IS/MND demonstrates that the Project's borrow pit and stockpile hauling area is only 500 feet from the nearest residence (see excerpt below) (p. 77, Table Noise-4).

[21] "Assessing and Mitigating Local Community Risk and Hazard Impacts." BAAQMD, May 2011, *available at:* https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx, p. 5-7.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

As you can see in the excerpt above, the nearest sensitive receptor is only 500 feet from the Project. As such, pursuant to BAAQMD guidelines, the IS/MND should have prepared a quantified HRA evaluating the potential health risk impacts posed to nearby sensitive receptors.

Second, the IS/MND makes the qualitative claims that an HRA prepared for the SDG 330 project, which is "a larger project generating more vehicle trips than the proposed project," found a less-than-significant health risk impact, and "TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site" (p. 26). However, these qualitative claims are insufficient in justifying the omission of a construction and operational HRA. Simply because an HRA was prepared for a completely different project that found less-than-significant health risk impacts, does not guarantee that the health risk impacts posed by the proposed Project would be less than significant. Rather, construction of the Project will produce emissions of diesel particulate matter ("DPM"), a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 9.5 months (IS/MND, p. 12). Furthermore, the IS/MND indicates that Project operation would generate 367 daily weekday vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 45). As such, without making a reasonable effort to connect the Project's construction-related and operational TAC emissions and the potential health risks posed to nearby receptors, the IS/MND should not conclude that the Project's TAC emissions would be less than significant.

Third, by failing to prepare a construction HRA, the Project is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California. OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015.[22] This guidance document describes the types of projects that warrant the preparation of an HRA. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[23] As the Project's proposed 9.5-month construction duration vastly exceeds the 2-month requirement set forth by OEHHA, it is clear that the

[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html.
[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18.

Project meets the threshold requiring a quantified HRA under OEHHA guidance. Thus, we recommend that health risk impacts from Project construction be evaluated in an EIR, per OEHHA guidelines, in order to determine the nature and extent of the Project's health risk impacts.

Fourth, by failing to prepare an operational HRA, the Project is inconsistent with the most recent guidance published by OEHHA. Specifically, the OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[24] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent state health risk policies, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Fifth, by claiming that the Project would result in a less-than-significant health risk impact without conducting a quantified construction or operational HRA, the IS/MND fails to compare the Project's estimated excess cancer risk to the BAAQMD's specific numeric threshold of 10 in one million, as referenced by the IS/MND (p. 26).[25] Thus, the IS/MND cannot conclude that Project construction and operation would result in a less-than-significant health risk impact without quantifying the resulting cancer risk to compare to the proper threshold. As a result, the IS/MND's less-than-significant health risk impact conclusion should not be relied upon.

Screening-Level Analysis Demonstrates Significant Impacts

In an effort to demonstrate the potential health risk impacts posed by Project construction and operation to nearby, existing sensitive receptors utilizing site-specific emissions estimates, we prepared a screening-level HRA. The results of our assessment, as described below, demonstrate that the proposed Project may result in a significant impact not previously identified or addressed by the IS/MND.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the

[24] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

[25] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

[26] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

OEHHA[27] and the California Air Pollution Control Officers Associated ("CAPCOA")[28] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's incorrect and unsubstantiated air model. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The CalEEMod output files indicate that construction activities will generate 204 pounds of DPM over the 291-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{204\ lbs}{291\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00368\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.000368 grams per second ("g/s"). Subtracting the 291-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 29.2 years, approximately. The CalEEMod output files indicate that operational activities will generate 188 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{188\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00270\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00270 g/s. Construction and operational activity was simulated as a 10.39-acre rectangular area source in AERSCREEN with dimensions of 296 by 142 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

[27] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[28] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[29] According to the IS/MND, the nearest sensitive receptor is a single-family residence located approximately 500 feet, or approximately 152 meters, from the Project site (p. 77). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 3.827 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.3827 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 2.812 µg/m^3 DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2812 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule utilized in the IS/MND's CalEEMod model, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 0.55 years of the infantile stage of life (0 – 2 years). The annualized averaged concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remaining 1.45 years of the infantile stage of life, the entire child stage of life (2 – 16 years), and the entire adult stage of life (16 – 30 years).

Consistent with OEHHA, as recommended by SCAQMD, BAAQMD, and SJVAPCD guidance, and referenced by the IS/MND, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[30, 31, 32, 33] According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA,

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[29] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: https://www3.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 4-36.

[30] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[31] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[32] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[33] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

we used the 95th percentile breathing rates for infants.[34] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[35] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Closest Exposed Individual at an Existing Residential Receptor

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.3827	361	4.4E-07	10	4.4E-06
3rd Trimester Duration	***0.25***			***4.4E-07***	***3rd Trimester Exposure***	***4.4E-06***
Construction	0.55	0.3827	1090	2.9E-06	10	2.9E-05
Operation	1.45	0.2812	1090	5.7E-06	10	5.7E-05
Infant Exposure Duration	***2.00***			***8.6E-06***	***Infant Exposure***	***8.6E-05***
Operation	14.00	0.2812	572	2.4E-05	3	7.3E-05
Child Exposure Duration	***14.00***			***2.4E-05***	***Child Exposure***	***7.3E-05***
Operation	14.00	0.2812	261	1.1E-05	1	1.1E-05
Adult Exposure Duration	***14.00***			***1.1E-05***	***Adult Exposure***	***1.1E-05***
Lifetime Exposure Duration	**30.00**			**4.5E-05**	**Lifetime Exposure**	**1.8E-04**

* We, along with CARB and BAAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project operation, utilizing age sensitivity factors, are approximately 11, 73, 86, and 4.4 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 180 in one million. The infant, child, adult, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and reflects recommendations from the air district. Results without age sensitivity factors are presented in the table

[34] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[35] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 11, 24, 8.6, and 0.44 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), without age sensitivity factors, is approximately 45 in one million. The adult, child, and lifetime cancer risk, without age sensitivity factors, exceeds the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. While we recommend the use of age sensitivity factors, health risk impacts exceed the BAAQMD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [36] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare an EIR with an HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 590 metric tons of CO_2 equivalents per year ("MT CO_2e/year"), which would not exceed the BAAQMD threshold of 1,100 MT CO_2e/year (see excerpt below) (p. 52, Table GHG-1).

[36] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

Furthermore, the IS/MND states:

> "The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's Climate Change Scoping Plan and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant impact***" (p. 52).

As you can see in the excerpt above, the IS/MND relies upon qualitative analyses of the Project's consistency with the SB 32 and CARB's 2017 *Scoping Plan* to determine the significance of the Project's GHG impact (p. 52). However, the IS/MND'S GHG analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

(1) The IS/MND's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The IS/MND's GHG analysis relies upon an outdated threshold;
(3) The IS/MND fails to identify a potentially significant GHG impact; and
(4) The IS/MND fails to demonstrate that the Project would be consistent with CARB's *Scoping Plan*.

(1) Incorrect and Unsubstantiated Quantitative GHG Analysis

As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). However, the IS/MND's quantitative GHG analysis should not be relied upon, as it relies upon an unsubstantiated air model. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the CalEEMod Output Files for the Air Quality and GHG Emissions Data and Supporting Information as Appendix B-3 to the IS/MND, we found that several of the values inputted into the model are not consistent with information disclosed in the IS/MND and associated documents. As a result, the model underestimates the Project's GHG emissions, and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

(2) Incorrect Reliance on an Outdated Threshold

As discussed above, the IS/MND relies upon the BAAQMD's bright-line threshold of 1,100 MT CO_2e/year. However, this threshold is outdated and inapplicable to the proposed Project, as it was developed for the air district's planned reductions for 2020, based on AB 32.[37] Thus, this threshold only applies to projects that will become operational by the year 2020. Given that it is January 2021, and the Project has not yet been approved, the Project will not become operational until *after the year 2020*. As such, the BAAQMD's 2020 bright-line threshold of 1,100 MT CO_2e/year is inapplicable to the proposed Project. Rather, we recommend that the Project apply the AEP "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO_2 equivalents per service population per year ("MT CO_2e/SP/year").[38] In support of this threshold for projects with a horizon year beyond 2020, AEP guidance states:

> "Once the state has a full plan for 2030 (which is expected in 2017), and then *a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target*. A more conservative approach would be to apply a 2030 threshold *based on SB 32* for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update" (emphasis added).[39]

As the California Air Resources Board ("CARB") adopted *California's 2017 Climate Change Scoping Plan* in November of 2017, the proposed Project "should be evaluated based on a threshold using the 2030 target," according to the relevant guidance referenced above. As such, we recommend that an EIR be prepared, including an updated air model and comparing the Project's estimated GHG emissions to the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year.

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[37] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. D-20 – D-22.

[38] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

[39] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

(3) Failure to Identify a Potentially Significant GHG Impact

The IS/MND's incorrect and unsubstantiated air model indicates a potentially significant GHG impact, when applying the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year. As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 590 MT CO_2e/year (p. 52, Table GHG-1). Furthermore, according to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[40] The IS/MND estimates that the Project would employ approximately 50 people (p. 82). As the Project does not contain any residential land uses, we estimate a service population of 50 people.[41] Dividing the Project's GHG emissions, as estimated by the IS/MND, by a service population of 50 people, we find that the Project would emit approximately 11.80 MT CO_2e/SP/year (see table below).[42]

IS/MND Service Population Efficiency	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**590**
Service Population	50
Service Population Efficiency	**11.80**
Threshold	2.6
Exceed?	***Yes***

As demonstrated above, when we compare the Project's service population efficiency value to the AEP "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the IS/MND. Therefore, an EIR should be prepared and recirculated for the Project, and mitigation should be implemented where necessary.

(4) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the IS/MND relies upon the Project's consistency with CARB's 2017 *Scoping Plan* to determine Project GHG significance (p. 52). However, this is incorrect, as the IS/MND fails to consider performance-based measures proposed by CARB.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[43] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation

[40] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[41] Calculated: 50 employees + 0 residents = 50 people.
[42] Calculated: (590 MT CO_2e/year) / (50 service population) = (11.80 MT CO_2e/SP/year).
[43] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[44] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2022 (Project operational year), and 2030 (target years under SB 32) (see table below and Attachment B).

2017 Scoping Plan Daily VMT Per Capita						
	Napa County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	136,281	2,608,508.17	19.14	37,335,085	836,463,980.00	22.40
2022	145,557	2,870,053.23	19.72	41,321,565	916,010,146.00	22.17
2030	152,833	2,960,256.07	19.37	43,939,250	957,178,153.00	21.78

The below table compares the 2017 *Scoping Plan* daily VMT per capita values against the daily VMT per capita values for the Project based on the IS/MND's modeling (see table below and Attachment C).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	Project
	IS/MND
Annual VMT from Auto & Light-Duty Vehicles	606,115
Daily VMT from Auto & Light-Duty Vehicles	1,661
Service Population	50
Daily VMT Per Capita	33.21
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.17 VMT (2022 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Napa County Specific	
19.14 VMT (2010 Baseline) Exceed?	**Yes**
19.72 VMT (2022 Projected) Exceed?	**Yes**
19.37 VMT (2030 Projected) Exceed?	**Yes**

As shown above, the IS/MND's modeling shows that the Project exceeds the CARB 2017 *Scoping Plan* projections for 2010, 2022, and 2030. Because the exceeds the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the Project conflicts with the CARB 2017 *Scoping Plan* and SB 375. As such, the IS/MND's claim that the proposed Project would not conflict with the CARB 2017

[44] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

Scoping Plan is incorrect and unsubstantiated. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less than significant GHG impacts.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project's air quality, health risk, and GHG emissions may result in significant impacts and should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*.[45] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[46]
Measures – Energy
Building Energy Use
Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code)
Install Programmable Thermostat Timers
Obtain Third-party HVAC Commissioning and Verification of Energy Savings
Install Energy Efficient Appliances
Install Energy Efficient Boilers
Lighting
Install Higher Efficacy Public Street and Area Lighting
Limit Outdoor Lighting Requirements
Replace Traffic Lights with LED Traffic Lights
Alternative Energy Generation
Establish Onsite Renewable or Carbon-Neutral Energy Systems
Establish Onsite Renewable Energy System – Solar Power
Establish Onsite Renewable Energy System – Wind Power
Utilize a Combined Heat and Power System
Establish Methane Recovery in Landfills
Establish Methane Recovery in Wastewater Treatment Plants
Measures – Transportation
Land Use/Location
Increase Density
Increase Location Efficiency

[45] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[46] "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

Increase Diversity of Urban and Suburban Developments (Mixed Use)
Increase Destination Accessibility
Increase Transit Accessibility
Integrate Affordable and Below Market Rate Housing
Orient Project Toward Non-Auto Corridor
Locate Project near Bike Path/Bike Lane
Neighborhood/Site Enhancements
Provide Pedestrian Network Improvements, such as: • Compact, mixed-use communities • Interconnected street network • Narrower roadways and shorter block lengths • Sidewalks • Accessibility to transit and transit shelters • Traffic calming measures and street trees • Parks and public spaces • Minimize pedestrian barriers
Provide Traffic Calming Measures, such as: • Marked crosswalks • Count-down signal timers • Curb extensions • Speed tables • Raised crosswalks • Raised intersections • Median islands • Tight corner radii • Roundabouts or mini-circles • On-street parking • Planter strips with trees • Chicanes/chokers
Implement a Neighborhood Electric Vehicle (NEV) Network.
Create Urban Non-Motorized Zones
Incorporate Bike Lane Street Design (on-site)
Provide Bike Parking in Non-Residential Projects
Provide Bike Parking with Multi-Unit Residential Projects
Provide Electric Vehicle Parking
Dedicate Land for Bike Trails
Parking Policy/Pricing
Limit Parking Supply through: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements

• Provision of shared parking
Unbundle Parking Costs from Property Cost
Implement Market Price Public Parking (On-Street)
Require Residential Area Parking Permits
Commute Trip Reduction Programs
Implement Commute Trip Reduction (CTR) Program – Voluntary • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) • New employee orientation of trip reduction and alternative mode options • Event promotions and publications • Flexible work schedule for employees • Transit subsidies • Parking cash-out or priced parking • Shuttles • Emergency ride home
Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring • Established performance standards (e.g. trip reduction requirements) • Required implementation • Regular monitoring and reporting
Provide Ride-Sharing Programs • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement.
Implement Subsidized or Discounted Transit Program
Provide Ent of Trip Facilities, including: • Showers • Secure bicycle lockers • Changing spaces
Encourage Telecommuting and Alternative Work Schedules, such as: • Staggered starting times • Flexible schedules • Compressed work weeks
Implement Commute Trip Reduction Marketing, such as: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications

Implement Preferential Parking Permit Program
Implement Car-Sharing Program
Implement School Pool Program
Provide Employer-Sponsored Vanpool/Shuttle
Implement Bike-Sharing Programs
Implement School Bus Program
Price Workplace Parking, such as: • Explicitly charging for parking for its employees; • Implementing above market rate pricing; • Validating parking only for invited guests; • Not providing employee parking and transportation allowances; and • Educating employees about available alternatives.
Implement Employee Parking "Cash-Out"
Transit System Improvements
Transit System Improvements, including: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.
Implement Transit Access Improvements, such as: • Sidewalk/crosswalk safety enhancements • Bus shelter improvements
Expand Transit Network
Increase Transit Service Frequency/Speed
Provide Bike Parking Near Transit
Provide Local Shuttles
Road Pricing/Management
Implement Area or Cordon Pricing
Improve Traffic Flow, such as: • Signalization improvements to reduce delay; • Incident management to increase response time to breakdowns and collisions; • Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and

• Speed management to reduce high free-flow speeds.
Required Project Contributions to Transportation Infrastructure Improvement Projects
Install Park-and-Ride Lots
Vehicles
Electrify Loading Docs and/or Require Idling-Reduction Systems
Utilize Alternative Fueled Vehicles, such as: • Biodiesel (B20) • Liquefied Natural Gas (LNG) • Compressed Natural Gas (CNG)
Utilize Electric or Hybrid Vehicles
Measures – Water
Water Supply
Use Reclaimed Water
Use Gray Water
Use Locally Sourced Water Supply
Water Use
Install Low-Flow Water Fixtures
Adopt a Water Conservation strategy
Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as: • Reducing lawn sizes; • Planting vegetation with minimal water needs, such as native species; • Choosing vegetation appropriate for the climate of the project site; • Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.
Use Water-Efficient Landscape Irrigation Systems (“Smart” irrigation control systems)
Reduce Turf in Landscapes and Lawns
Plant Native or Drought-Resistant Trees and Vegetation
Measures – Area Landscaping
Landscaping Equipment
Prohibit Gas Powered Landscape Equipment
Implement Lawnmower Exchange Program
Electric Yard Equipment Compatibility
Measures – Solid Waste
Solid Waste
Institute Recycling and Composting Services
Recycle Demolished Construction Material

Measures – Vegetation
Vegetation
Urban Tree Planting
Create New Vegetated Open Space
Measures – Construction
Construction
Use Alternative Fuels for Construction Equipment
Urban Tree Planting
Use Electric and Hybrid Construction Equipment
Limit Construction Equipment Idling Beyond Regulation Requirements
Institute a Heavy-Duty Off-Road Vehicle Plan, including: • Construction vehicle inventory tracking system; • Requiring hour meters on equipment; • Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and • Daily logging of the operating hours of the equipment.
Implement a Construction Vehicle Inventory Tracking System
Measures – Miscellaneous
Miscellaneous
Establish a Carbon Sequestration Project, such as: • Geologic sequestration or carbon capture and storage techniques, in which CO_2 from point sources is captured and injected underground; • Terrestrial sequestration in which ecosystems are established or preserved to serve as CO_2 sinks; • Novel techniques involving advanced chemical or biological pathways; or • Technologies yet to be discovered.
Establish Off-Site Mitigation
Use Local and Sustainable Building Materials
Require best Management Practices in Agriculture and Animal Operations
Require Environmentally Responsible Purchasing, such as: • Purchasing products with sustainable packaging; • Purchasing post-consumer recycled copier paper, paper towels, and stationary; • Purchasing and stocking communal kitchens with reusable dishes and utensils; • Choosing sustainable cleaning supplies; • Leasing equipment from manufacturers who will recycle the components at their end of life; • Choosing ENERGY STAR appliances and Water Sense-certified water fixtures; • Choosing electronic appliances with built in sleep-mode timers; • Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and • Choosing locally-made and distributed products.
Implement an Innovative Strategy for GHG Mitigation

Measures – General Plans
General Plans
Fund Incentives for Energy Efficiency, such as: • Retrofitting or designing new buildings, parking lots, streets, and public areas with energy-efficient lighting; • Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances; • Retrofitting or purchasing new low-emissions equipment; • Purchasing electric or hybrid vehicles; • Investing in renewable energy systems
Establish a Local Farmer's Market
Establish Community Gardens
Plant Urban Shade Trees
Implement Strategies to Reduce Urban Heat-Island Effect, such as: • Planting urban shade trees; • Installing reflective roofs; and • Using light-colored or high-albedo pavements and surfaces.

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project from NEDC's *Diesel Emission Controls in Construction Projects.*[47] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

NEDC's *Diesel Emission Controls in Construction Projects*[48]
Measures – Diesel Emission Control Technology
a. Diesel Onroad Vehicles All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
b. Diesel Generators All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
c. Diesel Nonroad Construction Equipment i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site

[47] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

[48] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines 50hp and greater and by a minimum of 20% for engines less than 50hp.
d. Upon confirming that the diesel vehicle, construction equipment, or generator has either an engine meeting Tier 4 non road emission standards or emission control technology, as specified above, installed and functioning, the developer will issue a compliance sticker. All diesel vehicles, construction equipment, and generators on site shall display the compliance sticker in a visible, external location as designated by the developer.
e. Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[49] approved by the original engine manufacturer with sulfur content of 15 ppm or less.
Measures – Idling Requirements
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized and shall not exceed the time allowed under state and local laws.
Measures – Additional Diesel Requirements
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
Reporting

[49] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes: i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number. ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level. iii. The Certification Statement signed and printed on the contractor's letterhead.
b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date. ii. Any problems with the equipment or emission controls. iii. Certified copies of fuel deliveries for the time period that identify: 1. Source of supply 2. Quantity of fuel 3. Quality of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include an updated health risk and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachments A-C:	SWAPE GHG and VMT Calculations
Attachment D:	SWAPE Project CalEEMod Modeling
Attachment E:	SWAPE Project AERSCREEN Modeling
Attachment F:	Paul Rosenfeld CV
Attachment G:	Matt Hagemann CV

Attachment C: Lozeau Drury June 23, 2021 Comment Letter

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June 3, 2021 ***Via Email***

Leon Garcia, Mayor
Mark Joseph, Vice Mayor
Mariam Aboudamous
David Oro
Pierre Washington
American Canyon City Council
council@cityofamericancanyon.org

William He, AICP, Associate Planner
City of American Canyon Community
Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503
whe@cityofamericancanyon.org

Re: SDG Commerce 217 Distribution Center (PL20-0008) – Recirculated Mitigated Negative Declaration and Conditional Use Permit

Dear Mayor Garcia, Vice-Mayor Joseph, Council Members Aboudamous, Oro, and Washington and Mr. He:

I am writing on behalf of Laborers International Union of North America, Local 324 ("LIUNA") and its members living and working in and around the City of American Canyon regarding the Recirculated Draft Initial Study and Mitigated Negative Declaration ("MND") prepared for the proposed SDG Commerce 217 Distribution Center Project (the "Project"). This comment letter supplements and incorporates by reference our previous written comments dated January 19, 2021, February 25, 2021 and May 3, 2021.

1 In our May 3, 2021 comments, we criticized the use of an alternative figure claiming to represent the average length of bicycle commutes in the vicinity of the Project. Previously, the consultant GHD estimated the average bike trip length at 34.6 miles, then 5.2 miles. GHD now also mentions a third alternative figure of 3.8 mile for the average bicycle commute to be expected from cyclists using the proposed 800-foot bike lane. (GHD Memorandum, pp. 9, 24 (March 21, 2021).) Traffic Engineer Tom Brohard, PE, has now had an opportunity to review the January 2015 AASHTO publication "Brief 14. Bicycling and Walk Commuting in America 2013," referenced by GHD as the source of its 3.8 mile bike commute trip length. As Mr. Brohard explains, the footnote to the trip length number in the AASHTO report "indicates the bike commute distance is based on the Table 27 of the 2009 NHTS (National Household Travel Survey). Enclosed Table 27 does not break out trips or commute distances for bikes. The updated 2017 NHTS does not give bike commute distances either." (Comments of Tom Brohard, PE, dated June 1, 2021 [attached as Exhibit A].) Nor is there any explanation why this nation-wide figure would apply to the area in the vicinity of the Project. As pointed out in LIUNA's earlier comment, the furthest a commuting biker can travel north of the Project is 0.75 miles before they

would have to head east and ride on SR 29 which the MND claims does not happen due to safety concerns. (Recirculated MND, p. 22.) It is entirely arbitrary for the Project to imagine bike commutes extending 3.75 miles north through undeveloped fields. In addition, the 2013 report using 2009 data does not likely reflect 2020 or 2021 bicycle use in the vicinity of the Project. As a result, and for the many reasons identified in LIUNA's previous comments, the MND's estimate of VMT reductions that would result from the Project's proposed 800-foot bike lane are highly exaggerated. There is substantial evidence of a fair argument that the Project may have significant transportation impacts. This potentially significant impact requires the preparation of an environmental impact report.

1 (cont.)

For all of these reasons and those discussed in our prior comments, the MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. Thank you again for your attention to LIUNA's appeal and these comments.

2

Sincerely,



Michael Lozeau
Lozeau | Drury LLP

EXHIBIT A

Tom Brohard and Associates

June 1, 2021

Mr. Michael Lozeau, Esq.
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Proposed Wine Distribution Center at 1075 Commerce Court in the City of American Canyon – VMT Supplemental Report

Dear Mr. Lozeau:

Item #5 in my April 30, 2021 letter to you expressed concerns about the calculation of vehicle miles traveled (VMT) by GHD. My report stated that "Without any meaningful explanation, GHD averages their minimum 800' actual bike facility length and maximum 1.85-mile combined bike facility length to forecast daily VMT reduction associated with the 800-foot-long bicycle path. The random decision to average the minimum and maximum VMT forecasts is not supported by any reasoned analysis or facts." Furthermore, I concluded that the GHD report "...now averages the averages and concludes that the daily VMT reduction will be 733 VMT with a 3.8-mile bicycle commute from a publication that is not available from AASHTO or 1,004 VMT by using an unrealistically long average one-way trip length of 5.2 miles."

I have now reviewed the January 2015 AASHTO publication "Brief 14. Bicycling and Walk Commuting in America 2013". Enclosed is Page 15 which shows the 3.8-mile average bike commute distance. The footnote indicates the bike commute distance is based on the Table 27 of the 2009 NHTS (National Household Travel Survey). Enclosed Table 27 does not break out trips or commute distances for bikes. The updated 2017 NHTS does not give bike commute distances either.

Neither of the purported VMT reductions are supported by substantial evidence. GHD continues to find "new" reports that are based on "old" or "non-existent" data to support their incorrect conclusion that the total Project VMT will be less than the required threshold. Additional study together with mitigation measures are required for the Proposed Project.

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal





Enclosures
AASHTO "Brief 14. Commuting in America 2013", January 2015
FHWA "2009 National Household Travel Survey"

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Phone (760) 398-8885
Email tbrohard@earthlink.net

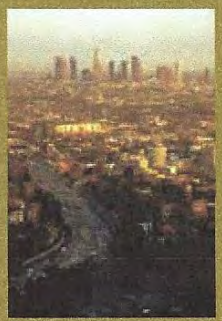
Commuting in America 2013

The National Report on Commuting Patterns and Trends

Brief 14. Bicycling and Walk Commuting









American Association of State Highway and Transportation Officials

AASHTO

The Voice of Transportation

CTPP

JANUARY 2015

Further Motorcycle, Bike, Walk Mode Detail

Motorcycle, bike, and walk modes have different characteristics than vehicle trips with respect to travel speed; hence, trip lengths and trip duration differ from those typical for vehicle trips. Motorcycle commuting is very comparable to private vehicle commuting, as might be expected. However, survey respondent data indicate that an average walk trip is approximately 1 mile, taking approximately 15 minutes. The derived walk speed of 3.7 mph is faster than the traditionally used 3 mph walk speed. This calculation is no doubt affected by the rounding that occurs when respondents tend to answer travel duration questions rounded to the nearest five minutes.

Bike travel speeds are similar to transit travel speeds, though the trip length is approximately 1/3 that of transit trips. Mode shares in this brief have been expressed in terms of percent of trips, as is normal practice. However, if one calculates mode share in terms of person miles of travel, the relative significance of bike and walk trips as a share of total commuting person miles of travel would be dramatically diminished.

Table 14-5. Average Duration, Distance, and Speed for Commuting Trips

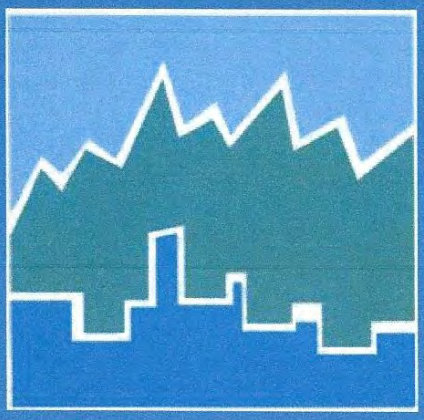
Mode	Duration (minutes)	Distance (miles)	Speed (mph)
Motorcycle	24.6	12.1	29.5
Bike	20.9	3.8	10.8
Walk	15.6	1.0	3.7
Private Vehicle	22.9	12.1	28.9
Public Transit	53.0	10.2	11.4

Source: 2009 NHTS online tool, using variable TRVL_MIN, calculated for trips with both time and distance data. Private vehicle and public transit data from NHTS 2009 summary of travel trends, Table 27.

Figure 14-10 provides the trip duration distribution for walk trips. As shown, 47.4 percent of walk trips are 10 minutes or less and an additional 20 percent are 10 to 14 minutes in duration. Even for trips of less than 10 minutes, walking only constitutes 1.4 percent of commuting trips.

Short commute trip distances for walk and bike modes result in these mode shares being far smaller if expressed in terms of person miles of travel.





SUMMARY OF TRAVEL TRENDS

2009 National Household Travel Survey

U.S. Department of Transportation
Federal Highway Administration



Table 27. General Commute Patterns by Mode of Transportation 1977, 1983, 1990, and 1995 NPTS, and 2001 and 2009 NHTS.

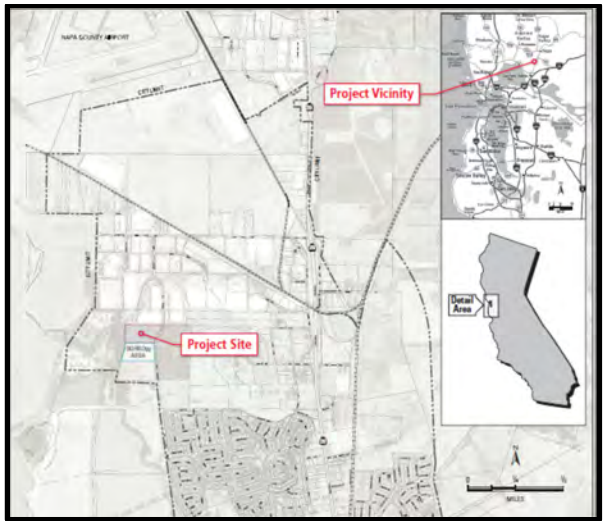
	1977	1983	1990	1995	2001	2009	95% CI
All	All Modes						
Average Commute Trip Length (miles)	9.06	8.54	10.65	11.63	12.11	11.79	0.29
Average Commute Travel Time (minutes)	19.23	18.20	19.60	20.65	23.32	23.85	0.35
Average Commute Speed (miles per hour)	34.72	26.84	33.35	34.67	32.23	27.50	0.33
Private Vehicle	Private Vehicle						
Average Commute Trip Length (miles)	9.61	8.86	11.02	11.84	12.10	12.09	0.25
Average Commute Travel Time (minutes)	18.95	17.62	19.05	20.10	22.49	22.85	0.34
Average Commute Speed (miles per hour)	37.50	27.78	31.49	35.18	32.27	28.87	0.31
Public Transit	Public Transit						
Average Commute Trip Length (miles)	7.48	9.00	12.75	12.88	11.73	10.18	1.54
Average Commute Travel Time (minutes)	37.59	37.79	41.10	41.95	55.50	52.98	4.19
Average Commute Speed (miles per hour)	12.58	15.44	18.02	18.22	12.96	11.42	0.99
Walk	Walk						
Average Commute Trip Length (miles)	-	-	0.83	0.74	0.91	0.98	0.23
Average Commute Travel Time (minutes)	-	-	9.79	10.86	14.06	16.15	2.28
Average Commute Speed (miles per hour)	-	-	4.99	3.58	3.18	4.77	0.51

Note:

- Trip miles and travel times were calculated using actual trips to and from work as reported in the travel day file.
- Average commute speed was calculated using only those trips with both trip mileage and travel time information present.
- Average commute trip length was calculated using only those records with trip mileage information present.
- In 2001 the mode "Bus" was divided into "Local Public Transit Bus," "Commuter Bus," "Charter/tour bus," and "City to city bus." Only "Local Public Transit Bus" and "Commuter Bus" are included in public transit calculations.
- Public transit includes local bus, commuter bus, commuter train, subway, trolley, and streetcar.
- Commute time for public transit includes total trip time in 2001 and 2009, including access and egress.
- NPTS is Nationwide Personal Transportation Survey. CI is Confidence Interval.

Attachment D: Health Risk Assessment

SDG Commerce 217 Distribution Center Project
Health Risk Assessment Technical Report



Prepared for:

City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503

Prepared by:

RCH GROUP
planning & environmental consulting

June 30, 2021

4496

1.0 INTRODUCTION

This document presents results of a health risk assessment (HRA) associated with the American Canyon Commerce 217 Distribution Center in the City of American Canyon, California and evaluates the potential adverse health impacts associated with the project's construction and operational emissions. The supporting information, methodology and assumptions used in the air emission calculations and health risk assessment are provided in **Health Risk Assessment Methodology, Assumptions, and Detailed Results**.

The HRA focuses on health impacts on existing residences and school receptors from emissions of toxic air contaminants (TAC)[1] such as diesel particulate matter (DPM)[2] from diesel construction equipment and diesel delivery truck activities at loading docks and along roadways. The HRA was conducted to determine the health impacts, in terms of excess cancer risk and non-cancer hazards, using the significance levels identified by the Bay Area Air Quality Management District (BAAQMD)'s *CEQA Air Quality Guidelines*.[3] In accordance with the BAAQMD *CEQA Air Quality Guidelines*, this HRA also evaluated concentrations of particulate matter equal to or less than 2.5 micrometers (fine particulate or $PM_{2.5}$). The HRA was prepared based on the California Office of Environmental Health Hazard Assessment (OEHHA)'s *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[4] For existing residential receptors, the HRA indicates less-than-significant exposures to the health impacts from the proposed project construction activities and operations. For the Napa Junction Elementary School, the HRA indicates less-than-significant exposures to the health impacts from the proposed project construction activities and operations.

2.0 PROJECT OVERVIEW

The project would consist of a 217,294 square foot wine storage and distribution center on the 10.39-acre site. It is anticipated that the warehouse would be used for wine storage and other

[1] Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality. TAC are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., gasoline service stations, dry cleaners). TAC are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TAC are regulated at the regional, state, and Federal level.

[2] In 1998, the California Air Resources Board (CARB) classified diesel particulate matter (DPM) as a toxic air contaminant, citing its potential to cause cancer and other health problems. The US Environmental Protection Agency (USEPA) concluded that long-term exposure to diesel engine exhaust is likely to pose a lung cancer hazard to humans and can also contribute to other acute and chronic health effects.

[3] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[4] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015, http://oehha.ca.gov/air/hot_spots/hotspots2015.html

wine-related storage and warehousing activities (i.e. bottles, corks, barrels, etc.). A total of 134 car and 21 truck dock parking spaces would be provided. A peak daily weekday trip generation rate of 64 trucks per day (and an average daily weekday trip generation rate of 32 trucks per day) would occur; only three trucks per day would contain transport refrigeration units (TRU).[5] Most inbound trailers would not have TRU as they would only be hauling directly from the winery. Outbound long-haul trailers would not be running the refrigeration units while at the loading dock as they would initially be loaded. No trucks would be at the loading dock longer than 30 minutes. Trucks would not and cannot head south from the facility and pass by the Napa Junction Elementary School and residential land uses to the south of the project site as Commerce Court has a dead-end cul-de-sac. Project traffic would only travel along Commence Boulevard and Green Island Road to the north of the project site. Hours of operation would be 8 am to 4 pm; Monday thru Friday.

According to the requirements under the California Public Resources Code, Division 13, Environmental Quality (§21000 – §21189.57), proposed projects located within ¼ mile of a school that involve the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions, and that may impose a health or safety hazard to persons who would attend or would be employed at the school, must meet all requirements per CEQA Guidelines §15186 (b)(1)(2)[6]. The lead agency must consult with the affected school district or districts regarding the potential impact of the project on the school and notify the affected school district(s) of the project in writing, not less than 30 days prior to approval or certification of the negative declaration or environmental impact report. Napa Junction Elementary School is located with ¼ miles of the project site.

3.0 ANALYSIS METHODOLGY

Regulatory models used to estimate air quality and health impacts include:

- **California Emissions Estimator Model (CalEEMod) Version 2016.3.2[7] land use emissions model.** CalEEMod estimates emissions due to construction activities and operations.
- **California Air Resources Board's (CARB) EMFAC[8] emissions inventory model.** EMFAC is the latest emission inventory model that calculates emission inventories and

[5] Transport Refrigeration Units are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including truck vans, semi-truck trailers, shipping containers, and railcars.

[6] 2019 CEQA Statutes and Guidelines, http://resources.ca.gov/ceqa/docs/2019_CEQA_Statutes_and_Guidelines.pdf

[7] California Air Resources Board, *California Emissions Estimator Model User's Guide*, November 9, 2017, http://www.caleemod.com/

emission rates for motor vehicles operating on roads in California. This model reflects CARB's current understanding of how vehicles travel and how much they emit. EMFAC can be used to show how California motor vehicle emissions have changed over time and are projected to change in the future.

- **American Meteorological Society/USEPA Regulatory Model (AERMOD)**. AERMOD (Version 19191) is an atmospheric dispersion model which can simulate point, area, volume, and line emissions sources and has the capability to include simple, intermediate, and complex terrain along with meteorological conditions and multiple receptor locations.[9,10] AERMOD is commonly executed to yield 1-hour maximum and annual average concentrations (in $\mu g/m^3$) at each receptor. AERMOD is used to estimate air concentrations at nearby receptors resulting from the activities associated with an air emission source (such as construction equipment).

Threshold of Significance

The standards of significance applied to the analysis of potential health impacts are based on Appendix G of the *CEQA Guidelines* and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant health impacts if it were to expose sensitive receptors to substantial pollutant concentrations. The proposed project would have a significant project-level health impact if it would exceed the following BAAQMD thresholds:

- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TAC resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$).

Health Impact Evaluation

The BAAQMD *Air Quality Guidelines* requires an assessment of air toxics impacts on sensitive receptors. The BAAQMD *Air Quality Guidelines* also requires an assessment of $PM_{2.5}$ concentrations as a result of the proposed project construction exhaust emissions. The proposed project would constitute a new emission source of TAC (such as DPM) and $PM_{2.5}$ from

[8] California Air Resources Board, *EMFAC2017 User's Guide*, March 1, 2018, Accessed March 23, 2021, https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-i-users-guide.pdf and https://www.arb.ca.gov/emfac/2017/

[9] US Environmental Protection Agency Preferred/Recommended Models, *AERMOD Modeling System*, https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#aermod

[10] Title 40 CFR Part 51, *Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions; Final Rule*.

construction equipment and delivery trucks. Studies have demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.

The HRA was conducted following methodologies in OEHHA's *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[11] This was accomplished by applying the estimated DPM concentrations at nearby sensitive receptors analyzed to the established cancer risk estimates and acceptable reference concentrations for non-cancer health effects. The USEPA's AERMOD atmospheric dispersion model then calculates air concentrations (in micrograms per cubic meter, or $\mu g/m^3$) of DPM and $PM_{2.5}$ at the nearby sensitive receptors. The supporting methodology and assumptions used in this HRA are provided in **Health Risk Assessment Methodology and Assumptions**.

Both acute (short-term, such as one-hour) and chronic (long-term, such as annual) adverse health impacts unrelated to cancer were addressed and are measured against a hazard index (HI). The hazard index is defined as the ratio of the estimated air concentrations of DPM at the nearby sensitive receptors to a reference exposure level (REL) that could cause adverse health effects. The health impact is significant if the HI is greater than 1.0 (i.e., the estimated air concentrations of DPM is greater than the REL).

There is no acute REL for DPM. The chronic reference exposure level for DPM established by the California OEHHA is 5 $\mu g/m^3$. Thus, if the proposed project-related annual concentration of DPM exceed 5.0 $\mu g/m^3$, resulting in a chronic HI of greater than 1.0 (i.e., DPM annual concentration/5.0 $\mu g/m^3$), the chronic health impacts would be significant.

Proposed Project Construction and Operations Health Impacts on Existing Residences

The following describes the HRA results associated with existing residential receptors due to proposed project construction and operations. As shown in **Table 1**, the maximum total cancer risk from the proposed project emissions for a residential receptor would be 3.35 per million persons. The maximum concentrations would occur at a residential receptor (also known as the maximum exposed individual or MEI) to the southeast of the proposed project. Thus, the cancer risk due to construction activities and operations would be less than the BAAQMD significance threshold of 10 per million and would be ***a less than significant health impact on residential receptors.***

[11] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015, http://oehha.ca.gov/air/hot_spots/hotspots2015.html

Table 1: Estimated Construction and Operations Health Impacts for Existing Residences

Source	Cancer Risk	Hazard Impact	$PM_{2.5}$ Concentration
Total Proposed Project	**3.25**	**<0.01**	**0.02**
Significance Threshold	10	1.0	0.3
Potentially Significant (Yes or No)?	No	No	No

The chronic HI would be less than 0.01, based on a proposed project-related maximum annual diesel concentration of 0.005 μg/m^3 (per dispersion modeling analysis) and an REL for DPM of 5.0 μg/m^3. The resultant chronic HI is calculated as 0.005 μg/m^3/5.0 μg/m^3, which is less than 0.01. The chronic HI would be below the project-level threshold of 1.0 and would therefore be ***less than significant health impact on residential receptors***.

The proposed project's annual $PM_{2.5}$ concentration would be 0.02 μg/m^3. Thus, the annual $PM_{2.5}$ concentration due to project construction would be below the BAAQMD threshold of 0.3 μg/m^3 and would be considered ***less than significant health impact on residential receptors***.

Proposed Project Construction and Operations Health Impacts Associated with the Napa Junction Elementary School

The following describes the HRA results associated with school receptors (Napa Junction Elementary School) due to proposed project construction and operations. As shown in **Table 2**, the maximum cancer risk from the proposed project emissions for a school receptor would be 0.39 per million persons. Thus, the cancer risk due to operations would be less than the BAAQMD significance threshold of 10 per million and would be ***a less than significant health impact on school receptors.***

Table 2: Estimated Construction and Operations Health Impacts for Napa Junction Elementary School

Source	Cancer Risk	Hazard Impact	$PM_{2.5}$ Concentration
Total Proposed Project	**0.39**	**<0.01**	**0.02**
Significance Threshold	10	1.0	0.3
Potentially Significant (Yes or No)?	No	No	No

The chronic HI would be less than 0.01, based on a proposed project-related maximum annual diesel concentration of less than 0.01 μg/m^3 (per dispersion modeling analysis) and an REL for DPM of 5.0 μg/m^3. The resultant chronic HI is calculated as 0.003 μg/m^3/5.0 μg/m^3, which is less than 0.01. The chronic HI would be below the project-level threshold of 1.0 and would therefore be ***less than significant health impact on school receptors***.

The proposed project's annual $PM_{2.5}$ concentration would be 0.02 μg/m^3. Thus, the annual $PM_{2.5}$ concentration due to project construction would be below the BAAQMD threshold of 0.3 μg/m^3 and would be considered ***less than significant health impact on school receptors***.

Although the health impacts are less than signficant, the applicant would implement the following measures to further reduce construction-related exhaust emissions:

1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
2. All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall have engines that meet or exceed either USEPA or CARB Tier 3 (or better) off-road emission standards and Level 3 Diesel Particulate Filters.[12]

As a result of these measures, the maximum total cancer risk from the proposed project emissions for a residential receptor would be 2.65 per million persons and the maximum cancer risk from the proposed project emissions for a school receptor would be 0.34 per million persons.

[12] USEPA and CARB have implemented regulations and a tiering system to reduce emissions from off-road equipment with increasing combustion efficiency (i.e., decreasing emissions) where Tier 1 is the least efficient (greatest emissions) and Tier 4 is the most efficient (least emissions). The regulations have been implemented over time such that Tier 1 was phased out in the 1990's and Tier 2 was required, followed by implementation of Tier 3 and Tier 4 by 2015 with a phase out of Tier 2.

Health Risk Assessment Methodology, Assumptions, and Detailed Results

A health risk assessment (HRA) is accomplished in four steps: 1) hazards identification, 2) exposure assessment, 3) toxicity assessment, and 4) risk characterization. These steps cover the estimation of air emissions, the estimation of the air concentrations resulting from a dispersion analysis, the incorporation of the toxicity of the pollutants emitted, and the characterization of the risk based on exposure parameters such as breathing rate, age adjustment factors, and exposure duration; each depending on receptor type (i.e., residence, school, daycare centers, hospitals, senior care facilities, recreational areas, adult, infant, child).

This HRA was conducted in accordance with technical guidelines developed by federal, state, and regional agencies, including U.S. Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*[1] and the Bay Area Air Quality Management District (BAAQMD) *Health Risk Screening Analysis Guidelines*.[2] This HRA addresses the emissions from construction activities including onsite equipment and haul trucks. Specific focus is on diesel particulate matter (DPM) and particulate matter equal to or less than 2.5 micrometers (fine particulate or $PM_{2.5}$) emissions.

According to CalEPA, a HRA should not be interpreted as the expected rates of cancer or other potential human health effects, but rather as estimates of potential risk or likelihood of adverse effects based on current knowledge, under a number of highly conservative assumptions and the best assessment tools currently available.

TERMS AND DEFINITIONS

As the practice of conducting a HRA is particularly complex and involves concepts that are not altogether familiar to most people, several terms and definitions are provided that are considered essential to the understanding of the approach, methodology and results:

> *Acute effect* – a health effect (non-cancer) produced within a short period of time (few minutes to several days) following an exposure to toxic air contaminants (TAC).
>
> *Cancer risk* – the probability of an individual contracting cancer from a lifetime (i.e., 70 year) with a 30-year exposure to TAC such as DPM in the ambient air.
>
> *Chronic effect* – a health effect (non-cancer) produced from a continuous exposure occurring over an extended period (weeks, months, years).

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[1] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, March 6, 2015. http://oehha.ca.gov/air/hot_spots/hotspots2015.html.

[2] Bay Area Air Quality Management District, *Health Risk Screening Analysis Guidelines*, January 2010 http://www.baaqmd.gov/~/media/Files/Engineering/Air%20Toxics%20Programs/hrsa_guidelines.ashx

Hazard Index (HI) – the unitless ratio of an exposure level over the acceptable reference dose. The HI can be applied to multiple compounds in an additive manner.

Hazard Quotient (HQ) – the unitless ratio of an exposure level over the acceptable reference dose. The HQ is applied to individual compounds.

Toxic Air Contaminants – any air pollutant that can cause short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). The current California list of TAC lists approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Human Health Effects - comprise disorders such as eye watering, respiratory or heart ailments, and other (i.e., non-cancer) related diseases.

Health Risk Assessment – an analysis designed to predict the generation and dispersion of TAC in the outdoor environment, evaluate the potential for exposure of human populations, and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure.

Incremental – under CEQA, the net difference (or change) in conditions or impacts when comparing the baseline to future year project conditions.

Maximum exposed individual (MEI) – an individual assumed to be located at the point where the highest concentrations of TAC, and therefore, health risks are predicted to occur.

Non-cancer risks – health risks such as eye watering, respiratory or heart ailments, and other non-cancer related diseases.

Receptors – the locations where potential health impacts or risks are predicted (i.e., schools, residences, and recreational sites).

LIMITATIONS AND UNCERTAINTIES

There are several important limitations and uncertainties commonly associated with a HRA due to the wide variability of human exposures to TAC, the extended timeframes over which the exposures are evaluated, and the inability to verify the results. Limitations and uncertainties associated with the HRA and identified by the CalEPA include: (a.) lack of reliable monitoring data; (b.) extrapolation of toxicity data in animals to humans; (c.) estimation errors in calculating TAC emissions; (d.) concentration prediction errors with dispersion models; and (e.) the variability in lifestyles, fitness and other confounding factors of the human population. This HRA was performed using the best available data and methodologies, notwithstanding the following uncertainties:

- There are uncertainties associated with the estimation of emissions from project activities. Where project-specific data, such as emission factors, are not available, default assumptions in emission models were used.
- The limitations of the air dispersion model provide a source of uncertainty in the estimation of exposure concentrations. According to USEPA, errors due to the limitation of the algorithms implemented in the air dispersion model in the highest estimated concentrations of +/- 10 percent to 40 percent are typical.[3]
- The source parameters used to model emission sources add uncertainty. For all emission sources, the source parameters used source-specific, recommended as defaults, or expected to produce more conservative results. Discrepancies might exist in actual emissions characteristics of an emission source and its representation in the dispersion model.
- The exposure duration estimates do not consider that people do not usually reside at the same location for 30 years and that other exposures (i.e., school children) are also of much shorter durations than was assumed in this HRA. This exposure duration is a highly conservative assumption, since most people do not remain at home all day and on average residents change residences every 11 to 12 years. In addition, this assumption adopts that residents are experiencing outdoor concentrations for the entire exposure period.
- For the risk and hazards calculations as well as the cumulative health impact, numerous assumptions must be made in order to estimate human exposure to pollutants. These assumptions include parameters such as breathing rates, exposure time and frequency, exposure duration, and human activity patterns. While a mean value derived from scientifically defensible studies is the best estimate of central tendency, most of the exposure variables used in this HRA are high-end estimates. The combination of several high-end estimates used as exposure parameters may substantially overestimate pollutant intake. The excess lifetime cancer risks calculated in this HRA are therefore likely to be higher than may be required to be protective of public health.
- The Cal/EPA cancer potency factor for DPM was used to estimate cancer risks associated with exposure to DPM emissions from construction activities. However, the cancer potency factor derived by Cal/EPA for DPM is highly uncertain in both the estimation of response and dose. In the past, due to inadequate animal test data and epidemiology data on diesel exhaust, the International Agency for Research on Cancer (IARC), a branch of the World Health Organization, had classified DPM as Probably Carcinogenic

[3] United States Environmental Protection Agency, *Guideline on Air Quality Models (Revised), 40 Code of Federal Regulations, Part 51, Appendix W,* November 2005.

to Humans (Group 2); the USEPA had also concluded that the existing data did not provide an adequate basis for quantitative risk assessment.[4] However, based on two recent scientific studies,[5] IARC recently re-classified DPM as Carcinogenic to Humans to Group 1,[6] which means that the agency has determined that there is "sufficient evidence of carcinogenicity" of a substance in humans and represents the strongest weight-of-evidence rating in IARC's carcinogen classification scheme. This determination by the IARC may provide additional impetus for the USEPA to identify a quantitative dose-response relationship between exposure to DPM and cancer.

In summary, the estimated health impacts are based primarily on a series of conservative assumptions related to predicted environmental concentrations, exposure, and chemical toxicity. The use of conservative assumptions tends to produce upper-bound estimates of risk. BAAQMD acknowledges this uncertainty by stating: "the methods used [to estimate risk] are conservative, meaning that the real risks from the source may be lower than the calculations, but it is unlikely that they will be higher." The USEPA notes that the conservative assumptions used in a HRA are intended to assure that the estimated risks do not underestimate the actual risks posed by a site and that the estimated risks do not necessarily represent actual risks experienced by populations at or near a site.[7]

HAZARDS IDENTIFICATION

California Air Resources Board (CARB) has developed a list of TAC, where a TAC is "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health (California Health and Safety Code Section 39655). All USEPA hazardous air pollutants are TAC. CARB administers the Air Toxics "Hot Spots" program under Assembly Bill 2588 "Hot Spots" Information and Assessment Act, which requires periodic local review of facilities which emit TAC. Local air agencies periodically must prioritize stationary sources of TAC and prepare health risk assessments for high-priority sources.

Diesel exhaust is a complex mixture of numerous individual gaseous and particulate compounds emitted from diesel-fueled combustion engines. Diesel particulate matter is formed

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[4] United States Environmental Protection Agency, *Health Assessment Document for Diesel Engine Exhaust*, May 2002. https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=29060

[5] Attfield MD, Schleiff PL, Lubin JH, Blair A, Stewart PA, Vermeulen R, Coble JB, Silverman DT, *The Diesel Exhaust in Miners Study: A Nested Case-Control Study of Lung Cancer and Diesel Exhaust*, June 2012. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3369553/

[6] International Agency for Research on Cancer, *Diesel Engine Exhaust Carcinogenic*, June 2012. https://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf

[7] United States Environmental Protection Agency, *Risk Assessment Guidance for Superfund Human Health Risk Assessment*, December 1989. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

primarily through the incomplete combustion of diesel fuel. DPM is removed from the atmosphere through physical processes including atmospheric fall-out and washout by rain. Humans can be exposed to airborne DPM by deposition on water, soil, and vegetation; although the main pathway of exposure is inhalation. Cal/EPA has concluded that potential cancer risk from inhalation exposure to whole diesel exhaust outweigh the multi-pathway cancer risk from the speciated components.

In August 1998, the CARB identified DPM as an air toxic. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel- Fueled Engines and Vehicles* and *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines* and approved these documents on September 28, 2000.[8,9] The documents represent proposals to reduce DPM emissions, with the goal of reducing emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The program aimed to require the use of state-of-the-art catalyzed DPM filters and ultra-low-sulfur diesel fuel.

In 2001, CARB assessed the state-wide health risks from exposure to diesel exhaust and to other toxic air contaminants. It is difficult to distinguish the health risks of diesel emissions from those of other air toxics, since diesel exhaust contains approximately 40 different TAC. The CARB study detected diesel exhaust by using ambient air carbon soot measurements as a surrogate for diesel emissions. The study reported that the state-wide cancer risk from exposure to diesel exhaust was about 540 per million population as compared to a total risk for exposure to all ambient air toxics of 760 per million. This estimate, which accounts for about 70 percent of the total risk from TAC, included both urban and rural areas in the state. The estimate can also be considered an average worst-case for the state, since it assumes constant exposure to outdoor concentrations of diesel exhaust and does not account for expected lower concentrations indoors, where most of time is spent. Based on 2012 estimates of statewide exposure, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime.[10]

Exposure to DPM results in a greater incidence of chronic non-cancer health effects, such as cough, labored breathing, chest tightness, wheezing, and bronchitis. Individuals particularly vulnerable to DPM are children, whose lung tissue is still developing, the elderly and people with illnesses who may have other serious health problems that can be aggravated by exposure to DPM. In general, children are more vulnerable than adults to air pollutants because they

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[8] California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf

[9] California Air Resources Board, *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*, October 2000. https://www.arb.ca.gov/diesel/documents/rmgFinal.pdf

[10] California Air Resources Board, *Summary: Diesel Particulate Matter Health Impacts*, April 12, 2016. https://www.arb.ca.gov/research/diesel/diesel-health_summ.htm

have higher inhalation rates, narrower airways, and less mature immune systems. In addition, children with allergies may have an enhanced allergic response when exposed to diesel exhaust).

COMMUNITY AIR RISK EVALUATION

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—diesel PM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). Overall, cancer risk from air toxics dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[11]

Cancer risks from air toxics in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Highest cancer risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. As a result, BAAQMD identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

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[11] Bay Area Air Quality Management District, *Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program Retrospective & Path Forward (2004 – 2013)*, April 2014, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

The proposed project is within the city of American Canyon, which is not part of the seven impacted communities. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, are approximately 160 cancer risk per million persons. In American Canyon, including the project site, the health impacts are approximately 98 cancer risk per million persons.[12]

EXPOSURE ASSESSMENT

Dispersion is the process by which atmospheric pollutants disseminate due to wind and vertical stability. The results of a dispersion analysis are used to assess pollutant concentrations at or near an emission source. The results of an analysis allow predicted concentrations of pollutants to be compared directly to air quality standards and other criteria such as health risks based on modeled concentrations.

A rising pollutant plume reacts with the environment in several ways before it levels off. First, the plume's own turbulence interacts with atmospheric turbulence to entrain ambient air. This mixing process reduces and eventually eliminates the density and momentum differences that cause the plume to rise. Second, the wind transports the plume during its rise and entrainment process. Higher winds mix the plume more rapidly, resulting in a lower final rise. Third, the plume interacts with the vertical temperature stratification of the atmosphere, rising as a result of buoyancy in the unstable-to-neutrally stratified mixed layer. However, after the plume encounters the mixing lid and the stably stratified air above, its vertical motion is dampened.

Molecules of gas or small particles injected into the atmosphere will separate from each other as they are acted on by turbulent eddies. The Gaussian mathematical model such as AERMOD simulates the dispersion of the gas or particles within the atmosphere. The formulation of the Gaussian model is based on the following assumptions:

- The predictions are not time-dependent (all conditions remain unchanged with time)
- The wind speed and direction are uniform, both horizontally and vertically, throughout the region of concern
- The rate of diffusion is not a function of position
- Diffusion in the direction of the transporting wind is negligible when compared to the transport flow

[12] Bay Area Air Quality Management District, *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area*, March 2014, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Dispersion Modeling Approach

Air dispersion modeling was performed to estimate the downwind dispersion of DPM exhaust emissions resulting from construction activities. The following sections present the fundamental components of an air dispersion modeling analysis including air dispersion model selection and options, receptor locations, meteorological data, and source exhaust parameters.

Model Selection and Options

AERMOD (Version 19191)[13] was used for the dispersion analysis. AERMOD is the USEPA preferred atmospheric dispersion modeling system for general industrial sources. The model can simulate point, area, volume, and line sources. AERMOD is the appropriate model for this analysis based on the coverage of simple, intermediate, and complex terrain. It also predicts both short-term and long-term (annual) average concentrations. The model was executed using the regulatory default options (stack-tip downwash, buoyancy-induced dispersion, and final plume rise), default wind speed profile categories, default potential temperature gradients, and assuming no pollutant decay.

The selection of the appropriate dispersion coefficients depends on the land use within three kilometers (km) of the project site. The types of land use were based on the classification method defined by Auer (1978); using pertinent United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) topographic maps of the area. If the Auer land use types of heavy industrial, light-to-moderate industrial, commercial, and compact residential account for 50 percent or more of the total area, the USEPA *Guideline on Air Quality Models* recommends using urban dispersion coefficients; otherwise, the appropriate rural coefficients can be used. Based on observation of the area surrounding the project site, rural (urban is only designated within dense city centers such as downtown San Francisco) dispersion coefficients were applied within AERMOD.

Receptor Locations

Some receptors are considered more sensitive to air pollutants than others, because of preexisting health problems, proximity to the emissions source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are also considered sensitive to poor air quality because people in residential areas are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution because vigorous exercise associated with recreation places having a high demand on respiratory system function.

[13] United States Environmental Protection Agency, AERMOD Modeling System, https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

Sensitive receptors were placed at existing residences and schools to estimate health impacts due to proposed project construction and operations. A residential receptor is located, within 1,000 feet of the project site to the east. Sensitive receptors were also placed at the Napa Junction Elementary School and the residential neighborhood to the southeast of the project site. **Figure 1** displays the location of the sensitive receptors used in this HRA. **Figure 1** also shows the delivery truck route, loading dock, as well as the project site and borrow site. Additionally, existing residences are located along Green Island Road, the delivery truck route, and were also included in the HRA. Receptors were placed at a height of 1.8 meters (typical breathing height). Terrain elevations for receptor locations were used based on available USGS information for the area.

FIGURE 1
HEALTH RISK ASSESSMENT RECEPTORS



Meteorological Data

Hourly meteorological data from Napa County Airport (surface data), located approximately four miles to the northwest of the proposed project, and Oakland International Airport (upper air) were used in the dispersion modeling analysis. Meteorological data from 2010 through 2014 were used.[14] **Figure 2** displays the annual wind rose. Wind directions are predominately from the south-southwest with a moderate frequency of calm wind speed conditions (approximately 20 percent), as shown in **Figure 3**. The average annual wind speed is 7.7 miles per hour.

Source Release Characteristics

Construction equipment activities were treated as an area source. The release height of the off-road equipment exhaust was 3.05 meters and an initial vertical dimension of 4.15 meters. Delivery trucks were treated as a line source (i.e., volume sources placed at regular intervals) located along an access road. Delivery trucks were assigned a release height of 3.05 meters and an initial vertical dimension of 4.15 meters, which accounts for dispersion from the movement of vehicles.[15] Loading dock activities were also treated as an area source with a release height of 3.05 meters. Fugitive dust-generating activities were treated as an area source. The release height of the fugitive dust was 0.0 meters (0.0 feet) and an initial vertical dimension of 1.0 meter.[16]

Typically, construction activities and operations would occur between 8 a.m. and 5 p.m. (ten hours per day), on Monday through Friday. Terrain elevations for emission source locations were used based on available USGS DEM for the area. AERMAP (Version 18081)[17] was used to develop the terrain elevations.

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[14] California Air Resources Board, Air Dispersion Modeling and Risk Tool Meteorological Files, October 5, 2015. https://www.arb.ca.gov/toxics/harp/metfiles2.htm

[15] While delivery truck emissions contribute to overall project emissions, they are spread over many miles. Hence, the portion of trucking emissions that would impact one receptor is much smaller than the emissions that the clustered off-road construction activity at the project site would impact a receptor near the site. For example, the DPM emissions from truck travel within 1,000 feet of the project are less than 1 percent of the total off-road DPM emissions.

[16] South Coast Air Quality Management District, Final Localized Significance Threshold Methodology. July 2008, http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

[17] United States Environmental Protection Agency, AERMAP. https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

FIGURE 2
WINDROSE FOR NAPA AIRPORT

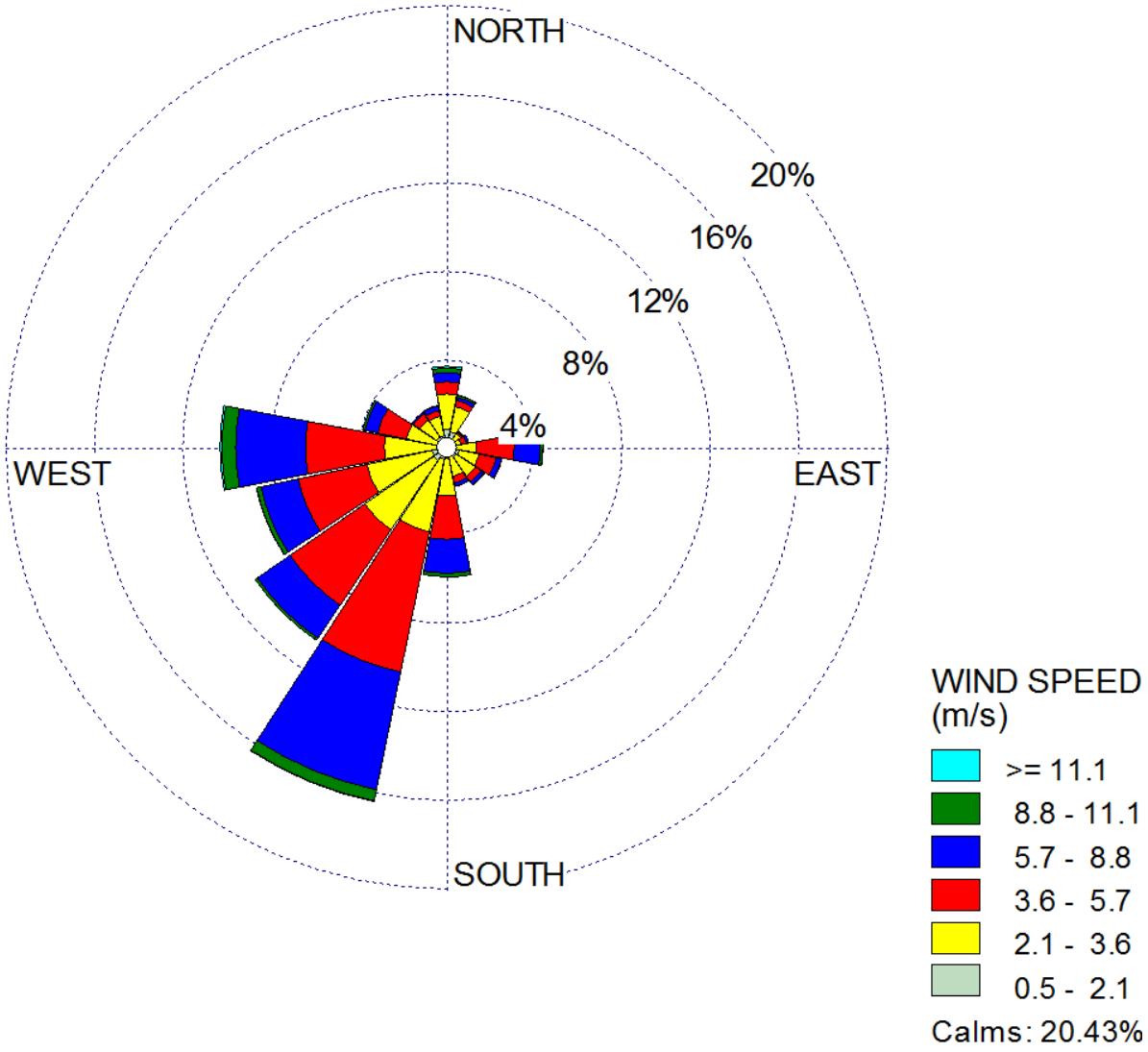
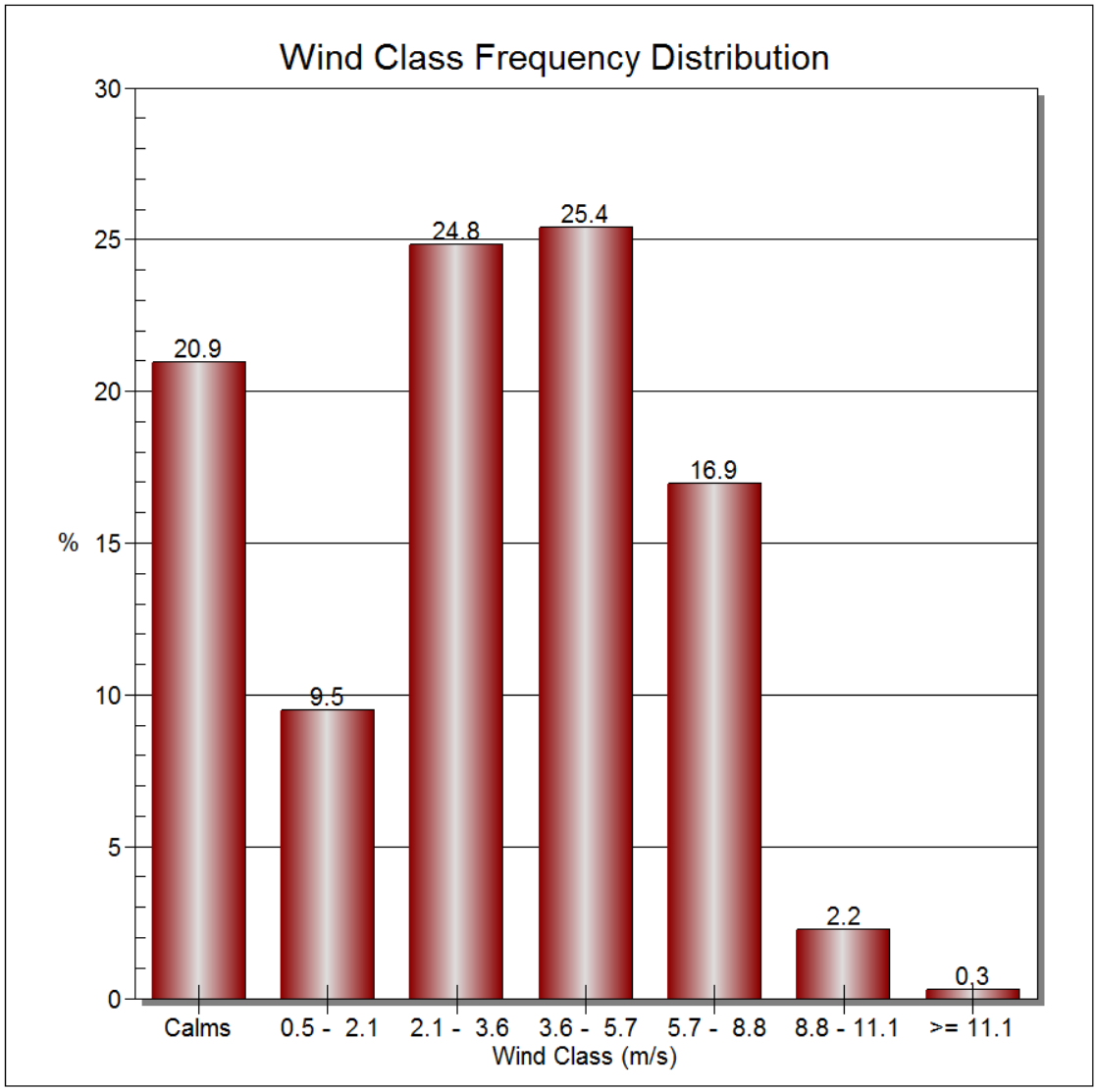


FIGURE 3
WIND SPEED DISTRIBUTION FOR NAPA AIRPORT



EXPOSURE PARAMETERS

This HRA was conducted following methodologies in OEHHA's *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[18] This was accomplished by applying the estimated concentrations at the receptors analyzed to the established cancer risk estimates and acceptable reference concentrations for non-cancer health effects.

OEHHA's revisions to its *Guidance Manual* were primarily designed to ensure that the greater sensitivity of children to cancer and other health risks is reflected in HRAs. For example, OEHHA now recommends that risks be analyzed separately for multiple age groups, focusing especially on young children and teenagers, rather than the past practice of analyzing risks to the general population, without distinction by age. OEHHA also now recommends that statistical "age sensitivity factors" be incorporated into a HRA, and that children's relatively high breathing rates be accounted for. On the other hand, the *Guidance Manual* revisions also include some changes that would reduce calculated health risks. For example, under the former guidance, OEHHA recommended that residential cancer risks be assessed by assuming 70 years of exposure at a residential receptor; under the *Guidance Manual*, this assumption is lessened to 30 years.

OEHHA has developed exposure factors (e.g., daily breathing rates) for six age groups including the last trimester to birth, birth to 2 years, 2 to 9 years, 2 to 16 years, 16 to 30 years, and 16 to 70 years. These age bins allow for more refined exposure information to be used when estimating exposure and the potential for developing cancer over a lifetime. This means that exposure variates are needed for the third trimester, ages zero to less than two, ages two to less than nine, ages two to less than 16, ages 16 to less than 30, and ages 16 to 70. Residential receptors utilize the 95th percentile breathing rate values. The breathing rates are age-specific and are 1,090 liters per kilogram-day for ages less than 2 years, 745 liters per kilogram-day for ages 2 to 16 years, 335 liters per kilogram-day for ages 16 to 30 years, and 290 liters per kilogram-day for ages 30 to 70 years. A school child breathing rate is 520 liters per kilogram-day and an off-site worker breathing rate is 230 liters per kilogram-day.

OEHHA developed age sensitivity factors (ASF) to consider the increased sensitivity to carcinogens during early-in-life exposures. OEHHA recommends that cancer risks be weighted by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures from 2 years through 15 years of age.

Based on OEHHA recommendations, the cancer risk to residential receptors assumes exposure occurs 24 hours per day for 350 days per year while accounting for a percentage of time at home. OEHHA evaluated information from activity pattern databases to estimate the fraction of

[18] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, March 6, 2015. http://oehha.ca.gov/air/hot_spots/hotspots2015.html

time at home (FAH) during the day. This information was used to adjust exposure duration and cancer risk based on the assumption that a person is not present at home continuously for 24 hours and therefore exposure to emissions is not occurring when a person is away from their home. In general, the FAH factors are age-specific and are 0.85 for ages less than 2 years, 0.72 for ages 2 to 16 years, and 0.73 for ages 30 to 70 years.

OEHHA has decreased the exposure duration currently being used for estimating cancer risk at the maximum exposed individual resident from 70 years to 30 years. This is based on studies showing that 30 years is a reasonable estimate of the 90th to 95th percentile of residency duration in the population.

Given the exposure durations of less than 24 hours, sensitive recreational receptors were evaluated for acute impacts only. Based on OEHHA recommendations, for children at school sites, exposure is assumed to occur 10 hours per day for 180 days (or 36 weeks) per year. Cancer risk estimates for children at school sites are calculated based on 9-year exposure duration. School sites also include teachers and other adult staff which are treated as off-site workers.

RISK CHARACTERIZATION

Cancer risk is defined as the lifetime probability of developing cancer from exposure to carcinogenic substances. Cancer risks are expressed as the chance in one million of getting cancer (i.e., number of cancer cases among one million people exposed). The cancer risks are assumed to occur exclusively through the inhalation pathway. The cancer risk can be estimated by using the cancer potency factor (milligrams per kilogram of body weight per day [mg/kg-day]), the 30-year annual average concentration (microgram per cubic meter [μg/m^3]), and the lifetime exposure adjustment.

Following guidelines established by OEHHA, the incremental cancer risks attributable to the proposed project were calculated by applying exposure parameters to modeled DPM concentrations in order to determine the inhalation dose (mg/kg-day) or the amount of pollutants inhaled per body weight mass per day. The cancer risks occur exclusively through the inhalation pathway; therefore, the cancer risks can be estimated from the following equation:

$$\text{Dose-inh} = \frac{C_{air} * \{DBR\} * A * ASF * FAH * EF * ED * 10^{-6}}{AT}$$

where:

Dose-inh = Dose of the toxic substance through inhalation in mg/kg-day

10^{-6} = Micrograms to milligrams conversion, Liters to cubic meters conversion

C_{air} = Concentration in air in microgram (μg)/cubic meter (m^3)

{DBR} = Daily breathing rate in liter (L)/kg body weight – day

A = Inhalation absorption factor, 1.0

ASF = Age Sensitivity Factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

FAH = Fraction of Time at Home

AT = Averaging time period over which exposure is averaged in days (25,550 days for a 70-year cancer risk)

To determine incremental cancer risk, the estimated inhalation dose attributed to the proposed project was multiplied by the cancer potency slope factor (cancer risk per mg/kg-day). The cancer potency slope factor is the upper bound on the increased cancer risk from a lifetime exposure to a pollutant. These slope factors are based on epidemiological studies and are different values for different pollutants. This allows the estimated inhalation dose to be equated to a cancer risk.

Non-cancer adverse health impacts, acute (short-term) and chronic (long-term), are measured against a hazard index (HI), which is defined as the ratio of the predicted incremental exposure concentration from the proposed project to a published reference exposure level (REL) that could cause adverse health effects as established by OEHHA. The ratio (referred to as the Hazard Quotient [HQ]) of each non-carcinogenic substance that affects a certain organ system is added to produce an overall HI for that organ system. The overall HI is calculated for each organ system. If the overall HI for the highest-impacted organ system is greater than one, then the impact is significant.

The HI is an expression used for the potential for non-cancer health effects. The relationship for the non-cancer health effects is given by the annual concentration (in $\mu g/m^3$) and the REL (in $\mu g/m^3$). The acute hazard index was determined using the "simple" concurrent maximum approach, which tends to be conservative (i.e., overpredicts).

The relationship for the non-cancer health effects is given by the following equation:

$$HI = C/REL$$

Where:

HI = Hazard index; an expression of the potential for non-cancer health effects.

C = Annual average concentration ($\mu g/m^3$) during the 70-year exposure period.

REL = Concentration at which no adverse health effects are anticipated.

The chronic REL for DPM was established by the California OEHHA as 5 μg/m^3.[19] There is no acute REL for DPM.

[19] Office of Environmental Health Hazards Assessment - Acute, 8-hour, and Chronic Reference Exposure Levels, June 2014. http://www.oehha.ca.gov/air/allrels.html

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM	
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM	
350	days per year	
25,550	days per lifetime	
1090	95th Percentile Daily Breathing Rates (L/kg-day)	0<2 Years
861	95th Percentile Daily Breathing Rates (L/kg-day)	2<9 Years
745	95th Percentile Daily Breathing Rates (L/kg-day)	2<16 Years
335	95th Percentile Daily Breathing Rates (L/kg-day)	16<30 Years
290	95th Percentile Daily Breathing Rates (L/kg-day)	30<70 Years
0.85	fraction of time at home	0<2 Years
0.72	fraction of time at home	2<16 Years
0.73	fraction of time at home	16<70 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Unmitigated
Receptor:	Existing Residence
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at home	Cancer Risk
1	2022	0.005	0.01	1,090	10.0	0.85	0.73
2	2023	0.005	0.02	1,090	10.0	0.85	0.64
3	2024	0.005	0.02	745	4.75	0.72	0.18
4	2025	0.005	0.02	745	3.00	0.72	0.11
5	2026	0.005	0.02	745	3.00	0.72	0.11
6	2027	0.005	0.02	745	3.00	0.72	0.11
7	2028	0.005	0.02	745	3.00	0.72	0.11
8	2029	0.005	0.02	745	3.00	0.72	0.11
9	2030	0.005	0.02	745	3.00	0.72	0.11
10	2031	0.005	0.02	745	3.00	0.72	0.11
11	2032	0.005	0.02	745	3.00	0.72	0.11
12	2033	0.005	0.02	745	3.00	0.72	0.11
13	2034	0.005	0.02	745	3.00	0.72	0.11
14	2035	0.005	0.02	745	3.00	0.72	0.11
15	2036	0.005	0.02	745	3.00	0.72	0.11
16	2037	0.005	0.02	745	3.00	0.72	0.11
17	2038	0.005	0.02	335	1.70	0.73	0.03
18	2039	0.005	0.02	335	1.00	0.73	0.02
19	2040	0.005	0.02	335	1.00	0.73	0.02
20	2041	0.005	0.02	335	1.00	0.73	0.02
21	2042	0.005	0.02	335	1.00	0.73	0.02
22	2043	0.005	0.02	335	1.00	0.73	0.02
23	2044	0.005	0.02	335	1.00	0.73	0.02
24	2045	0.005	0.02	335	1.00	0.73	0.02
25	2046	0.005	0.02	335	1.00	0.73	0.02
26	2047	0.005	0.02	335	1.00	0.73	0.02
27	2048	0.005	0.02	335	1.00	0.73	0.02
28	2049	0.005	0.02	335	1.00	0.73	0.02
29	2050	0.005	0.02	335	1.00	0.73	0.02
30	2051	0.005	0.02	335	1.00	0.73	0.02

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
2.22	Cancer Risk (Child)
10	Significance Threshold
No	Significant?
0.87	Cancer Risk (Adult)
10	Significance Threshold
No	Significant?
3.25	30-Year Exposure Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM	
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM	
350	days per year	
25,550	days per lifetime	
1090	95th Percentile Daily Breathing Rates (L/kg-day)	0<2 Years
861	95th Percentile Daily Breathing Rates (L/kg-day)	2<9 Years
745	95th Percentile Daily Breathing Rates (L/kg-day)	2<16 Years
335	95th Percentile Daily Breathing Rates (L/kg-day)	16<30 Years
290	95th Percentile Daily Breathing Rates (L/kg-day)	30<70 Years
0.85	fraction of time at home	0<2 Years
0.72	fraction of time at home	2<16 Years
0.73	fraction of time at home	16<70 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Mitigated
Receptor:	Existing Residence
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at home	Cancer Risk
1	2022	0.001	0.01	1,090	10.0	0.85	0.13
2	2023	0.005	0.02	1,090	10.0	0.85	0.64
3	2024	0.005	0.02	745	4.75	0.72	0.18
4	2025	0.005	0.02	745	3.00	0.72	0.11
5	2026	0.005	0.02	745	3.00	0.72	0.11
6	2027	0.005	0.02	745	3.00	0.72	0.11
7	2028	0.005	0.02	745	3.00	0.72	0.11
8	2029	0.005	0.02	745	3.00	0.72	0.11
9	2030	0.005	0.02	745	3.00	0.72	0.11
10	2031	0.005	0.02	745	3.00	0.72	0.11
11	2032	0.005	0.02	745	3.00	0.72	0.11
12	2033	0.005	0.02	745	3.00	0.72	0.11
13	2034	0.005	0.02	745	3.00	0.72	0.11
14	2035	0.005	0.02	745	3.00	0.72	0.11
15	2036	0.005	0.02	745	3.00	0.72	0.11
16	2037	0.005	0.02	745	3.00	0.72	0.11
17	2038	0.005	0.02	335	1.70	0.73	0.03
18	2039	0.005	0.02	335	1.00	0.73	0.02
19	2040	0.005	0.02	335	1.00	0.73	0.02
20	2041	0.005	0.02	335	1.00	0.73	0.02
21	2042	0.005	0.02	335	1.00	0.73	0.02
22	2043	0.005	0.02	335	1.00	0.73	0.02
23	2044	0.005	0.02	335	1.00	0.73	0.02
24	2045	0.005	0.02	335	1.00	0.73	0.02
25	2046	0.005	0.02	335	1.00	0.73	0.02
26	2047	0.005	0.02	335	1.00	0.73	0.02
27	2048	0.005	0.02	335	1.00	0.73	0.02
28	2049	0.005	0.02	335	1.00	0.73	0.02
29	2050	0.005	0.02	335	1.00	0.73	0.02
30	2051	0.005	0.02	335	1.00	0.73	0.02

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
1.62	Cancer Risk (Child)
10	Significance Threshold
No	Significant?
0.84	Cancer Risk (Adult)
10	Significance Threshold
No	Significant?
2.65	30-Year Exposure Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM
180	days per year
25,550	days per lifetime
581	98th Percentile Daily Breathing Rates (l 2<16 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Unmitigated
Receptor:	Napa Junction Elementary School
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at school	Cancer Risk
1	2022	0.005	0.015	581	3.00	0.83	0.05
2	2023	0.003	0.003	581	3.00	0.83	0.03
3	2024	0.003	0.003	581	3.00	0.83	0.03
4	2025	0.003	0.003	581	3.00	0.83	0.03
5	2026	0.003	0.003	581	3.00	0.83	0.03
6	2027	0.003	0.003	581	3.00	0.83	0.03
7	2028	0.003	0.003	581	3.00	0.83	0.03
8	2029	0.003	0.003	581	3.00	0.83	0.03
9	2030	0.003	0.003	581	3.00	0.83	0.03
10	2031	0.003	0.003	581	3.00	0.83	0.03
11	2032	0.003	0.003	581	3.00	0.83	0.03
12	2033	0.003	0.003	581	3.00	0.83	0.03

0.02	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
0.39	Cancer Risk
10	Significance Threshold
No	Significant?

Health Risk Assessment Assumptions

5	Chronic Reference Exposure Level (ug/m3) for DPM
1.1	Cancer Potency Slope Factor (cancer risk per mg/kg-day) for DPM
180	days per year
25,550	days per lifetime
581	98th Percentile Daily Breathing Rates (L 2<16 Years

Project:	American Canyon 217 Wine Storage
Date:	June 30, 2021
Condition:	Mitigated
Receptor:	Napa Junction Elementary School
Source:	Construction + Operations

Exposure Year	Calender Year	Annual DPM Concentration (ug/m3)	Annual PM2.5 Concentration (ug/m3)	Daily Breathing Rates (L/kg-day)	Exposure Factor	fraction of time at school	Cancer Risk
1	2022	0.001	0.006	581	3.00	0.83	0.01
2	2023	0.003	0.003	581	3.00	0.83	0.03
3	2024	0.003	0.003	581	3.00	0.83	0.03
4	2025	0.003	0.003	581	3.00	0.83	0.03
5	2026	0.003	0.003	581	3.00	0.83	0.03
6	2027	0.003	0.003	581	3.00	0.83	0.03
7	2028	0.003	0.003	581	3.00	0.83	0.03
8	2029	0.003	0.003	581	3.00	0.83	0.03
9	2030	0.003	0.003	581	3.00	0.83	0.03
10	2031	0.003	0.003	581	3.00	0.83	0.03
11	2032	0.003	0.003	581	3.00	0.83	0.03
12	2033	0.003	0.003	581	3.00	0.83	0.03

0.01	Maximum Annual PM2.5 Concentration (ug/m3)
0.3	Significance Threshold (ug/m3)
No	Significant?
0.00	Chronic Hazard Impact
1	Significance Threshold
No	Significant?
0.34	Cancer Risk
10	Significance Threshold
No	Significant?

CITY COUNCIL AGENDA
JULY 20, 2021

STAFF REPORT
CONSENT
ITEM NUMBER: 17.

TITLE

Citywide Landscaping Lighting and Assessment District Fiscal Year 2021/2022 Annual Engineer's Report

RECOMMENDATION

Adopt a Resolution preliminarily approving the 2021/22 Annual Engineer's Report, declaring the intention to levy and collect annual assessments, and setting the Public Hearing for consideration of the American Canyon Landscaping and Lighting Assessment District assessments for Fiscal Year 2021/22 for July 20, 2021, at 6:30 p.m. in the Council Chambers.

CONTACT

Erica Smithies, Public Works Director, 707-647-4366, esmithies@ cityofamericancanyon.org

BACKGROUND & ANALYSIS

This item is for Council's consideration regarding the American Canyon Landscaping and Lighting Assessment District (LLAD). Harris & Associates is the Assessment Engineer for the American Canyon LLAD. In that role, they have prepared the 2021/22 Annual Engineer's Report (Attachment 2). The annual filing of an Engineer's Report is required by the Landscaping & Lighting Act of 1972. Proposed adjustments to the annual assessments are described below.

Staff is requesting City Council to initiate proceedings, preliminarily approve the Fiscal Year 20/21 Annual Engineer's Report, declare the intention to levy and collect assessments, and set the Public Hearing for consideration of the American Canyon Landscaping and Lighting Assessment District assessments for Fiscal Year 2021/22 for July 20, 2021, at 6:30 p.m. in the Council Chambers.

The American Canyon LLAD is divided into three (3) zones:

Zone 1

In January 2001, the City Council approved the formation of the LLAD. At the time, the purpose of the LLAD was to operate and maintain facilities constructed within the La Vigne subdivision. This area of the LLAD is known as Zone 1. The annual work associated with maintaining the facilities within Zone 1 includes operation and maintenance of landscaping in public areas, pedestrian paths, the streetscape of Via Bellagio, and the park areas. Also included are the operation and maintenance of the streetlights within the neighborhood.

Zone 2

Zone 2 encompasses the Vintage Ranch subdivision and includes operation and maintenance of parks, environmentally sensitive areas, bike trails, streetscape, water basins, fencing, walls, street lighting, and a portion of traffic signals within the subdivision.

Zone 3

Zone 3 encompasses the Napa Junction mixed-use development consisting of phases I, II & III which includes the operation and maintenance of landscaping, streetscape, bikeways, water basins, park areas, fencing, street lighting and a portion of traffic signals serving the development. It also includes mowing the frontage along Highway 29 between Rio Del Mar and Napa Junction Road.

Assessment Methodology

The Report includes a description of each zone in the LLAD, any proposed changes to the zones, the opposed costs to operate and maintain the improvements, the method of apportionment (spread) of the assessments, the assessment roll for all parcels, and the assessment diagrams (maps). As mentioned above, there will be no annexations to the LLAD this fiscal year.

Assessment Calculation

The activities described in the report are paid for by assessments on parcels that derive special benefit from the amenities located within the LLAD. The assessments are updated annually in order account for changes in maintenance budgets and changes in development patterns. Staff has verified the proposed FY 2021/22 assessments do not exceed the maximum assessment allowed. The table below illustrates all of the proposed FY 2021/22 assessments:

	Actual FY 2019/20 Assessment	Actual FY 2020/21 Assessment	**Proposed FY 2021/22 Assessment**	Maximum FY 2021/22 Assessment
Zone 1	$400.00	$400.00	**$400.00**	$626.20
Zone 2	$302.40	$302.40	**$302.40**	$959.87
Zone 3	$1,022.01/acre ($207.56/unit)	$1,022.01/acre ($207.56/unit)	**$1,022.01/acre ($207.56/unit)**	$2,117.54/acre ($351.04/unit)

Zone 1

The proposed assessment remains the same as FY 2020/21. The La Vigne subdivision is more than 15 years old and many facilities within it require repair and replacement and funds that will need to be accumulated to account for those additional costs.

Zone 2

The proposed assessment remains the same as FY 2020/21. Parts of the subdivision are ten years old and many facilities are approaching the end of their useful life. Included in the Capital Expenditure Plan is the last of the planned recycled water conversions, consisting of installing a

booster pump to irrigate the turf around the old fountain area with recycled water and renovation of the ROW landscaping along the western side of Newell Drive. Ultimately, this will assist in the overall water conservation efforts that have been undertaken in the last three years.

Zone 3

The proposed assessment remains the same as FY 2020/21. The budget is based on current landscaping contracts, expected increases in landscaping contracts based on preliminary bids, historical cost review, and professional estimates of labor efforts required to maintain the facilities. It also includes tree pruning, and the next phase of the basin modification project, and/or improvements related to split rail fencing associated with Napa Junction Phase III.

All Zones

It is proposed that there be no assessment increase for 2021/22. However, a draft Capital Reserve and Replacement study was completed for all zones during the 2020/21 fiscal year and will be used to project future assessments by Zone beginning in FY 2022/23. Staff will be finalizing the study and engaging the community later this calendar year for input prior to bringing the study to City Council.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

There is no General Fund impact by this action. All costs associated with the annual proceedings and the operation, maintenance, and administration of the Assessment District improvements are recovered from the assessments levied and collected on the parcels within each zone.

The total proposed Assessment District budget for FY 2021/22 for all three Zones is $612,156. Funding for this budget is proposed to include $480,999 from FY 2021/22 assessment revenues levied and collected, $137,512 contributed to operating reserves and $6,355 taken from capital reserves. No General Fund contributions are proposed.

A more detailed budget for each zone showing the prior year's expenses and projections for the next two fiscal years is shown in the attached Engineer's Report for FY 2021/22. This is done to provide each zone's property owners with information on trends and potential upcoming expenses, including planned capital expenditures.

ENVIRONMENTAL REVIEW

15378(b) - The action is not a "Project" subject to the California Environmental Quality Act ("CEQA") because it does not qualify as a "Project" under Public Resources Code Sections 21065 and 21080 and in Section 15378(b) of Title 14 of the California Code of Regulations.

ATTACHMENTS:

1. Resolution - Lighting Assessment District (LLAD)

2. Exhibit A - 2021/22 Annual Engineer's Report

RESOLUTION NO. 2021-_____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING THE 2021/2022 ENGINEER'S REPORT FOR THE AMERICAN CANYON LANDSCAPING AND LIGHTING ASSESSMENT DISTRICT, APPROVING THE BUDGETS WITHIN THE ENGINEER'S REPORT, CONFIRMING THE ASSESSMENT DIAGRAM AND THE ANNUAL ASSESSMENT AMOUNTS, AND AUTHORIZING THE LEVY AND COLLECTION OF ANNUAL ASSESSMENTS FOR FISCAL YEAR 2021/2022.

WHEREAS, the City Council of the City of American Canyon ordered the formation of the American Canyon Landscaping and Lighting Assessment District (LLAD) in 2001 in order to levy and collect assessments pursuant to the Landscaping and Lighting Act of 1972 (Streets and Highways Code Section 22500 et. seq.); and

WHEREAS, the City Council intends to levy and collect assessments within the American Canyon LLAD during Fiscal Year 2021/2022; and

WHEREAS, the Engineer of Work has prepared and filed with the City Clerk the Fiscal Year 2021/2022 Engineer's Report for the Assessment District as required by the Landscaping and Lighting Act of 1972 outlining the proposed budgets, the proposed improvements, and/or changes to the Assessment District in order to levy and collect assessments during any following fiscal year; and

WHEREAS, all interested persons are referred to the Fiscal Year 2021/2022 Engineer's Report for a full and detailed description of the improvements, the proposed operation and maintenance costs, the boundaries of the Assessment District, and the proposed assessments upon assessable lots or parcels of land within the Assessment District boundaries; and

WHEREAS, on June 15, 2021, the City Council adopted a Resolution of Intention to levy and collect annual assessments for Fiscal Year 2021/2022, preliminarily approved the annual Engineer's Report for Fiscal Year 2021/2022, and set the time and date of the public hearing pursuant to Section 22624 of the Streets and Highways Code; and

WHEREAS, for Fiscal Year 2021/2022, the proposed annual assessment is $400.00 per Equivalent Single-Family Dwelling Unit (ESD) for all properties within Zone 1; and

WHEREAS, for Fiscal Year 2021/2022, the proposed annual assessment is $302.42 per ESD for all properties within Zone 2; and

WHEREAS, for Fiscal Year 2021/2022, the proposed annual assessment is $207.56 per ESD and $1,022.01 per acre of commercial property for all properties within Zone 3; and

WHEREAS, this Resolution is adopted pursuant to Section 22620 of the California Streets and Highways Code; and

WHEREAS, on July 20, 2021, the City Council held the public protest hearing and gave persons the opportunity to protest the Fiscal Year 2021/2022 Engineer's Report, either in writing or orally, and the City Council has fully heard and considered all matters and things pertaining to the levy and collection of the proposed assessments.

NOW THEREFORE, BE IT RESOLVED that in accordance with the requirements of Section 22631 of the California Streets and Highways Code, the City Council of the City of American Canyon hereby:

1. Approves the Fiscal Year 2021/2022 Annual Engineer's Report, attached hereto as Exhibit A and incorporated herein, for the Landscaping and Lighting Assessment District as prepared and filed.

2. Approves the budgets for each of the three zones within the Engineer's Report.

3. Confirms the assessment diagram and assessment as set forth in the Annual Engineer's Report or as modified as allowed by the City Council.

5. Authorizes the levy and collection of annual assessments for Fiscal Year 2021/2022 as set forth in said report for Landscaping and Lighting Assessment District Zone 1 - LaVigne Subdivision, Zone 2 - Vintage Ranch Subdivision, and Zone 3 – Napa Junction Mixed Use Development.

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of American Canyon on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

CITY OF AMERICAN CANYON

Harris & Associates

CITY OF AMERICAN CANYON

ENGINEER'S REPORT
FISCAL YEAR 2021-22
NAPA COUNTY, CALIFORNIA
LANDSCAPE AND LIGHTING
ASSESSMENT DISTRICT

June 2021

PREPARED BY
Harris & Associates
22 Executive Park, Suite 200
Irvine, CA 92614
www.weareharris.com

CERTIFICATIONS

Certifications

I HEREBY CERTIFY that the enclosed Engineer's Report, together with Assessment and Assessment Diagram thereto attached was filed with me on the _____day of _____, 20__.

Cherri Walton, Interim City Clerk
City of American Canyon, Napa County, CA

_____

I HEREBY CERTIFY that the enclosed Engineer's Report, together with Assessment and Assessment Diagram thereto attached was approved and confirmed by the City Council of the City of American Canyon, California on the _____day of _____, 20__.

Cherri Walton, Interim City Clerk
City of American Canyon, Napa County, CA

_____

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STATEMENT OF ASSESSMENT ENGINEER'S

Statement of Assessment Engineer

AGENCY: **THE CITY OF AMERICAN CANYON**

PROJECT: **CITY OF AMERICAN CANYON LANDSCAPE AND LIGHTING ASSESSMENT DISTRICT**

TO: **THE CITY COUNCIL OF THE**
CITY OF AMERICAN CANYON
STATE OF CALIFORNIA

ENGINEER'S REPORT FOR FISCAL YEAR 2021-22

The preparation of this Annual Engineer's Report ("Report") is in conformance with the obligation of the City Council for the American Canyon Landscape and Lighting Assessment District of the City of American Canyon to provide landscaping services upon each lot or parcel of land in the district in proportion to the estimated benefit to be received by each such lot or parcel of land for Fiscal Year 2021-22.

Pursuant to the Landscaping and Lighting Act of 1972 (Part 2 Division 15 of the Streets and Highways Code of the State of California, commencing with Section 22500) ("Act"), Article XIIID, Section 4(a) of the State of California Constitution, and in accordance with the City of American Canyon's Resolution being adopted by the City Council for:

CITY OF AMERICAN CANYON LANDSCAPE AND LIGHTING ASSESSMENT DISTRICT

(Hereinafter referred to as the "District"),

I, Alison Bouley, authorized representative of the District, the duly appointed Assessment Engineer submit the following Report which consists of the following four (4) parts and Appendices:

PART I

Description of Improvements: This part provides a general description of improvements proposed to be maintained in the District. Plans and specifications for the improvements are on file with the District Engineer.

PART II

Estimate of Cost: This part contains the cost estimate of the proposed maintenance including incidental costs and expenses for Fiscal Year 2021-22.

PART III

Method of Apportionment of the Assessments: This part describes the method of apportionment of assessments, based upon parcel classification of land within the District in proportion to the estimated special benefits to be received. The costs and expenses of the District have been assessed upon the parcels of land within the boundaries of District pursuant to the initial methodology established at the time of formation, in 2001. For particulars as to the identification of parcels, reference is made to the District Diagram.

Appendices

Appendix A – Assessment Diagrams for the District
Appendix B – Assessment Roll

In conclusion, it is my opinion that the costs and expenses of the District have been assessed to the lots and parcels within the boundaries of the District in proportion to the estimated benefits to be received by each lot or parcel from the services provided.

DATED this ____ day of _____, 2021

Harris & Associates



_____

Alison Bouley, P.E., Assessment Engineer
R.C.E. No. C61383
Engineer of Work

PART I – PLANS AND SPECIFICATION

Plans and Specifications

PURPOSE

The purpose of this report is to set forth findings and the engineering analysis for the American Canyon Landscaping & Lighting District, City of American Canyon (City), for the subject year as directed by the City Council of the City of American Canyon (City Council), pursuant to Section 22620 of the Streets & Highways Code (Landscaping & Lighting Act of 1972) and Articles XIII C and D of the California State Constitution (Proposition 218).

BACKGROUND

The American Canyon Landscaping & Lighting Assessment District (Assessment District) was formed in January 2001 to provide a dedicated source of funds to cover the costs associated with the operation and maintenance of landscaping and lighting improvements which provide a special benefit to the parcels within the La Vigne Subdivision (Zone 1). Both Proposition 218 and the Landscape and Lighting Act of 1972 require that the Engineer's Report approved at the time of formation for the District establish a method of assessment, a maximum assessment amount, and any escalation factors that will be used to allow the annual assessments to keep pace with inflation. In order to take inflation into account, the 2001 formation proceedings allowed assessments to be escalated in accordance with the All Urban Consumers (San Francisco Area) CPI from the U. S. Department of Labor, Bureau of Labor Statistics. Maximum Assessments may be increased annually by the approved inflation factor without the need to provide notices and assessment ballots to property owners within the Assessment District. However, if the City proposes increasing maximum assessments in an amount above the approved inflation factor, it must conduct an assessment balloting process in accordance with Proposition 218.

Once an Assessment District is created, it is possible to annex new zones or annex new areas into existing zones as new subdivisions are developed and new facilities require maintenance. Since 2001, the Vintage Ranch Subdivision (Zone 2) and the Napa Junction Mixed Use Development (Zone 3) have been annexed into the Assessment District. In July of 2020, the Villages at Vintage Ranch, a 159 unit apartment complex was annexed into Zone 2. The same CPI escalator provision was also approved for these zones at the time they were annexed to the Assessment District.

The Landscaping & Lighting Act of 1972 requires that an Engineer's Report be prepared and adopted by the City Council each year, in order to levy and collect assessments in any following fiscal year. The City Council has appointed Harris & Associates as the Engineer of Work and directed the preparation and filing of this 2021-22 Annual Engineer's Report.

The 2021-22 Engineer's Report outlines the facilities to be maintained, the budgets proposed for this maintenance, and the assessments necessary to support these budgets. This Engineer's Report documents any land use changes in the zones (i.e. new subdivisions) and any proposed annexations. This Engineer's Report calculates the maximum allowable assessment for each zone based on the annual CPI escalator percentage (1.72%) and provides clear confirmation that the proposed assessments do not exceed the approved maximum including adjustments for inflation for each zone.

The table below summarizes the maximum annual assessments allowed in Zones 1, 2 and 3, including the CPI increase, and compares these to the assessments proposed to be levied and collected in Fiscal Year (FY) 2020-21. As shown, the proposed assessment within each Zone is less than the Maximum Assessment allowed, thus Proposition 218 balloting is not required in any zone.

Zone	FY 2020-21 Maximum Assessment (1)	Allowable CPI (2) Increase	FY 2021-22 Maximum Assessment	Preliminary FY 2021-22 Annual Assessment	Final FY 2021-22 Annual Assessment
Zone 1	$615.60	$10.60	$626.20	$400.00	
Zone 2	$943.62	$16.25	$959.87	$302.42	
Zone 3 - ESD	$345.10	$5.94	$351.04	$207.56	
Zone 3 - Acre	$2,081.69	$35.85	$2,117.54	$1,022.01	

Notes:

1 Refer to "FY 2020-21 Annual Engineer's Report".

2 United States Department of Labor, Bureau of Statistics, All Urban Consumers CPI (San Francisco Area), Annual average 2019 to 2020 = 1.72%.

The total proposed Assessment District budget for FY 2021-22 for all three Zones is $612,156. Funding for this budget is proposed to include $480,999 from FY 2021-22 assessment revenues levied and collected, $137,512 contributed to operating reserves and $6,355 taken from capital reserves. No General Fund contributions are proposed.

FACILITIES

ZONE 1 – LA VIGNE

Improvements Maintained

Zone 1 provides for funding for the following improvements, illustrated on the Zone 1 Assessment Diagram found in Appendix A:

1. The maintenance and operation including repair, replacement, and servicing of street light standards, luminaries, wiring and appurtenances necessary to provide street lighting within Zone 1.

2. The installation, maintenance and operation to include repair, replacement and servicing of street trees, shrubs, planting and irrigation systems together with earth berms, slopes, curbs, root deflectors, decorative paving, masonry walls and concrete or wood appurtenances, all as delineated on the improvements plans for A.P.N. 059-100-006 prepared by Carlson, Barbee & Gibson, Inc. dated June 1, 1999 or as specified in the City of American Canyon Public Works Department, Engineering Division Standard Details and Specifications. Specifically this work includes the following:

- Along the entire north side of Parcel A: landscaping and the public walkway adjacent to the creek running through La Vigne subdivision.
- Parcel B: landscape right-of-way area along east side of Flosden Road including the median area directly adjacent to parcel B; landscape and park area north of Parcel A and south of the north Via Bellagio entry including the entry monument and the median area in Via Bellagio and special amenities.
- Parcel C: landscape right-of-way area along east side of Flosden Road including the median area directly adjacent to Parcel C; landscaping and detention basin including entry monument and special amenities and the median area within Via Bellagio.
- Parcel D: landscape right-of-way area along east side of Flosden Road, including the median area directly adjacent to Parcel D; landscaping and sound wall west of Parcel J including entry monument and special amenities.
- Parcel E: landscape right-of-way area along east side of Flosden Road including the median area directly adjacent to Parcel E and right-of-way area along south side of American Canyon Road to Via Firenze; median landscape areas within Via Firenze at the intersection of American Canyon Road, landscaping and sound wall north and west of La Vigne Unit 1 including entry monuments and special amenities.
- Parcel F: landscape right-of-way area along south side of American Canyon Road to the wetlands restoration area, asphalt and DG trail, sound wall and landscape area north of Parcel F, entry monuments, and special amenities.
- Parcel G: Asphalt trail extending from Parcel F to southern subdivision boundary.
- Parcel H: special amenities and landscape within park site, "Via Bellagio Park".
- Parcel K: special amenities and landscape within park site, "Pelleria Park".
- Via Bellagio including the entire length of the landscape right-of-way area from back of curb to face of sidewalk including ancillary medians that intersect Via Bellagio from adjoining parcels and neighborhoods. Entry monuments are not included as they are noted in other parcel descriptions.

Prior to the (FY 2013-14) Engineer's Report, property owners within Zone 1 believed that there had been inconsistent information regarding Zone 1's responsibility of funding the maintenance of certain improvements located within parcels A, F, & G, or portions thereof.

In an attempt to provide clarity and finality to the issue, City Staff in collaboration with the City Attorney, performed an exhaustive records search of a variety of documentation regarding the specific improvements to be maintained by the District and the financial obligations of property owners within Zone 1 of the LLAD. Several property owners within Zone 1 did not agree with the findings made by the City Attorney as to the maintenance funding responsibilities for certain improvements located within parcels A, F, & G. With the desire to provide closure to this issue, the City and Zone 1 property owners agreed to have a mutually agreed upon neutral third party (William Abbott of Abbott & Kindermann, LLP) review the documents and the findings of the City Attorney.

Because the funding responsibility for certain improvements located within parcels A, F, & G were in dispute, no funds were included in the Zone 1 budget for FY 2013-14 for the maintenance of the disputed facilities by the District.

A memorandum was issued by Mr. Abbott dated December 3, 2013 that summarized the background and issues he was tasked to evaluate and make findings on. The memo concluded that "the documentation in 2001 supports the City's interpretation that maintenance of the trails on parcels A, F, and G were in included within the purposes of the district assessment in 2001." Based on these findings, this report and all future engineers' reports will include the necessary improvements associated with parcels A, F, and G, and the corresponding budget line items for maintenance and/or replacement.

The assessments collected in the Zone may also fund any and all incidental expenses in connection therewith, all as more particularly authorized pursuant to the Landscaping and Lighting Act.

Property Assessed

Zone 1 is built out and no new annexations are proposed for FY 2021-22. Zone 1 has 466.0 Equivalent Single Family Dwelling (ESD) units, the same as last year.

Proposed Budgets

All Zone 1 improvements have been completed and accepted. The total proposed Zone 1 budget (Total Expenses) for FY 2021-22 is $133,000. This budget is based on current landscaping contracts, expected increases in landscaping contracts based on preliminary bids, historical cost review, and professional estimates of labor efforts required to maintain the facilities. The proposed funding will be $186,400 from FY 2021-22 assessments, and $0.00 from available reserves. No general fund contributions are proposed.

A Capital Reserve and Replacement study was completed during the 2020-21 fiscal year to identify the increased services to be provided and to determine the annual costs to be assessed to the property owners. In preparation for those increased service levels, the assessment will need to be increased at some point in the future, but it is proposed that there be no increase for 2021-22. The Capital Reserve and Replacement study mentioned above will also be used to project future assessments for the Zone, and funds will need to be accumulated to account for those additional costs.

Proposed Assessments

The proposed Zone 1 annual assessment rate to levy and collect is proposed to be $400.00 per ESD. The new maximum annual assessment for Zone 1 is $626.20 per ESD including the allowed 1.72% CPI increase.

ZONE 2 – VINTAGE RANCH

Improvements Maintained

Zone 2 provides funding for the maintenance of landscaping, public walkways, creeks and their related improvements, creek trails, water quality basins and ponds, streetscapes, Class 1 bikeways, walls and fences, maintenance and electricity of street lighting, a portion of intersection traffic signals, and parks within Vintage Ranch. The Assessment

Diagram in Appendix A illustrates the location of these improvements including:

- Silver Oak Park, "LOT A"
- Shenandoah Park, "LOT H"
- PG&E Linear Park, "LOT F"
- Environmentally sensitive areas located on Lots A, C, D, G & in setback areas and ponds [1]
- The Creek Trail System along the south side of the tract, north of parcel C
- Streetscapes within Vintage Ranch, including landscaped areas at the end of Farentino and the end of the Newhall right-of-way (at the dead end)
- The Class 1 Bikeway on Newell Drive
- Fence and Wall Maintenance
- Water Quality Basins 1, 2, 3 & 4
- Street Lighting
- 25% of the traffic signals at Flosden and American Canyon Road; Silver Oak and American Canyon Road, Newell and Silver Oak, and Donaldson and Highway 29

The assessments collected may also fund any and all incidental expenses in connection therewith, all as more particularly authorized pursuant to the Landscaping and Lighting Act of 1972.

Property Assessed

The FY 2021-22 assessments are proposed to be levied on 860.40 ESD units, which remain unchanged from the ESD units included in the FY 2020-21 assessment roll as this zone is fully developed. Part III provides additional discussion and findings related to the benefits provided by the zone and the parcels that receive these benefits.

In Fiscal Year 2020-21, the Villages at Vintage Ranch, a 159 unit apartment complex on the northeast corner of American Canyon Road and Highway 29, was annexed into Zone 2 of the LLAD. This annexation increased the Zone ESD by 95.40, bring the total Zone ESD to 860.40 beginning in 2020-21 as mentioned above.

Proposed Budgets

The total proposed Zone 2 budget (Total Expenses) for FY 2021-22 is $244,700. This budget is based on current landscaping contracts and expected increases based on preliminary bids, historical cost review, and professional estimates of labor efforts required to maintain the facilities. Included in the Capital Expenditure Plan is the last of the planned recycled water conversions, consisting of installing a booster pump to irrigate the turf around the old fountain area with recycled water and renovation of the ROW landscaping along the western side of Newell Drive. Ultimately, this will assist in the overall water conservation efforts that have been undertaken in the last three years.

The proposed funding will be $260,202 from FY 2021-22 assessments, and $0.00 from available reserves. No general fund contributions are proposed. The proposed budget includes the full year maintenance funding for all facilities including the Environmentally Sensitive Areas.

A Capital Reserve and Replacement study was completed during the 2020-21 fiscal year to identify the need for any increased services to be provided and to determine the annual costs to be assessed to the property owners. The Capital Reserve and Replacement study will also be used to project future assessments for the Zone.

Proposed Assessments

The assessment rate is not proposed to increase for FY 2021-22 based upon the estimated maintenance costs and anticipated, future capital replacement costs. The proposed Zone 2 annual assessment to levy and collect is $302.42. The new maximum assessment is $959.87 including the allowed 1.72% CPI increase.

ZONE 3 – NAPA JUNCTION MIXED USE PROJECT

Improvements Maintained

Zone 3 maintains landscaping, streetscape, bikeways, water basins, park areas, fencing, street lighting and traffic signals within the Napa Junction Mixed Use Project. The Assessment Diagram in Appendix A illustrates the location of these improvements specifically:

- Streetscapes
- Class 1 Bikeways
- Highway 29 Ditch (Water Quality Basin 1)
- Small Park (Water Quality Basin 3)
- Street Lighting
- 25% of the traffic signal at Eucalyptus and Highway 29
- Caltrans right-of-way maintenance along the westerly border of the zone adjacent to the Napa Junction Phase I & II commercial development
- Improvements along the north and south sides of Napa Junction Road as part of the Napa Junction III development
- Multi-Use path/utility access road along the western property line of the Napa Junction III development
- Parcel 4 – Open space and Wetlands parcel*

The assessments collected may also fund any and all incidental expenses in connection therewith, all as more particularly authorized pursuant to the Landscaping and Lighting Act of 1972.

Property Assessed

During the annexation proceedings for Zone 3, it was determined the benefits received from certain improvements would be more equitably spread by the acreage, or portion thereof, of each parcel while the benefits received from certain other improvements would be more equitably spread by Equivalent Single Family Dwelling (ESD) units.

Zone 3 therefore, has a two-part assessment formula that includes both ESD units and Acres. The Method of Apportionment of Assessment (Part C) includes a complete description of the methodology used to calculate assessments.

The FY 2021-22 assessments are proposed to be levied on 570.92 ESD units which is the same number of units reported in FY 2020-21 final Report. The FY 2021-22 assessments are proposed to be levied on 46.40 acres which is the same number of acres from FY 2020-21 final Report. No annexations are proposed for FY 2021-22.

A mixed use (multi-family residential/commercial) development (commonly referred to as Napa Junction III), Assessor Parcel Number (APN) 059-020-001-000 was annexed into Zone 3 during the FY 2015-16 annual assessment process. It will be a phased development with street lighting and landscaping improvements to be serviced as a part of the overall Zone 3 budget. Because there were improvements in place to maintain during FY 2016-17, these new parcels were assessed the same rate as those within Napa Junction I & II beginning in FY 2016-17.

Proposed Budgets

The total proposed Zone 3 budget for FY 2020-21 is $103,300. This budget is based on current landscaping contracts, expected increases in landscaping contracts based on preliminary bids, historical cost review, and professional estimates of labor efforts required to maintain the facilities. It also includes tree pruning, and the next phase of the basin modification project, and/or improvements related to split rail fencing associated with Napa Junction Phase III. The proposed funding will be $165,553 from FY 2021-22 assessments and $0.00 from available reserves. No general fund contributions are proposed.

A Capital Reserve and Replacement study was completed during the 2020-21 fiscal year to identify the need for any increased services to be provided and to determine the annual costs to be assessed to the property owners. The Capital Reserve and Replacement study will also be used to project future assessments for the Zone.

Proposed Assessments

The proposed annual assessment to levy and collect for each parcel within Zone 3 is $1,022.01 per acre or portion thereof plus $207.56 per ESD. The new maximum assessment is $2,117.54 per acre or portion thereof and $351.04 per ESD. The new maximum assessments include the allowed 1.72% CPI increase.

PART II – COST ESTIMATE

Cost Estimate

The attached sheets include the budgets for FY 2021-22 for all those costs associated with the operation and maintenance in Zones 1, 2, and 3 within the Assessment District. The budget format has been modified to more closely match the format of the City's Annual Budget. The total budget summary for FY 2021-22 for the Assessment District is as follows:

	As Preliminarily Filed with City	As Presented at Public Hearing
Zone 1 Budget	$147,000	
Zone 2 Budget	$252,700	
Zone 3 Budget	$77,540	
Operating Reserve Contributions	$151,271	
Capital Reserve Contributions	($16,355)	
Balance to Assessment	$612,156	

The planned capital expenditures for each Zone for Fiscal Year 2021-22 are shown in the budget for each Zone and will be funded using the available Capital Reserve Funds for that Zone.

The budgets shown on the following pages for each Zone reflect the FY 2019-20 Actual Budgets, the FY 2020-21 Adjusted Budget and Estimated Year End amounts, and the Proposed Budgets for FY 2021-22. The Projected Budgets for FY 2022-23 and FY 2023-24 are also shown and are based upon the Proposed Budgets for FY 2021-22 with a projected cost increase of 2% per year where applicable. The year to date FY 2020-21 expenditures are available on the City's web-site or the City's Finance Division.

The budgets for each Zone also show the estimated fund balance (unrestricted, or Operating Reserve and restricted, or Capital Reserve) for the zone. Also shown for each Zone, is the Maximum Allowable Assessment based upon the annual change the Consumer Price Index as approved at the time the Assessment District was formed, the recommended Assessments for FY 2021-22, and the level of assessment that would be required to fully fund the Assessment District if funds from the reserve fund(s) were not used/available to reduce the total amount which needed to be levied.

LANDSCAPING AND LIGHTING ASSESSMENT DISTRICT
ZONE 1 - LA VIGNE SUBDIVISION
FY 2021-22 BUDGET

	Actual 2019-20	Adjusted Budget 2020-21	Estimated YE 2020-21	Proposed Budget 2021-22	Projected Budget 2022-23 [1]	Projected Budget 2023-24 [1]
MAINTENANCE COSTS						
General Repairs & Maintenance (Code 261-85-430-42310)	$ 51,000	$ 65,000	$ 65,000	$ 69,000	$ 70,380	$ 71,788
Annual Maintenance Contract	$ 40,000	$ 54,000	$ 54,000	$ 50,000	$ 51,000	$ 52,020
Playground Surface Maintenance	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000
Open Space Fire Break	$ -	$ -	$ -	$ -	$ -	$ -
DG Pathway Repairs	$ -	$ -	$ -	$ 5,000	$ -	$ -
Wood and Wire Fence Repairs	$ -	$ -	$ -	$ 3,000	$ -	$ -
Replacement Plantings	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000
Utilities - Electric (Code 261-85-430-43210)	$ 17,210	$ 17,000	$ 16,388	$ 17,465	$ 17,810	$ 18,170
Utilities - Water (Code 261-85-430-43230)	$ 30,000	$ 55,000	$ 43,000	$ 43,800	$ 44,676	$ 45,570
SUBTOTAL MAINTENANCE COSTS	**$ 98,210**	**$ 137,000**	**$ 124,388**	**$ 130,265**	**$ 132,866**	**$ 135,527**
CAPITAL PROJECT/REPAIRS COSTS						
Recycled Water Conversion-Infrastructure Prep. (Code 261-85-430-42310)	$ -	$ -	$ -	$ -	$ -	$ -
Refresh Flosden Road South Landscaping	$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL CAPITAL PROJECT COSTS	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
RESERVE CONTRIBUTIONS						
Capital Reserve Contribution (Code XFER TO RESERVE)	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
SUBTOTAL RESERVE COSTS	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**
DISTRICT EXPENSES						
Engineering Contract Services (Code 261-85-430-42130 & 42190)	$ 6,502	$ 6,502	$ 6,502	$ 6,502	$ 6,502	$ 6,502
Inspection/Contract Documents/LLAD Administration (Code 261-85-430-48115)	$ -	$ -	$ -	$ -	$ -	$ -
Napa County Auditor Charges (Code 261-85-430-42290)	$ 233	$ 233	$ 233	$ 233	$ 233	$ 233
SUBTOTAL DISTRICT EXPENSES	**$ 6,735**	**$ 6,735**	**$ 6,735**	**$ 6,735**	**$ 6,735**	**$ 6,735**
TOTAL EXPENSES	**$ 114,945**	**$ 153,735**	**$ 141,123**	**$ 147,000**	**$ 149,601**	**$ 152,262**
Collections/(Credits) Applied to Levy						
Unrestricted/Operating Reserve Collection/(Transfer)	$ 6,459	$ 32,665	$ 45,277	$ 39,400	$ 40,527	$ 41,668
Capital Improvement Fund Collection/(Transfer)	$ -	$ -	$ -	$ -	$ -	$ -
General Fund Loan Repayment/(Advance)	$ -	$ -	$ -	$ -	$ -	$ -
Delinquency Contingency	$ -	$ -	$ -	$ -	$ -	$ -
Other Revenues/(General Fund Contributions)	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL ADJUSTMENTS	$ 71,455	$ 32,665	$ 45,277	$ 39,400	$ 40,527	$ 41,668
Balance to Levy (Budgeted)	**$ 186,400**	**$ 186,400**	**$ 186,400**	**$ 186,400**	**$ 190,128**	**$ 193,931**
Applied Charge	$ 186,400	$ 186,400	$ 186,400	$ 186,400	$ 190,128	$ 193,931
FUND BALANCE INFORMATION						
Est. Unrestricted/Operating Reserve Fund Balance 7/1	$ 14,665	$ 14,665	$ 21,124	$ 47,330	$ 86,730	$ 127,257
Reserve Fund Adjustments	$ 6,459	$ 32,665	$ 45,277	$ 39,400	$ 40,527	$ 41,668
Prior/Penalities/Public Damage	$ -	$ -	$ -	$ -	$ -	$ -
Interest	$ -	$ -	$ -	$ -	$ -	$ -
Projected Unrestricted/Operating Reserve Balance end of year 6/30	$ 21,124	$ 47,330	$ 66,401	$ 86,730	$ 127,257	$ 168,925
Est. Restricted/Capital Reserve Fund Balance 7/1	$ 66,994	$ 76,994	$ 86,994	$ 86,994	$ 96,994	$ 106,994
Contributions	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Reserve Fund Adjustments	$ -	$ -	$ -	$ -	$ -	$ -
Projected Restricted/Capital Reserve Balance end of year 6/30	$ 76,994	$ 86,994	$ 96,994	$ 96,994	$ 106,994	$ 116,994
Transfer/(Contribution) from Unrestricted Operating Reserves	$ 71,455	$ 32,665	$ 45,277	$ 39,400	$ 40,527	$ 41,668
Transfer/(Contribution) from Capital Reserves	$ -	$ -	$ -	$ -	$ -	$ -
BALANCE TO ASSESSMENT	**$ 186,400**	**$ 186,400**	**$ 186,400**	**$ 186,400**	**$ 190,128**	**$ 193,931**
Total Revenue at Maximum Rate	$ 283,747	$ 286,870	$ 286,870	$ 291,809	$ 297,645	$ 303,598
Variance above/(below) Maximum Revenue	$ (97,347)	$ (100,470)	$ (100,470)	$ (105,409)	$ (107,517)	$ (109,668)
Maximum Allowable Assessment	**$ 608.90**	**$ 615.60**	**$ 615.60**	**$ 626.20**	**$ 638.72**	**$ 651.50**
Assessment to Fully Fund Maintenance Costs and Reserve Contributions	**$ 268.12**	**$ 351.36**	**$ 324.30**	**$ 336.91**	**$ 342.49**	**$ 348.20**
Actual/Proposed Assessment	**$ 400.00**	**$ 400.00**	**$ 400.00**	**$ 400.00**	**$ 408.00**	**$ 416.16**

[1] Future Year Budgets assumes 2% increase

LANDSCAPING AND LIGHTING ASSESSMENT DISTRICT
ZONE 2 VINTAGE RANCH SUBDIVISION
FY 2021-22 BUDGET

	Actual 2019-20	Adjusted Budget 2020-21	Estimated YE 2020-21	Proposed Budget 2021-22	Projected Budget 2022-23 [1]	Projected Budget 2023-24 [1]
MAINTENANCE COSTS						
General Repairs & Maintenance (Code 262-85-430-42310 & 43115)	$ 133,000	$ 138,000	$ 138,000	$ 148,000	$ 150,960	$ 153,979
Annual Maintenance Contract	$ 124,000	$ 124,000	$ 124,000	$ 124,000	$ -	$ -
NEW Village at Vintage Ranch Frontage Landscaping Maintenance	$ -	$ 5,000	$ 5,000	$ 5,000	$ -	$ -
Service Portable Restrooms	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ -	$ -
Wood and Wire Fence Repairs	$ -	$ -	$ -	$ 5,000	$ -	$ -
Replace Playground Bark	$ 5,000	$ 5,000	$ 5,000	$ 10,000	$ -	$ -
Utilities - Electric (Code 262-85-430-43210)	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,500	$ 26,010
Utilities - Water (Code 262-85-430-43230)	$ 35,000	$ 35,000	$ 35,000	$ 40,000	$ 40,800	$ 41,616
SUBTOTAL MAINTENANCE COSTS	**$ 193,000**	**$ 198,000**	**$ 198,000**	**$ 213,000**	**$ 217,260**	**$ 221,605**
CAPITAL PROJECT/REPAIRS COSTS						
Tuscan Oak/Rolling Hills Landscape Reno	$ -	$ -	$ -	$ -	$ -	$ -
Shenandoah Drive Landscape Reno	$ -	$ -	$ -	$ -	$ -	$ -
Silver Oak Drive Landscape Reno	$ -	$ -	$ -	$ -	$ -	$ -
Shenandoah Park Landscape Reno	$ -	$ -	$ -	$ -	$ -	$ -
Repair/Replace Picnic Tables-8ea. (Code 262-85-430-42310)	$ 6,969	$ 7,200	$ 3,600	$ -	$ -	$ -
Recycled Water Conversions (Code 262-85-430-42310)	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -
Newell Dr. West Side ROW Renovation - $80,000	$ -	$ -			$ -	$ -
Silver Oak Picnic Cover (Code 262-85-430-42310)	$ -	$ 15,000	$ -	$ -	$ -	$ -
Refresh landscaping at Entry Monuments	$ -	$ -	$ -	$ -	$ -	$ -
Playground Resurface @ Shenandoah (Code 262-85-430-42310)	$ -	$ -	$ 47,815	$ 6,355	$ -	$ -
SUBTOTAL CAPITAL PROJECT COSTS	**$ 31,969**	**$ 47,200**	**$ 51,415**	**$ 6,355**	**$ -**	**$ -**
RESERVE CONTRIBUTIONS						
Capital Reserve Contribution (Code XFER TO RESERVE)	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
SUBTOTAL RESERVE COSTS	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**
DISTRICT EXPENSES						
Engineering Contract Services (Code 262-85-430-42130 & 42190)	$ 7,962	$ 7,962	$ 7,962	$ 7,962	$ 7,962	$ 7,962
Inspection/Contract Documents/LLAD Administration (Code 262-85-430-48115)	$ -	$ -	$ -	$ -	$ -	$ -
Napa County Auditor Charges (Code 262-85-430-42290)	$ 383	$ 383	$ 383	$ 383	$ 383	$ 383
SUBTOTAL DISTRICT EXPENSES	**$ 8,344**	**$ 8,345**	**$ 8,345**	**$ 8,345**	**$ 8,345**	**$ 8,345**
TOTAL EXPENSES	**$ 258,313**	**$ 278,545**	**$ 282,760**	**$ 252,700**	**$ 250,605**	**$ 254,950**
Collections/(Credits) Applied to Levy						
Unrestricted/Operating Reserve Collection/(Transfer)	$ 5,007	$ 28,857	$ 28,857	$ 13,858	$ 14,802	$ 15,765
Capital Improvement Fund Collection/(Transfer)	$ (31,969)	$ (47,200)	$ (51,415)	$ (6,355)	$ -	$ -
General Fund Loan Repayment/(Advance)	$ -	$ -	$ -	$ -	$ -	$ -
Delinquency Contingency	$ -	$ -	$ -	$ -	$ -	$ -
Other Revenues/(General Fund Contributions)	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL ADJUSTMENTS	$ (26,962)	$ (18,343)	$ (22,558)	$ 7,503	$ 14,802	$ 15,765
Balance to Levy (Budgeted)	**$ 231,351**	**$ 260,202**	**$ 260,202**	**$ 260,202**	**$ 265,406**	**$ 270,714**
Applied Charge	$ 231,351	$ 260,202	$ 260,202	$ 260,202	$ 265,406	$ 270,714
FUND BALANCE INFORMATION						
Est. Unrestricted/Operating Reserve Fund Balance 7/1	$ 289,960	$ 294,967	$ 294,967	$ 323,824	$ 337,682	$ 352,484
Reserve Fund Adjustments	$ 5,007	$ 28,857	$ 28,857	$ 13,858	$ 14,802	$ 15,765
Prior/Penalities/Public Damage	$ -	$ -	$ -	$ -	$ -	$ -
Interest	$ -	$ -	$ -	$ -	$ -	$ -
Projected Unrestricted/Operating Reserve Balance end of year 6/30	$ 294,967	$ 323,824	$ 323,824	$ 337,682	$ 352,484	$ 368,248
Est. Restricted/Capital Reserve Fund Balance 7/1	$ 549,807	$ 542,838	$ 542,838	$ 520,638	$ 539,283	$ 564,283
Contributions	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Reserve Fund Adjustments	$ (31,969)	$ (47,200)	$ (51,415)	$ (6,355)	$ -	$ -
Projected Restricted/Capital Reserve Balance end of year 6/30	$ 542,838	$ 520,638	$ 516,423	$ 539,283	$ 564,283	$ 589,283
Transfer/(Contribution) from Unrestricted Operating Reserves	$ 5,007	$ 28,857	$ 28,857	$ 13,858	$ 9,598	$ 10,456
Transfer/(Contribution) from Capital Reserves	$ (31,969)	$ (47,200)	$ (51,415)	$ (6,355)	$ -	$ -
BALANCE TO ASSESSMENT	**$ 231,351**	**$ 260,202**	**$ 260,202**	**$ 260,202**	**$ 260,202**	**$ 265,406**
Total Revenue at Maximum Rate	$ 714,013	$ 811,891	$ 811,891	$ 825,872	$ 842,390	$ 859,237
Variance above/(below) Maximum Revenue	$ (482,662)	$ (551,689)	$ (551,689)	$ (565,670)	$ (576,983)	$ (588,523)
Maximum Allowable Assessment	**$ 933.35**	**$ 943.62**	**$ 943.62**	**$ 959.87**	**$ 979.07**	**$ 998.65**
Assessment to Fully Fund Maintenance Costs and Reserve Contributions	**$ 328.55**	**$ 297.94**	**$ 297.94**	**$ 315.37**	**$ 320.32**	**$ 325.37**
Actual/Proposed Assessment	**$ 302.42**	**$ 302.42**	**$ 302.42**	**$ 302.42**	**$ 308.47**	**$ 314.64**

[1] Future Year Budgets assumes 2% increase

LANDSCAPING AND LIGHTING ASSESSMENT DISTRICT
ZONE 3 - NAPA JUNCTION MIXED USE PROJECT
FY 2021-22 BUDGET

	Actual 2019-20	Adjusted Budget 2020-21	Estimated YE 2020-21	Proposed Budget 2021-22	Projected Budget 2022-23 [1]	Projected Budget 2023-24 [1]
MAINTENANCE COSTS						
General Repair & Maintenance (Code 263-85-430-42310)	$ 43,000	$ 43,000	$ 43,500	$ 43,500	$ 44,370	$ 45,257
Annual Maintenance Contract	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ -	$ -
Service Portable Restrooms	$ 3,000	$ 3,000	$ 3,500	$ 3,500	$ -	$ -
Utilities - Electric (Code 263-85-430-43210)	$ 2,000	$ 2,500	$ 2,000	$ 2,500	$ 2,550	$ 2,601
Utilities - Water (Code 263-85-430-43230)	$ 3,778	$ 4,685	$ 4,322	$ 8,325	$ 8,492	$ 8,661
SUBTOTAL MAINTENANCE COSTS	**$ 48,778**	**$ 50,185**	**$ 49,822**	**$ 54,325**	**$ 55,412**	**$ 56,520**
CAPITAL PROJECT/REPAIRS COSTS						
Play structure repair/replacement (Code 263-85-430-42310)	$ -	$ -	$ -	$ -	$ -	$ -
Seating wall repairs (Code 263-85-430-42310)	$ -	$ -	$ -	$ -	$ -	$ -
NJ3 Split Rail Fence Repairs	$ -	$ 10,000	$ -	$ 10,000	$ -	$ -
Walmart Driveway Reno	$ -	$ 25,000	$ -	$ -	$ -	$ -
Playground Resurface @ Main St. Park (Code 263-85-430-42310)	$ -	$ 44,000	$ -	$ -	$ -	$ -
Water and Landscaping for Phase 3	$ -	$ 15,000	$ -	$ -	$ -	$ -
Basin modifications - All remaining Phases (Code 263-85-430-42310)	$ -	$ 110,000	$ -	$ -	$ -	$ -
SUBTOTAL CAPITAL PROJECT COSTS	**$ -**	**$ 204,000**	**$ -**	**$ 10,000**	**$ -**	**$ -**
RESERVE CONTRIBUTIONS						
Capital Reserve Contribution(Code XFER TO RESERVE)	$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL RESERVE COSTS	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
DISTRICT EXPENSES						
Engineering Contract Services (Code 263-85-430-42130 & 42190)	$ 4,114	$ 4,114	$ 4,114	$ 4,114	$ 4,114	$ 4,114
Other Professional Services (Code 263-85-430-42160)	$ -	$ -	$ -	$ -	$ -	$ -
Inspection/Contract Documents/LLAD Administration (Code 263-85-430-48115)	$ 9,094	$ 9,094	$ 9,094	$ 9,094	$ 9,094	$ 9,094
Napa County Auditor Charges (Code 263-85-430-42290)	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
SUBTOTAL DISTRICT EXPENSES	**$ 13,215**	**$ 13,215**	**$ 13,215**	**$ 13,215**	**$ 13,215**	**$ 13,215**
TOTAL EXPENSES	**$ 61,993**	**$ 267,400**	**$ 63,037**	**$ 77,540**	**$ 68,627**	**$ 69,735**
Collections/(Credits) Applied to Levy						
Unrestricted/Operating Reserve Collection/(Transfer)	$ 8,138	$ 102,154	$ 102,516	$ 98,013	$ 100,238	$ 102,507
Capital Improvement Fund Collection/(Transfer)	$ -	$ (204,000)	$ -	$ (10,000)	$ -	$ -
General Fund Loan Repayment/(Advance)	$ -	$ -	$ -	$ -	$ -	$ -
Delinquency Contingency	$ -	$ -	$ -	$ -	$ -	$ -
Other Revenues/(General Fund Contributions)	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL ADJUSTMENTS	$ 103,560	$ (101,846)	$ 102,516	$ 88,013	$ 100,238	$ 102,507
Balance to Levy (Budgeted)	**$ 165,553**	**$ 165,553**	**$ 165,553**	**$ 165,553**	**$ 168,865**	**$ 172,242**
Applied Charge	$ 165,553	$ 165,553	$ 165,553	$ 165,553	$ 168,865	$ 172,242
FUND BALANCE INFORMATION						
Est. Unrestricted/Operating Reserve Fund Balance 7/1	$ 284,884	$ 78,522	$ 78,522	$ 181,038	$ 64,552	$ 164,790
Reserve Fund Adjustments	$ 8,138	$ 102,154	$ 102,516	$ 98,013	$ 100,238	$ 102,507
Transfer from/(to) Restricted Fund Balance	$ (214,500)	$ (214,500)	$ -	$ (214,500)	$ -	$ -
Prior/Penalities/Public Damage	$ -	$ -	$ -	$ -	$ -	$ -
Interest	$ -	$ -	$ -	$ -	$ -	$ -
Projected Unrestricted/Operating Reserve Balance end of year 6/30	$ 78,522	$ (33,824)	$ 181,038	$ 64,552	$ 164,790	$ 267,297
Est. Restricted/Capital Reserve Fund Balance 7/1	$ 207,211	$ 421,711	$ 421,711	$ 432,211	$ 636,711	$ 636,711
Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Fund Adjustments	$ -	$ (204,000)	$ -	$ (10,000)	$ -	$ -
Transfer from/(to) Unrestricted Fund Balance	$ 214,500	$ 214,500	$ -	$ 214,500	$ -	$ -
Projected Restricted/Capital Reserve Balance end of year 6/30	$ 421,711	$ 432,211	$ 421,711	$ 636,711	$ 636,711	$ 636,711
Transfer/(Contribution) from Unrestricted Operating Reserves	$ 103,560	$ 102,154	$ 102,516	$ 98,013	$ 100,238	$ 102,507
Transfer/(Contribution) from Capital Reserves	$ -	$ (204,000)	$ -	$ (10,000)	$ -	$ -
BALANCE TO ASSESSMENT	**$ 165,553**	**$ 165,553**	**$ 165,553**	**$ 165,553**	**$ 168,865**	**$ 172,242**
Total Revenue at Maximum Rate (ESD)	**$ 194,884**	**$ 197,024**	**$ 197,024**	**$ 200,416**	**$ 204,424**	**$ 208,513**
Variance above/(below) Maximum Revenue (ESD)	**$ (80,983)**	**$ (83,124)**	**$ (83,124)**	**$ (86,515)**	**$ (88,245)**	**$ (90,010)**
Total Revenue at Maximum Rate (Acre)	**$ 94,798**	**$ 95,841**	**$ 95,841**	**$ 97,492**	**$ 99,441**	**$ 101,430**
Variance above/(below) Maximum Revenue (Acre)	**$ (43,146)**	**$ (44,188)**	**$ (44,188)**	**$ (45,839)**	**$ (46,756)**	**$ (47,691)**
ESD Budget total (includes ratio of overhead costs)	$ 113,901	$ 113,901	$ 113,901	$ 113,901	$ 116,179	$ 118,502
Acreage Budget total (includes ratio of overhead costs)	$ 51,653	$ 51,653	$ 51,653	$ 51,653	$ 52,686	$ 53,739
Estimated Number of ESD Units	570.92	570.92	570.92	570.92	570.92	570.92
Estimated assessable Acres	46.04	46.04	46.04	46.04	46.04	46.04
Maximum Allowable Assessment per ESD	**$ 341.35**	**$ 345.10**	**$ 345.10**	**$ 351.04**	**$ 358.06**	**$ 365.22**
Assessment to Fully Fund Maintenance Costs and Res. Contr. per ESD	**$ 74.71**	**$ 322.24**	**$ 75.96**	**$ 93.44**	**$ 82.70**	**$ 84.04**
Actual/Proposed Assessment per ESD	**$ 207.56**	**$ 207.56**	**$ 207.56**	**$ 207.56**	**$ 211.71**	**$ 215.95**
Maximum Allowable Assessment per Acre	**$ 2,059.04**	**$ 2,081.69**	**$ 2,081.69**	**$ 2,117.54**	**$2,159.89**	**$ 2,203.09**
Assessment to Fully Fund Maintenance Costs and Res. Contr. per Acre	**$ 420.11**	**$ 1,812.09**	**$ 427.18**	**$ 525.47**	**$ 465.06**	**$ 472.57**
Actual/Proposed Assessment per Acre	**$ 1,022.01**	**$ 1,022.01**	**$ 1,022.01**	**$ 1,022.01**	**$1,042.45**	**$ 1,063.30**

[1] Future Year Budgets assumes 2% increase

The following definitions describe the costs and expenses included in the District Budget:

Maintenance Cost

General Repairs and Maintenance (Code-42310): This item includes the costs of materials, supplies and contract services for the repair and/or maintenance of district facilities and improvements including irrigation system repairs, maintenance of water quality basins and appurtenant facilities, repairs to play structures, concrete or asphalt pathways, decorative entry walls and other improvements as listed in this report within the District. This item also includes costs of incidental miscellaneous materials and supplies used by City staff for the maintenance and repair of Assessment District improvements.

Electric (Code-43210): This item includes the costs to furnish electricity required for the operation and maintenance of the sprinklers and irrigation controllers, and street lights.

Water (Code-43230): This item includes the costs to furnish irrigation water for the landscaping within the District.

Capital Repair/Maintenance Costs

Funds will be transferred annually from the restricted reserve fund balance within each zone as needed to fund the completion of the projects listed in the current year's budget for each of the zones. Any funds not expended will remain in the restricted reserve until needed for the completion of future capital projects or major maintenance activities. This will include the replacement/rehabilitation of the facilities shown in the capital reserve plan which is being developed for each zone.

District Expenses

Engineering Contract Services (Code-42130): This item includes the costs for the preparation of the Annual Engineer's Report and Assessment Roll as required by law for the placement of the assessments on the property tax roll.

Inspection/Contract Documents/LLAD Administration (Code-48115): This item includes the costs of all departments and staff and consultants of the City for providing the coordination of District services, contract management, inspections, annual bid management, responding to public concerns, public education, and procedural matters associated with the District.

Napa County Auditor Charges (Code-42290): This item includes the cost charged by the County for the placement and collection of the assessments on the County Property Tax roll.

Reserve Funds

Un-Restricted/Operating Reserve Collection: This item includes the amount to be collected to maintain reserves to enable the City to pay for the maintenance and servicing of the improvements prior to December 10 of the fiscal year, or whenever the City expects to receive its apportionment of special assessments and tax collections from the County, whichever is later. The Reserve Fund contribution will continue until such a time the Reserve Fund balance is approximately one half of the annual costs.

Repair/Replacement – Restricted/Capital Reserve: This item includes funds for the repair/replacement of improvements or the installation of new improvements to further enhance the level and quality of service provided within the boundaries of the District. The fund may be allowed to accumulate in anticipation of any unforeseen expenses not included in the yearly maintenance costs. This may include, but is not limited to the repair/replacement of improvements at the end of their useful life, upgrading or enhancement of improvements within the District, repair of damaged equipment due to vandalism, storms and other similar events where the costs cannot be covered by the annual assessment levy.

PART III – METHOD OF APPORTIONMENT

Method of Apportionment

Initial apportionment information relating to all zones and made a part of this report by reference here, can be found in the City of American Canyon Maintenance District No. 2001-02- (A.P.N. 059-100-006) Engineer's Report, Establishment of District and Assessments for FY 2001-02, Part D, City of American Canyon Maintenance District No. 2001-02- (A.P.N. 059-100-006) Method of Assessment. The following is a brief description of the manner the annual assessment has been apportioned to each parcel in Zones 1, 2 and 3 within the Assessment District consistent with the approved method.

GENERAL

Part 2 of Division 15 of the Streets and Highways Code, the Landscaping and Lighting Act of 1972, permits the establishment of assessment districts by cities for the purpose of providing certain public improvements which include operation, maintenance, rehabilitation and servicing of street lights, traffic signals, parks and landscaping.

The 1972 Act requires that maintenance assessments be levied according to benefit rather than according to assessed value. Section 22573 provides that:

> *"The net amount to be assessed upon lands within an assessment district may be apportioned by any formula or method which fairly distributes the net amount among all assessable lots or parcels in proportion to the estimated benefit to be received by each such lot or parcel from the improvements."*

The Act permits the designation of zones of benefit within any individual assessment district if "by reasons or variations in the nature, location, and extent of the improvements, the various areas will receive different degrees of benefit from the improvement" (Sec. 22547). Thus, the 1972 Act requires the levy of a true "assessment" rather than a "special tax."

In addition, Prop. 218 requires that a parcel's assessment may not exceed the reasonable cost of the proportional special benefit conferred on that parcel. Prop. 218 provides that only special benefits are assessable and the City must separate the general benefits from the special benefits.

SPECIAL BENEFIT ANALYSIS

The Assessment District provides for the maintenance and repair of public parks and landscaping, water quality basins, environmentally sensitive areas, trail, bikeways, streetlights and traffic signals. As determined at the time of formation, when these facilities are well maintained and in good working order they provide benefits that are unique and special to the property within the district including:

- Satisfaction of project design and mitigation requirements included within the CEQA documents for the development included in each zone. Satisfying these requirements uniquely benefits the property in the zone because it allows the various land uses being developed.

- Satisfaction of Conditions of Approval for the development included in each zone. Satisfying these requirements uniquely benefits the property in the zone because it allows the various land uses being developed.

- Provision of public safety benefits resulting from well-lit streets. Street lighting uniquely benefits the property within the zones that is adjacent to the lighting provided.

- Provision of public safety benefits resulting from functioning traffic signals. Traffic signals benefit property within the zone by providing for safe ingress and egress from the property. Traffic signals also provide general benefits to all motorists that are able to travel safely on the roadway system. Twenty-five percent of the traffic signal maintenance costs are allocated to the benefitting zones reflecting the approximate amount of trips associated with development in the zones.

- Provision of public safety benefits resulting from water quality detention basins. The water quality detention basins are part of the storm water management system which allows for adequate drainage and prevents flooding within the zones. Adequate drainage and protection from flooding is a unique and special benefit experience by the properties within the zones.

- Provision of public recreation benefits resulting from the parks and open spaces. The parks and open spaces within each zone are designed as local features that are integrated within the development and easily accessible to neighboring properties. These features are part of the overall park system, which also includes community facilities, which provide more regionally appropriate facilities (ball fields etc.). The local parks and open spaces uniquely benefit the property within each zone because they have been designed to be accessible and useful for the developed property in each zone.

- Provision of aesthetic benefits resulting from parks, open space and other landscaping features. The parks, open space and landscaping features are internal or directly adjacent to the properties in the zone, hence the aesthetic benefits provided from well-maintained landscaping features are experienced by the properties in the zone.

- Provision of public safety benefits resulting from the maintenance of parks and open spaces. Unmaintained parks and open spaces can attract litter, vectors and other undesirable features that create health and safety problems for adjoining properties. Adequate maintenance uniquely benefits the property in each zone because these potentially adverse effects do not occur.

METHOD OF APPORTIONMENT

ZONES 1 AND 2 METHOD OF ASSESSMENT

The method of apportionment (spread) equates all parcels in Zones 1 and 2 to an Equivalent Single Family Dwelling (ESD) unit, or portion thereof. The following ESD units were established for the American Canyon Landscaping and Lighting Assessment District, at its formation, and reflect the relative benefit accruing to parcels of land, in various stages of development, from the landscape and lighting facilities:

1. Vacant parcel in undeveloped area 1/10 unit
2. Vacant parcel in developed area 1/2 unit
3. Single dwelling parcel 1 unit
4. Multi-Family dwelling 0.60 unit

Vacant parcels in undeveloped areas experience the benefits provided from satisfying approval conditions but not the full benefits experienced when the facilities maintained by the zone are operational hence they are assigned 1/10 of an ESD unit. Vacant parcels in developed areas experience the benefits provided from satisfying approval conditions and the public safety benefits associated with sound drainage systems. These parcels also experience some fraction of the benefits associated with safe lighting and ingress and egress but not at the same level as a fully developed parcel, hence they are assigned 1/2 of an ESD unit. Fully developed parcels experience all benefits provided by the zone. Because the land uses on both Zone 1 and 2 are relatively uniform single family dwelling units, benefits are experienced equally. This relative equality of benefits results in an assessment methodology that spreads costs equally at full build out.

ESD units for each zone are determined annually based on the development pattern. Each zone's operation and maintenance expenses for the upcoming fiscal year is then divided by the total number of ESD units in order to calculate the annual cost per ESD unit (assessment rate) for the upcoming fiscal year. The annual assessment for each parcel is calculated by multiplying the annual cost per ESD unit (assessment rate) by the total number ESD units on the parcel in the upcoming fiscal year.

The method of apportionment for Zones 1 and 2 can be expressed mathematically as:

Cost per ESD Unit (Rate) = Fiscal Year Budget for Zone / Total Number of ESD Units in Zone

Assessment per Parcel = Cost per ESD Unit (Rate) x No. of ESD Units on Parcel

Although Section 22663 of the Streets and Highways Code typically requires that public property not be assessed, Article XIII, Section 4(a) of Proposition 218 requires that public property shall not be exempt from assessment if the property benefits from the facilities being maintained.

Zones 1 and 2 include publically owned property which is utilized for parks, creeks, open spaces, public right-of-way and easements. These properties serve to provide landscape, open space, drainage and recreational benefits to the adjoining residential property. Because these properties provide special benefits rather than receive special benefits they do not receive an annual assessment.

Likewise school sites, which provide for open space and recreational opportunities, enhance the special benefits received by residential property. In addition, school locations are required by the approval documents for the development and therefore help provide the special benefits associated with compliance with project CEQA documents and conditions of approval. Therefore because these properties provide benefits rather than receive benefits, they are also not assessed.

Civic properties including public safety facilities and utility facilities which were constructed as a condition of approval for the residential development serve to support the special benefits received by residential properties. Because these properties support the provision of special benefits rather than receiving special benefits, they are also not assessed.

ZONE 3 METHOD OF ASSESSMENT

Unlike Zones 1 and 2, Zone 3 contains a mix of residential, commercial, industrial and retail land uses. In order to apportion costs proportional to benefit, the method of apportionment (spread) for Zone 3 utilizes both an ESD unit component and an acreage component.

The benefits provided by the Class I bike path, three-rail fencing, street lights, traffic signal, and the detention pond and right of way maintenance along Highway 29 are apportioned by acreage because the size of the property provides a reasonable measure of the number trips (vehicular and bicycle), length of fencing and runoff detained. Therefore the cost of operating and maintaining these facilities is apportioned to the benefitting property based on its acreage.

The benefits provided by the streetscape, large and small parks are apportioned by ESD unit, as is done in the other two zones. These items provide benefit to and are accessible to resident families and employees of local businesses to enjoy during lunch breaks or after work hours. Non-residential land uses are converted to residential land uses using a square footage in order to maintain equality between the average size residential unit in the zone and the nonresidential units.

The following benefit units were established for the American Canyon Landscaping and Lighting Assessment Zone 3 (Napa Junction) at the time it was annexed to the Assessment District and these reflect the relative benefit accruing the various parcels of land within the zone:

Land Use Description	Total ESD's
SingleFamily Dwelling (SFD)	1/Unit
Condominium	1/Unit
Multiple Family Residential	1/Unit
Mobile Home	1/Unit
Commercial	1/1,500 sf floor space*
Commercial with Dwelling Unit - Includes Hotel	1/1,500 sf floor space + 1/Unit
All Land Use Types	Acres

ESD units for Zone 3 are determined annually based on the development pattern. The operational and maintenance expenses for the upcoming fiscal year for the streetscape, large park and small park facilities are then divided by the total number of ESD units in order to calculate the annual cost per ESD unit for the upcoming fiscal year.

Acreage units within Zone 3 are also determined annually based on development. The operational and maintenance expenses for the upcoming fiscal year for Class I bike path, three-rail fencing, street lights, traffic signal, and the detention pond and right of way maintenance along Highway 29 are then divided by the total acreage units in order to calculate the annual cost per acreage unit for the upcoming fiscal year. The annual assessment for each parcel is calculated by:

1. Multiplying the number of ESD units on the parcel by the annual cost per ESD unit to arrive at the ESD assessment for the parcel

2. Multiplying the acreage of the parcel by the annual cost per acreage unit to arrive at the acreage assessment; and

3. Adding the ESD assessment to the acreage assessment to arrive at the total assessment for the parcel.

The allocation formula for Zone 3 can be expressed mathematically as:

Cost per ESD Unit = Fiscal Year Budget for ESD Unit Items in Zone / Total ESD Units in Zone

Cost per Acre = Fiscal Year Budget for Acreage Items in Zone / Total Acreage in Zone

Assessment per Parcel = (Cost per ESD x No. of ESD Units on Parcel) + (Cost per Acre x No. of Acres on Parcel)

Although Section 22663 of the Streets and Highways Code typically requires that public property not be assessed, Article XIII, Section 4(a) of Proposition 218 requires that public property shall not be exempt from assessment if the property benefits from the facilities being maintained.

Zone 3 includes publically owned property which is utilized for parks, creeks, open spaces, public rights-of-way and easements. These properties serve to provide landscape, open space and recreational benefits to the adjoining property. Because these properties provide special benefits rather than receive special benefits they do not receive an annual assessment.

APPENDIX A – DISTRICT DIAGRAM

The following page is the Assessment Diagram for Zones 1, 2 and 3 within the Assessment District. Please note the lines and dimensions of each parcel, as well as the distinctive Assessor's Parcel Number, are shown on the Assessor's Maps for the City of American Canyon available at the County of Napa Assessor's Office. The reference to the appropriate Assessor Books at the County of Napa Assessor's Office for the respective subdivisions in each Zone are listed below.

ZONE 1 - LA VIGNE

All the land lying within the La Vigne Unit 1 Subdivision filed in the Recorder's office of the County of Napa in Book 22 of Recorded Maps, Pages 42 through 57.

All the land lying within the La Vigne Unit 2 Subdivision filed in the Recorder's office of the County of Napa in Book 22 of Recorded Maps, Pages 82 through 97.

ZONE 2 - VINTAGE RANCH

All the land within the Scally Ranch Unit 1 Subdivision filed in the Recorder's office of the County of Napa in Book 24 of Recorded Maps, Pages 1 through 22.

All the land within the Amended Scally Ranch Unit 1 Subdivision filed in the Recorder's office of the County of Napa in Book 24 of Recorded Maps, Pages 36 through 57.

All of the land within the Vintage Ranch Unit 2 Subdivision filed in the Recorder's office of the County of Napa in Book 25 of Recorded Maps, Pages 35 through 51.

All of the land within the Vintage Ranch Unit 3 Subdivision filed in the Recorder's office of the County of Napa in Book 25 of Recorded Maps, Pages 52 through 57.

Vineyard Crossing and Vineyard Place parcels were de-annexed from Zone 2 by City Council Resolution No. 2011-37.

The Villages at Vintage Ranch were annexed in the Zone in FY 2020-21 by City Council Resolution No. 2020-68.

ZONE 3 - NAPA JUNCTION MIXED USE PROJECT

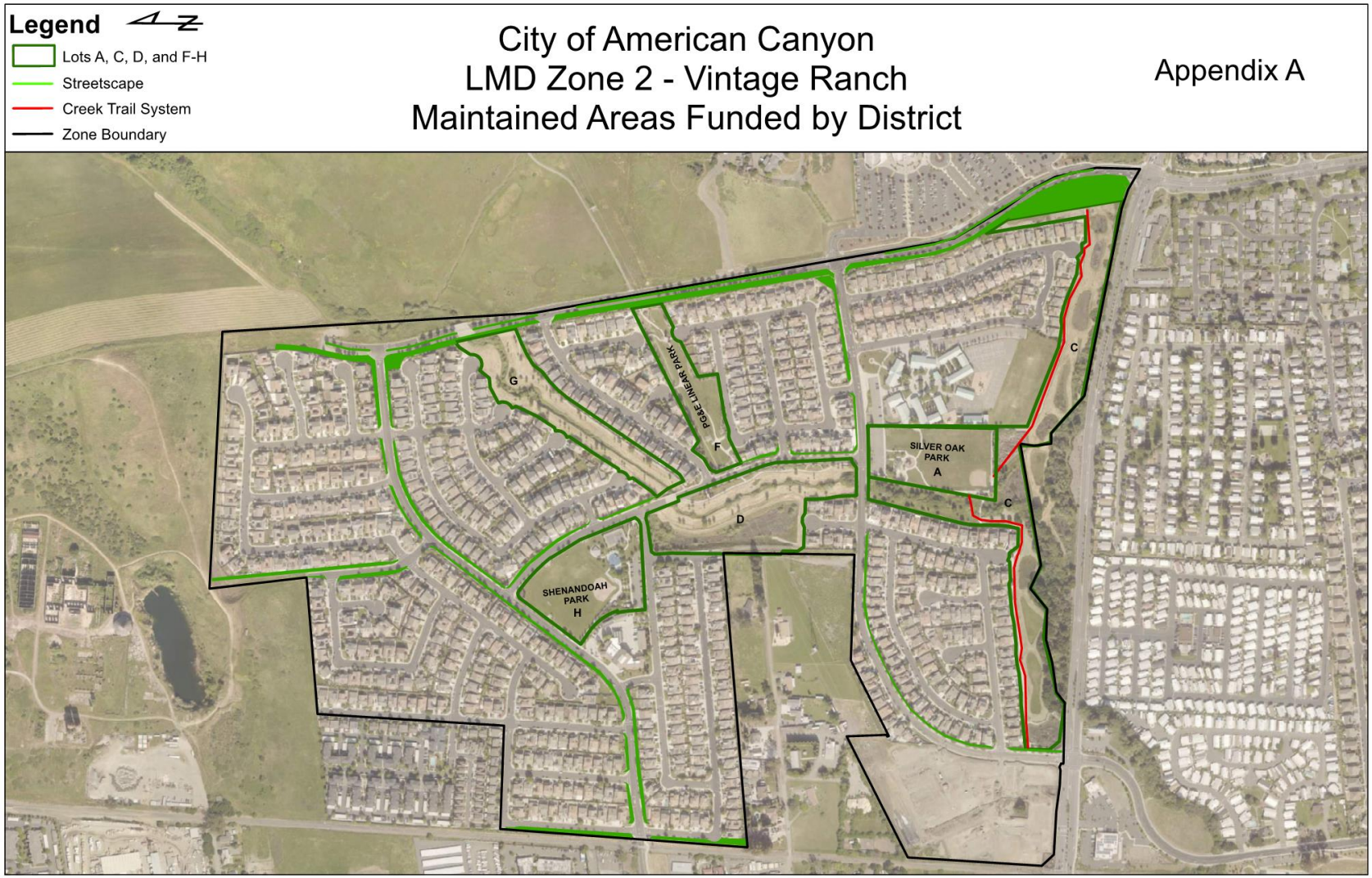
All the land within the Napa Junction Phase 1 Subdivision filed in the Recorder's office of the County of Napa in Book 24 of Recorded Maps, Pages 81 through 87.

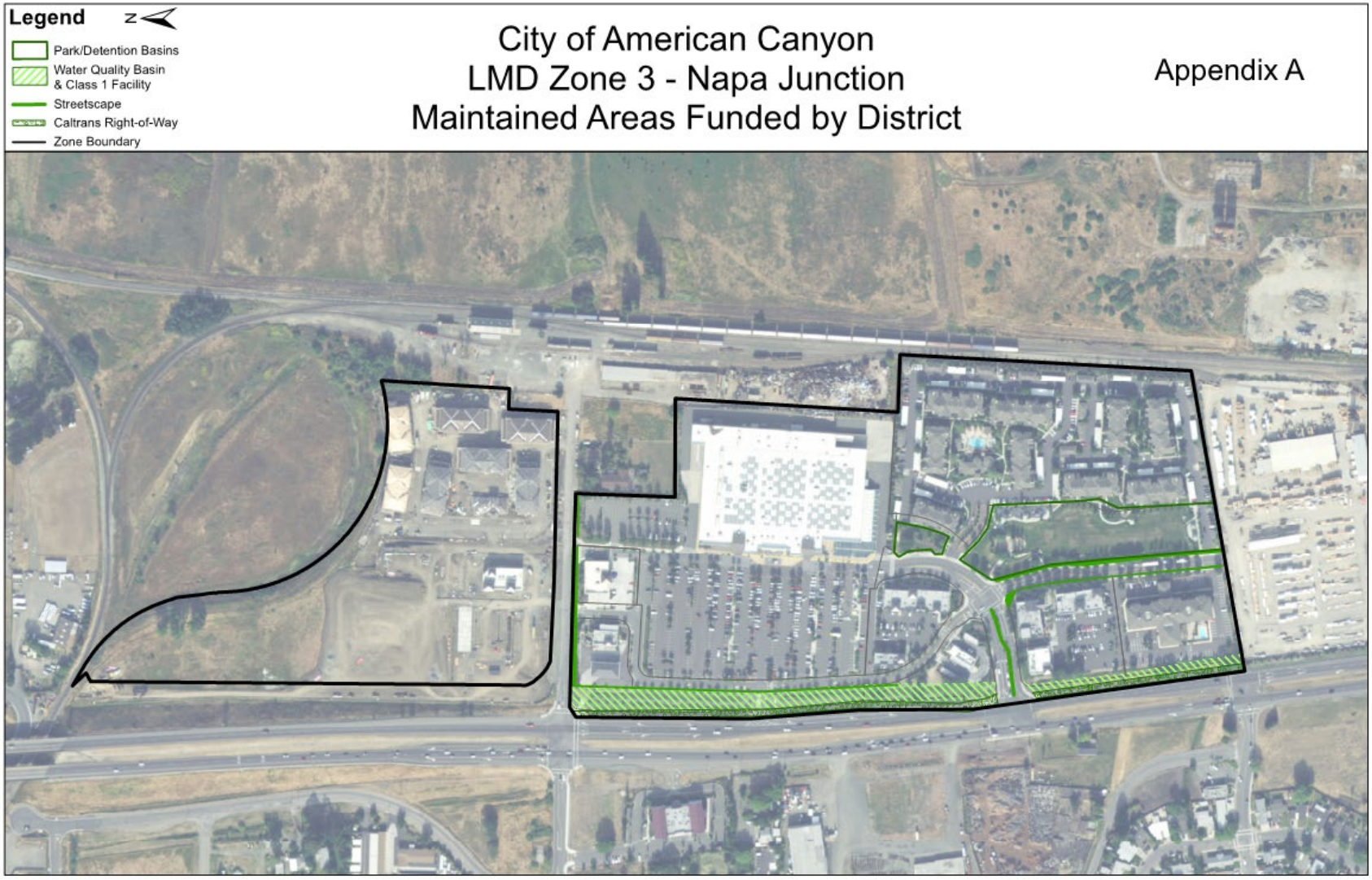
All the land within the Amended Napa Junction Phase 1 Subdivision filed in the Recorder's office of the County of Napa in Book 25, Pages 5 through 11.

City of American Canyon
LMD Zone 1 - La Vigne Subdivision

Appendix A




Legend
Lots A, C, D, and F-H
Streetscape
Creek Trail System
Zone Boundary
City of American Canyon
LMD Zone 2 - Vintage Ranch
Maintained Areas Funded by District
Appendix A
G
PG&E LINEAR PARK
F
SILVER OAK PARK
A
C
C
D
SHENANDOAH PARK
H


Legend
Park/Detention Basins
Water Quality Basin & Class 1 Facility
Streetscape
Caltrans Right-of-Way
Zone Boundary
City of American Canyon
LMD Zone 3 - Napa Junction
Maintained Areas Funded by District
Appendix A

APPENDIX B – ASSESSMENT ROLL

Assessment Roll

The Assessment Roll for FY 2021-22 for the American Canyon Landscaping and Lighting Assessment District are listed on the following pages. The annual assessment for each parcel within Zones 1, 2 and 3 of the Assessment District are shown individually. The lines and dimensions of each parcel are shown on the Assessor's Maps for the City of American Canyon available at the County of Napa Assessor's Office.

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	1	059191001000	80	1.83	-	$400.00	$0.00	
1	2	059191002000	81	0	1.00	$400.00	$400.00	172 VIA BELLAGIO
1	3	059191003000	82	0	1.00	$400.00	$400.00	168 VIA BELLAGIO
1	4	059191004000	83	0	1.00	$400.00	$400.00	164 VIA BELLAGIO
1	5	059191005000	84	0	1.00	$400.00	$400.00	160 VIA BELLAGIO
1	6	059191006000	85	0	1.00	$400.00	$400.00	138 CASTELLINA CIR
1	7	059191007000	86	0	1.00	$400.00	$400.00	134 CASTELLINA CIR
1	8	059191008000	87	0	1.00	$400.00	$400.00	130 CASTELLINA CIR
1	9	059191009000	88	0	1.00	$400.00	$400.00	126 CASTELLINA CIR
1	10	059191010000	89	0	1.00	$400.00	$400.00	122 CASTELLINA CIR
1	11	059191011000	90	0	1.00	$400.00	$400.00	118 CASTELLINA CIR
1	12	059191012000	91	0	1.00	$400.00	$400.00	114 CASTELLINA CIR
1	13	059191013000	92	0	1.00	$400.00	$400.00	110 CASTELLINA CIR
1	14	059191014000	93	0	1.00	$400.00	$400.00	106 CASTELLINA CIR
1	15	059191015000	94	0	1.00	$400.00	$400.00	102 CASTELLINA CIR
1	16	059191016000	95	0	1.00	$400.00	$400.00	98 CASTELLINA CIR
1	17	059191017000	96	0	1.00	$400.00	$400.00	94 CASTELLINA CIR
1	18	059191018000	97	0	1.00	$400.00	$400.00	90 CASTELLINA CIR
1	19	059191019000	98	0	1.00	$400.00	$400.00	86 CASTELLINA CIR
1	20	059191020000	99	0	1.00	$400.00	$400.00	82 CASTELLINA CIR
1	21	059191021000	100	0	1.00	$400.00	$400.00	78 CASTELLINA CIR
1	22	059191022000	101	0	1.00	$400.00	$400.00	74 CASTELLINA CIR
1	23	059191023000	102	0	1.00	$400.00	$400.00	70 CASTELLINA CIR
1	24	059191024000	103	0	1.00	$400.00	$400.00	66 CASTELLINA CIR
1	25	059191025000	104	0	1.00	$400.00	$400.00	62 CASTELLINA CIR
1	26	059191026000	105	0	1.00	$400.00	$400.00	58 CASTELLINA CIR
1	27	059191027000	106	0	1.00	$400.00	$400.00	54 CASTELLINA CIR
1	28	059191028000	107	0	1.00	$400.00	$400.00	50 CASTELLINA CIR
1	29	059191029000	108	0	1.00	$400.00	$400.00	45 CASTELLINA CIR
1	30	059191030000	109	0	1.00	$400.00	$400.00	35 VIA FIRENZE
1	31	059191031000	110	0	1.00	$400.00	$400.00	31 VIA FIRENZE
1	32	059191032000	111	0	1.00	$400.00	$400.00	27 VIA FIRENZE
1	33	059191033000	112	0	1.00	$400.00	$400.00	23 VIA FIRENZE
1	34	059191034000	113	0	1.00	$400.00	$400.00	19 VIA FIRENZE
1	35	059191035000	114	0	1.00	$400.00	$400.00	15 VIA FIRENZE
1	36	059191036000	115	0	1.00	$400.00	$400.00	11 VIA FIRENZE
1	37	059191037000	116	0	1.00	$400.00	$400.00	7 VIA FIRENZE
1	38	059191038000	117	0	1.00	$400.00	$400.00	3 VIA FIRENZE
1	39	059191039000	118	0	1.00	$400.00	$400.00	136 VIA BELLAGIO
1	40	059191040000	119	0	1.00	$400.00	$400.00	140 VIA BELLAGIO
1	41	059191041000	120	0	1.00	$400.00	$400.00	144 VIA BELLAGIO
1	42	059191042000	121	0	1.00	$400.00	$400.00	148 VIA BELLAGIO
1	43	059191043000	122	0	1.00	$400.00	$400.00	152 VIA BELLAGIO
1	44	059191044000	123	0	1.00	$400.00	$400.00	156 VIA BELLAGIO
1	45	059191045000	124	0	1.00	$400.00	$400.00	2 CASTELLINA CIR
1	46	059191046000	125	0	1.00	$400.00	$400.00	6 CASTELLINA CIR
1	47	059191047000	126	0	1.00	$400.00	$400.00	10 CASTELLINA CIR
1	48	059191048000	127	0	1.00	$400.00	$400.00	14 CASTELLINA CIR
1	49	059191049000	128	0	1.00	$400.00	$400.00	18 CASTELLINA CIR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	50	059191050000	129	0	1.00	$400.00	$400.00	22 CASTELLINA CIR
1	51	059191051000	130	0	1.00	$400.00	$400.00	26 CASTELLINA CIR
1	52	059191052000	131	0	1.00	$400.00	$400.00	30 CASTELLINA CIR
1	53	059191053000	132	0	1.00	$400.00	$400.00	34 CASTELLINA CIR
1	54	059191054000	133	0	1.00	$400.00	$400.00	38 CASTELLINA CIR
1	55	059191055000	134	0	1.00	$400.00	$400.00	42 CASTELLINA CIR
1	56	059192001000	135	0	1.00	$400.00	$400.00	87 CASTELLINA CIR
1	57	059192002000	136	0	1.00	$400.00	$400.00	83 CASTELLINA CIR
1	58	059192003000	137	0	1.00	$400.00	$400.00	79 CASTELLINA CIR
1	59	059192004000	138	0	1.00	$400.00	$400.00	75 CASTELLINA CIR
1	60	059192005000	139	0	1.00	$400.00	$400.00	71 CASTELLINA CIR
1	61	059192006000	140	0	1.00	$400.00	$400.00	67 CASTELLINA CIR
1	62	059192007000	141	0	1.00	$400.00	$400.00	63 CASTELLINA CIR
1	63	059192008000	142	0	1.00	$400.00	$400.00	59 CASTELLINA CIR
1	64	059192009000	143	0	1.00	$400.00	$400.00	55 CASTELLINA CIR
1	65	059192010000	144	0	1.00	$400.00	$400.00	51 CASTELLINA CIR
1	66	059192011000	145	0	1.00	$400.00	$400.00	35 CASTELLINA CIR
1	67	059192012000	146	0	1.00	$400.00	$400.00	31 CASTELLINA CIR
1	68	059192013000	147	0	1.00	$400.00	$400.00	27 CASTELLINA CIR
1	69	059192014000	148	0	1.00	$400.00	$400.00	23 CASTELLINA CIR
1	70	059192015000	149	0	1.00	$400.00	$400.00	19 CASTELLINA CIR
1	71	059192016000	150	0	1.00	$400.00	$400.00	15 CASTELLINA CIR
1	72	059192017000	151	0	1.00	$400.00	$400.00	11 CASTELLINA CIR
1	73	059192018000	152	0	1.00	$400.00	$400.00	7 CASTELLINA CIR
1	74	059192019000	153	0	1.00	$400.00	$400.00	3 CASTELLINA CIR
1	75	059201001000	154	0	1.00	$400.00	$400.00	14 VIA FIRENZE
1	76	059201002000	155	0	1.00	$400.00	$400.00	18 VIA FIRENZE
1	77	059201003000	156	0	1.00	$400.00	$400.00	22 VIA FIRENZE
1	78	059201004000	157	0	1.00	$400.00	$400.00	113 VIA PESCARA
1	79	059201005000	158	0	1.00	$400.00	$400.00	109 VIA PESCARA
1	80	059201006000	159	0	1.00	$400.00	$400.00	105 VIA PESCARA
1	81	059201007000	160	0	1.00	$400.00	$400.00	101 VIA PESCARA
1	82	059201008000	161	0	1.00	$400.00	$400.00	97 VIA PESCARA
1	83	059201009000	162	0	1.00	$400.00	$400.00	93 VIA PESCARA
1	84	059201010000	163	0	1.00	$400.00	$400.00	89 VIA PESCARA
1	85	059201011000	164	0	1.00	$400.00	$400.00	85 VIA PESCARA
1	86	059201012000	165	0	1.00	$400.00	$400.00	81 VIA PESCARA
1	87	059201013000	166	0	1.00	$400.00	$400.00	57 VIA PESCARA
1	88	059201014000	167	0	1.00	$400.00	$400.00	53 VIA PESCARA
1	89	059201015000	168	0	1.00	$400.00	$400.00	49 VIA PESCARA
1	90	059201016000	169	0	1.00	$400.00	$400.00	45 VIA PESCARA
1	91	059201017000	170	0	1.00	$400.00	$400.00	27 VIA PESCARA
1	92	059201018000	171	0	1.00	$400.00	$400.00	23 VIA PESCARA
1	93	059201019000	172	0	1.00	$400.00	$400.00	19 VIA PESCARA
1	94	059201020000	173	0	1.00	$400.00	$400.00	15 VIA PESCARA
1	95	059201021000	174	0	1.00	$400.00	$400.00	6 ELBA CT
1	96	059201022000	175	0	1.00	$400.00	$400.00	10 ELBA CT
1	97	059201023000	176	0	1.00	$400.00	$400.00	14 ELBA CT
1	98	059201024000	177	0	1.00	$400.00	$400.00	19 ELBA CT

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	99	059201025000	178	0	1.00	$400.00	$400.00	15 ELBA CT
1	100	059201026000	179	0	1.00	$400.00	$400.00	11 ELBA CT
1	101	059201027000	180	0	1.00	$400.00	$400.00	7 ELBA CT
1	102	059201028000	181	0	1.00	$400.00	$400.00	3 ELBA CT
1	103	059202001000	182	0	1.00	$400.00	$400.00	118 VIA PESCARA
1	104	059202002000	183	0	1.00	$400.00	$400.00	114 VIA PESCARA
1	105	059202003000	184	0	1.00	$400.00	$400.00	110 VIA PESCARA
1	106	059202004000	185	0	1.00	$400.00	$400.00	106 VIA PESCARA
1	107	059202005000	186	0	1.00	$400.00	$400.00	102 VIA PESCARA
1	108	059202006000	187	0	1.00	$400.00	$400.00	98 VIA PESCARA
1	109	059202007000	188	0	1.00	$400.00	$400.00	94 VIA PESCARA
1	110	059202008000	189	0	1.00	$400.00	$400.00	90 VIA PESCARA
1	111	059202009000	190	0	1.00	$400.00	$400.00	86 VIA PESCARA
1	112	059202010000	191	0	1.00	$400.00	$400.00	82 VIA PESCARA
1	113	059202011000	192	0	1.00	$400.00	$400.00	78 VIA PESCARA
1	114	059202012000	193	0	1.00	$400.00	$400.00	74 VIA PESCARA
1	115	059202013000	194	0	1.00	$400.00	$400.00	70 VIA PESCARA
1	116	059202014000	195	0	1.00	$400.00	$400.00	66 VIA PESCARA
1	117	059202015000	196	0	1.00	$400.00	$400.00	62 VIA PESCARA
1	118	059202016000	197	0	1.00	$400.00	$400.00	58 VIA PESCARA
1	119	059202017000	198	0	1.00	$400.00	$400.00	54 VIA PESCARA
1	120	059202018000	199	0	1.00	$400.00	$400.00	50 VIA PESCARA
1	121	059202019000	200	0	1.00	$400.00	$400.00	46 VIA PESCARA
1	122	059202020000	201	0	1.00	$400.00	$400.00	42 VIA PESCARA
1	123	059202021000	202	0	1.00	$400.00	$400.00	38 VIA PESCARA
1	124	059202022000	203	0	1.00	$400.00	$400.00	34 VIA PESCARA
1	125	059202023000	204	1.07	-	$400.00	$0.00	
1	126	059202024000	205	0	1.00	$400.00	$400.00	108 VIA BELLAGIO
1	127	059202025000	206	0	1.00	$400.00	$400.00	112 VIA BELLAGIO
1	128	059202026000	207	0	1.00	$400.00	$400.00	116 VIA BELLAGIO
1	129	059202027000	208	0	1.00	$400.00	$400.00	120 VIA BELLAGIO
1	130	059202028000	209	0	1.00	$400.00	$400.00	124 VIA BELLAGIO
1	131	059202029000	210	0	1.00	$400.00	$400.00	128 VIA BELLAGIO
1	132	059202030000	211	0	1.00	$400.00	$400.00	132 VIA BELLAGIO
1	133	059202031000	212	0	1.00	$400.00	$400.00	2 VIA PESCARA
1	134	059202032000	213	0	1.00	$400.00	$400.00	6 VIA PESCARA
1	135	059202033000	214	0	1.00	$400.00	$400.00	10 VIA PESCARA
1	136	059202034000	215	0	1.00	$400.00	$400.00	14 VIA PESCARA
1	137	059202035000	216	0	1.00	$400.00	$400.00	18 VIA PESCARA
1	138	059202036000	217	0	1.00	$400.00	$400.00	22 VIA PESCARA
1	139	059202037000	218	0	1.00	$400.00	$400.00	26 VIA PESCARA
1	140	059202038000	219	0	1.00	$400.00	$400.00	30 VIA PESCARA
1	141	059211001000	220	1	-	$400.00	$0.00	
1	142	059211002000	221	0	1.00	$400.00	$400.00	50 MONTECARLO WAY
1	143	059211003000	222	0	1.00	$400.00	$400.00	46 MONTECARLO WAY
1	144	059211004000	223	0	1.00	$400.00	$400.00	42 MONTECARLO WAY
1	145	059211005000	224	0	1.00	$400.00	$400.00	38 MONTECARLO WAY
1	146	059211006000	225	0	1.00	$400.00	$400.00	34 MONTECARLO WAY
1	147	059211007000	226	0	1.00	$400.00	$400.00	30 MONTECARLO WAY
1	148	059211008000	227	0	1.00	$400.00	$400.00	26 MONTECARLO WAY

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	149	059211009000	228	0	1.00	$400.00	$400.00	22 MONTECARLO WAY
1	150	059211010000	229	0	1.00	$400.00	$400.00	18 MONTECARLO WAY
1	151	059211011000	230	0	1.00	$400.00	$400.00	14 MONTECARLO WAY
1	152	059211012000	231	0	1.00	$400.00	$400.00	10 MONTECARLO WAY
1	153	059211013000	232	0	1.00	$400.00	$400.00	6 MONTECARLO WAY
1	154	059211014000	233	0	1.00	$400.00	$400.00	2 MONTECARLO WAY
1	155	059212001000	234	0	1.00	$400.00	$400.00	59 MONTECARLO WAY
1	156	059212002000	235	0	1.00	$400.00	$400.00	63 MONTECARLO WAY
1	157	059212003000	236	0	1.00	$400.00	$400.00	67 MONTECARLO WAY
1	158	059212004000	237	0	1.00	$400.00	$400.00	42 PIENZA DR
1	159	059212005000	238	0	1.00	$400.00	$400.00	38 PIENZA DR
1	160	059212006000	239	0	1.00	$400.00	$400.00	34 PIENZA DR
1	161	059212007000	240	0	1.00	$400.00	$400.00	30 PIENZA DR
1	162	059212008000	241	0	1.00	$400.00	$400.00	26 PIENZA DR
1	163	059212009000	242	0	1.00	$400.00	$400.00	22 PIENZA DR
1	164	059212010000	243	0	1.00	$400.00	$400.00	18 PIENZA DR
1	165	059212011000	244	0	1.00	$400.00	$400.00	14 PIENZA DR
1	166	059212012000	245	0	1.00	$400.00	$400.00	10 PIENZA DR
1	167	059212013000	246	0	1.00	$400.00	$400.00	35 MONTECARLO WAY
1	168	059212014000	247	0	1.00	$400.00	$400.00	39 MONTECARLO WAY
1	169	059212015000	248	0	1.00	$400.00	$400.00	43 MONTECARLO WAY
1	170	059212016000	249	0	1.00	$400.00	$400.00	47 MONTECARLO WAY
1	171	059212017000	250	0	1.00	$400.00	$400.00	51 MONTECARLO WAY
1	172	059212018000	251	0	1.00	$400.00	$400.00	55 MONTECARLO WAY
1	173	059213001000	252	0	1.00	$400.00	$400.00	71 MONTECARLO WAY
1	174	059213002000	253	0	1.00	$400.00	$400.00	75 MONTECARLO WAY
1	175	059213003000	254	0	1.00	$400.00	$400.00	79 MONTECARLO WAY
1	176	059213004000	255	0	1.00	$400.00	$400.00	167 VIA BELLAGIO
1	177	059213005000	256	0	1.00	$400.00	$400.00	163 VIA BELLAGIO
1	178	059213006000	257	0	1.00	$400.00	$400.00	159 VIA BELLAGIO
1	179	059213007000	258	0	1.00	$400.00	$400.00	155 VIA BELLAGIO
1	180	059213008000	259	0	1.00	$400.00	$400.00	151 VIA BELLAGIO
1	181	059213009000	260	0	1.00	$400.00	$400.00	147 VIA BELLAGIO
1	182	059213010000	261	0	1.00	$400.00	$400.00	143 VIA BELLAGIO
1	183	059213011000	262	0	1.00	$400.00	$400.00	139 VIA BELLAGIO
1	184	059213012000	263	0	1.00	$400.00	$400.00	135 VIA BELLAGIO
1	185	059213013000	264	0	1.00	$400.00	$400.00	131 VIA BELLAGIO
1	186	059213014000	265	0	1.00	$400.00	$400.00	127 VIA BELLAGIO
1	187	059213015000	266	0	1.00	$400.00	$400.00	123 VIA BELLAGIO
1	188	059213016000	267	0	1.00	$400.00	$400.00	119 VIA BELLAGIO
1	189	059213017000	268	0	1.00	$400.00	$400.00	115 VIA BELLAGIO
1	190	059213018000	269	0	1.00	$400.00	$400.00	111 VIA BELLAGIO
1	191	059213019000	270	0	1.00	$400.00	$400.00	107 VIA BELLAGIO
1	192	059213020000	271	0	1.00	$400.00	$400.00	3 PIENZA DR
1	193	059213021000	272	0	1.00	$400.00	$400.00	7 PIENZA DR
1	194	059213022000	273	0	1.00	$400.00	$400.00	11 PIENZA DR
1	195	059213023000	274	0	1.00	$400.00	$400.00	15 PIENZA DR
1	196	059213024000	275	0	1.00	$400.00	$400.00	19 PIENZA DR
1	197	059213025000	276	0	1.00	$400.00	$400.00	23 PIENZA DR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	198	059213026000	277	0	1.00	$400.00	$400.00	27 PIENZA DR
1	199	059213027000	278	0	1.00	$400.00	$400.00	31 PIENZA DR
1	200	059213028000	279	0	1.00	$400.00	$400.00	35 PIENZA DR
1	201	059213029000	280	0	1.00	$400.00	$400.00	39 PIENZA DR
1	202	059213030000	281	0	1.00	$400.00	$400.00	43 PIENZA DR
1	203	059213031000	282	0	1.00	$400.00	$400.00	47 PIENZA DR
1	204	059213032000	283	0	1.00	$400.00	$400.00	51 PIENZA DR
1	205	059221001000	284	0.15	1.00	$400.00	$400.00	59 VIA LA MORRA
1	206	059221002000	285	0.15	1.00	$400.00	$400.00	55 VIA LA MORRA
1	207	059221003000	286	0.2	1.00	$400.00	$400.00	51 VIA LA MORRA
1	208	059221004000	287	0.18	1.00	$400.00	$400.00	47 VIA LA MORRA
1	209	059221005000	288	0.16	1.00	$400.00	$400.00	43 VIA LA MORRA
1	210	059221006000	289	0.13	1.00	$400.00	$400.00	39 VIA LA MORRA
1	211	059221007000	290	0.12	1.00	$400.00	$400.00	35 VIA LA MORRA
1	212	059221008000	291	0.14	1.00	$400.00	$400.00	31 VIA LA MORRA
1	213	059221009000	292	0.14	1.00	$400.00	$400.00	27 VIA LA MORRA
1	214	059221010000	293	0.12	1.00	$400.00	$400.00	23 VIA LA MORRA
1	215	059221011000	294	0.13	1.00	$400.00	$400.00	19 VIA LA MORRA
1	216	059221012000	295	0.17	1.00	$400.00	$400.00	15 VIA LA MORRA
1	217	059221013000	296	0.16	1.00	$400.00	$400.00	11 VIA LA MORRA
1	218	059221014000	297	0.14	1.00	$400.00	$400.00	7 VIA LA MORRA
1	219	059221015000	298	0.23	1.00	$400.00	$400.00	3 VIA LA MORRA
1	220	059221016000	299	0.19	1.00	$400.00	$400.00	69 VIA BELLAGIO
1	221	059221017000	300	0.14	1.00	$400.00	$400.00	61 VIA BELLAGIO
1	222	059221018000	301	0.16	1.00	$400.00	$400.00	55 VIA BELLAGIO
1	223	059222001000	302	0.17	1.00	$400.00	$400.00	62 VIA LA MORRA
1	224	059222002000	303	0.15	1.00	$400.00	$400.00	58 VIA LA MORRA
1	225	059222003000	304	0.17	1.00	$400.00	$400.00	54 VIA LA MORRA
1	226	059222004000	305	0.2	1.00	$400.00	$400.00	50 VIA LA MORRA
1	227	059222005000	306	0.15	1.00	$400.00	$400.00	15 BIELLA CT
1	228	059222006000	307	0.12	1.00	$400.00	$400.00	11 BIELLA CT
1	229	059222007000	308	0.14	1.00	$400.00	$400.00	7 BIELLA CT
1	230	059222008000	309	0.26	1.00	$400.00	$400.00	3 BIELLA CT
1	231	059222009000	310	0.29	1.00	$400.00	$400.00	2 BIELLA CT
1	232	059222010000	311	0.13	1.00	$400.00	$400.00	6 BIELLA CT
1	233	059222011000	312	0.18	1.00	$400.00	$400.00	10 BIELLA CT
1	234	059222012000	313	0.25	1.00	$400.00	$400.00	18 VIA LA MORRA
1	235	059222013000	314	0.24	1.00	$400.00	$400.00	14 VIA LA MORRA
1	236	059222014000	315	0.23	1.00	$400.00	$400.00	10 VIA LA MORRA
1	237	059222015000	316	0.34	1.00	$400.00	$400.00	6 VIA LA MORRA
1	238	059222016000	317	0.17	1.00	$400.00	$400.00	51 VIA BELLAGIO
1	239	059222017000	318	0.13	1.00	$400.00	$400.00	47 VIA BELLAGIO
1	240	059222018000	319	0.13	1.00	$400.00	$400.00	43 VIA BELLAGIO
1	241	059222019000	320	0.13	1.00	$400.00	$400.00	39 VIA BELLAGIO
1	242	059222020000	321	0.13	1.00	$400.00	$400.00	35 VIA BELLAGIO
1	243	059222021000	322	0.13	1.00	$400.00	$400.00	31 VIA BELLAGIO
1	244	059222022000	323	0.13	1.00	$400.00	$400.00	27 VIA BELLAGIO
1	245	059222023000	324	0.13	1.00	$400.00	$400.00	23 VIA BELLAGIO
1	246	059222024000	325	0.13	1.00	$400.00	$400.00	19 VIA BELLAGIO
1	247	059222025000	326	0.13	1.00	$400.00	$400.00	15 VIA BELLAGIO

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	248	059222026000	327	0.13	1.00	$400.00	$400.00	11 VIA BELLAGIO
1	249	059222027000	328	0.13	1.00	$400.00	$400.00	7 VIA BELLAGIO
1	250	059222028000	329	0.15	1.00	$400.00	$400.00	3 VIA BELLAGIO
1	251	059231001000	330	0.21	1.00	$400.00	$400.00	14 VIA BELLAGIO
1	252	059231002000	331	0.22	1.00	$400.00	$400.00	18 VIA BELLAGIO
1	253	059231003000	332	0.23	1.00	$400.00	$400.00	22 VIA BELLAGIO
1	254	059231004000	333	0.23	1.00	$400.00	$400.00	26 VIA BELLAGIO
1	255	059231005000	334	0.22	1.00	$400.00	$400.00	30 VIA BELLAGIO
1	256	059231006000	335	0.2	1.00	$400.00	$400.00	34 VIA BELLAGIO
1	257	059231007000	336	0.2	1.00	$400.00	$400.00	38 VIA BELLAGIO
1	258	059231008000	337	0.18	1.00	$400.00	$400.00	42 VIA BELLAGIO
1	259	059231009000	338	0.18	1.00	$400.00	$400.00	46 VIA BELLAGIO
1	260	059231010000	339	0.18	1.00	$400.00	$400.00	50 VIA BELLAGIO
1	261	059231011000	340	0.21	1.00	$400.00	$400.00	54 VIA BELLAGIO
1	262	059231012000	341	0.19	1.00	$400.00	$400.00	27 PELLERIA DR
1	263	059231013000	342	0.15	1.00	$400.00	$400.00	31 PELLERIA DR
1	264	059231014000	343	0.15	1.00	$400.00	$400.00	35 PELLERIA DR
1	265	059231015000	344	0.15	1.00	$400.00	$400.00	39 PELLERIA DR
1	266	059231016000	345	0.15	1.00	$400.00	$400.00	43 PELLERIA DR
1	267	059231017000	346	0.15	1.00	$400.00	$400.00	47 PELLERIA DR
1	268	059231018000	347	0.15	1.00	$400.00	$400.00	51 PELLERIA DR
1	269	059231019000	348	0.27	1.00	$400.00	$400.00	59 VIA MARCIANA
1	270	059232001000	349	0.17	1.00	$400.00	$400.00	78 VIA BELLAGIO
1	271	059232002000	350	0.21	1.00	$400.00	$400.00	74 VIA BELLAGIO
1	272	059232003000	351	0.22	1.00	$400.00	$400.00	70 VIA BELLAGIO
1	273	059232004000	352	0.21	1.00	$400.00	$400.00	66 VIA BELLAGIO
1	274	059232005000	353	0.19	1.00	$400.00	$400.00	62 VIA BELLAGIO
1	275	059232006000	354	0.23	1.00	$400.00	$400.00	58 VIA BELLAGIO
1	276	059232007000	355	0.18	1.00	$400.00	$400.00	23 PELLERIA DR
1	277	059232008000	356	0.14	1.00	$400.00	$400.00	19 PELLERIA DR
1	278	059232009000	357	0.14	1.00	$400.00	$400.00	15 PELLERIA DR
1	279	059232010000	358	0.15	1.00	$400.00	$400.00	11 PELLERIA DR
1	280	059232011000	359	0.2	1.00	$400.00	$400.00	7 PELLERIA DR
1	281	059232012000	360	0.19	1.00	$400.00	$400.00	3 PELLERIA DR
1	282	059232013000	361	0.17	1.00	$400.00	$400.00	27 VIA MONTALCINO
1	283	059232014000	362	0.14	1.00	$400.00	$400.00	23 VIA MONTALCINO
1	284	059232015000	363	0.14	1.00	$400.00	$400.00	19 VIA MONTALCINO
1	285	059232016000	364	0.14	1.00	$400.00	$400.00	15 VIA MONTALCINO
1	286	059232017000	365	0.14	1.00	$400.00	$400.00	11 VIA MONTALCINO
1	287	059232018000	366	0.14	1.00	$400.00	$400.00	7 VIA MONTALCINO
1	288	059232019000	367	0.22	1.00	$400.00	$400.00	3 VIA MONTALCINO
1	289	059232020000	368	0.26	1.00	$400.00	$400.00	4 PALAZZO WAY
1	290	059232021000	369	0.16	1.00	$400.00	$400.00	8 PALAZZO WAY
1	291	059232022000	370	0.16	1.00	$400.00	$400.00	12 PALAZZO WAY
1	292	059232023000	371	0.16	1.00	$400.00	$400.00	16 PALAZZO WAY
1	293	059232024000	372	0.16	1.00	$400.00	$400.00	20 PALAZZO WAY
1	294	059232025000	373	0.17	1.00	$400.00	$400.00	24 PALAZZO WAY
1	295	059232026000	374	0.17	1.00	$400.00	$400.00	28 PALAZZO WAY
1	296	059232027000	375	0.17	1.00	$400.00	$400.00	32 PALAZZO WAY

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	297	059232028000	376	0.19	1.00	$400.00	$400.00	36 PALAZZO WAY
1	298	059232029000	377	0.23	1.00	$400.00	$400.00	40 PALAZZO WAY
1	299	059232030000	378	0.2	1.00	$400.00	$400.00	44 PALAZZO WAY
1	300	059232031000	379	0.17	1.00	$400.00	$400.00	48 PALAZZO WAY
1	301	059233001000	380	0.21	1.00	$400.00	$400.00	50 PELLERIA DR
1	302	059233002000	381	0.19	1.00	$400.00	$400.00	46 PELLERIA DR
1	303	059233003000	382	0.19	1.00	$400.00	$400.00	42 PELLERIA DR
1	304	059233004000	383	0.19	1.00	$400.00	$400.00	38 PELLERIA DR
1	305	059233005000	384	0.2	1.00	$400.00	$400.00	34 PELLERIA DR
1	306	059233006000	385	0.21	1.00	$400.00	$400.00	30 PELLERIA DR
1	307	059233007000	386	0.21	1.00	$400.00	$400.00	26 PELLERIA DR
1	308	059233008000	387	0.22	1.00	$400.00	$400.00	22 PELLERIA DR
1	309	059233009000	388	0.26	1.00	$400.00	$400.00	18 PELLERIA DR
1	310	059233010000	389	0.16	1.00	$400.00	$400.00	14 VIA MONTALCINO
1	311	059233011000	390	0.15	1.00	$400.00	$400.00	10 VIA MONTALCINO
1	312	059233012000	391	0.16	1.00	$400.00	$400.00	6 VIA MONTALCINO
1	313	059233013000	392	0.19	1.00	$400.00	$400.00	2 VIA MONTALCINO
1	314	059233014000	393	0.15	1.00	$400.00	$400.00	21 PALAZZO WAY
1	315	059233015000	394	0.14	1.00	$400.00	$400.00	25 PALAZZO WAY
1	316	059233016000	395	0.14	1.00	$400.00	$400.00	29 PALAZZO WAY
1	317	059233017000	396	0.14	1.00	$400.00	$400.00	33 PALAZZO WAY
1	318	059233018000	397	0.14	1.00	$400.00	$400.00	37 PALAZZO WAY
1	319	059233019000	398	0.14	1.00	$400.00	$400.00	41 PALAZZO WAY
1	320	059233020000	399	0.14	1.00	$400.00	$400.00	45 PALAZZO WAY
1	321	059233021000	400	0.14	1.00	$400.00	$400.00	49 PALAZZO WAY
1	322	059233022000	401	0.13	1.00	$400.00	$400.00	53 PALAZZO WAY
1	323	059233023000	402	0.13	1.00	$400.00	$400.00	57 PALAZZO WAY
1	324	059241001000	403	0.2	1.00	$400.00	$400.00	30 VIA TREVISO
1	325	059241002000	404	0.17	1.00	$400.00	$400.00	26 VIA TREVISO
1	326	059241003000	405	0.17	1.00	$400.00	$400.00	22 VIA TREVISO
1	327	059241004000	406	0.17	1.00	$400.00	$400.00	18 VIA TREVISO
1	328	059241005000	407	0.17	1.00	$400.00	$400.00	14 VIA TREVISO
1	329	059241006000	408	0.17	1.00	$400.00	$400.00	10 VIA TREVISO
1	330	059241007000	409	0.16	1.00	$400.00	$400.00	6 VIA TREVISO
1	331	059241008000	410	0.22	1.00	$400.00	$400.00	2 VIA TREVISO
1	332	059241009000	411	0.23	1.00	$400.00	$400.00	22 SARCEDO WAY
1	333	059241010000	412	0.17	1.00	$400.00	$400.00	26 SARCEDO WAY
1	334	059241011000	413	0.18	1.00	$400.00	$400.00	30 SARCEDO WAY
1	335	059241012000	414	0.18	1.00	$400.00	$400.00	34 SARCEDO WAY
1	336	059241013000	415	0.18	1.00	$400.00	$400.00	38 SARCEDO WAY
1	337	059241014000	416	0.18	1.00	$400.00	$400.00	42 SARCEDO WAY
1	338	059241015000	417	0.18	1.00	$400.00	$400.00	46 SARCEDO WAY
1	339	059241016000	418	0.2	1.00	$400.00	$400.00	50 SARCEDO WAY
1	340	059241017000	419	0.05	-	$400.00	$0.00	
1	341	059241018000	420	0.21	1.00	$400.00	$400.00	54 SARCEDO WAY
1	342	059241019000	421	0.17	1.00	$400.00	$400.00	58 SARCEDO WAY
1	343	059241020000	422	0.16	1.00	$400.00	$400.00	62 SARCEDO WAY
1	344	059241021000	423	0.16	1.00	$400.00	$400.00	66 SARCEDO WAY
1	345	059241022000	424	0.16	1.00	$400.00	$400.00	70 SARCEDO WAY
1	346	059241023000	425	0.16	1.00	$400.00	$400.00	74 SARCEDO WAY

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	347	059241024000	426	0.15	1.00	$400.00	$400.00	78 SARCEDO WAY
1	348	059241025000	427	0.15	1.00	$400.00	$400.00	82 SARCEDO WAY
1	349	059241026000	428	0.15	1.00	$400.00	$400.00	86 SARCEDO WAY
1	350	059241027000	429	0.15	1.00	$400.00	$400.00	90 SARCEDO WAY
1	351	059241028000	430	0.16	1.00	$400.00	$400.00	94 SARCEDO WAY
1	352	059241029000	431	0.16	1.00	$400.00	$400.00	98 SARCEDO WAY
1	353	059242001000	432	0.3	1.00	$400.00	$400.00	55 SARCEDO WAY
1	354	059242002000	433	0.21	1.00	$400.00	$400.00	59 SARCEDO WAY
1	355	059242003000	434	0.25	1.00	$400.00	$400.00	35 VIA PESARO
1	356	059242004000	435	0.19	1.00	$400.00	$400.00	15 VIA PESARO
1	357	059242005000	436	0.15	1.00	$400.00	$400.00	11 VIA PESARO
1	358	059242006000	437	0.15	1.00	$400.00	$400.00	7 VIA PESARO
1	359	059242007000	438	0.21	1.00	$400.00	$400.00	3 VIA PESARO
1	360	059243001000	439	0.2	1.00	$400.00	$400.00	75 SARCEDO WAY
1	361	059243002000	440	0.17	1.00	$400.00	$400.00	79 SARCEDO WAY
1	362	059243003000	441	0.21	1.00	$400.00	$400.00	83 SARCEDO WAY
1	363	059243004000	442	0.17	1.00	$400.00	$400.00	59 VIA TREVISO
1	364	059243005000	443	0.16	1.00	$400.00	$400.00	55 VIA TREVISO
1	365	059243006000	444	0.2	1.00	$400.00	$400.00	51 VIA TREVISO
1	366	059243016000	445	0.27	1.00	$400.00	$400.00	2 VIA PESARO
1	367	059243017000	446	0.2	1.00	$400.00	$400.00	6 VIA PESARO
1	368	059243018000	447	0.17	1.00	$400.00	$400.00	10 VIA PESARO
1	369	059243019000	448	0.17	1.00	$400.00	$400.00	14 VIA PESARO
1	370	059243020000	449	0.16	1.00	$400.00	$400.00	18 VIA PESARO
1	371	059243021000	450	0.29	1.00	$400.00	$400.00	22 VIA PESARO
1	372	059243022000	451	0.19	1.00	$400.00	$400.00	26 VIA PESARO
1	373	059243023000	452	0.17	1.00	$400.00	$400.00	30 VIA PESARO
1	374	059243024000	453	0.2	1.00	$400.00	$400.00	47 VIA TREVISO
1	375	059243025000	454	0.15	1.00	$400.00	$400.00	43 VIA TREVISO
1	376	059243026000	455	0.15	1.00	$400.00	$400.00	39 VIA TREVISO
1	377	059243027000	456	0.15	1.00	$400.00	$400.00	35 VIA TREVISO
1	378	059243028000	457	0.15	1.00	$400.00	$400.00	31 VIA TREVISO
1	379	059243029000	458	0.15	1.00	$400.00	$400.00	27 VIA TREVISO
1	380	059243030000	459	0.15	1.00	$400.00	$400.00	23 VIA TREVISO
1	381	059243031000	460	0.15	1.00	$400.00	$400.00	19 VIA TREVISO
1	382	059243032000	461	0.21	1.00	$400.00	$400.00	15 VIA TREVISO
1	383	059244001000	462	0.18	1.00	$400.00	$400.00	34 VIA TREVISO
1	384	059244002000	463	0.16	1.00	$400.00	$400.00	38 VIA TREVISO
1	385	059244003000	464	16	1.00	$400.00	$400.00	42 VIA TREVISO
1	386	059244004000	465	0.29	1.00	$400.00	$400.00	46 VIA TREVISO
1	387	059244005000	466	0.16	1.00	$400.00	$400.00	50 VIA TREVISO
1	388	059244006000	467	0.17	1.00	$400.00	$400.00	54 VIA TREVISO
1	389	059244007000	468	0.17	1.00	$400.00	$400.00	58 VIA TREVISO
1	390	059244008000	469	0.17	1.00	$400.00	$400.00	62 VIA TREVISO
1	391	059244009000	470	0.17	1.00	$400.00	$400.00	66 VIA TREVISO
1	392	059244010000	471	0.21	1.00	$400.00	$400.00	70 VIA TREVISO
1	393	059244011000	472	0.23	1.00	$400.00	$400.00	2 VIA BELLAGIO
1	394	059244012000	473	0.2	1.00	$400.00	$400.00	6 VIA BELLAGIO
1	395	059244013000	474	0.2	1.00	$400.00	$400.00	10 VIA BELLAGIO

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	396	059251001000	475	0.23	1.00	$400.00	$400.00	2 PALESTRINA CT
1	397	059251002000	476	0.18	1.00	$400.00	$400.00	6 PALESTRINA CT
1	398	059251003000	477	0.19	1.00	$400.00	$400.00	10 PALESTRINA CT
1	399	059251004000	478	0.17	1.00	$400.00	$400.00	14 PALESTRINA CT
1	400	059251005000	479	0.16	1.00	$400.00	$400.00	18 PALESTRINA CT
1	401	059251006000	480	0.16	1.00	$400.00	$400.00	22 PALESTRINA CT
1	402	059251007000	481	0.15	1.00	$400.00	$400.00	26 PALESTRINA CT
1	403	059251008000	482	0.16	1.00	$400.00	$400.00	30 PALESTRINA CT
1	404	059251009000	483	0.15	1.00	$400.00	$400.00	34 PALESTRINA CT
1	405	059251010000	484	0.15	1.00	$400.00	$400.00	38 PALESTRINA DR
1	406	059251011000	485	0.15	1.00	$400.00	$400.00	42 PALESTRINA DR
1	407	059251012000	486	0.15	1.00	$400.00	$400.00	46 PALESTRINA DR
1	408	059251013000	487	0.15	1.00	$400.00	$400.00	50 PALESTRINA DR
1	409	059251014000	488	0.17	1.00	$400.00	$400.00	54 PALESTRINA DR
1	410	059251015000	489	0.18	1.00	$400.00	$400.00	3 VIA MARCIANA
1	411	059251016000	490	0.13	1.00	$400.00	$400.00	7 VIA MARCIANA
1	412	059251017000	491	0.13	1.00	$400.00	$400.00	11 VIA MARCIANA
1	413	059251018000	492	0.13	1.00	$400.00	$400.00	15 VIA MARCIANA
1	414	059251019000	493	0.13	1.00	$400.00	$400.00	19 VIA MARCIANA
1	415	059251020000	494	0.13	1.00	$400.00	$400.00	23 VIA MARCIANA
1	416	059251021000	495	0.13	1.00	$400.00	$400.00	27 VIA MARCIANA
1	417	059251022000	496	0.13	1.00	$400.00	$400.00	31 VIA MARCIANA
1	418	059251023000	497	0.13	1.00	$400.00	$400.00	35 VIA MARCIANA
1	419	059251024000	498	0.16	1.00	$400.00	$400.00	39 VIA MARCIANA
1	420	059252001000	499	0.16	1.00	$400.00	$400.00	43 VIA MARCIANA
1	421	059252002000	500	0.14	1.00	$400.00	$400.00	47 VIA MARCIANA
1	422	059252003000	501	0.14	1.00	$400.00	$400.00	51 VIA MARCIANA
1	423	059252004000	502	0.14	1.00	$400.00	$400.00	55 VIA MARCIANA
1	424	059252005000	503	1.06	-	$400.00	$0.00	
1	425	059254001000	504	0.22	1.00	$400.00	$400.00	3 MARCELLO CT
1	426	059254002000	505	0.13	1.00	$400.00	$400.00	7 MARCELLO CT
1	427	059254003000	506	0.15	1.00	$400.00	$400.00	11 MARCELLO CT
1	428	059254004000	507	0.19	1.00	$400.00	$400.00	15 MARCELLO CT
1	429	059254005000	508	0.18	1.00	$400.00	$400.00	19 MARCELLO CT
1	430	059254006000	509	0.19	1.00	$400.00	$400.00	60 PALAZZO WAY
1	431	059254007000	510	0.15	1.00	$400.00	$400.00	56 PALAZZO WAY
1	432	059254008000	511	0.16	1.00	$400.00	$400.00	52 PALAZZO WAY
1	433	059255001000	512	0.21	1.00	$400.00	$400.00	3 CAMERINO CT
1	434	059255002000	513	0.16	1.00	$400.00	$400.00	7 CAMERINO CT
1	435	059255003000	514	0.17	1.00	$400.00	$400.00	11 CAMERINO CT
1	436	059255004000	515	0.17	1.00	$400.00	$400.00	15 CAMERINO CT
1	437	059255005000	516	0.17	1.00	$400.00	$400.00	19 CAMERINO CT
1	438	059255006000	517	0.18	1.00	$400.00	$400.00	18 MARCELLO CT
1	439	059255007000	518	0.19	1.00	$400.00	$400.00	14 MARCELLO CT
1	440	059255008000	519	0.17	1.00	$400.00	$400.00	10 MARCELLO CT
1	441	059255009000	520	0.17	1.00	$400.00	$400.00	6 MARCELLO CT
1	442	059255010000	521	0.31	1.00	$400.00	$400.00	2 MARCELLO CT
1	443	059256001000	522	0.19	1.00	$400.00	$400.00	3 PALESTRINA CT
1	444	059256002000	523	0.15	1.00	$400.00	$400.00	7 PALESTRINA CT

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
1	445	059256003000	524	0.25	1.00	$400.00	$400.00	11 PALESTRINA CT
1	446	059256004000	525	0.16	1.00	$400.00	$400.00	15 PALESTRINA CT
1	447	059256005000	526	0.14	1.00	$400.00	$400.00	19 PALESTRINA CT
1	448	059256006000	527	0.19	1.00	$400.00	$400.00	2 TOLENTINO DR
1	449	059256007000	528	0.18	1.00	$400.00	$400.00	6 TOLENTINO DR
1	450	059256008000	529	0.2	1.00	$400.00	$400.00	10 TOLENTINO DR
1	451	059256009000	530	0.19	1.00	$400.00	$400.00	14 CAMERINO CT
1	452	059256010000	531	0.18	1.00	$400.00	$400.00	10 CAMERINO CT
1	453	059256011000	532	0.19	1.00	$400.00	$400.00	6 CAMERINO CT
1	454	059256012000	533	0.31	1.00	$400.00	$400.00	2 CAMERINO CT
1	455	059257001000	534	0.21	1.00	$400.00	$400.00	2 VIA MARCIANA
1	456	059257002000	535	0.15	1.00	$400.00	$400.00	6 VIA MARCIANA
1	457	059257003000	536	0.15	1.00	$400.00	$400.00	10 VIA MARCIANA
1	458	059257004000	537	0.15	1.00	$400.00	$400.00	14 VIA MARCIANA
1	459	059257005000	538	0.14	1.00	$400.00	$400.00	18 VIA MARCIANA
1	460	059257006000	539	0.14	1.00	$400.00	$400.00	22 VIA MARCIANA
1	461	059257007000	540	0.14	1.00	$400.00	$400.00	26 VIA MARCIANA
1	462	059257008000	541	0.21	1.00	$400.00	$400.00	68 PALAZZO WAY
1	463	059257009000	542	0.22	1.00	$400.00	$400.00	64 PALAZZO WAY
1	464	059257010000	543	0.15	1.00	$400.00	$400.00	31 TOLENTINO DR
1	465	059257011000	544	0.14	1.00	$400.00	$400.00	27 TOLENTINO DR
1	466	059257012000	545	0.14	1.00	$400.00	$400.00	23 TOLENTINO DR
1	467	059257013000	546	0.14	1.00	$400.00	$400.00	19 TOLENTINO DR
1	468	059257014000	547	0.13	1.00	$400.00	$400.00	15 TOLENTINO DR
1	469	059257015000	548	0.13	1.00	$400.00	$400.00	11 TOLENTINO DR
1	470	059257016000	549	0.15	1.00	$400.00	$400.00	7 TOLENTINO DR
1	471	059257017000	550	0.18	1.00	$400.00	$400.00	3 TOLENTINO DR
							$186,400.00	

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	1	59040058000	81	10	-	$302.42	$0.00	475 SILVER OAK TR
2	2	59040059000	80	14	-	$302.42	$0.00	485 SILVER OAK TR
2	3	59040060000	80	5.54	-	$302.42	$0.00	
2	4	59040061000	80	2.94	-	$302.42	$0.00	
2	5	59040064000	80	4.85	-	$302.42	$0.00	
2	789	59080012000	218	8.35	95.40	$302.42	$28,850.86	Village at Vintage Ranch
2	790	59080041000	20	2.86	-	$302.42	$0.00	Village at Vintage Ranch
2	6	59301001000	111	0	1.00	$302.42	$302.42	20 WHITE OAK DR
2	7	59301002000	111E	0	1.00	$302.42	$302.42	24 WHITE OAK DR
2	8	59301003000	111	0	1.00	$302.42	$302.42	28 WHITE OAK DR
2	9	59301004000	111	0	1.00	$302.42	$302.42	32 WHITE OAK DR
2	10	59301005000	111	0	1.00	$302.42	$302.42	36 WHITE OAK DR
2	11	59301006000	111	0	1.00	$302.42	$302.42	40 WHITE OAK DR
2	12	59301007000	111	0	1.00	$302.42	$302.42	44 WHITE OAK DR
2	13	59301008000	111	0	1.00	$302.42	$302.42	48 WHITE OAK DR
2	14	59301009000	111	0	1.00	$302.42	$302.42	52 WHITE OAK DR
2	15	59301010000	111E	0	1.00	$302.42	$302.42	56 WHITE OAK DR
2	16	59301011000	111E	0	1.00	$302.42	$302.42	51 RENWOOD LN
2	17	59301012000	111	0	1.00	$302.42	$302.42	47 RENWOOD LN
2	18	59301013000	111	0	1.00	$302.42	$302.42	43 RENWOOD LN
2	19	59301014000	111	0	1.00	$302.42	$302.42	39 RENWOOD LN
2	20	59301015000	111	0	1.00	$302.42	$302.42	35 RENWOOD LN
2	21	59301016000	111	0	1.00	$302.42	$302.42	31 RENWOOD LN
2	22	59301017000	111	0	1.00	$302.42	$302.42	27 RENWOOD LN
2	23	59301018000	111	0	1.00	$302.42	$302.42	23 RENWOOD LN
2	24	59301019000	111E	0	1.00	$302.42	$302.42	19 RENWOOD LN
2	25	59302001000	111	0	1.00	$302.42	$302.42	39 WHITE OAK DR
2	26	59302002000	111	0	1.00	$302.42	$302.42	35 WHITE OAK DR
2	27	59302003000	111	0	1.00	$302.42	$302.42	31 WHITE OAK DR
2	28	59302004000	111	0	1.00	$302.42	$302.42	27 WHITE OAK DR
2	29	59302005000	111	0	1.00	$302.42	$302.42	23 WHITE OAK DR
2	30	59302006000	111	0	1.00	$302.42	$302.42	19 WHITE OAK DR
2	31	59302007000	111E	0	1.00	$302.42	$302.42	11 RENWOOD PL
2	32	59302008000	111	0	1.00	$302.42	$302.42	7 RENWOOD PL
2	33	59302009000	80	5.58	-	$302.42	$0.00	
2	34	59302010000	80	1.63	-	$302.42	$0.00	
2	35	59302011000	111E	0	1.00	$302.42	$302.42	2 RENWOOD PL
2	36	59302012000	111E	0	1.00	$302.42	$302.42	6 RENWOOD PL
2	37	59302013000	111	0	1.00	$302.42	$302.42	10 RENWOOD PL
2	38	59302014000	111	0	1.00	$302.42	$302.42	14 RENWOOD LN
2	39	59302015000	111	0	1.00	$302.42	$302.42	18 RENWOOD LN
2	40	59302016000	111	0	1.00	$302.42	$302.42	22 RENWOOD LN
2	41	59302017000	111	0	1.00	$302.42	$302.42	26 RENWOOD LN
2	42	59302018000	111E	0	1.00	$302.42	$302.42	30 RENWOOD LN
2	43	59302019000	111	0	1.00	$302.42	$302.42	34 RENWOOD LN
2	44	59302020000	111	0	1.00	$302.42	$302.42	38 RENWOOD LN
2	45	59302021000	111	0	1.00	$302.42	$302.42	42 RENWOOD LN
2	46	59302022000	111	0	1.00	$302.42	$302.42	46 RENWOOD LN
2	47	59302023000	111	0	1.00	$302.42	$302.42	50 RENWOOD LN
2	48	59311001000	111	0	1.00	$302.42	$302.42	536 SILVER OAK TR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	49	59311002000	111	0	1.00	$302.42	$302.42	532 SILVER OAK TR
2	50	59311003000	111	0	1.00	$302.42	$302.42	528 SILVER OAK TR
2	51	59311004000	111	0	1.00	$302.42	$302.42	524 SILVER OAK TR
2	52	59311005000	111	0	1.00	$302.42	$302.42	520 SILVER OAK TR
2	53	59311006000	111	0	1.00	$302.42	$302.42	516 SILVER OAK TR
2	54	59311007000	111	0	1.00	$302.42	$302.42	512 SILVER OAK TR
2	55	59311008000	111	0	1.00	$302.42	$302.42	508 SILVER OAK TR
2	56	59311009000	111	0	1.00	$302.42	$302.42	504 SILVER OAK TR
2	57	59311010000	111	0	1.00	$302.42	$302.42	500 SILVER OAK TR
2	58	59312003000	111	0	1.00	$302.42	$302.42	90 STONECREEK DR
2	59	59312004000	111E	0	1.00	$302.42	$302.42	86 STONECREEK DR
2	60	59312005000	111	0	1.00	$302.42	$302.42	82 STONECREEK DR
2	61	59312006000	111	0	1.00	$302.42	$302.42	78 STONECREEK DR
2	62	59312007000	111	0	1.00	$302.42	$302.42	74 STONECREEK DR
2	63	59312008000	111	0	1.00	$302.42	$302.42	70 STONECREEK DR
2	64	59312009000	111	0	1.00	$302.42	$302.42	66 STONECREEK DR
2	65	59312010000	111E	0	1.00	$302.42	$302.42	62 STONECREEK DR
2	66	59312011000	111	0	1.00	$302.42	$302.42	58 STONECREEK DR
2	67	59312012000	111	0	1.00	$302.42	$302.42	54 STONECREEK DR
2	68	59312013000	111	0	1.00	$302.42	$302.42	50 STONECREEK DR
2	69	59312014000	111	0	1.00	$302.42	$302.42	46 STONECREEK DR
2	70	59312015000	111E	0	1.00	$302.42	$302.42	42 STONECREEK DR
2	71	59312016000	111	0	1.00	$302.42	$302.42	38 STONECREEK DR
2	72	59312017000	111	0	1.00	$302.42	$302.42	34 STONECREEK DR
2	73	59312018000	111E	0	1.00	$302.42	$302.42	30 STONECREEK DR
2	74	59312019000	111	0	1.00	$302.42	$302.42	26 STONECREEK DR
2	75	59312020000	111	0	1.00	$302.42	$302.42	22 STONECREEK DR
2	76	59312021000	111	0	1.00	$302.42	$302.42	18 STONECREEK DR
2	77	59312022000	111	0	1.00	$302.42	$302.42	14 STONECREEK DR
2	78	59312023000	111	0	1.00	$302.42	$302.42	10 STONECREEK DR
2	79	59312024000	111	0	1.00	$302.42	$302.42	6 STONECREEK DR
2	80	59312025000	111	0	1.00	$302.42	$302.42	2 STONECREEK DR
2	81	59312026000	111E	0.15	1.00	$302.42	$302.42	98 STONECREEK DR
2	82	59312027000	111E	0.13	1.00	$302.42	$302.42	94 STONECREEK DR
2	83	59313001000	111E	0	1.00	$302.42	$302.42	75 STONECREEK DR
2	84	59313002000	111	0	1.00	$302.42	$302.42	71 STONECREEK DR
2	85	59313003000	111	0	1.00	$302.42	$302.42	67 STONECREEK DR
2	86	59313004000	111E	0	1.00	$302.42	$302.42	63 STONECREEK DR
2	87	59313005000	111	0	1.00	$302.42	$302.42	59 STONECREEK DR
2	88	59313006000	111E	0	1.00	$302.42	$302.42	55 STONECREEK DR
2	89	59313007000	111	0	1.00	$302.42	$302.42	51 STONECREEK DR
2	90	59313008000	111	0	1.00	$302.42	$302.42	47 STONECREEK DR
2	91	59313009000	111	0	1.00	$302.42	$302.42	43 STONECREEK DR
2	92	59313010000	111	0	1.00	$302.42	$302.42	39 STONECREEK DR
2	93	59313011000	111	0	1.00	$302.42	$302.42	35 STONECREEK DR
2	94	59313012000	111	0	1.00	$302.42	$302.42	31 STONECREEK DR
2	95	59313013000	111E	0	1.00	$302.42	$302.42	27 STONECREEK DR
2	96	59313014000	111	0	1.00	$302.42	$302.42	23 STONECREEK DR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	97	59313015000	111	0	1.00	$302.42	$302.42	19 STONECREEK DR
2	98	59313016000	111	0	1.00	$302.42	$302.42	15 STONECREEK DR
2	99	59313017000	111	0	1.00	$302.42	$302.42	11 STONECREEK DR
2	100	59313018000	111	0	1.00	$302.42	$302.42	7 STONECREEK DR
2	101	59313019000	111	0	1.00	$302.42	$302.42	3 STONECREEK DR
2	102	59313020000	111	0	1.00	$302.42	$302.42	39 SEQUOIA GROVE W
2	103	59313021000	111	0	1.00	$302.42	$302.42	35 SEQUOIA GROVE W
2	104	59313022000	111	0	1.00	$302.42	$302.42	31 SEQUOIA GROVE W
2	105	59313023000	111	0	1.00	$302.42	$302.42	27 SEQUOIA GROVE W
2	106	59313024000	111	0	1.00	$302.42	$302.42	23 SEQUOIA GROVE W
2	107	59313025000	111	0	1.00	$302.42	$302.42	19 SEQUOIA GROVE W
2	108	59313026000	111	0	1.00	$302.42	$302.42	2 KARLY CT
2	109	59313027000	111E	0	1.00	$302.42	$302.42	6 KARLY CT
2	110	59313028000	111	0	1.00	$302.42	$302.42	10 KARLY CT
2	111	59313029000	111	0	1.00	$302.42	$302.42	14 KARLY CT
2	112	59313030000	111	0	1.00	$302.42	$302.42	18 KARLY CT
2	113	59313031000	111	0	1.00	$302.42	$302.42	22 KARLY CT
2	114	59313032000	111	0	1.00	$302.42	$302.42	23 KARLY CT
2	115	59313033000	111E	0	1.00	$302.42	$302.42	19 KARLY CT
2	116	59313034000	111	0	1.00	$302.42	$302.42	15 KARLY CT
2	117	59313035000	111	0	1.00	$302.42	$302.42	11 KARLY CT
2	118	59313036000	111	0	1.00	$302.42	$302.42	7 KARLY CT
2	119	59313037000	111E	0	1.00	$302.42	$302.42	3 KARLY CT
2	120	59313038000	111E	0	1.00	$302.42	$302.42	2 DEAVER CT
2	121	59313039000	111	0	1.00	$302.42	$302.42	6 DEAVER CT
2	122	59313040000	111	0	1.00	$302.42	$302.42	10 DEAVER CT
2	123	59313041000	111E	0	1.00	$302.42	$302.42	14 DEAVER CT
2	124	59313042000	111	0	1.00	$302.42	$302.42	18 DEAVER CT
2	125	59313043000	111	0	1.00	$302.42	$302.42	11 DEAVER CT
2	126	59313044000	111	0	1.00	$302.42	$302.42	7 DEAVER CT
2	127	59313045000	111	0	1.00	$302.42	$302.42	3 DEAVER CT
2	128	59313046000	111E	0	1.00	$302.42	$302.42	36 TOSCANA DR
2	129	59313047000	111E	0	1.00	$302.42	$302.42	40 TOSCANA DR
2	130	59314001000	111E	0	1.00	$302.42	$302.42	63 TOSCANA DR
2	131	59314002000	111E	0	1.00	$302.42	$302.42	59 TOSCANA DR
2	132	59314003000	111E	0	1.00	$302.42	$302.42	55 TOSCANA DR
2	133	59314004000	111E	0	1.00	$302.42	$302.42	51 TOSCANA DR
2	134	59314005000	111E	0	1.00	$302.42	$302.42	47 TOSCANA DR
2	135	59314006000	111E	0	1.00	$302.42	$302.42	43 TOSCANA DR
2	136	59314007000	111E	0	1.00	$302.42	$302.42	39 TOSCANA DR
2	137	59314008000	111E	0	1.00	$302.42	$302.42	35 TOSCANA DR
2	138	59314009000	111E	0	1.00	$302.42	$302.42	31 TOSCANA DR
2	139	59314010000	111	0	1.00	$302.42	$302.42	27 TOSCANA DR
2	140	59314011000	111	0	1.00	$302.42	$302.42	23 TOSCANA DR
2	141	59314012000	111	0	1.00	$302.42	$302.42	19 TOSCANA DR
2	142	59314013000	111	0	1.00	$302.42	$302.42	15 TOSCANA DR
2	143	59314014000	111	0	1.00	$302.42	$302.42	11 TOSCANA DR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	144	59314015000	111	0	1.00	$302.42	$302.42	7 TOSCANA DR
2	145	59314016000	111	0	1.00	$302.42	$302.42	3 TOSCANA DR
2	146	59314017000	111	0	1.00	$302.42	$302.42	7 SEQUOIA GROVE CT
2	147	59314018000	111	0	1.00	$302.42	$302.42	3 SEQUOIA GROVE CT
2	148	59314019000	111	0	1.00	$302.42	$302.42	2 SEQUOIA GROVE CT
2	149	59314020000	111	0	1.00	$302.42	$302.42	6 SEQUOIA GROVE CT
2	150	59314021000	111	0	1.00	$302.42	$302.42	10 SEQUOIA GROVE C
2	151	59314022000	111	0	1.00	$302.42	$302.42	14 SEQUOIA GROVE W
2	152	59314023000	111	0	1.00	$302.42	$302.42	18 SEQUOIA GROVE W
2	153	59314024000	111	0	1.00	$302.42	$302.42	22 SEQUOIA GROVE W
2	154	59314025000	111	0	1.00	$302.42	$302.42	26 SEQUOIA GROVE W
2	155	59314026000	111	0	1.00	$302.42	$302.42	30 SEQUOIA GROVE W
2	156	59314027000	111	0	1.00	$302.42	$302.42	34 SEQUOIA GROVE W
2	157	59314028000	111	0	1.00	$302.42	$302.42	38 SEQUOIA GROVE W
2	158	59314029000	111	0	1.00	$302.42	$302.42	42 SEQUOIA GROVE W
2	159	59314030000	111E	0	1.00	$302.42	$302.42	46 SEQUOIA GROVE W
2	160	59314031000	111	0	1.00	$302.42	$302.42	50 SEQUOIA GROVE W
2	161	59314032000	111	0	1.00	$302.42	$302.42	54 SEQUOIA GROVE W
2	162	59314033000	111	0	1.00	$302.42	$302.42	58 SEQUOIA GROVE W
2	163	59321001000	111	0	1.00	$302.42	$302.42	3 SPINETTA CT
2	164	59321002000	111	0	1.00	$302.42	$302.42	7 SPINETTA CT
2	165	59321003000	111	0	1.00	$302.42	$302.42	11 SPINETTA CT
2	166	59321004000	111	0	1.00	$302.42	$302.42	15 SPINETTA CT
2	167	59321005000	111	0	1.00	$302.42	$302.42	14 SPINETTA CT
2	168	59321006000	111	0	1.00	$302.42	$302.42	10 SPINETTA CT
2	169	59321007000	111	0	1.00	$302.42	$302.42	6 SPINETTA CT
2	170	59321008000	111	0	1.00	$302.42	$302.42	2 SPINETTA CT
2	171	59322001000	111	0	1.00	$302.42	$302.42	94 OAKSTONE WAY
2	172	59322002000	111	0	1.00	$302.42	$302.42	98 OAKSTONE WAY
2	173	59322003000	111	0	1.00	$302.42	$302.42	102 OAKSTONE WAY
2	174	59322004000	111E	0	1.00	$302.42	$302.42	106 OAKSTONE WAY
2	175	59322005000	111	0	1.00	$302.42	$302.42	110 OAKSTONE WAY
2	176	59322006000	111	0	1.00	$302.42	$302.42	114 OAKSTONE WAY
2	177	59322007000	111	0	1.00	$302.42	$302.42	118 OAKSTONE WAY
2	178	59322008000	111	0	1.00	$302.42	$302.42	122 OAKSTONE WAY
2	179	59322009000	111	0	1.00	$302.42	$302.42	126 OAKSTONE WAY
2	180	59323001000	111	0	1.00	$302.42	$302.42	101 OAKSTONE WAY
2	181	59323002000	111E	0	1.00	$302.42	$302.42	97 OAKSTONE WAY
2	182	59323003000	111	0	1.00	$302.42	$302.42	93 OAKSTONE WAY
2	183	59323004000	111	0	1.00	$302.42	$302.42	89 OAKSTONE WAY
2	184	59323005000	111E	0	1.00	$302.42	$302.42	85 OAKSTONE WAY
2	185	59323006000	111	0	1.00	$302.42	$302.42	81 OAKSTONE WAY
2	186	59323007000	111	0	1.00	$302.42	$302.42	77 OAKSTONE WAY
2	187	59323008000	111	0	1.00	$302.42	$302.42	73 OAKSTONE WAY
2	188	59323009000	111	0	1.00	$302.42	$302.42	69 OAKSTONE WAY
2	189	59323010000	111	0	1.00	$302.42	$302.42	65 OAKSTONE WAY
2	190	59324001000	80	0	-	$302.42	$0.00	

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	191	59324002000	111	0	1.00	$302.42	$302.42	90 OAKSTONE WAY
2	192	59324003000	111	0	1.00	$302.42	$302.42	86 OAKSTONE WAY
2	193	59324004000	111	0	1.00	$302.42	$302.42	82 OAKSTONE WAY
2	194	59324005000	111	0	1.00	$302.42	$302.42	78 OAKSTONE WAY
2	195	59324006000	111	0	1.00	$302.42	$302.42	74 OAKSTONE WAY
2	196	59324007000	111	0	1.00	$302.42	$302.42	70 OAKSTONE WAY
2	197	59324008000	111	0	1.00	$302.42	$302.42	66 OAKSTONE WAY
2	198	59324009000	111	0	1.00	$302.42	$302.42	62 OAKSTONE WAY
2	199	59324010000	111	0	1.00	$302.42	$302.42	58 OAKSTONE WAY
2	200	59324011000	111	0	1.00	$302.42	$302.42	54 OAKSTONE WAY
2	201	59324012000	111	0	1.00	$302.42	$302.42	50 OAKSTONE WAY
2	202	59324013000	111	0	1.00	$302.42	$302.42	46 OAKSTONE WAY
2	203	59325001000	111	0	1.00	$302.42	$302.42	60 WHITE OAK DR
2	204	59325002000	111E	0	1.00	$302.42	$302.42	64 WHITE OAK DR
2	205	59325003000	111E	0	1.00	$302.42	$302.42	68 WHITE OAK DR
2	206	59325004000	111	0	1.00	$302.42	$302.42	72 WHITE OAK DR
2	207	59325005000	111	0	1.00	$302.42	$302.42	76 WHITE OAK DR
2	208	59325006000	111	0	1.00	$302.42	$302.42	80 WHITE OAK DR
2	209	59325007000	111	0	1.00	$302.42	$302.42	84 WHITE OAK DR
2	210	59325008000	111E	0	1.00	$302.42	$302.42	88 WHITE OAK DR
2	211	59325009000	111	0	1.00	$302.42	$302.42	92 WHITE OAK DR
2	212	59325010000	111E	0	1.00	$302.42	$302.42	96 WHITE OAK DR
2	213	59325011000	111E	0	1.00	$302.42	$302.42	91 RENWOOD LN
2	214	59325012000	111E	0	1.00	$302.42	$302.42	87 RENWOOD LN
2	215	59325013000	111E	0	1.00	$302.42	$302.42	83 RENWOOD LN
2	216	59325014000	111E	0	1.00	$302.42	$302.42	79 RENWOOD LN
2	217	59325015000	111E	0	1.00	$302.42	$302.42	75 RENWOOD LN
2	218	59325016000	111E	0	1.00	$302.42	$302.42	71 RENWOOD LN
2	219	59325017000	111E	0	1.00	$302.42	$302.42	67 RENWOOD LN
2	220	59325018000	111	0	1.00	$302.42	$302.42	63 RENWOOD LN
2	221	59325019000	111E	0	1.00	$302.42	$302.42	59 RENWOOD LN
2	222	59325020000	111	0	1.00	$302.42	$302.42	55 RENWOOD LN
2	223	59326001000	111	0	1.00	$302.42	$302.42	54 RENWOOD LN
2	224	59326002000	111	0	1.00	$302.42	$302.42	58 RENWOOD LN
2	225	59326003000	111E	0	1.00	$302.42	$302.42	62 RENWOOD LN
2	226	59326004000	111	0	1.00	$302.42	$302.42	66 RENWOOD LN
2	227	59326005000	111E	0	1.00	$302.42	$302.42	70 RENWOOD LN
2	228	59326006000	111E	0	1.00	$302.42	$302.42	74 RENWOOD LN
2	229	59326007000	111	0	1.00	$302.42	$302.42	78 RENWOOD LN
2	230	59326008000	111	0	1.00	$302.42	$302.42	82 RENWOOD LN
2	231	59326009000	111	0	1.00	$302.42	$302.42	86 RENWOOD LN
2	232	59326010000	111	0	1.00	$302.42	$302.42	90 RENWOOD LN
2	233	59326011000	111E	0	1.00	$302.42	$302.42	94 RENWOOD LN
2	234	59331001000	111	0	1.00	$302.42	$302.42	48 IRONHORSE DR
2	235	59331002000	111	0	1.00	$302.42	$302.42	44 IRONHORSE DR
2	236	59331003000	111	0	1.00	$302.42	$302.42	40 IRONHORSE DR
2	237	59331004000	80	3.54	-	$302.42	$0.00	

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	238	59331005000	111	0	1.00	$302.42	$302.42	14 IRONHORSE DR
2	239	59331006000	111	0	1.00	$302.42	$302.42	10 IRONHORSE DR
2	240	59331007000	111E	0	1.00	$302.42	$302.42	6 IRONHORSE DR
2	241	59331008000	111	0	1.00	$302.42	$302.42	2 IRONHORSE DR
2	242	59331009000	111	0	1.00	$302.42	$302.42	2 OAKSTONE CT
2	243	59331010000	111E	0	1.00	$302.42	$302.42	6 OAKSTONE CT
2	244	59331011000	111	0	1.00	$302.42	$302.42	10 OAKSTONE CT
2	245	59331012000	111E	0	1.00	$302.42	$302.42	14 OAKSTONE WAY
2	246	59331013000	111E	0	1.00	$302.42	$302.42	18 OAKSTONE WAY
2	247	59331014000	111	0	1.00	$302.42	$302.42	22 OAKSTONE WAY
2	248	59331015000	111	0	1.00	$302.42	$302.42	26 OAKSTONE WAY
2	249	59331016000	111	0	1.00	$302.42	$302.42	30 OAKSTONE WAY
2	250	59331017000	111E	0	1.00	$302.42	$302.42	34 OAKSTONE WAY
2	251	59331018000	111	0	1.00	$302.42	$302.42	38 OAKSTONE WAY
2	252	59331019000	111	0	1.00	$302.42	$302.42	42 OAKSTONE WAY
2	253	59332001000	111	0	1.00	$302.42	$302.42	39 IRONHORSE DR
2	254	59332002000	111	0	1.00	$302.42	$302.42	35 IRONHORSE DR
2	255	59332003000	111	0	1.00	$302.42	$302.42	31 IRONHORSE DR
2	256	59332004000	111	0	1.00	$302.42	$302.42	27 IRONHORSE DR
2	257	59332005000	111	0	1.00	$302.42	$302.42	23 IRONHORSE DR
2	258	59332006000	111	0	1.00	$302.42	$302.42	19 IRONHORSE DR
2	259	59332007000	111	0	1.00	$302.42	$302.42	15 IRONHORSE DR
2	260	59332008000	111	0	1.00	$302.42	$302.42	11 IRONHORSE DR
2	261	59332009000	111E	0	1.00	$302.42	$302.42	7 IRONHORSE DR
2	262	59332010000	111	0	1.00	$302.42	$302.42	3 IRONHORSE DR
2	263	59332011000	111	0	1.00	$302.42	$302.42	2 SIRAH DR
2	264	59332012000	111	0	1.00	$302.42	$302.42	6 SIRAH DR
2	265	59332013000	111E	0	1.00	$302.42	$302.42	10 SIRAH DR
2	266	59332014000	111	0	1.00	$302.42	$302.42	14 SIRAH DR
2	267	59332015000	111E	0	1.00	$302.42	$302.42	18 SIRAH DR
2	268	59332016000	111	0	1.00	$302.42	$302.42	22 SIRAH DR
2	269	59332017000	111	0	1.00	$302.42	$302.42	26 SIRAH DR
2	270	59332018000	111E	0	1.00	$302.42	$302.42	30 SIRAH DR
2	271	59332019000	111	0	1.00	$302.42	$302.42	34 SIRAH DR
2	272	59332020000	111	0	1.00	$302.42	$302.42	38 SIRAH DR
2	273	59333001000	111E	0	1.00	$302.42	$302.42	39 SIRAH DR
2	274	59333002000	111	0	1.00	$302.42	$302.42	35 SIRAH DR
2	275	59333003000	111	0	1.00	$302.42	$302.42	31 SIRAH DR
2	276	59333004000	111	0	1.00	$302.42	$302.42	27 SIRAH DR
2	277	59333005000	111	0	1.00	$302.42	$302.42	23 SIRAH DR
2	278	59333006000	111	0	1.00	$302.42	$302.42	19 SIRAH DR
2	279	59333007000	111	0	1.00	$302.42	$302.42	15 SIRAH DR
2	280	59333008000	111	0	1.00	$302.42	$302.42	11 SIRAH DR
2	281	59333009000	111	0	1.00	$302.42	$302.42	7 SIRAH DR
2	282	59333010000	111	0	1.00	$302.42	$302.42	3 SIRAH DR
2	283	59341001000	111	0	1.00	$302.42	$302.42	584 GRANITE SPRING
2	284	59341002000	111	0	1.00	$302.42	$302.42	580 GRANITE SPRING

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	285	59341003000	111	0	1.00	$302.42	$302.42	576 GRANITE SPRING
2	286	59341004000	111E	0	1.00	$302.42	$302.42	572 GRANITE SPRING
2	287	59341005000	111	0	1.00	$302.42	$302.42	568 GRANITE SPRING
2	288	59341006000	111	0	1.00	$302.42	$302.42	564 GRANITE SPRING
2	289	59341007000	111	0	1.00	$302.42	$302.42	560 GRANITE SPRING
2	290	59341008000	111	0	1.00	$302.42	$302.42	556 GRANITE SPRING
2	291	59341009000	111E	0	1.00	$302.42	$302.42	552 GRANITE SPRING
2	292	59341010000	111	0	1.00	$302.42	$302.42	548 GRANITE SPRING
2	293	59341011000	111E	0	1.00	$302.42	$302.42	544 GRANITE SPRING
2	294	59341012000	111	0	1.00	$302.42	$302.42	540 GRANITE SPRING
2	295	59341013000	111	0	1.00	$302.42	$302.42	536 GRANITE SPRING
2	296	59341014000	111	0	1.00	$302.42	$302.42	532 GRANITE SPRING
2	297	59341015000	111E	0	1.00	$302.42	$302.42	528 GRANITE SPRING
2	298	59341016000	111	0	1.00	$302.42	$302.42	524 GRANITE SPRING
2	299	59341017000	111E	0	1.00	$302.42	$302.42	520 GRANITE SPRING
2	300	59341018000	111E	0	1.00	$302.42	$302.42	516 GRANITE SPRING
2	301	59341019000	111	0	1.00	$302.42	$302.42	512 GRANITE SPRING
2	302	59341020000	111	0	1.00	$302.42	$302.42	508 GRANITE SPRING
2	303	59341021000	111	0	1.00	$302.42	$302.42	504 GRANITE SPRING
2	304	59341022000	111	0	1.00	$302.42	$302.42	500 GRANITE SPRING
2	305	59342001000	111	0	1.00	$302.42	$302.42	575 GRANITE SPRING
2	306	59342002000	111	0	1.00	$302.42	$302.42	571 GRANITE SPRING
2	307	59342003000	111E	0	1.00	$302.42	$302.42	567 GRANITE SPRING
2	308	59342004000	111	0	1.00	$302.42	$302.42	563 GRANITE SPRING
2	309	59342005000	111E	0	1.00	$302.42	$302.42	559 GRANITE SPRING
2	310	59342006000	111	0	1.00	$302.42	$302.42	3 SADIE PL
2	311	59342007000	111E	0	1.00	$302.42	$302.42	2 SADIE PL
2	312	59342008000	111	0	1.00	$302.42	$302.42	6 SADIE PL
2	313	59342009000	111E	0	1.00	$302.42	$302.42	545 GRANITE SPRING
2	314	59342010000	111	0	1.00	$302.42	$302.42	541 GRANITE SPRING
2	315	59342011000	111	0	1.00	$302.42	$302.42	537 GRANITE SPRING
2	316	59342012000	111	0	1.00	$302.42	$302.42	533 GRANITE SPRING
2	317	59342013000	111E	0	1.00	$302.42	$302.42	529 GRANITE SPRING
2	318	59342014000	111	0	1.00	$302.42	$302.42	27 MARSALA PL
2	319	59342015000	111E	0	1.00	$302.42	$302.42	23 MARSALA PL
2	320	59342016000	111	0	1.00	$302.42	$302.42	19 MARSALA PL
2	321	59342017000	111E	0	1.00	$302.42	$302.42	15 MARSALA PL
2	322	59342018000	111	0	1.00	$302.42	$302.42	11 MARSALA PL
2	323	59342019000	111	0	1.00	$302.42	$302.42	7 MARSALA PL
2	324	59342020000	111E	0	1.00	$302.42	$302.42	3 MARSALA PL
2	325	59342021000	111	0	1.00	$302.42	$302.42	2 MARSALA PL
2	326	59342022000	111E	0	1.00	$302.42	$302.42	6 MARSALA PL
2	327	59342023000	111E	0	1.00	$302.42	$302.42	10 MARSALA PL
2	328	59342024000	111E	0	1.00	$302.42	$302.42	14 MARSALA PL
2	329	59342025000	111	0	1.00	$302.42	$302.42	18 MARSALA PL
2	330	59342026000	111	0	1.00	$302.42	$302.42	22 MARSALA PL
2	331	59342027000	111	0	1.00	$302.42	$302.42	26 MARSALA PL

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	332	59342028000	111	0	1.00	$302.42	$302.42	30 MARSALA PL
2	333	59361001000	111E	0.15	1.00	$302.42	$302.42	227 CANTADA WAY
2	334	59361002000	111E	0.15	1.00	$302.42	$302.42	231 CANTADA WAY
2	335	59361003000	111E	0.15	1.00	$302.42	$302.42	235 CANTADA WAY
2	336	59361004000	111E	0.15	1.00	$302.42	$302.42	239 CANTADA WAY
2	337	59361005000	111E	0.15	1.00	$302.42	$302.42	243 CANTADA WAY
2	338	59361006000	111E	0.15	1.00	$302.42	$302.42	247 CANTADA WAY
2	339	59361007000	111E	0.16	1.00	$302.42	$302.42	251 CANTADA WAY
2	340	59361008000	111E	0.27	1.00	$302.42	$302.42	255 CANTADA WAY
2	341	59361009000	111E	0.23	1.00	$302.42	$302.42	259 CANTADA WAY
2	342	59361010000	111E	0.19	1.00	$302.42	$302.42	263 CANTADA WAY
2	343	59361011000	111E	0.18	1.00	$302.42	$302.42	267 CANTADA WAY
2	344	59361012000	111E	0.18	1.00	$302.42	$302.42	271 CANTADA WAY
2	345	59361013000	111E	0.18	1.00	$302.42	$302.42	275 CANTADA WAY
2	346	59361014000	111E	0.18	1.00	$302.42	$302.42	279 CANTADA WAY
2	347	59361015000	111E	0.18	1.00	$302.42	$302.42	283 CANTADA WAY
2	348	59361016000	111E	0.18	1.00	$302.42	$302.42	287 CANTADA WAY
2	349	59361017000	111E	0.18	1.00	$302.42	$302.42	291 CANTADA WAY
2	350	59361018000	111E	0.19	1.00	$302.42	$302.42	295 CANTADA CT
2	351	59361019000	111E	0.36	1.00	$302.42	$302.42	299 CANTADA CT
2	352	59361020000	111E	0.3	1.00	$302.42	$302.42	311 CANTADA CT
2	353	59361021000	111E	0.28	1.00	$302.42	$302.42	312 CANTADA CT
2	354	59361022000	111E	0.15	1.00	$302.42	$302.42	308 CANTADA CT
2	355	59361023000	111E	0.17	1.00	$302.42	$302.42	304 CANTADA CT
2	356	59361024000	111E	0.17	1.00	$302.42	$302.42	300 CANTADA CT
2	357	59361025000	111E	0.18	1.00	$302.42	$302.42	236 SAGEBRUSH LN
2	358	59361026000	111E	0.17	1.00	$302.42	$302.42	232 SAGEBRUSH LN
2	359	59361027000	111E	0.19	1.00	$302.42	$302.42	228 SAGEBRUSH LN
2	360	59361028000	111E	0.17	1.00	$302.42	$302.42	19 FARENTINO PL
2	361	59361029000	111E	0.16	1.00	$302.42	$302.42	15 FARENTINO PL
2	362	59361030000	111E	0.17	1.00	$302.42	$302.42	11 FARENTINO PL
2	363	59361031000	111E	0.2	1.00	$302.42	$302.42	7 FARENTINO PL
2	364	59361032000	111E	0.19	1.00	$302.42	$302.42	3 FARENTINO PL
2	365	59362001000	111	0.17	1.00	$302.42	$302.42	222 CANTADA WAY
2	366	59362002000	111	0.17	1.00	$302.42	$302.42	226 CANTADA WAY
2	367	59362003000	111	0.17	1.00	$302.42	$302.42	230 CANTADA WAY
2	368	59362004000	111E	0.17	1.00	$302.42	$302.42	234 CANTADA WAY
2	369	59362005000	111E	0.2	1.00	$302.42	$302.42	238 CANTADA WAY
2	370	59362006000	111E	0.21	1.00	$302.42	$302.42	242 CANTADA WAY
2	371	59362007000	111E	0.18	1.00	$302.42	$302.42	264 CANTADA WAY
2	372	59362008000	111E	0.16	1.00	$302.42	$302.42	268 CANTADA WAY
2	373	59362009000	111E	0.17	1.00	$302.42	$302.42	272 CANTADA WAY
2	374	59362010000	111E	0.17	1.00	$302.42	$302.42	235 SORRENTO LN
2	375	59362011000	111E	0.15	1.00	$302.42	$302.42	231 SORRENTO LN
2	376	59362012000	111E	0.15	1.00	$302.42	$302.42	227 SORRENTO LN
2	377	59362013000	111E	0.15	1.00	$302.42	$302.42	223 SORRENTO LN
2	378	59362014000	111E	0.15	1.00	$302.42	$302.42	219 SORRENTO LN

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	379	59362015000	111E	0.17	1.00	$302.42	$302.42	215 SORRENTO LN
2	380	59363001000	111E	0.21	1.00	$302.42	$302.42	206 SORRENTO LN
2	381	59363002000	111E	0.17	1.00	$302.42	$302.42	210 SORRENTO LN
2	382	59363003000	111E	0.17	1.00	$302.42	$302.42	214 SORRENTO LN
2	383	59363004000	111E	0.17	1.00	$302.42	$302.42	218 SORRENTO LN
2	384	59363005000	111E	0.17	1.00	$302.42	$302.42	222 SORRENTO LN
2	385	59363006000	111E	0.2	1.00	$302.42	$302.42	226 SORRENTO LN
2	386	59363007000	111E	0.2	1.00	$302.42	$302.42	230 SORRENTO LN
2	387	59363008000	111E	0.22	1.00	$302.42	$302.42	234 SORRENTO LN
2	388	59363009000	111E	0.17	1.00	$302.42	$302.42	282 CANTADA WAY
2	389	59363010000	111E	0.15	1.00	$302.42	$302.42	286 CANTADA WAY
2	390	59363011000	111E	0.17	1.00	$302.42	$302.42	290 CANTADA WAY
2	391	59363012000	111E	0.18	1.00	$302.42	$302.42	231 SAGEBRUSH LN
2	392	59363013000	111E	0.18	1.00	$302.42	$302.42	227 SAGEBRUSH LN
2	393	59363014000	111E	0.15	1.00	$302.42	$302.42	223 SAGEBRUSH LN
2	394	59363015000	111E	0.15	1.00	$302.42	$302.42	219 SAGEBRUSH LN
2	395	59363016000	111E	0.15	1.00	$302.42	$302.42	215 SAGEBRUSH LN
2	396	59363017000	111E	0.15	1.00	$302.42	$302.42	211 SAGEBRUSH LN
2	397	59363018000	111E	0.15	1.00	$302.42	$302.42	207 SAGEBRUSH LN
2	398	59363019000	111E	0.16	1.00	$302.42	$302.42	203 SAGEBRUSH LN
2	399	59363020000	80	0.02	-	$302.42	$0.00	
2	400	59364001000	111E	0.17	1.00	$302.42	$302.42	212 SAGEBRUSH LN
2	401	59364002000	111E	0.15	1.00	$302.42	$302.42	216 SAGEBRUSH LN
2	402	59364003000	111E	0.17	1.00	$302.42	$302.42	220 SAGEBRUSH LN
2	403	59364004000	111E	0.15	1.00	$302.42	$302.42	18 FARENTINO PL
2	404	59364005000	111E	0.17	1.00	$302.42	$302.42	14 FARENTINO PL
2	405	59364006000	111E	0.15	1.00	$302.42	$302.42	10 FARENTINO PL
2	406	59364007000	111E	0.15	1.00	$302.42	$302.42	6 FARENTINO PL
2	407	59364008000	111E	0.19	1.00	$302.42	$302.42	2 FARENTINO PL
2	408	59364009000	111E	0.24	1.00	$302.42	$302.42	3 SELVINO CT
2	409	59364010000	111E	0.22	1.00	$302.42	$302.42	7 SELVINO CT
2	410	59364011000	111E	0.17	1.00	$302.42	$302.42	11 SELVINO CT
2	411	59364012000	111E	0.17	1.00	$302.42	$302.42	15 SELVINO CT
2	412	59371001000	111E	0.14	1.00	$302.42	$302.42	350 SUMMERWOOD DR
2	413	59371002000	111E	0.11	1.00	$302.42	$302.42	346 SUMMERWOOD DR
2	414	59371003000	111E	0.11	1.00	$302.42	$302.42	342 SUMMERWOOD DR
2	415	59371004000	111E	0.11	1.00	$302.42	$302.42	338 SUMMERWOOD DR
2	416	59371005000	111E	0.11	1.00	$302.42	$302.42	334 SUMMERWOOD DR
2	417	59371006000	111E	0.11	1.00	$302.42	$302.42	330 SUMMERWOOD DR
2	418	59371007000	111E	0.11	1.00	$302.42	$302.42	326 SUMMERWOOD DR
2	419	59371008000	111E	0.11	1.00	$302.42	$302.42	322 SUMMERWOOD DR
2	420	59371009000	111	0.11	1.00	$302.42	$302.42	318 SUMMERWOOD DR
2	421	59371010000	111	0.11	1.00	$302.42	$302.42	314 SUMMERWOOD DR
2	422	59371011000	111	0.11	1.00	$302.42	$302.42	310 SUMMERWOOD DR
2	423	59371012000	111	0.11	1.00	$302.42	$302.42	306 SUMMERWOOD DR
2	424	59371013000	111	0.16	1.00	$302.42	$302.42	302 SUMMERWOOD DR
2	425	59371014000	111	0.16	1.00	$302.42	$302.42	126 TAPESTRY LN

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	426	59371015000	111	0.14	1.00	$302.42	$302.42	122 TAPESTRY LN
2	427	59371016000	111	0.13	1.00	$302.42	$302.42	118 TAPESTRY LN
2	428	59371017000	111	0.13	1.00	$302.42	$302.42	114 TAPESTRY LN
2	429	59371018000	111	0.13	1.00	$302.42	$302.42	110 TAPESTRY LN
2	430	59371019000	111E	0.15	1.00	$302.42	$302.42	106 TAPESTRY LN
2	431	59371020000	111E	0.16	1.00	$302.42	$302.42	102 TAPESTRY LN
2	432	59371021000	111	0.15	1.00	$302.42	$302.42	103 TERRAZZO LN
2	433	59371022000	111	0.15	1.00	$302.42	$302.42	107 TERRAZZO LN
2	434	59371023000	111E	0.15	1.00	$302.42	$302.42	111 TERRAZZO LN
2	435	59371024000	111	0.15	1.00	$302.42	$302.42	115 TERRAZZO LN
2	436	59371025000	111E	0.18	1.00	$302.42	$302.42	119 TERRAZZO LN
2	437	59371026000	111	0.15	1.00	$302.42	$302.42	123 TERRAZZO LN
2	438	59371027000	111E	0.18	1.00	$302.42	$302.42	127 TERRAZZO LN
2	439	59371028000	111E	0.15	1.00	$302.42	$302.42	131 TERRAZZO LN
2	440	59371029000	111	0.15	1.00	$302.42	$302.42	135 TERRAZZO LN
2	441	59371030000	111	0.15	1.00	$302.42	$302.42	139 TERRAZZO LN
2	442	59371031000	111	0.15	1.00	$302.42	$302.42	143 TERRAZZO LN
2	443	59371032000	111	0.18	1.00	$302.42	$302.42	147 TERRAZZO LN
2	444	59371033000	111	0.24	1.00	$302.42	$302.42	151 TERRAZZO LN
2	445	59371034000	111E	0.18	1.00	$302.42	$302.42	155 TERRAZZO LN
2	446	59371035000	111	0.15	1.00	$302.42	$302.42	159 TERRAZZO LN
2	447	59371036000	111	0.15	1.00	$302.42	$302.42	163 TERRAZZO LN
2	448	59371037000	111	0.15	1.00	$302.42	$302.42	167 TERRAZZO LN
2	449	59371038000	111E	0.15	1.00	$302.42	$302.42	171 TERRAZZO LN
2	450	59371039000	111	0.17	1.00	$302.42	$302.42	175 TERRAZZO LN
2	451	59372001000	111E	0.15	1.00	$302.42	$302.42	181 GOLD VALLEY WA
2	452	59372002000	111E	0.15	1.00	$302.42	$302.42	177 GOLD VALLEY WA
2	453	59372003000	111	0.17	1.00	$302.42	$302.42	173 GOLD VALLEY WA
2	454	59372004000	111	0.15	1.00	$302.42	$302.42	106 TERRAZZO LN
2	455	59372005000	111	0.15	1.00	$302.42	$302.42	110 TERRAZZO LN
2	456	59372006000	111	0.15	1.00	$302.42	$302.42	114 TERRAZZO LN
2	457	59372007000	111	0.17	1.00	$302.42	$302.42	118 TERRAZZO LN
2	458	59372008000	111	0.15	1.00	$302.42	$302.42	134 TERRAZZO LN
2	459	59372009000	111	0.15	1.00	$302.42	$302.42	138 TERRAZZO LN
2	460	59372010000	111	0.15	1.00	$302.42	$302.42	142 TERRAZZO LN
2	461	59372011000	111	0.15	1.00	$302.42	$302.42	146 TERRAZZO LN
2	462	59372012000	111	0.15	1.00	$302.42	$302.42	160 TERRAZZO LN
2	463	59372013000	111E	0.15	1.00	$302.42	$302.42	164 TERRAZZO LN
2	464	59372014000	111	0.15	1.00	$302.42	$302.42	11 MOSAIC CT
2	465	59372015000	111	0.15	1.00	$302.42	$302.42	7 MOSAIC CT
2	466	59372016000	111	0.15	1.00	$302.42	$302.42	3 MOSAIC CT
2	467	59372017000	111	0.31	1.00	$302.42	$302.42	2 MOSAIC CT
2	468	59372018000	111E	0.18	1.00	$302.42	$302.42	6 MOSAIC CT
2	469	59372019000	111	0.16	1.00	$302.42	$302.42	10 MOSAIC CT
2	470	59372020000	111	0.17	1.00	$302.42	$302.42	12 MOSAIC CT
2	471	59373001000	111	0.15	1.00	$302.42	$302.42	223 CANTADA WAY
2	472	59373002000	111	0.15	1.00	$302.42	$302.42	219 CANTADA WAY

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	473	59373003000	111	0.15	1.00	$302.42	$302.42	215 CANTADA WAY
2	474	59373004000	111	0.18	1.00	$302.42	$302.42	211 CANTADA WAY
2	475	59373005000	80	0.02	-	$302.42	$0.00	
2	476	59374001000	111	0.19	1.00	$302.42	$302.42	202 CANTADA WAY
2	477	59374002000	111	0.24	1.00	$302.42	$302.42	206 CANTADA WAY
2	478	59374003000	111	0.19	1.00	$302.42	$302.42	210 CANTADA WAY
2	479	59374004000	111	0.17	1.00	$302.42	$302.42	214 CANTADA WAY
2	480	59374005000	111	0.17	1.00	$302.42	$302.42	218 CANTADA WAY
2	481	59374006000	111E	0.17	1.00	$302.42	$302.42	211 SORRENTO LN
2	482	59374007000	111E	0.17	1.00	$302.42	$302.42	207 SORRENTO LN
2	483	59374008000	111E	0.2	1.00	$302.42	$302.42	203 SORRENTO LN
2	484	59374009000	80	0.03	-	$302.42	$0.00	
2	485	59375001000	111	0.17	1.00	$302.42	$302.42	178 GOLD VALLEY WA
2	486	59375002000	111E	0.15	1.00	$302.42	$302.42	174 GOLD VALLEY WA
2	487	59375003000	111E	0.15	1.00	$302.42	$302.42	170 GOLD VALLEY WA
2	488	59375004000	111	0.15	1.00	$302.42	$302.42	166 GOLD VALLEY WA
2	489	59381001000	111	0.15	1.00	$302.42	$302.42	22 SELVINO CT
2	490	59381002000	111	0.15	1.00	$302.42	$302.42	18 SELVINO CT
2	491	59381003000	111E	0.17	1.00	$302.42	$302.42	14 SELVINO CT
2	492	59381004000	111	0.15	1.00	$302.42	$302.42	10 SELVINO CT
2	493	59381005000	111	0.18	1.00	$302.42	$302.42	6 SELVINO CT
2	494	59382001000	80	1.09	-	$302.42	$0.00	
2	495	59383001000	111	0.11	1.00	$302.42	$302.42	151 HORIZON WAY
2	496	59383002000	111	0.12	1.00	$302.42	$302.42	147 HORIZON WAY
2	497	59383003000	111	0.12	1.00	$302.42	$302.42	143 HORIZON WAY
2	498	59383004000	111	0.15	1.00	$302.42	$302.42	139 HORIZON WAY
2	499	59383005000	111	0.13	1.00	$302.42	$302.42	135 HORIZON WAY
2	500	59383006000	111	0.16	1.00	$302.42	$302.42	131 HORIZON WAY
2	501	59383007000	111	0	1.00	$302.42	$302.42	127 HORIZON WAY
2	502	59383008000	111	0.16	1.00	$302.42	$302.42	123 HORIZON WAY
2	503	59383009000	111E	0.13	1.00	$302.42	$302.42	119 HORIZON WAY
2	504	59383010000	111	0.16	1.00	$302.42	$302.42	115 HORIZON WAY
2	505	59383011000	111	0.14	1.00	$302.42	$302.42	111 HORIZON WAY
2	506	59383012000	111	0.16	1.00	$302.42	$302.42	107 HORIZON WAY
2	507	59383013000	111	0.14	1.00	$302.42	$302.42	103 HORIZON WAY
2	508	59384001000	111E	0.16	1.00	$302.42	$302.42	23 HORIZON CT
2	509	59384002000	111E	0.16	1.00	$302.42	$302.42	19 HORIZON CT
2	510	59384003000	111	0.14	1.00	$302.42	$302.42	15 HORIZON CT
2	511	59384004000	111E	0.13	1.00	$302.42	$302.42	11 HORIZON CT
2	512	59384005000	111	0.16	1.00	$302.42	$302.42	7 HORIZON CT
2	513	59385001000	111	0.16	1.00	$302.42	$302.42	134 HORIZON WAY
2	514	59385002000	111	0.13	1.00	$302.42	$302.42	130 HORIZON WAY
2	515	59385003000	111	0	1.00	$302.42	$302.42	126 HORIZON WAY
2	516	59385004000	111	0.14	1.00	$302.42	$302.42	122 HORIZON WAY
2	517	59385005000	111	0.13	1.00	$302.42	$302.42	118 HORIZON WAY
2	518	59385006000	111E	0.14	1.00	$302.42	$302.42	114 HORIZON WAY
2	519	59385007000	111	0.16	1.00	$302.42	$302.42	110 HORIZON WAY

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	520	59385008000	111	0.13	1.00	$302.42	$302.42	106 HORIZON WAY
2	521	59385009000	111E	0.16	1.00	$302.42	$302.42	102 HORIZON WAY
2	522	59385010000	111	0.16	1.00	$302.42	$302.42	103 HALLMARK LN
2	523	59385011000	111	0.14	1.00	$302.42	$302.42	107 HALLMARK LN
2	524	59385012000	111	0.14	1.00	$302.42	$302.42	111 HALLMARK LN
2	525	59385013000	111E	0.15	1.00	$302.42	$302.42	115 HALLMARK LN
2	526	59385014000	111E	0.13	1.00	$302.42	$302.42	119 HALLMARK LN
2	527	59385015000	111E	0.16	1.00	$302.42	$302.42	123 HALLMARK LN
2	528	59385016000	111	0.13	1.00	$302.42	$302.42	127 HALLMARK LN
2	529	59386001000	111	0	1.00	$302.42	$302.42	26 HORIZON CT
2	530	59386002000	111	0.11	1.00	$302.42	$302.42	22 HORIZON CT
2	531	59386003000	111	0.11	1.00	$302.42	$302.42	18 HORIZON CT
2	532	59386004000	111E	0.11	1.00	$302.42	$302.42	14 HORIZON CT
2	533	59386005000	111	0.16	1.00	$302.42	$302.42	10 HORIZON CT
2	534	59386006000	111E	0.12	1.00	$302.42	$302.42	6 HORIZON CT
2	535	59386007000	111	0.11	1.00	$302.42	$302.42	2 HORIZON CT
2	536	59386008000	111	0.15	1.00	$302.42	$302.42	3 HALLMARK CT
2	537	59386009000	111E	0.15	1.00	$302.42	$302.42	7 HALLMARK CT
2	538	59386010000	111	0.13	1.00	$302.42	$302.42	11 HALLMARK CT
2	539	59386011000	111	0.16	1.00	$302.42	$302.42	15 HALLMARK CT
2	540	59386012000	111	0.13	1.00	$302.42	$302.42	19 HALLMARK CT
2	541	59386013000	111	0.13	1.00	$302.42	$302.42	23 HALLMARK CT
2	542	59386014000	111	0.16	1.00	$302.42	$302.42	27 HALLMARK CT
2	543	59387001000	111	0.16	1.00	$302.42	$302.42	26 HALLMARK CT
2	544	59387002000	111E	0.14	1.00	$302.42	$302.42	22 HALLMARK CT
2	545	59387003000	111E	0.13	1.00	$302.42	$302.42	18 HALLMARK CT
2	546	59387004000	111	0.15	1.00	$302.42	$302.42	14 HALLMARK CT
2	547	59391001000	80	0.38	-	$302.42	$0.00	
2	548	59392001000	111	0.17	1.00	$302.42	$302.42	102 TUSCAN OAK TR
2	549	59392002000	111E	0.12	1.00	$302.42	$302.42	106 TUSCAN OAK TR
2	550	59392003000	111	0.17	1.00	$302.42	$302.42	110 TUSCAN OAK TR
2	551	59392004000	111	0.13	1.00	$302.42	$302.42	114 TUSCAN OAK TR
2	552	59392005000	111E	0.13	1.00	$302.42	$302.42	118 TUSCAN OAK TR
2	553	59392006000	111E	0.18	1.00	$302.42	$302.42	122 TUSCAN OAK TR
2	554	59392007000	111	0.17	1.00	$302.42	$302.42	126 TUSCAN OAK TR
2	555	59392008000	111	0.13	1.00	$302.42	$302.42	130 TUSCAN OAK TR
2	556	59392009000	111	0.13	1.00	$302.42	$302.42	134 TUSCAN OAK TR
2	557	59392010000	111	0.17	1.00	$302.42	$302.42	138 TUSCAN OAK TR
2	558	59392011000	111	0.13	1.00	$302.42	$302.42	253 GOLDEN BROOK L
2	559	59392012000	111E	0.13	1.00	$302.42	$302.42	251 GOLDEN BROOK L
2	560	59392013000	111E	0.13	1.00	$302.42	$302.42	143 CRESTWOOD LN
2	561	59392014000	111E	0.18	1.00	$302.42	$302.42	139 CRESTWOOD LN
2	562	59392015000	111	0.13	1.00	$302.42	$302.42	135 CRESTWOOD LN
2	563	59392016000	111	0.13	1.00	$302.42	$302.42	131 CRESTWOOD LN
2	564	59392017000	111E	0.12	1.00	$302.42	$302.42	127 CRESTWOOD LN
2	565	59392018000	111	0.12	1.00	$302.42	$302.42	123 CRESTWOOD LN
2	566	59392019000	111	0.13	1.00	$302.42	$302.42	119 CRESTWOOD LN

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	567	59392020000	111	0.18	1.00	$302.42	$302.42	115 CRESTWOOD LN
2	568	59392021000	111	0.13	1.00	$302.42	$302.42	111 CRESTWOOD LN
2	569	59392022000	111	0.13	1.00	$302.42	$302.42	107 CRESTWOOD LN
2	570	59392023000	111	0.13	1.00	$302.42	$302.42	103 CRESTWOOD LN
2	571	59393001000	111E	0.13	1.00	$302.42	$302.42	102 CRESTWOOD LN
2	572	59393002000	111	0.17	1.00	$302.42	$302.42	106 CRESTWOOD LN
2	573	59393003000	111	0.13	1.00	$302.42	$302.42	110 CRESTWOOD LN
2	574	59393004000	111E	0.13	1.00	$302.42	$302.42	114 CRESTWOOD LN
2	575	59393005000	111	0.17	1.00	$302.42	$302.42	118 CRESTWOOD LN
2	576	59393006000	111	0.13	1.00	$302.42	$302.42	122 CRESTWOOD LN
2	577	59393007000	111	0.13	1.00	$302.42	$302.42	126 CRESTWOOD LN
2	578	59393008000	111E	0.18	1.00	$302.42	$302.42	130 CRESTWOOD LN
2	579	59393009000	111E	0.11	1.00	$302.42	$302.42	134 CRESTWOOD LN
2	580	59393010000	111	0.17	1.00	$302.42	$302.42	138 CRESTWOOD LN
2	581	59393011000	111	0.13	1.00	$302.42	$302.42	142 CRESTWOOD LN
2	582	59393012000	111	0.16	1.00	$302.42	$302.42	139 SUMMERWOOD DR
2	583	59393013000	111	0.12	1.00	$302.42	$302.42	135 SUMMERWOOD DR
2	584	59393014000	111	0	1.00	$302.42	$302.42	131 SUMMERWOOD DR
2	585	59393015000	111	0	1.00	$302.42	$302.42	127 SUMMERWOOD DR
2	586	59393016000	111E	0.11	1.00	$302.42	$302.42	123 SUMMERWOOD DR
2	587	59393017000	111	0	1.00	$302.42	$302.42	119 SUMMERWOOD DR
2	588	59393018000	111	0.17	1.00	$302.42	$302.42	115 SUMMERWOOD DR
2	589	59393019000	111E	0.15	1.00	$302.42	$302.42	111 SUMMERWOOD DR
2	590	59393020000	111	0.12	1.00	$302.42	$302.42	107 SUMMERWOOD DR
2	591	59393021000	111	0.17	1.00	$302.42	$302.42	103 SUMMERWOOD DR
2	592	59394001000	111	0.14	1.00	$302.42	$302.42	127 TAPESTRY LN
2	593	59394002000	111	0.13	1.00	$302.42	$302.42	123 TAPESTRY LN
2	594	59394003000	111	0.13	1.00	$302.42	$302.42	119 TAPESTRY LN
2	595	59394004000	111E	0.12	1.00	$302.42	$302.42	115 TAPESTRY LN
2	596	59394005000	111	0.11	1.00	$302.42	$302.42	111 TAPESTRY LN
2	597	59394006000	111	0.14	1.00	$302.42	$302.42	107 TAPESTRY LN
2	598	59394007000	111E	0.14	1.00	$302.42	$302.42	147 GOLD VALLEY WA
2	599	59394008000	111E	0.11	1.00	$302.42	$302.42	143 GOLD VALLEY WA
2	600	59394009000	111E	0.11	1.00	$302.42	$302.42	139 GOLD VALLEY WA
2	601	59394010000	111E	0.14	1.00	$302.42	$302.42	135 GOLD VALLEY WA
2	602	59394011000	111E	0.15	1.00	$302.42	$302.42	102 GOLDEN BROOK L
2	603	59394012000	111E	0.15	1.00	$302.42	$302.42	106 GOLDEN BROOK L
2	604	59394013000	111E	0.15	1.00	$302.42	$302.42	110 GOLDEN BROOK L
2	605	59394014000	111	0.14	1.00	$302.42	$302.42	202 SUMMERWOOD DR
2	606	59394015000	111	0.15	1.00	$302.42	$302.42	206 SUMMERWOOD DR
2	607	59395001000	111E	0.15	1.00	$302.42	$302.42	102 SUMMERWOOD DR
2	608	59395002000	111	0.13	1.00	$302.42	$302.42	106 SUMMERWOOD DR
2	609	59395003000	111	0.17	1.00	$302.42	$302.42	110 SUMMERWOOD DR
2	610	59395004000	111	0.11	1.00	$302.42	$302.42	114 SUMMERWOOD DR
2	611	59395005000	111	0.17	1.00	$302.42	$302.42	118 SUMMERWOOD DR
2	612	59395006000	111	0.17	1.00	$302.42	$302.42	122 SUMMERWOOD DR
2	613	59395007000	111	0.13	1.00	$302.42	$302.42	126 SUMMERWOOD DR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	614	59395008000	111E	0.17	1.00	$302.42	$302.42	130 SUMMERWOOD DR
2	615	59395009000	111	0.13	1.00	$302.42	$302.42	111 GOLDEN BROOK L
2	616	59395010000	111	0.12	1.00	$302.42	$302.42	107 GOLDEN BROOK L
2	617	59395011000	111E	0.16	1.00	$302.42	$302.42	103 GOLDEN BROOK L
2	618	59395012000	111E	0.15	1.00	$302.42	$302.42	123 GOLD VALLEY CT
2	619	59395013000	111E	0.11	1.00	$302.42	$302.42	119 GOLD VALLEY CT
2	620	59395014000	111E	0.29	1.00	$302.42	$302.42	115 GOLD VALLEY CT
2	621	59395015000	111E	0.24	1.00	$302.42	$302.42	102 GOLD VALLEY CT
2	622	59395016000	111E	0.25	1.00	$302.42	$302.42	106 GOLD VALLEY CT
2	623	59395017000	111E	0.15	1.00	$302.42	$302.42	110 GOLD VALLEY CT
2	624	59395018000	111E	0.12	1.00	$302.42	$302.42	114 GOLD VALLEY CT
2	625	59395019000	111E	0.12	1.00	$302.42	$302.42	118 GOLD VALLEY CT
2	626	59395020000	111E	0.12	1.00	$302.42	$302.42	122 GOLD VALLEY CT
2	627	59395021000	111E	0.12	1.00	$302.42	$302.42	126 GOLD VALLEY CT
2	628	59395022000	111E	0.12	1.00	$302.42	$302.42	130 GOLD VALLEY CT
2	629	59395023000	111E	0.12	1.00	$302.42	$302.42	134 GOLD VALLEY WA
2	630	59395024000	111E	0.12	1.00	$302.42	$302.42	138 GOLD VALLEY WA
2	631	59395025000	111E	0.12	1.00	$302.42	$302.42	142 GOLD VALLEY WA
2	632	59395026000	111E	0.12	1.00	$302.42	$302.42	146 GOLD VALLEY WA
2	633	59395027000	111E	0.12	1.00	$302.42	$302.42	150 GOLD VALLEY WA
2	634	59395028000	111E	0.12	1.00	$302.42	$302.42	154 GOLD VALLEY WA
2	635	59395029000	80	0.07	-	$302.42	$0.00	
2	636	59395030000	111	0.15	1.00	$302.42	$302.42	158 GOLD VALLEY WAY
2	637	59395031000	111	0.17	1.00	$302.42	$302.42	162 GOLD VALLEY WA
2	638	59401001000	80	1.01	-	$302.42	$0.00	911 DONALDSON E WA
2	639	59401002000	80	3.81	-	$302.42	$0.00	
2	640	59402001000	111E	0.17	1.00	$302.42	$302.42	199 SIENNA WAY
2	641	59402002000	111E	0.14	1.00	$302.42	$302.42	195 SIENNA WAY
2	642	59402003000	111E	0.14	1.00	$302.42	$302.42	191 SIENNA WAY
2	643	59402004000	111E	0.14	1.00	$302.42	$302.42	187 SIENNA WAY
2	644	59402005000	111E	0.13	1.00	$302.42	$302.42	183 SIENNA WAY
2	645	59402006000	111E	0.14	1.00	$302.42	$302.42	179 SIENNA WAY
2	646	59402007000	111E	0.13	1.00	$302.42	$302.42	175 SIENNA WAY
2	647	59402008000	111	0.12	1.00	$302.42	$302.42	171 SIENNA WAY
2	648	59402009000	111	0.18	1.00	$302.42	$302.42	167 SIENNA WAY
2	649	59402010000	80	0.03	-	$302.42	$0.00	
2	650	59402011000	111E	0.23	1.00	$302.42	$302.42	163 HORIZON WAY
2	651	59402012000	111	0.12	1.00	$302.42	$302.42	159 HORIZON WAY
2	652	59402013000	111	0.11	1.00	$302.42	$302.42	155 HORIZON WAY
2	653	59403001000	111E	0.16	1.00	$302.42	$302.42	178 SIENNA WAY
2	654	59403002000	111E	0.13	1.00	$302.42	$302.42	174 SIENNA WAY
2	655	59403003000	111E	0.17	1.00	$302.42	$302.42	170 SIENNA WAY
2	656	59403004000	111E	0	1.00	$302.42	$302.42	138 HORIZON WAY
2	657	59403005000	111	0.14	1.00	$302.42	$302.42	131 HALLMARK LN
2	658	59403006000	111	0.15	1.00	$302.42	$302.42	135 HALLMARK LN
2	659	59404001000	80	0.05	-	$302.42	$0.00	
2	660	59404002000	111E	0.16	1.00	$302.42	$302.42	223 SIENNA CT

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	661	59404003000	111E	0.17	1.00	$302.42	$302.42	219 SIENNA CT
2	662	59404004000	111E	0.12	1.00	$302.42	$302.42	215 SIENNA CT
2	663	59404005000	111E	0.13	1.00	$302.42	$302.42	211 SIENNA CT
2	664	59404006000	111E	0.17	1.00	$302.42	$302.42	207 SIENNA CT
2	665	59405001000	111E	0.18	1.00	$302.42	$302.42	216 SIENNA CT
2	666	59405002000	111E	0.22	1.00	$302.42	$302.42	212 SIENNA CT
2	667	59405003000	111E	0.17	1.00	$302.42	$302.42	208 SIENNA CT
2	668	59405004000	111E	0.16	1.00	$302.42	$302.42	204 SIENNA WAY
2	669	59405005000	111E	0.16	1.00	$302.42	$302.42	200 SIENNA WAY
2	670	59405006000	111E	0.15	1.00	$302.42	$302.42	196 SIENNA WAY
2	671	59405007000	111E	0.15	1.00	$302.42	$302.42	192 SIENNA WAY
2	672	59405008000	111E	0.14	1.00	$302.42	$302.42	188 SIENNA WAY
2	673	59405009000	111E	0.17	1.00	$302.42	$302.42	184 SIENNA WAY
2	674	59405010000	111	0.16	1.00	$302.42	$302.42	31 SERENA PL
2	675	59405011000	111	0.13	1.00	$302.42	$302.42	27 SERENA PL
2	676	59405012000	111	0.15	1.00	$302.42	$302.42	23 SERENA PL
2	677	59405013000	111E	0.14	1.00	$302.42	$302.42	19 SERENA PL
2	678	59405014000	111	0.13	1.00	$302.42	$302.42	15 SERENA PL
2	679	59405015000	111	0.14	1.00	$302.42	$302.42	11 SERENA PL
2	680	59405016000	111E	0.16	1.00	$302.42	$302.42	7 SERENA PL
2	681	59405017000	111	0.16	1.00	$302.42	$302.42	3 SERENA PL
2	682	59406001000	111	0.13	1.00	$302.42	$302.42	2 SERENA PL
2	683	59406002000	111E	0.15	1.00	$302.42	$302.42	6 SERENA PL
2	684	59406003000	111	0.15	1.00	$302.42	$302.42	10 SERENA PL
2	685	59406004000	111	0.16	1.00	$302.42	$302.42	14 SERENA PL
2	686	59406005000	111	0.13	1.00	$302.42	$302.42	18 SERENA PL
2	687	59406006000	111	0.16	1.00	$302.42	$302.42	22 SERENA PL
2	688	59406007000	111	0.16	1.00	$302.42	$302.42	26 SERENA PL
2	689	59406008000	111	0.17	1.00	$302.42	$302.42	19 SAGEBRUSH CT
2	690	59406009000	111	0.14	1.00	$302.42	$302.42	15 SAGEBRUSH CT
2	691	59406010000	111	0.15	1.00	$302.42	$302.42	11 SAGEBRUSH CT
2	692	59406011000	111E	0.15	1.00	$302.42	$302.42	7 SAGEBRUSH CT
2	693	59406012000	111E	0.18	1.00	$302.42	$302.42	3 SAGEBRUSH CT
2	694	59411001000	111	0.18	1.00	$302.42	$302.42	22 TUSCAN OAK TR
2	695	59411002000	111	0.12	1.00	$302.42	$302.42	18 TUSCAN OAK TR
2	696	59411003000	111	0.12	1.00	$302.42	$302.42	14 TUSCAN OAK TR
2	697	59411004000	111	0.12	1.00	$302.42	$302.42	10 TUSCAN OAK TR
2	698	59411005000	111	0.12	1.00	$302.42	$302.42	6 TUSCAN OAK TR
2	699	59411006000	111	0.15	1.00	$302.42	$302.42	2 TUSCAN OAK TR
2	700	59411007000	111	0.16	1.00	$302.42	$302.42	206 SONOMA CREEK W
2	701	59411008000	111	0.12	1.00	$302.42	$302.42	202 SONOMA CREEK W
2	702	59411009000	111E	0.12	1.00	$302.42	$302.42	198 SONOMA CREEK W
2	703	59411010000	111	0.12	1.00	$302.42	$302.42	194 SONOMA CREEK W
2	704	59411011000	111	0.2	1.00	$302.42	$302.42	190 SONOMA CREEK W
2	705	59411012000	111	0.2	1.00	$302.42	$302.42	186 SONOMA CREEK W
2	706	59411013000	111	0.13	1.00	$302.42	$302.42	182 SONOMA CREEK W
2	707	59411014000	111	0.12	1.00	$302.42	$302.42	178 SONOMA CREEK W

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	708	59411015000	111E	0.12	1.00	$302.42	$302.42	174 SONOMA CREEK W
2	709	59411016000	111	0.12	1.00	$302.42	$302.42	170 SONOMA CREEK W
2	710	59411017000	111	0.12	1.00	$302.42	$302.42	166 SONOMA CREEK W
2	711	59411018000	111E	0.12	1.00	$302.42	$302.42	162 SONOMA CREEK W
2	712	59411019000	111E	0.12	1.00	$302.42	$302.42	158 SONOMA CREEK W
2	713	59411020000	111E	0.13	1.00	$302.42	$302.42	154 SONOMA CREEK W
2	714	59411021000	111E	0.2	1.00	$302.42	$302.42	150 SONOMA CREEK W
2	715	59412001000	80	1.07	-	$302.42	$0.00	
2	716	59412002000	80	0.96	-	$302.42	$0.00	
2	717	59413001000	111	0.17	1.00	$302.42	$302.42	183 SONOMA CREEK W
2	718	59413002000	111	0.11	1.00	$302.42	$302.42	179 SONOMA CREEK W
2	719	59413003000	111	0.11	1.00	$302.42	$302.42	175 SONOMA CREEK W
2	720	59413004000	111	0.11	1.00	$302.42	$302.42	171 SONOMA CREEK W
2	721	59413005000	111	0.11	1.00	$302.42	$302.42	167 SONOMA CREEK W
2	722	59413006000	111E	0.11	1.00	$302.42	$302.42	163 SONOMA CREEK W
2	723	59413007000	111E	0.11	1.00	$302.42	$302.42	159 SONOMA CREEK W
2	724	59413008000	111E	0.11	1.00	$302.42	$302.42	155 SONOMA CREEK W
2	725	59413009000	111E	0.11	1.00	$302.42	$302.42	151 SONOMA CREEK W
2	726	59413010000	111E	0.11	1.00	$302.42	$302.42	147 SONOMA CREEK W
2	727	59413011000	111E	0.11	1.00	$302.42	$302.42	143 SONOMA CREEK W
2	728	59413012000	111E	0.11	1.00	$302.42	$302.42	139 SONOMA CREEK W
2	729	59413013000	111E	0.11	1.00	$302.42	$302.42	135 SONOMA CREEK W
2	730	59413014000	111	0.11	1.00	$302.42	$302.42	131 SONOMA CREEK W
2	731	59413015000	111E	0.11	1.00	$302.42	$302.42	127 SONOMA CREEK W
2	732	59413016000	111	0.11	1.00	$302.42	$302.42	123 SONOMA CREEK W
2	733	59413017000	111	0	1.00	$302.42	$302.42	119 SONOMA CREEK W
2	734	59413018000	111E	0.11	1.00	$302.42	$302.42	115 SONOMA CREEK W
2	735	59413019000	111	0.11	1.00	$302.42	$302.42	111 SONOMA CREEK W
2	736	59413020000	111	0	1.00	$302.42	$302.42	107 SONOMA CREEK W
2	737	59413021000	111E	0	1.00	$302.42	$302.42	103 SONOMA CREEK W
2	738	59413022000	111E	0	1.00	$302.42	$302.42	102 HEARTHSTONE DR
2	739	59413023000	111	0.12	1.00	$302.42	$302.42	106 HEARTHSTONE DR
2	740	59413024000	111	0.11	1.00	$302.42	$302.42	110 HEARTHSTONE DR
2	741	59413025000	111	0	1.00	$302.42	$302.42	114 HEARTHSTONE DR
2	742	59413026000	111	0.12	1.00	$302.42	$302.42	118 HEARTHSTONE DR
2	743	59413027000	111	0.18	1.00	$302.42	$302.42	122 HEARTHSTONE DR
2	744	59413028000	111E	0.11	1.00	$302.42	$302.42	126 HEARTHSTONE DR
2	745	59413029000	111	0.12	1.00	$302.42	$302.42	130 HEARTHSTONE DR
2	746	59413030000	111E	0.12	1.00	$302.42	$302.42	134 HEARTHSTONE DR
2	747	59413031000	111	0.12	1.00	$302.42	$302.42	138 HEARTHSTONE DR
2	748	59413032000	111	0.12	1.00	$302.42	$302.42	142 HEARTHSTONE DR
2	749	59413033000	111E	0.18	1.00	$302.42	$302.42	146 HEARTHSTONE DR
2	750	59413034000	111	0.12	1.00	$302.42	$302.42	150 HEARTHSTONE DR
2	751	59413035000	111E	0.12	1.00	$302.42	$302.42	154 HEARTHSTONE DR
2	752	59413036000	111E	0.12	1.00	$302.42	$302.42	158 HEARTHSTONE DR
2	753	59413037000	111E	0.12	1.00	$302.42	$302.42	162 HEARTHSTONE DR
2	754	59413038000	111	0.12	1.00	$302.42	$302.42	166 HEARTHSTONE DR

ZONE	ASMT NO.	APN	USE CODE	ACRES	ESD UNITS	Rate per ESD	2021-22 ASSESSMENT	PROPERTY ADDRESS
2	755	59413039000	111	0.18	1.00	$302.42	$302.42	170 HEARTHSTONE DR
2	756	59413040000	111E	0.12	1.00	$302.42	$302.42	174 HEARTHSTONE DR
2	757	59413041000	111	0.12	1.00	$302.42	$302.42	178 HEARTHSTONE DR
2	758	59413042000	111	0.17	1.00	$302.42	$302.42	182 HEARTHSTONE DR
2	759	59414001000	80	0.31	-	$302.42	$0.00	
2	760	59414002000	111	0.13	1.00	$302.42	$302.42	211 HEARTHSTONE DR
2	761	59414003000	111	0.13	1.00	$302.42	$302.42	207 HEARTHSTONE DR
2	762	59414004000	111E	0.13	1.00	$302.42	$302.42	203 HEARTHSTONE DR
2	763	59414005000	111	0.12	1.00	$302.42	$302.42	199 HEARTHSTONE DR
2	764	59414006000	111	0.12	1.00	$302.42	$302.42	195 HEARTHSTONE DR
2	765	59414007000	111	0.18	1.00	$302.42	$302.42	191 HEARTHSTONE DR
2	766	59414008000	111	0.11	1.00	$302.42	$302.42	187 HEARTHSTONE DR
2	767	59414009000	111	0.11	1.00	$302.42	$302.42	183 HEARTHSTONE DR
2	768	59414010000	111	0.11	1.00	$302.42	$302.42	179 HEARTHSTONE DR
2	769	59414011000	111E	0.12	1.00	$302.42	$302.42	175 HEARTHSTONE DR
2	770	59414012000	111E	0.11	1.00	$302.42	$302.42	171 HEARTHSTONE DR
2	771	59414013000	111E	0.11	1.00	$302.42	$302.42	167 HEARTHSTONE DR
2	772	59414014000	111E	0.11	1.00	$302.42	$302.42	163 HEARTHSTONE DR
2	773	59414015000	111E	0.18	1.00	$302.42	$302.42	159 HEARTHSTONE DR
2	774	59414016000	111	0.11	1.00	$302.42	$302.42	155 HEARTHSTONE DR
2	775	59414017000	111	0.12	1.00	$302.42	$302.42	151 HEARTHSTONE DR
2	776	59414018000	111	0.11	1.00	$302.42	$302.42	147 HEARTHSTONE DR
2	777	59414019000	111	0.11	1.00	$302.42	$302.42	143 HEARTHSTONE DR
2	778	59414020000	111	0.11	1.00	$302.42	$302.42	139 HEARTHSTONE DR
2	779	59414021000	111	0.18	1.00	$302.42	$302.42	135 HEARTHSTONE DR
2	780	59414022000	111	0.12	1.00	$302.42	$302.42	131 HEARTHSTONE DR
2	781	59414023000	111	0.12	1.00	$302.42	$302.42	127 HEARTHSTONE DR
2	782	59414024000	111E	0.12	1.00	$302.42	$302.42	123 HEARTHSTONE DR
2	783	59414025000	111E	0.11	1.00	$302.42	$302.42	119 HEARTHSTONE DR
2	784	59414026000	111	0	1.00	$302.42	$302.42	115 HEARTHSTONE DR
2	785	59414027000	111E	0	1.00	$302.42	$302.42	111 HEARTHSTONE DR
2	786	59414028000	111	0.11	1.00	$302.42	$302.42	107 HEARTHSTONE DR
2	787	59414029000	111	0.12	1.00	$302.42	$302.42	103 HEARTHSTONE DR
2	788	59415001000	80	0.01	-	$302.42	$0.00	
							$ 260,202.16	

ZONE	ASMT NO.	APN	USE CODE	ESD	ACRES	FLOOR SPACE SF	ESD FACTOR	ACREAGE FACTOR	2021-22 ASSESSMENT	PROPERTY ADDRESS
3	13	59020045000	50	0	3.99	0	$0.00	$0.00	$0.00	OPEN SPACE
3	14	59020051000	50	12.53	2.79	18,795	$207.56	$1,022.01	$5,452.14	418 NAPA JUNCTION *Tractor Supply Co. - Retail*
3	14	59020052000	50	1.00	1.14	1,500	$207.56	$1,022.01	$1,372.66	418 NAPA JUNCTION *Tractor Supply Co. - Parking lot*
3	15	59020047000	50	4.66	1.01	6,990	$207.56	$1,022.01	$1,999.46	406 NAPA JUNCTION *Verizon*
3	16	59020048000	50	1.33	1.00	1,995	$207.56	$1,022.01	$1,298.06	408 NAPA JUNCTION *Taco Bell*
3	17	59020049000	50	4.56	1.08	6,840	$207.56	$1,022.01	$2,050.24	410 NAPA JUNCTION *DD, Mt. Mikes, etc.*
3	18	59020050000	50	151.40	5.97	5,100	$207.56	$1,022.01	$37,525.98	440 NAPA JUNCTION *Apts. & Clubhouse - 148 units*
3	1	59351007000	80	0	0.26	0	$0.00	$0.00	$0.00	
3	2	59351008000	80	0	1.01	0	$0.00	$0.00	$0.00	
3	3	59351010000	51	113.17	13.96	169,755	$207.56	$1,022.01	$37,756.82	7011 MAIN ST *Walmart*
3	4	59351011000	81	0	2.81	0	$0.00	$0.00	$0.00	MAIN STREET PARK
3	5	59351012000	218	216.00	10.00	0	$207.56	$1,022.01	$55,053.06	5500 EUCALYPTUS DR *Lodge Apts - 216 units*
3	6	59351013000	51	2.09	0.86	3,135	$207.56	$1,022.01	$1,312.74	401 NAPA JUNCTION *Gas Station*
3	7	59351014000	51	4.53	0.79	6,795	$207.56	$1,022.01	$1,747.62	7021 MAIN ST *Retail Stores*
3	8	59351015000	51	1.09	1.19	1,635	$207.56	$1,022.01	$1,442.42	6055 MAIN ST *Sonic Drive-In*
3	9	59351016000	51	7.47	1.41	11,205	$207.56	$1,022.01	$2,991.50	6040 MAIN ST #142 *Coldwell Bank*
3	10	59352001000	51	12.83	2.36	19,245	$207.56	$1,022.01	$5,074.94	5055 MAIN ST #100 *Panda Expess, Round Table, Bank*
3	11	59352002000	513	38.26	2.48	16,890	$207.56	$1,022.01	$10,475.84	5001 MAIN ST *Holiday Inn Express*
				570.92	**46.04**				**$165,553.50**	

Asmt No.12 (now deleted), former APN 59020001000, was subdivided into six new parcel numbers at the time of the filing of the FY 2106-17 Engineer's Report.
The new APN's are shown above (059-020-045 through 059-020-050) and will be assessed according to the established rate and
Method of Apportionment described in the Engineer's Report and as adopted by City Council Resolution No. 2016-57.
Assessment No. 14, former APN 059-020-046, was subdivided into parcels 051 and 052 for the 2017/18 levy.

ESD for each parcel is determined by dividing the commercial floor space SF by 1,500 (minimum 1,500) and adding any residential units

TITLE

Intent to Override Napa County Airport Land Use Commission Determination: Oat Hill Multi-Family Residential Project

RECOMMENDATION

Adopt a Resolution notifying the Napa County Airport Land Use Commission and the State Division of Aeronautics of the City's intention to find that the Oat Hill Multi-Family Residential Project is consistent with the purposes of the State Aeronautics Act and to overrule the Napa County Airport Land Use Commission's determination that the Oat Hill Multi-Family Residential Project is inconsistent with the Napa County Airport Land Use Compatibility Plan.(File Numbers PL20-0022 to -27).

CONTACT

William He, AICP, Associate Planner

BACKGROUND & ANALYSIS

Summary

On March 26, 2021, and in accordance with California Public Utilities Code (PUC) Section 21676(b), the City of American Canyon (City) referred RH Hess Development's proposed residential project (the Project) in the Oat Hill area of the City to the Napa County Airport Land Use Commission (ALUC) for a public hearing and consistency determination pursuant to the Napa County Airport Land Use Compatibility Plan (ALUCP). Eighty-nine (89) days later, on June 23, 2021, the ALUC held a public hearing on the Project (ALUC Project No. P21-00056-ALUC) and found it inconsistent with the policies of the ALUCP. The ALUC's determination was formally presented to the City by ALUC staff on July 8, 2021.

Background

The Project consists of the development of 291 multifamily residential units on 20.8 acres on the east side of Oat Hill, south of Napa Junction Road. The Oat Hill Project requires a General Plan Amendment, a Zone Change, Subdivision Maps, and Design Permits prior to obtaining construction permits. A graphic displaying the Project Location is included (Attachment 2).

The Project consists of two parcels: A and B. Parcel A is higher on Oat Hill than Parcel B. Parcel A is zoned Light Industrial: Specialty Commercial (LI:CS) with a proposed zoning designation of High

Density Residential. Parcel A is proposed for 206 residential units in 13, 3-story buildings, ranging from one to three bedrooms per unit. A graphic depicting 3 buildings with 51 dwelling units located in Napa Airport Land Use Compatibility Plan (ALUCP) Zone "D" is shown in (Attachment 3).

Parcel B (the lower parcel) is proposed for 85 residential units, in 5, 3-story buildings ranging from one to three bedrooms per unit. Parcel B is zoned Residential Estate (RE). The northwest corner of Parcel B is located in ALUCP Zone "D", but there are no homes proposed within Zone "D."

In 2019, Mr. Hess requested City Council support for residential uses on Oat Hill. Project planning began in earnest in January 21, 2020 when the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill. A copy of Resolution 2020-06 is included (Attachment 5).

On August 14, 2020, RH Hess Development Company submitted that the Oat Hill Multifamily Residential Project. On March 3, 2021, the Open Space Advisory Committee reviewed the Project's proposed public access and views from the Project site.

On March 25, 2021, the Planning Commission conducted a public hearing and unanimously recommended the City Council approve the Oat Hill Project. Documentation of the Planning Commission decision including the California Environmental Quality Act (CEQA) Initial Study with Mitigated Negative Declaration (ISMND) is contained in nine resolutions. A copy of the March 25, 2021 Planning Commission staff report is included (Attachment 6). A copy of the ISMND Resolution is included (Attachment 7). The remaining signed Planning Commission Resolutions are included (Attachment 8).

In accordance with State Law, the applicant submitted a request to the Napa County Airport Land Use Commission (ALUC) for a determination of consistency with the ALUCP. A copy of the ALUCP is included (Attachment 9).

On June 23, 2021, the ALUC conducted a public hearing and determined the Project is inconsistent with the ALUCP primarily because 51 multifamily dwelling units are located within ALUCP Zone "D." According to the ALUCP, residential units are prohibited. A copy of the ALUC staff report along with the City's submittal documentation is included (Attachment 10).

At the June 23, 2021 ALUC meeting, the City Attorney presented testimony and written substantial evidence in a report dated June 22, 2021. This report provides reasons the Oat Hill Project is compatible with ALUCP. A copy of the City Attorney report is included (Attachment 11).

The ALUC's determination that the Oat Hill Project is inconsistent with the ALUCP is significant because the City Council may not approve the Oat Hill Project CEQA determination and entitlements (i.e.: General Plan Amendment, a Zone Change, Subdivision Maps, and Design Permits) unless the City Council overrides the ALUC determination. A July 8, 2021 letter confirming the ALUC Board's decision is included as (Attachment 4.)

In accordance with Public Utilities Code section 21676(d), the City of American Canyon has the right to override the ALUC's determination that the Oat Hill Residential Project is inconsistent with the ALUCP on the basis of substantial evidence.

ALUC Compatibility

Pursuant to California PUC Section 21670, it is in the public interest to provide for the orderly development of each public use airport in this state and the areas surrounding these airports so as to:

1. Promote the overall goals and objectives of the California airport noise standards adopted pursuant to PUC Section 21669;
2. Prevent the creation of new noise and safety problems; and
3. Protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

The following paragraphs explain the mandate of the ALUC with respect to airport land use compatibility and the ALUCP:

A. To provide for the orderly development of the Napa County Airport and the area surrounding the Airport, the ALUC adopted its Airport Land Use Compatibility Plan (ALUCP) on April 22, 1991 and revised it on December 15, 1999. The ALUCP is intended to guide development proposals for the orderly development of the airport and the area surrounding the airport through the implementation of various standards set forth in Section 2 (noise impacts, flight hazards, safety, and overflight impacts) and the policies set forth in Section 3 for review of development within the vicinity of the Napa County Airport. However, the ALUC has not updated its 1999 ALUCP to incorporate relevant updates contained within Napa County Airport plans, state airport compatibility guidance, and the land use plans of the surrounding communities.

B. The ALUC is required to use the California Airport Land Use Planning Handbook (Handbook) to formulate noise, flight hazards, safety, and overflight standards and related compatibility policies. The California Department of Transportation, Division of Aeronautics (Caltrans) substantially updated its Handbook in 2002 and again in 2011. PUC Section 21674.7 provides that the ALUCP shall be guided by information prepared and updated in the Handbook. State law further requires that the ALUC review and update its ALUCP as necessary to accomplish its purposes (PUC Section 21675). The ALUC has not updated its ALUCP to incorporate the two Handbook updates, nor has it updated its noise contours or adjusted its safety zones accordingly.

C. The ALUCP also must reflect the long-range airport plans and at least a 20-year forecast of operations for noise analysis. The ALUCP has not been updated to include updated information about the operation and environmental effects of Napa County Airport operations as reflected in the County's most recent Airport Master Plan (March 2007), FAA-approved Airport Layout Plan (May 17, 2016), and environmental analysis, including noise impact analysis, prepared for the FAA-approved forecast for the Terminal Area Redevelopment of the Napa County Airport (Initial Study and Mitigated Negative Declaration, dated August 2020, and certified by the Napa County Board of Supervisors on September 22, 2020).

D. The County's ALUCP is therefore based on outdated standards that do not reflect current guidance regarding orderly and compatible development within the vicinity of public airports, including the Napa County Airport.

On June 23, 2021, the ALUC held a hearing regarding the City of American Canyon's referral of the proposed Oat Hill Residential Project. The ALUC staff report dated June 23, 2021, provided that, with respect to ALUCP policies on noise impacts, flight hazards, safety, and overflight impacts, the proposed Project, including the proposed zone change and General Plan Amendment, was inconsistent with the ALUCP.

However, City staff finds that, due to the outdated nature of the ALUCP and the County's competing planning documents (e.g., the noise analysis presented in the County's Initial Study and Mitigated Negative Declaration, dated August 2020), the appropriate measures of airport compatibility for the Project are the underlying federal, state and local standards for aircraft safety, noise, overflight and airspace protection.

The City's proposed action on the Project provides for the orderly development of the area surrounding the Napa County Airport and promotes the overall goals and objectives of the State Aeronautics Act by avoiding new noise and safety problems, and by protecting the public health, safety and welfare through the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards. This Project would not add any new residential noise impacts to the Napa County Airport's 65 dBA Community Noise Equivalent Level (CNEL) noise area, and the Project complies with the safety standards set forth in the Caltrans Aeronautics Airport Land Use Planning Handbook prepared pursuant to PUC Section 21674.5. The Project is therefore consistent with the purposes of the State Aeronautics Act based on the proposed Findings set forth in the attached Resolution and substantial evidence in the public record.

The FAA's Determinations of No Hazard to Air Navigation for Oat Hill Residential Project development structures are the only source of authoritative, aviation safety findings regarding the Project. The FAA is conducting an aeronautical study (49 U.S.C. §44718 and 14 CFR Part 77) and its Determinations are pending. A FAA determination of "No Hazard" would be a condition of approval for approval of the eventual Project.

Next Steps
If the City Council chooses to override the ALUC's determination:

- The City must hold a hearing and provide the ALUC and the California Department of Transportation, Division of Aeronautics (Caltrans) a copy of its proposed decision and specific findings that the proposed action is consistent with purposes of PUC Section 21670.
- The ALUC and Caltrans have 30 days to provide written comments from the date they receive the City's proposed decision and findings.
- Comments received from Caltrans and ALUC, if provided, are advisory only and must be included in the final record of any final decision to overrule.
- If no comments are provided, the City may act without them.
- The final decision to override requires a two-thirds vote by the City Council.

Based on the Findings and the associated substantial evidence in the public record, City staff finds that the proposed override action by the City for the Oat Hill Residential Project and related zoning change and General Plan Amendment is consistent with the purposes of the State Aeronautics Act as stated in PUC Section 21670.

City staff therefore recommends the City Council express its intent to override the ALUC's determination of inconsistency in accordance with the attached Resolution.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Community and Sense of Place: "Build on the strength of our local community to develop a clear 'sense of place' and establish our unique identity."

FISCAL IMPACT

There is no fiscal impact to express the intent of an ALUC determination override.

ALTERNATIVES

The City has three options following the ALUC's actions on this Project:

First, the City could request the applicant redesign the Project to be consistent with the ALUCP, as was suggested by the ALUC staff. ALUC staff has indicated the only way to achieve consistency with the ALUCP would be to eliminate residential uses from Airport Land Use Compatibility Zone D.

Second, the City could find the Project consistent by law pursuant to PUC Section 21676(d) and ALUCP Policy 1.4.4, which requires the ALUC to make a consistency determination within 60 days of the date of the City's referral. As noted above, the ALUC did not make a consistency determination within the required 60-day timeframe.

Third, the City Council could override the ALUC's determination pursuant to PUC Section 21676(b) requirements, which provides that the City Council may override the ALUC's determination if it

makes specific findings that the Project is consistent with the purposes of PUC Section 21670 to protect the public health, safety, and welfare by ensuring orderly expansion of airports and adoption of land use measures that minimize public exposure to excessive noise and safety hazards within areas around public airports.

ENVIRONMENTAL REVIEW

The City of American Canyon circulated a Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA) from February 8, 2021 to March 10, 2021. The Mitigated Negative Declaration (MND) finds the proposed Project will not have a significant effect on the environment because mitigation measures will reduce the impacts to less than significant are part of Project conditions.

The proposed action is not subject to CEQA pursuant to Sections 15060(c)(2) and 15060(c)(3) of the CEQA Guidelines. The action does not have the potential to result in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment because it is limited to the notification of the City's intent to overrule the ALUC determination. This action does not authorize the development of the Property or commit the City to approve the Project.

ATTACHMENTS:

1. Resolution - Oat Hill Intent to Override ALUC
2. Project Location
3. Dwelling Units in D Zone
4. Oat Hill Project ALUC Action Letter July 2021
5. Resolution 2020-06
6. March 25, 2021 PC Staff Report - Oat Hill
7. Oat Hill ISMND
8. PC Resolutions
9. Napa Airport Land Use Compatibility Plan
10. ALUC Staff Report
11. Bill Ross to Whitmer, ALUC Commission (June 23, 2021 Special Meeting) 6.22.21

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON NOTIFYING THE NAPA COUNTY AIRPORT LAND USE COMMISSION AND THE STATE DIVISION OF AERONAUTICS OF THE CITY'S INTENTION TO FIND THAT THE OAT HILL MULTI-FAMILY RESIDENTIAL PROJECT IS CONSISTENT WITH THE PURPOSES OF THE STATE AERONAUTICS ACT AND TO OVERRULE THE NAPA COUNTY AIRPORT LAND USE COMMISSION'S DETERMINATION THAT THE OAT HILL MULTI-FAMILY RESIDENTIAL PROJECT IS INCONSISTENT WITH THE NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

WHEREAS, an application was filed by RH Hess Development (the Applicant) with respect to the property (the Property) located at Assessor Parcel Numbers 058-380-008 and 058-320-001 in the Oat Hill area of the City of American Canyon;

WHEREAS, the Property is designated Industrial with Specialty Commercial overlay and Residential Estate, and is located within the Light Industrial with Specialty Commercial overlay and Residential Estate zoning districts;

WHEREAS, the Applicant proposes a multi-family residential project that would consist of 291 multi-family dwelling units and associated amenities and parking on approximately 21.8 acres, divided into two parcels (Parcel A and Parcel B), which require the following approvals from the City (the Project):

- The Oat Hill Multi-Family Residential Mitigated Negative Declaration, pursuant to the California Environmental Quality Act (CEQA);
- A General Plan Amendment on the 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1) (APN 058-380-008 and portion of APN 058-320-001);
- A General Plan Amendment on the 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001);
- A Zone Change on the 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to High Density Residential (APN 058-380-008 and portion of APN 058-320-001);
- A Zone Change on the 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM) (portion of APN 058-320-001);
- A Tentative Subdivision Map for 206 condominium residential units on the 13.6-acre Oat Hill Parcel A (APN 058-380-008 and portion of APN 058-320-001);
- A Tentative Subdivision Map for 85 condominium residential units on the 7.2-acre Oat Hill Parcel B (portion of APN 058-320-001);
- A Design Permit for 206 condominium residential units on the 13.6-acre Oat Hill Parcel A (APN 058-380-008 and portion of APN 058-320-001); and
- A Design Permit for 85 condominium residential units on the 7.2-acre Oat Hill Parcel B (portion of APN 058-320-001);

WHEREAS, a public hearing was held by the City Planning Commission on March 25, 2021. A notice of the time, place, and purpose of the public hearing was given in accordance with California Government Code Section 54950 *et seq.* (the Ralph M. Brown Act). Evidence, both written and oral, was presented to and considered by the Planning Commission at the public hearing;

WHEREAS, the Planning Commission adopted Resolution Nos. 2021-04, 2021-05, 2021-06, 2021-07, 2021-08, 2021-09, 2021-10, 2021-11, and 2021-12 by a majority vote (4 ayes, 0 noes) recommending City Council approve the Project;

WHEREAS, due to the proposed amendments to the City General Plan and zoning regulations, California Public Utilities Code Section 21676(b) requires the City to refer the Project to the Napa County Airport Land Use Commission (ALUC) for a determination of the Project's consistency with the Napa County Airport Land Use Compatibility Plan (ALUCP);

WHEREAS, on March 26, 2021, the City referred the Project to the ALUC;

WHEREAS, on June 23, 2021, the ALUC voted (6 ayes, 0 noes, 1 absent) finding the Project inconsistent with the ALUCP;

WHEREAS, pursuant to California Public Utilities Code Section 21670 and 21676, the City Council may, after a public hearing, propose to overrule the ALUC by a two-thirds vote of the City Council, if it makes specific findings that the Project is consistent with California Public Utilities Code Section 21670, the purpose of which is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses; and

WHEREAS, a public hearing was held by the City Council on July 20, 2021. A notice of the time, place, and purpose of the hearing was given in accordance with the Ralph M. Brown Act. Evidence, both written and oral, was presented to and considered by the City Council at the public hearing.

NOW, THEREFORE, the City Council of the City of American Canyon resolves as follows:

Section 1: The ALUC failed to act in a timely manner as required by State law, and the City Councils finds the Project consistent with the ALUCP by law.

Findings in Support

The Project was referred to the ALUC on March 26, 2021. Pursuant to PUC Section 21676(d) and ALUCP Policy 1.4.4, the ALUC was required to conduct a hearing and make a consistency determination within 60 days of the referral or the Project would be deemed consistent with the ALUCP, by law. The ALUC had all the necessary information for its review of the Project since at least February 2021, when the City provided notice of completion of the Initial Study/Mitigated Negative Declaration prepared for the Project. The City further provided supplemental information on May 6 and May 7, 2021, in response to the ALUC's April 23, 2021 letter. The ALUC therefore had until May 25, 2021, to complete its consistency review, which it failed to do. The Project is therefore consistent with the ALUCP by law.

Section 2: The City Council finds the Project is consistent with the legislative purpose set forth in California Public Utilities Code Section 21670(a)(2) of protecting the public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses. The City Council further finds that the ALUC's determination that the Project is inconsistent with the ALUCP is not based on substantial evidence that was introduced, commented on, or identified in support of the inconsistency finding.

Findings in Support

A. **Noise**. The residential land use under the proposed Project is consistent with and exceeds the federal and State aircraft noise standards, as well as those of the ALUCP.

1. The Project is located approximately 1.4 miles outside of the 55 dBA CNEL aircraft noise contours in the ALUCP. The noise analysis in the ALUCP was prepared by Shutt Moen Associates, dated December 15, 1999 based on 1988/89 activity levels from the Airport Master Plan and future projections for 2008. The 2008 projections show 315 based aircraft, annual aircraft operations at 210,000 and 575 average day aircraft operations. By contrast, the Federal Aviation Administration (FAA) Terminal Area Forecast[1] for Napa County Airport for 2045 indicates 196 based aircraft, 53,109 annual operations and 145 average day operations. The ALUCP airport activity information used for purposes of the ALUCP noise analysis is four times higher than the longest-term official FAA forecast for Napa County Airport and does not account for updated airport operations.

2. An Environmental Noise Assessment of the Project was completed by Saxelby Acoustics (Saxelby) on September 10, 2020 as part of the Mitigated Negative Declaration prepared for the Project. Saxelby conducted a complete noise analysis, including noise monitoring on the Project site, and found that the Project site is approximately 1.8 miles from the Napa County Airport and well outside the 65 dB CNEL noise contour. Further, the Project would be constructed in accordance with California building regulations, which require that interior noise levels attributable to exterior sources not exceed 45 dB CNEL. The ALUCP classifies multi-family residential land uses as "clearly acceptable" within or below the 50 to 55 dBA CNEL level (ALUCP Table 2-1, Noise Compatibility Guidelines). The Project therefore meets the relevant noise standards. Further, pursuant to ALUCP Figure 5C (Airport Impact Areas, Napa County Airport), the Project is located outside the "common traffic pattern." Therefore, potential noise impacts to residents located outside of residences is best reflected under the ALUCP's noise contours, as the Project will not be subject to routine, everyday noise occurrences. The Project is located outside of the 65, 60, and 55 dB CNEL contours for Napa County Airport and, therefore, Project residents will not be subject to excessive noise impacts. The City also has included a condition of approval for the Project that requires a buyer awareness notification of the Napa County Airport and the potential for aircraft overflight and related single-event aircraft noise.

3. Single event aircraft noise is a supplemental noise metric for which a federal or State standard does not exist, and it is not a required metric for purposes of consistency with the State Aeronautics Act. However, the ALUC found the Project inconsistent because "it relies solely on the CNEL contours and does not consider potential overflight noise impacts relating to the site's conditions, terrain and elevation relative to flight patterns." CNEL noise contours are created by assessing flight paths and their regular

[1] Federal Aviation Administration, Terminal Area Forecast, 2020, https://www.faa.gov/data_research/aviation/taf/ accessed for Napa County Airport (APC) on July 7, 2021.

utilization that make up all the activity around the airport, including all the single event levels of aircraft noise. CNEL then adds time-of-day penalties for evening and nighttime operations to account for the potential activity and sleep disturbance, which can occur when evening and nighttime ambient noise levels are lower than during the day (one evening aircraft operation is the equivalent of three operations or about 5 dB penalty, and one nighttime operation is the equivalent of ten operations or about 10 dB penalty). It is for this reason that both Federal Aviation Administration (FAA) and the State noise standards (PUC 21669) recognize 65 dB CNEL as the definitive and comprehensive noise standard for residential land uses near public airports like Napa County Airport[2]. Figure 5C (Airport Impact Areas, Napa County Airport) of the ALUCP depicts "projected noise contours, overflight areas, flight patterns, and approach surfaces" in the airport vicinity. The Project is located one-half mile south of and 1.4 miles east of the outer boundaries of the depicted Airport Impact Areas, including the 65, 60, and 55 dB CNEL contours and the "common traffic pattern."

4. Recent noise analysis prepared by the County for its Terminal Area Redevelopment of the Napa County Airport project (Initial Study and Mitigated Negative Declaration dated August 2020) shows that the 65 dB CNEL noise contour is entirely contained within existing airport property. This study provides an FAA-approved 20-year forecast of total aircraft operations and the fleet of aircraft expected to use the Napa County Airport during the 20-year forecast period to 2038. The Project is located approximately 1.6 miles from the nearest point of the 65 dB CNEL noise contours in this most recent study of airport community noise impacts. The County did not independently study or mention single event noise analysis or any other alternative noise metric to CNEL in its environmental analysis for the Terminal Area Redevelopment project.

5. Accordingly, the proposed Project is consistent with and far exceeds the federal and State aircraft noise standards, including those of the ALUCP, as the Project is well-outside the 55, 60, and 65 dB CNEL contour lines and will be constructed in accordance with California building regulations, which require that interior noise levels attributable to exterior sources not exceed 45 dB CNEL. The Project will not be subject to excessive noise, in accordance with the State Aeronautics Act.

B. **Safety**. The residential land uses under the proposed Project are consistent with the safety standards of the ALUCP for those portions within Zone E and the Caltrans Handbook definition of Zone D, the "Traffic Pattern Zone."

1. The 85 residential units planned for Parcel B are located within ALUCP Zone E and meet all ALUCP safety requirements. The ALUCP indicates that the "risk of accident is very low" in Zone E (Table 3-1). Residential Uses are permitted in Zone E under the ALUCP (Table 3-2).

2. Of the 206 units planned for Parcel A, 155 units are located within ALUCP Zone E and meet all the ALUCP safety requirements, as provided above. The remaining 51 units are located within ALUCP Zone D. A conflict exists between the dimensions and allowable uses for ALUCP safety Zone D and the Caltrans Handbook Zone 6, the latter of which were establish pursuant to State law (PUC Section 21674.5).

[2] Federal Aviation Administration, Report to Congress, FAA Reauthorization Act of 2018 (Pub. L. 115-254) Section 188 and Section 173, April 14, 2020 regarding the study of alternative metrics including single-event noise metrics and current 65 DNL and 65 CNEL noise standards.

a. Both ALUCP Zone D and Caltrans Handbook Zone 6 are identified as encompassing the Airport's "traffic pattern"; however, the lateral dimensions of each respective zone are significantly different. The Handbook Zone 6 lateral dimension is 6,000 feet from the runway centerline. The ALUCP Zone D is located 10,000 feet from the runway centerline, with the stated reason for this dimension based on the defunct airline training program that was previously based at the Airport but that no longer exists (ALUCP p. 5-7). The ALUCP Zone D is further, and incorrectly, based on 14 CFR Part 77 imaginary surfaces (compare ALUCP Figure 3A and 5D). 14 Part 77 surfaces are created for purposes of identifying structures that should be studied by the FAA in the vicinity of airports, and are not intended to identify relative exposure to documented safety risks around airports. The FAA advises that pilots fly the rectangular traffic pattern within an area one-half mile to one mile (approximately 2,600 to 5,280 feet) laterally from the runway centerline, which creates the basis for the Handbook traffic pattern Zone 6. The Caltrans Handbook indicates that there is a "low" level of risk in Zone 6. The proposed project is outside of the Handbook Zone 6 by approximately 4,200 feet.

b. Handbook Zone 6 allows residential uses with no limit on maximum residential density due to the low accident risk, particularly on the "downwind" leg of the traffic pattern where aircraft are flying at 1,000 to 1,500 feet above airport elevation and parallel to the runway centerline. ALUCP Zone D prohibits residential uses and is inconsistent with Handbook Zone 6. The Caltrans Handbook does not provide any restrictions for uses outside of Handbook Zone 6, where the Project is located.

3. Whether the Project would result in a hazard to air navigation is a determination for the FAA, not the ALUC. However, even though Notice of the Project has been filed with the FAA, the Project may be considered exempt from the notice requirement because it is shielded by existing structures of a permanent and substantial nature and by natural terrain of equal or greater height and terrain (14 CFR Part 77.9(e)(1)). The existing water tank on Oat Hill, as well as the surrounding terrain are taller than the proposed height of the tallest structures associated with the Project. The top elevation of the existing water tank is approximately 308 feet above mean sea level, with an obstruction lighted antenna on top that extends an additional 30 feet. The terrain at the base of the tank is approximately 283 feet above mean sea level. The top of the proposed tallest structures associated with the Project are 281 feet above sea level.

4. The FAA's Determinations of No Hazard to Air Navigation for Oat Hill Residential Project development structures are the only source of authoritative, aviation safety findings regarding the Project. The FAA is conducting an aeronautical study (49 U.S.C. §44718 and 14 CFR Part 77) and its Determinations are pending. A FAA determination of "No Hazard" would be a condition of approval for approval of the eventual Project.

a. The United States Government has exclusive sovereignty of airspace of the United States (49 U.S.C. § 40103(a)(1)). In order to use this airspace, the FAA Administrator is responsible for:

(1) Plans and policy for the safe use of the navigable airspace (49 U.S.C. § 40103(b)(1)); and

(2) "[R]egulations on the flight of aircraft (including regulations on safe altitudes) for (A) navigating, protecting and identifying aircraft; (B) protecting individuals and property on the ground; (C) using the navigable airspace efficiently; and (D) preventing collision between aircraft, between aircraft and land or water vehicle, and between aircraft and airborne objects" (49 U.S.C. § 40103(b)(2)).

b. The FAA's aeronautical studies for the Oat Hill Residential Project structures are the definitive standard for assessing compliance with federal aviation safety laws and regulations, including height of structures (14 CFR § 77.1(c)). This federal authority is recognized in State law (Cal. PUC § 21240).

5. The City of American Canyon has land use authority to regulate land use on the Project site. This authority is acknowledged under State law (Cal. PUC § 21670 and § 21676), including the process which allows the City to overrule an ALUC finding of inconsistency. Though the ALUC is given authority to review and comment on proposed land use decisions, its comments as to consistency are advisory only. (*Citizens for Planning Responsibly v. County of San Luis Obispo* (2009) 176 Cal.App.4th 357, 372 [citing Pub. Utilities Code § 21676].) The City retains ultimate authority to regulate land use within the airport land use plan area. (*See id*. at 373.)

a. The City may further consider the Caltrans Handbook in regulating land use within the airport land use area, as the Handbook was created in accordance with State Law to "(1) provide information to ALUCs, their staffs, airport proprietors, cities, counties, consultants, and the public, (2) to identify the requirements and procedures for preparing effective compatibility planning documents, and (3) define exemptions where applicable (Caltrans, 2011)." The Handbook provides specific guidance for assessing potential airspace obstructions in Section 4.5, Airspace Protection, which indicates that potential hazards to air navigation should be evaluated by the FAA.

6. The proposed Project is consistent with the safety standards of the ALUCP for those portions of the Project within Zone E and with the safety standards of the Caltrans Handbook Zone 6 for those portions of the Project within ALUCP Zone D. The Project will not be subject to safety hazards, in accordance with the State Aeronautics Act.

C. **Airspace Protection**. The residential land uses under the proposed project will comply with the FAA's findings in its aeronautical study initiated on May 21, 2021.

1. The FAA conducted an aeronautical study (49 U.S.C. §44718 and 14 CFR Part 77) and its Determinations are pending. A FAA determination establishing that the Project would be neither an obstruction nor a hazard to air navigation would be a condition of approval for the Project.

a. As provided above, the United States Government has exclusive sovereignty of airspace of the United States (49 U.S.C. § 40103(a)(1)).

b. In order to use this airspace, the FAA Administrator is responsible for:
(1) Plans and policy for the safe use of the navigable airspace (49 U.S.C. § 40103(b)(1)); and
(2) "[R]egulations on the flight of aircraft (including regulations on safe altitudes) for (A) navigating, protecting and identifying aircraft; (B) protecting individuals and property on the ground; (C) using the navigable airspace efficiently; and (D) preventing collision between aircraft, between aircraft and land or water vehicle, and between aircraft and airborne objects" (49 U.S.C. § 40103(b)(2)).

2. The FAA's aeronautical studies for Oat Hill Residential Project structures are the definitive standard for assessing compliance with federal aviation safety laws and regulations (49 U.S.C. § 77.1(c)). This federal authority is recognized in State law (Cal. PUC §21240).

3. The proposed Project based upon a FAA Determination is consistent with airspace protection policies and would not be a hazard to air navigation.

D. **Overflight**. The residential land uses under the proposed Project are consistent with the overflight standards of the ALUCP for those portions within Zone E and the Caltrans Handbook definition of Zone D, the "Traffic Pattern Zone."

1. The ALUC found that the portion of the project within Zone E (Parcel B and 151 units associated with Parcel A) is consistent with the ALUCP overflight standards.

2. Regarding the Project's 51 units that are located within ALUCP Zone D, the ALUCP provides that impacts from overflight are commonly considered an annoyance, which are subjective and vary widely from individual to individual. As stated above, the Project is well-outside the 55, 60, and 65 dB CNEL contour lines and will be constructed in accordance with California building regulations, which require that interior noise levels attributable to exterior sources not exceed 45 dB CNEL.

3. Further, as provided in the Caltrans Handbook, the primary mechanism for addressing overflight is buyer awareness, not direct restrictions on land use. Buyer awareness often takes the form of notice as part of residential real estate transactions or recordation of an overflight notification or avigation easement.

4. The City has included a condition of approval for the Project that requires a buyer awareness notification of the Napa County Airport and the potential for aircraft overflight.

5. Accordingly, the proposed Project is consistent with the Caltrans overflight standards.

Section 3: To the extent that the ALUC's failure to act within 60 days pursuant to PUC Section 21676(d) has not resulted in the Project being deemed consistent with the ALUCP by law, the City Council hereby notifies the ALUC and the State Division of Aeronautics that it intends to overrule the ALUC's determination that the Project is inconsistent with the ALUCP.

Section 4: City Council directs City staff to provide notice to the ALUC and State Division of Aeronautics of the City Council's intent to overrule the ALUC's determination that the Project is inconsistent with the ALUCP, and provide the ALUC and State Division of Aeronautics a copy of this Resolution.

Section 5: This Resolution is not subject to CEQA pursuant to Sections 15060(c)(2) and 15060(c)(3) of the CEQA Guidelines. This Resolution does not have the potential to result in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment because it is limited to the notification of the City's intent to overrule the ALUC determination. This Resolution does not authorize the development of the Property or commit the City to approve the Project.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

Attachment 2 – Oat Hill Multifamily Residential Site Location



Attachment 3 – Location of 51 Dwelling Units in “D” Zone



Napa County Airport Land Use Commission

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David Morrison
Executive Officer

A Tradition of Stewardship
A Commitment to Service

July 8, 2021

William He, AICP
City of American Canyon
Community Development Department
4381 Broadway Street, Suite 201
American Canyon, CA 94503

RE: **OAT HILL RESIDENTIAL PROJECT**
Airport Land Use Compatibility Determination #P21-00056-ALUC

Dear Mr. He;

The Napa County Airport Land Use Commission (ALUC) considered the referral application of the City of American Canyon's Oat Hill Residential Project pursuant to the requirements of Section 21676 of the California Public Utilities Code at a public hearing on June 23, 2021. The project considered by the ALUC consists of a proposal from RH Hess Development Company to construct a 291 dwelling unit condominium project, including a General Plan Amendment and Rezoning, on two parcels totaling approximately 20.8 acres. Parcel A includes 206 dwelling units on 13.6 acres. Parcel B includes 85 dwelling units on 7.2 acres. The property is located on the land feature commonly known at Oat Hill, which is located within the City of American Canyon on Hess Drive approximately 0.25 miles west of the intersection of State Routes 29 and Napa Junction Road within Napa County Airport Compatibility Zones D and E (Assessor's Parcel Numbers 058-380-008, and 058-320-001).

Please be advised that the ALUC, by a 6-0-1 (absent) vote, found the proposed project **INCONSISTENT** with the policies set forth in the Napa County Airport Land Use Compatibility Plan (ALUCP). .

This finding of inconsistency with the ALUCP applies to the version of the project referred to the ALUC. Pursuant to ALUCP Policy 1.4.2, the ALUC advises the City of American that consistency with the ALUCP can be achieved by revising the project in a manner consistent with the recommendations contained in the ALUC Staff Report for the June 23, 2021 hearing, which can be accessed from the following link: AgendaNet - Meeting Agendas and Minutes (countyofnapa.org). To summarize those recommendations, consistency can be achieved by redesigning the project to eliminate residences from Airport Land Use Compatibility Zone D, and evaluation of all potential impacts related to aviation noise and hazards need to be completed and the project design and processing documents adjusted accordingly. ALUC Staff is available to discuss the recommendations should you have any questions or comments.

The ALUC's June 23, 2021 determination on File P21-00056-ALUC is a final action. In the event the project is revised, a new ALUC referral application is required for the ALUC to consider the revised project for consistency with the ALUCP.

Please feel free to contact me if you have any questions or comments at (707) 299-1354, or by email at john.mcdowell@countyofnapa.org.

Sincerely,

John McDowell

John McDowell
Napa County Airport Land Use Commission Staff

cc: Jason Dooley, ALUC Counsel
David Morrison, ALUC Executive Officer
Rick Hess, RH Hess Development

RESOLUTION NO. 2020-06

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON DECLARING THAT RESIDENTIAL USES ARE THE BEST USE OF THE RICK HESS PROPERTY ON OAT HILL

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and,

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish Regional Housing Needs Allocations ("RHNA") for the greater San Francisco Bay Area and possibly Napa County as a Subregion; and,

WHEREAS, in light of the State's housing shortage, HCD and ABAG are expected to continue to emphasize the need for residential housing in Napa County and in the City of American Canyon ("City") within its municipal boundaries; and,

WHEREAS, at least since 2005, the City has considered the possibility of designating and rezoning the Hess Property and certain surrounding properties for residential uses but, to date, has not yet completed an evaluation of such an action; and,

WHEREAS, on August 20, 2019, the City Council considered the possibility of designating and rezoning approximately 30 acres on the east side of Oat Hill south of Napa Junction Road (the "Hess Property") for residential uses; and

WHEREAS, the City has commenced an update of the General Plan which could potentially accommodate residential uses on the Hess Property but could take approximately two (2) years to complete; and

WHEREAS, the General Plan update process timeframe is longer than Applicant and Owner, Mr. Hess, is willing to make his property available for residential development; and

WHEREAS, also on August 20, 2019, the Council concluded that residential uses are the best use for the Hess Property and directed Staff to work with Mr. Hess to identify means by which the City might evaluate and consider a residential development proposal for the Hess Property while providing Mr. Hess some certainty that his investment in a planning and California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.*, "CEQA") review process would be brought to completion; and

WHEREAS, on November 6, 2019, Oat Hill Properties II, LLC (Rick Hess) submitted a General Plan Text Amendment and Zoning Code Overlay Study Amendment application which would allow for the filing of a subsequent General Plan Amendment and consistent Zoning Ordinance, which authorize residential development consistent with State law; and

WHEREAS, after consideration of the need for further study of residential development of the Hess Property compatibility with the Napa County Airport Land Compatibility Plan, on January 14, 2020, Mr. Hess transmitted a communication to the City Attorney, City Manager, and City Community Development Director stating that he could be provided with the assurance that he needs to proceed with residential development on the Hess Property if the Council confirms that direction by Resolution rather than General Plan Text Amendment and Zoning Overlay; and

WHEREAS, the Resolution will provide Mr. Hess with the certainty he requested on August 20, 2019 and January 14, 2020; and

WHEREAS, the proposed Resolution is exempt from CEQA. The Resolution does not reclassify or rezone the Hess Property for specific residential uses, but is rather a reflection of the Council's determination that the best use of the Hess Property is for residential uses. For these reasons, the action is not a project under CEQA and is exempt from CEQA review as it has no present potential impact on the physical environment. CEQA Guidelines §§ 15060(b)(3c), 15378(b); and

WHEREAS, the City Council has considered all of the written and oral testimony presented at this public hearing and its prior actions in considering this Resolution.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of American Canyon that:

1. All recitals herein are incorporated and deemed true and correct;

2. The Council declares that residential uses are the best use of the Hess Property on Oat Hill, subject to consideration for General Plan Amendment.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 21st day of January 2020, by the following vote:

AYES:	Council Members Aboudamous, Joseph, Leary, Vice Mayor Oro, Mayor Garcia
NOES:	None
ABSTAIN:	None
ABSENT:	None

Leon Garcia, Mayor

ATTEST:

Suellen Johnston, City Clerk

APPROVED AS TO FORM:

William D. Ross, City Attorney

CITY OF AMERICAN CANYON

PLANNING COMMISSION
STAFF REPORT

March 25, 2021
Public Hearing

SUBJECT

Conduct a Public Hearing to consider Resolutions to Recommend City Council approval of:

(1) The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
(2) A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(3) A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
(4) A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(5) A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
(6) A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
(7) A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
(8) A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
(9) A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

PROJECT LOCATION	Oat Hill (Assessor Parcel Numbers 058-380-008, 058-320-001)
APPLICANT/OWNER	RH Hess Development Company
ENVIRONMENTAL REVIEW	The City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are part of the project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.
STAFF CONTACT	William He, AICP, Associate Planner

REQUESTED ACTIONS

1. Receive staff report.
2. Reopen Public Hearing.
3. Receive public testimony.
4. Close Public Hearing.
5. Commission comments and questions.
6. Adopt the following Resolutions:
   a. The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
   b. A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
   c. A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
   d. A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
   e. A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
   f. A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
   g. A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
   h. A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
   i. A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

Site Information

General Plan Designation	Parcel A is Industrial with Specialty Commercial overlay (CS) and Residential Estate (RE) Parcel B is Residential Estate (RE)
Zoning District	Parcel A is Light Industrial with Specialty Commercial overlay (LI:CS); Parcel B is Residential Estate (RE)
Site Size	20.08 acres (Parcel A is 13.6 acres and Parcel B is 7.2 acres)
Present Use	Vacant
Surrounding Zoning and Uses	North: Light Industrial; winery and a vacant parcel South: Residential Estate; vacant East: Medium Density Residential; single-family homes West: Light Industrial; vacant parcel
Access	Site access is provided from Napa Junction Road

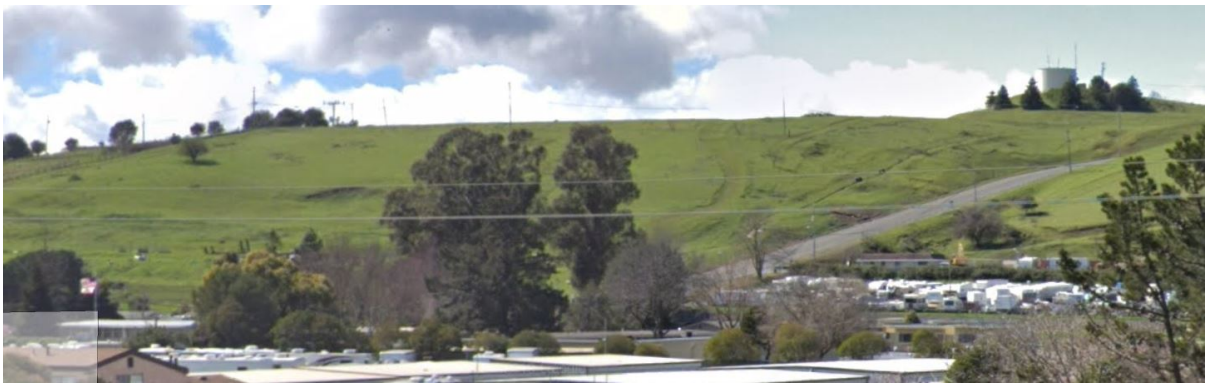

Figure 1: View of Oat Hill from SR-29@ Railroad Bridge



Figure 2: Vicinity Map

Background and Discussion

The Oat Hill property is located between Hess Road and the western terminus of Napa Junction Road. The proposed residential uses on Oat Hill would require a General Plan Amendment and a Zone Change.

A General Plan Amendment and Zone Change is a Legislative Act. Thus the Planning Commission, in its advisory role to the City Council as City residents with appointed authority, has complete discretion to approve, modify or deny such a request.

Proposed Development:
The Project Site topography is characterized by two generally flat terraces connected by a steep hillside, with elevations ranging approximately 80 to 185 feet above mean sea level. Parcel A (the upper parcel) and Parcel B (the lower parcel) are separated by a steep landscaped hillside. An emergency vehicle access (EVA) road will connect the two parcels.

The applicant submitted a Lot Line Adjustment (LLA) to reconfigure Parcel A from 11.3 acres to 13.6 acres and Parcel B from 9.5 acres to 7.2 acres (File No PL20-0039). An LLA is an administrative (staff approval) application. On March 11, 2021, staff informed the applicant the Lot Line Adjustment is technically correct and may be recorded.

History
In August 20, 2019, the applicant requested a workshop with the City Council for the consideration of residential uses on Oat Hill project. At that time, Parcel A was proposed for single family homes and Parcel B was proposed for apartment units.

In January 21, 2020, the City Council approved a resolution declaring that residential uses are the best use of the property on Oat Hill (Resolution 2020-06). The Resolution endorsed residential uses, but not a specific residential density.

In August 14, 2020, the applicant submitted the proposed Oat Hill Multifamily residential project. On December 4, 2020, the applicant submitted the first draft of the Initial Study and Mitigated Negative Declaration (ISMND) report.

On March 3, 2021, the Open Space Advisory Committee reviewed the project for consistency with public access requirements in the Parks Master Plan. Public access issues are considered later in this report.

Project Description
The overall project consists of 291 multi-family dwelling units. The Parcel A development consists of 206 dwelling units in 13 3-story multifamily buildings and a recreation building with leasing office. The density is 15.1 dwelling units per acre. The site will be supported with 451 parking spaces and approximately 2.2-acres of landscaping. The 206 multi-family residential units consists of 52 one-bedroom units, 108 two-bedroom units, and 46 three-bedroom units. Parcel A includes 1.2-acres of common open space and 3.2-acres of hillside slope area.

The Parcel B development consists of 85 dwelling units in five 3-story multifamily buildings and a recreation building with leasing office. The density is 11.8 dwelling units per acre. The 85 multi-family units comprise, 20 one-bedroom units, 45 two-bedroom units, and 20 three-bedroom units. The site will be supported with 183 parking spaces and 1.1-acres of landscaping. Parcel B includes 0.63-acres of common space and 5.9-acres of landscaped hillside slope.

As described in the “Subject Title” of the report, Parcel A and B are subject to the following entitlements:

- Mitigated Negative Declaration
- General Plan Amendment

- Zone change to amend the Zoning Map
- Tentative Subdivision Map, and
- Design Permit.

General Plan Amendment (GPA).

The Parcel A GPA changes the land use designation from Industrial with Specialty Commercial (I:CS) and Estate Residential to High Density Residential (RH-1). Estate Density Residential allows 1 dwelling unit per acres. High Density Residential allows a maximum of 16 dwelling units per acre. The graphic below depicts the "Current" and "Proposed" General Plan designations for Parcel A.

Existing General Plan Parcel A

Proposed General Plan Parcel A

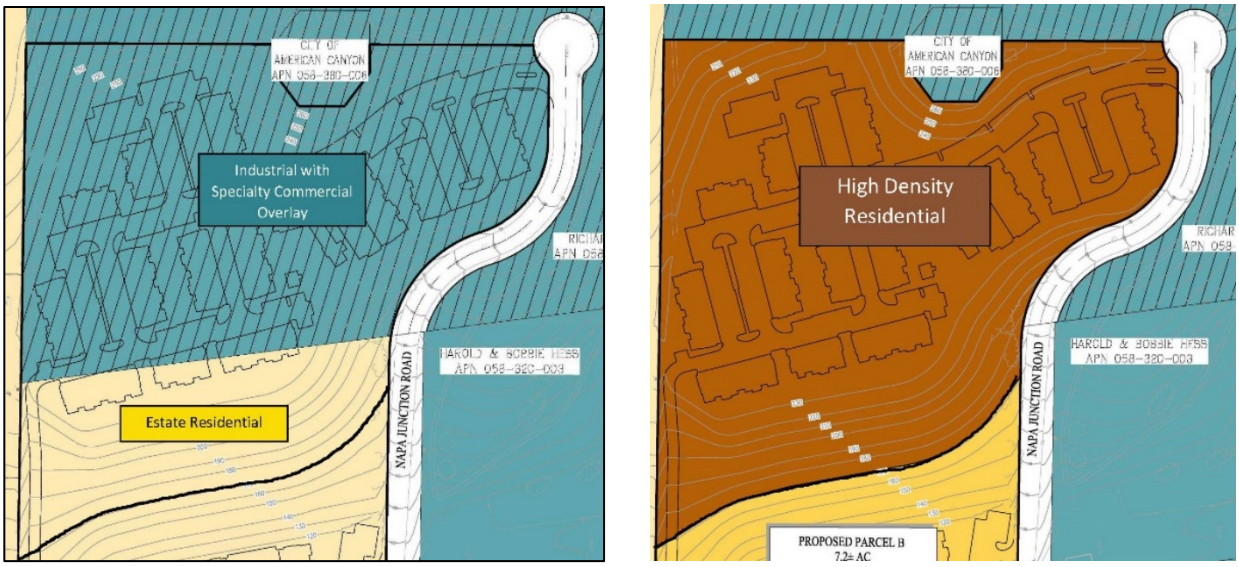

Figure 3: Existing and Proposed Parcel A General Plan Amendment

The Parcel B GPA changes the land use designation from Residential Estate (RE) to Medium Density Residential (RM). The graphic below depicts the "Current" and "Proposed" General Plan designations for Parcel B.

Existing General Plan Parcel B

Proposed General Plan Parcel B

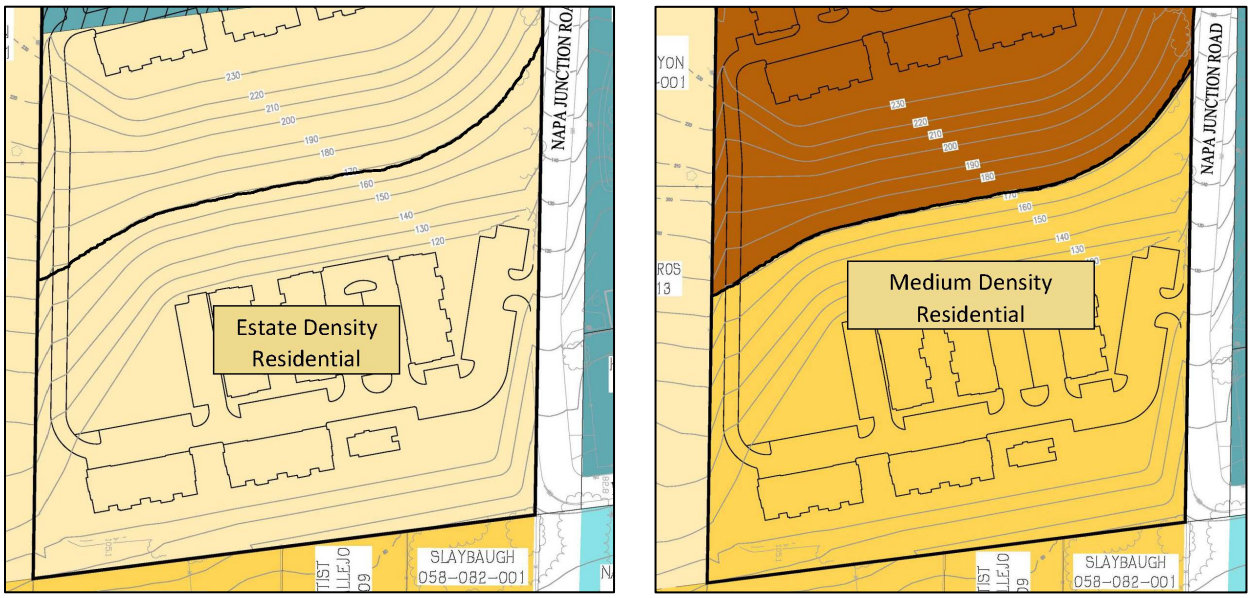

Figure 4 - Existing and Proposed Parcel B General Plan Designation

Zone Change Amendments (ZC).

Consistent with the General Plan revision, the Parcel A ZC amendments will change the zoning from Industrial with Specialty Commercial (I:CS) and Estate Residential to High Density Residential (RH-1). The graphic below depicts the "Current" and "Proposed" Zoning designations for Parcel A.

Existing Zoning Parcel A

Proposed Zoning Parcel A

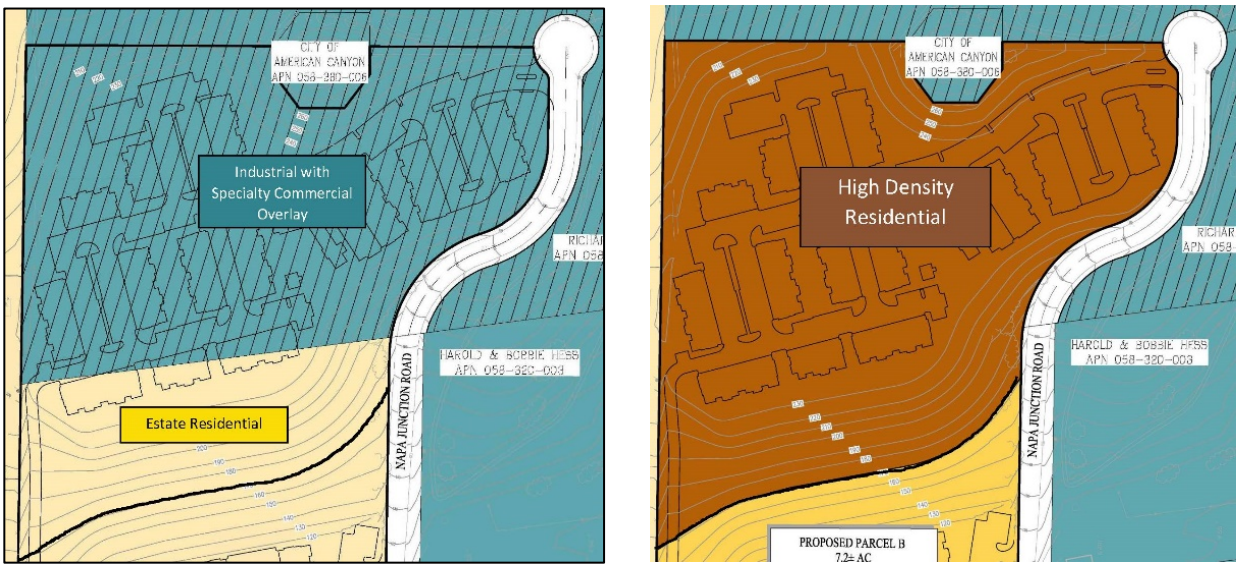

Figure 5 - Existing and Proposed Parcel A Zone Change Designations

The Parcel B ZC amendments will change the zoning from Residential Estate (RE) to Medium Density Residential (RM). The graphic below depicts the "Current" and "Proposed" Zoning designations for Parcel B.

Existing Zoning Parcel B

Proposed Zoning Parcel B

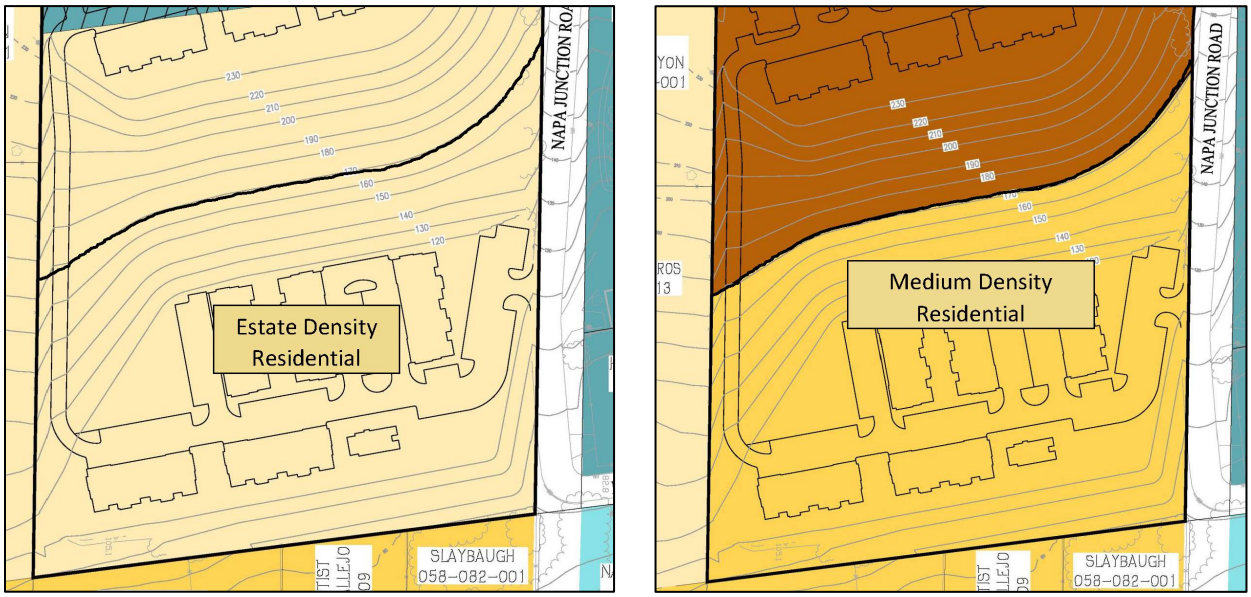

Figure 6 - Existing and Proposed Parcel B Zoning Designation

Tentative Subdivision Map

The applicant submitted a subdivision map for Parcel A and B. The subdivision maps provides flexibility to rent the dwelling units as apartments or sell them as ownership condominiums.

Parcel A Tentative Subdivision Map The Parcel A tentative subdivision map consists of 206 dwelling units in 13 3-story multifamily buildings and a recreation building with leasing office. The interior roads and recreation areas would be privately owned and maintained. The density is 15.1 dwelling units per acre which is within the 16 maximum dwelling units per acre per the High-Density zoning district.

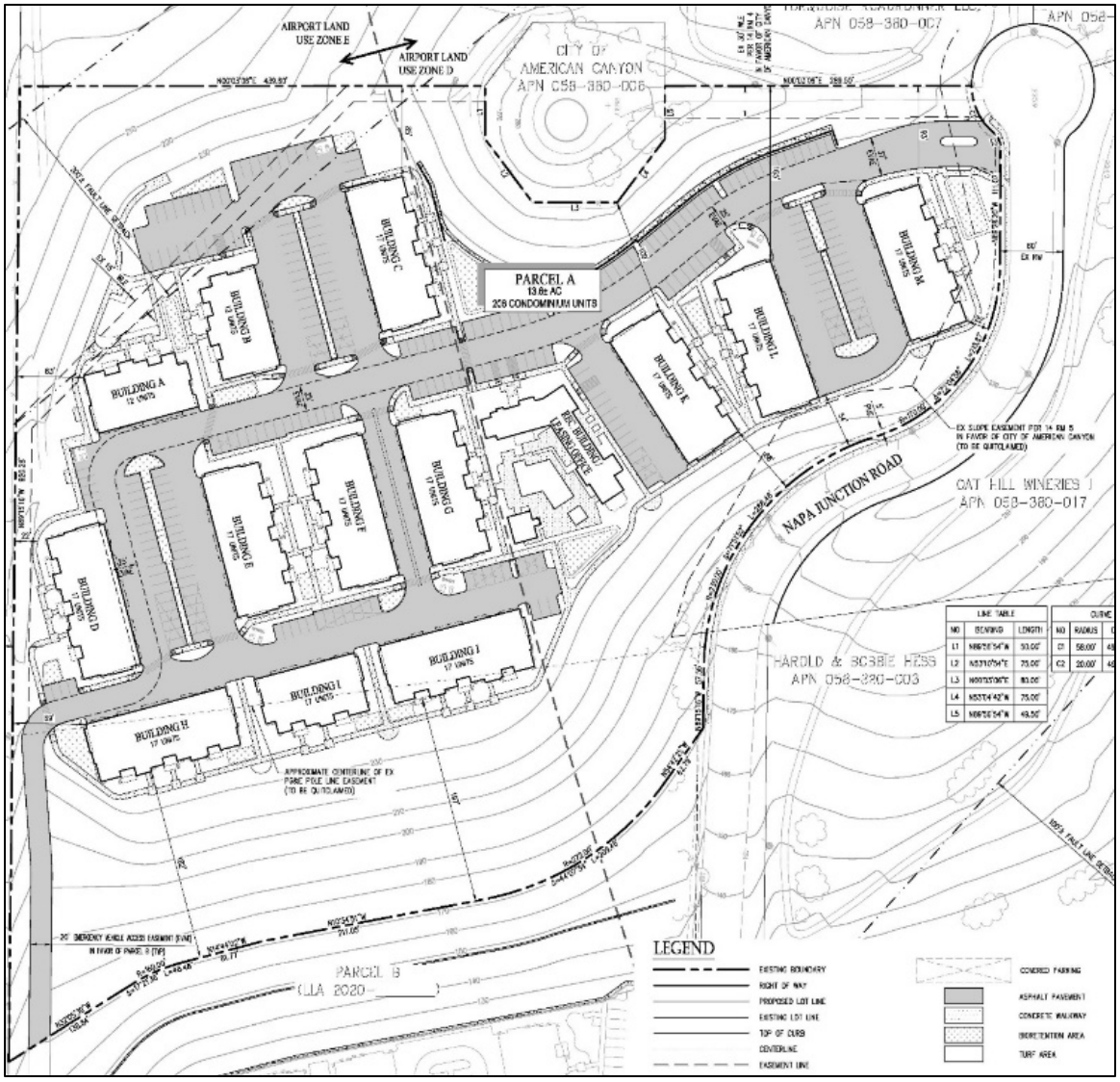

Figure 7 - Proposed Parcel A Tentative Subdivision Map

Parcel B Tentative Subdivision Map The Parcel B tentative subdivision map consists of 85 dwelling units in 5 3-story multifamily buildings and a recreation building with leasing office. The interior roads and recreation areas would be privately owned and maintained. The density is 11.8 dwelling units per acre which is within the 12 maximum dwelling units per acre per the Medium-Density zoning district.

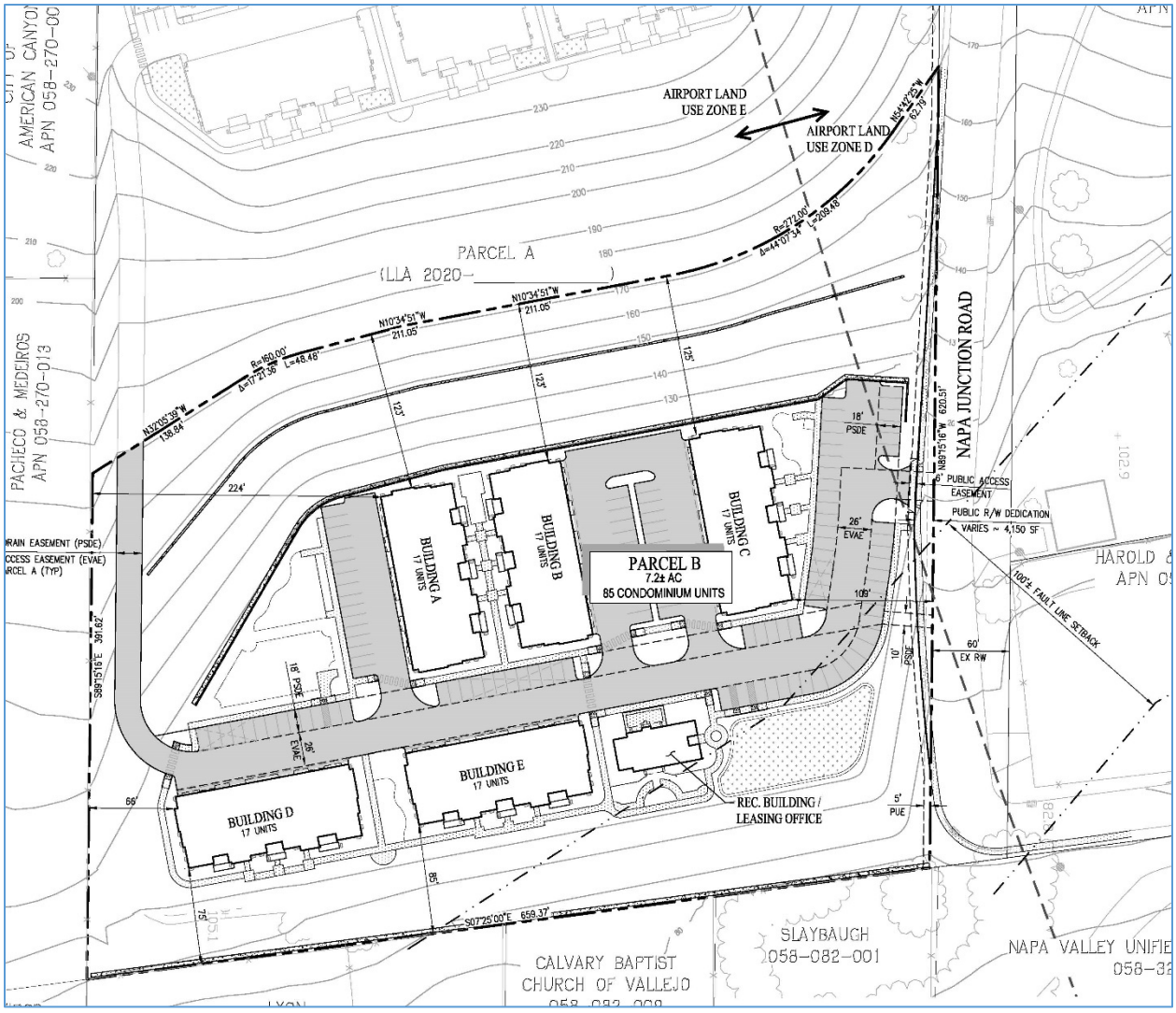

Figure 8 - Proposed Parcel A Tentative Subdivision Map

Analysis of the Proposed Project

The Conditional Use Permit application analysis includes:

1. Project Consistency with the General Plan
2. Project Consistency with the Zoning Ordinance
3. Specific Project Issues
4. Public Comments

1. Consistency with the General Plan

Approval of a General Plan Amendment for Parcel A and B supports several policies related to enhancing housing opportunities in the City. These policies are discussed below:

Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial

Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."

Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."

Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).

The project satisfies the following Land Use Element policies:

Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

Policy 1.8 specifies that the intent of multifamily residential is to provide high quality residential at 5 to 12 dwellings per unit for the RM zone and 12 to 16 dwelling units for the RH zone.

Policy 1.8.4 call for special architectural treatment, the incorporation of arcades and other recesses, articulation and differentiation of building entrances and floors, and the use of landscaping.

Policy 1.17 specifies the zone should, "provide for development of uses that capitalize on and attract visitors due to their unique view sheds of the Napa River, San Francisco Bay, and Napa Valley, site topography, and other natural characteristics".

The Oat Hill Parcel A and B developments are consistent with these policies. The development takes advantage of the Oat Hill view by providing units with bay windows and balconies facing the south, southeast, and southwest. According to their preliminary architectural designs, the apartment buildings are of Modern Farmhouse design. They feature a hip roof, articulated entrances, functional balconies, separations in color, and recessed windows. The site also takes advantage of landscaping in the setbacks, common areas, and parking areas. The development complies with the Design Permit development standards for the RH-1 and RM zoning districts and proposes buildings of high quality that meets the General Plan Land Use goals.



Figure 9: Elevation of 17-unit apartment for Oat Hill Apartments



Figure 10: Front elevation of 12-unit apartment for Oat Hill Apartments

The development of housing on Oat Hill also would be compatible with the Broadway Specific Plan (the "Broadway Plan"). Although Parcels A and B are not within the boundaries of the Broadway Plan, that plan designates land adjacent to the parcels as "Medium Density Residential," which permits 12 units/acre and is intended to foster a high-density residential community that is compatible with the existing older single-family residences in this area. Re-designating Parcels A and B to RH-1 and RM would allow for residential densities similar to those permitted in the Medium Density Residential area of the Broadway Plan, and it would further establish a residential community that is compatible with surrounding uses.

Re-designating and rezoning Parcels A and B for medium- and high-density residential would be consistent with other development principles and strategies identified in the Broadway Plan. For example, the Broadway Plan has identified properties west of Theresa Avenue between Napa Junction and Eucalyptus Road West End as suitable for residential uses to facilitate the development of additional housing. Further, the Broadway Plan seeks to increase the number and type of housing opportunities in the Broadway area and encourages variety in the scale and design of new development. Re-designation of Parcels A and B directly furthers these goals.

Finally, the parcels are located near areas designated as "Business Park" under the Broadway Plan. The Business Park designation is designed to encourage professional office uses, as well as retail and service commercial uses that are oriented to the day-to-day needs of the local residents. Oat Hill's location west

of this area and the downtown core makes it an ideal location for new residences that are close to services and transit.

2. Consistency with Zoning Ordinance

According to the American Canyon Municipal Code (ACMC) multifamily projects within the High Density Residential (RH-1) and Medium Density Residential (RM) zoning districts are permitted uses. The project meets the required development standards as follows:

Table 1 – Parcel A Development Standards

Development Standard (RH-1 Zone)	Required	Provided
Minimum Lot Size	20,000 SF	13.6 acres
Max Density (dwelling units per acre)	16 DU/AC	15.1 DU/AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	900+ feet
Max Lot Coverage	50%	17.6%
Max Building Height	42 feet	40 feet
Required Setbacks Front Yard Side (Interior) Rear First Story Second Story	 20 feet 5 feet 10 feet 5 feet 10 feet	 30 feet 20+ feet 20+ feet 20+ feet 20+ feet
Maximum # of stories	3 stories	3 stories
Parking: Unit with 1 bedroom requires 1 covered, plus .5 uncovered spaces; Unit with 2 or more bedrooms requires 1 covered space plus 1 uncovered space; Plus 1 guest space per 4 units	438	451 (23 offsite)
Bicycle Parking	10 stalls	10 stalls*

* The applicant shall identify the location of the bicycle parking prior to the issuance of building permits.

Table 2 – Parcel B Development Standards

Development Standard (RM Zone)	Required	Provided
Minimum Lot Size	20,000 SF	7.2 acres
Max Density	12 DU/AC	11.8 DU/AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	300+ feet
Max Lot Coverage	50%	13%
Max Building Height	42 feet	40 feet
Required Setbacks Front Yard Side (Interior) Rear	 15 feet 5 feet 10 feet	 30 feet 20+ feet 20+ feet

First Story Second Story	5 feet 10 feet	20+ feet 20+ feet
Maximum # of stories	3 stories	3 stories
Parking: Unit with 1 bedroom requires 1 covered, plus .5 uncovered spaces; Unit with 2 or more bedrooms requires 1 covered space plus 1 uncovered space; Plus 1 guest space per 4 units	182	182
Bicycle Parking	7 stalls	7 stalls*

* The applicant shall identify the location of the bicycle parking prior to the issuance of building permits.

3. Specific Project Issues

a. Airport Land Use

A portion of the site lies within the Napa County Airport Land Use Compatibility Plan (ALUCP). Four buildings, K, L, M and the recreation office, are within the D-Zone, and consists of 51 units. The ALUCP defines the D-Zone as one that does not normally permit residential uses. The applicant conducted a peer-reviewed noise study, prepared by Saxelby Acoustics (Sept 10, 2020) and concluded that the Oat Hill project would not conflict with the noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. As an added precaution and a condition of approval, the applicant will agree to record an avigation easement in favor of the Napa County Airport to indemnify them from noise complaints. The applicant also scheduled to file an application with the Napa County Airport Land Use Commission (ALUC) to request approval of their project in the D-Zone. The applicant plans to attend their May 1, 2021 meeting to present their project.

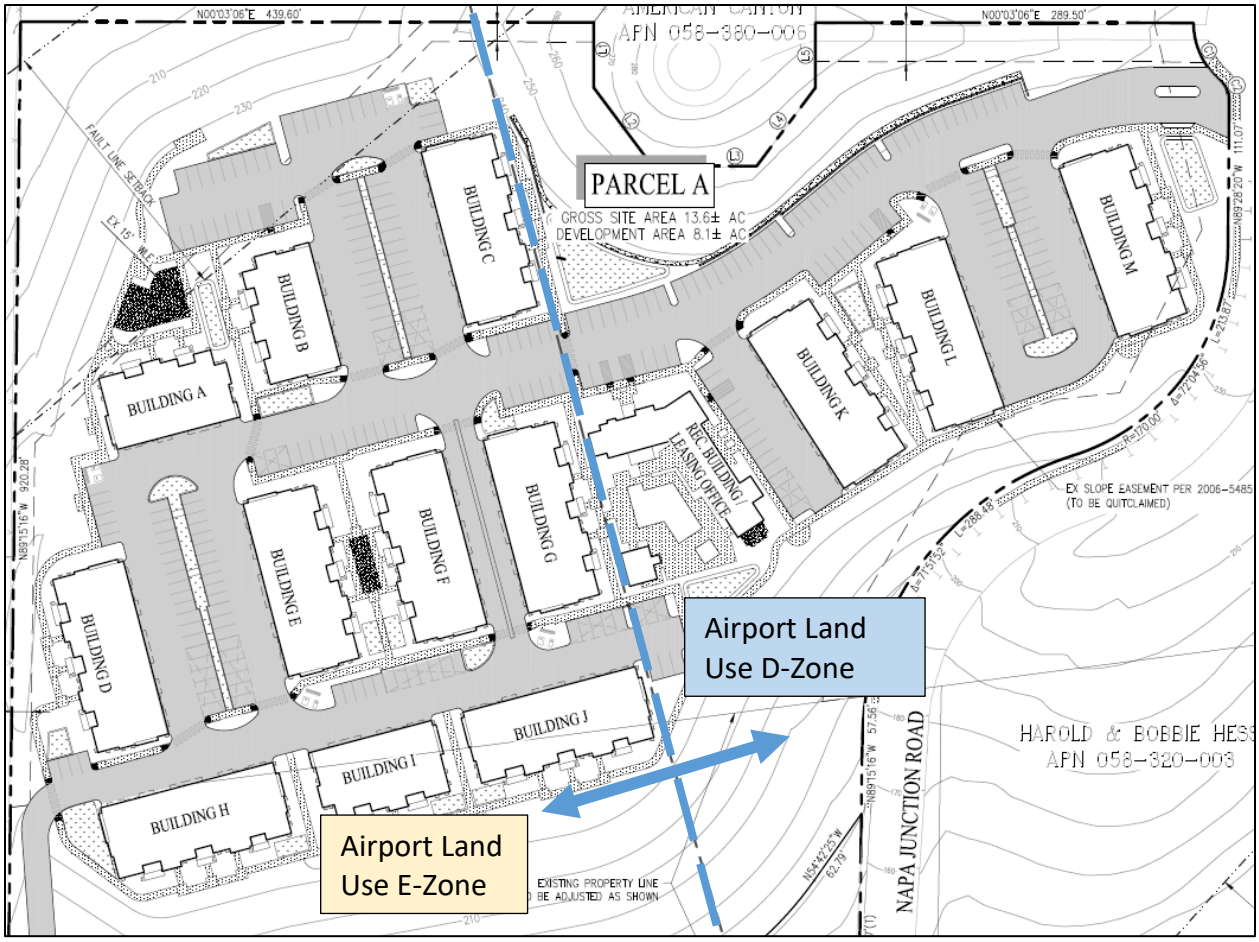

Figure 11: Buildings K, L, and M are within the D-Zone for the Airport Land Use Plan. All other units are not affected.

b. Affordable Housing

In accordance to the Municipal Code, new apartment developments that exceed five units are subject to inclusionary housing. The Code requires housing developments to provide 15% of the units, at 5% for very-low, 5% for low-income, and 5% for moderate income housing. For the 291 proposed units at the Oat Hill project, the applicant is required to provide 44 affordable units.

The applicant requested to provide an affordable housing nexus fee in-lieu of the 44 affordable units. The applicant provided a marketing study which explained that it was financially infeasible for the project to proceed without the in-lieu fee. The current affordable housing nexus fee is $3.82 per square feet, which is due prior to building permit issuance, and the marketing study is available in Attachment 1, Exhibit C.

c. Napa Junction Road

Primary access to both Parcels A and B will be from Napa Junction Road. A new sidewalk would be constructed along the frontage on Napa Junction Road. A new section of Napa Junction Road would be constructed between two disconnected segments east and west of Hess Road. The new roadway and pedestrian connections would result in a more direct route to the project site from SR 29 and other areas of the City and would require the removal of several existing trees located adjacent to Parcel B.

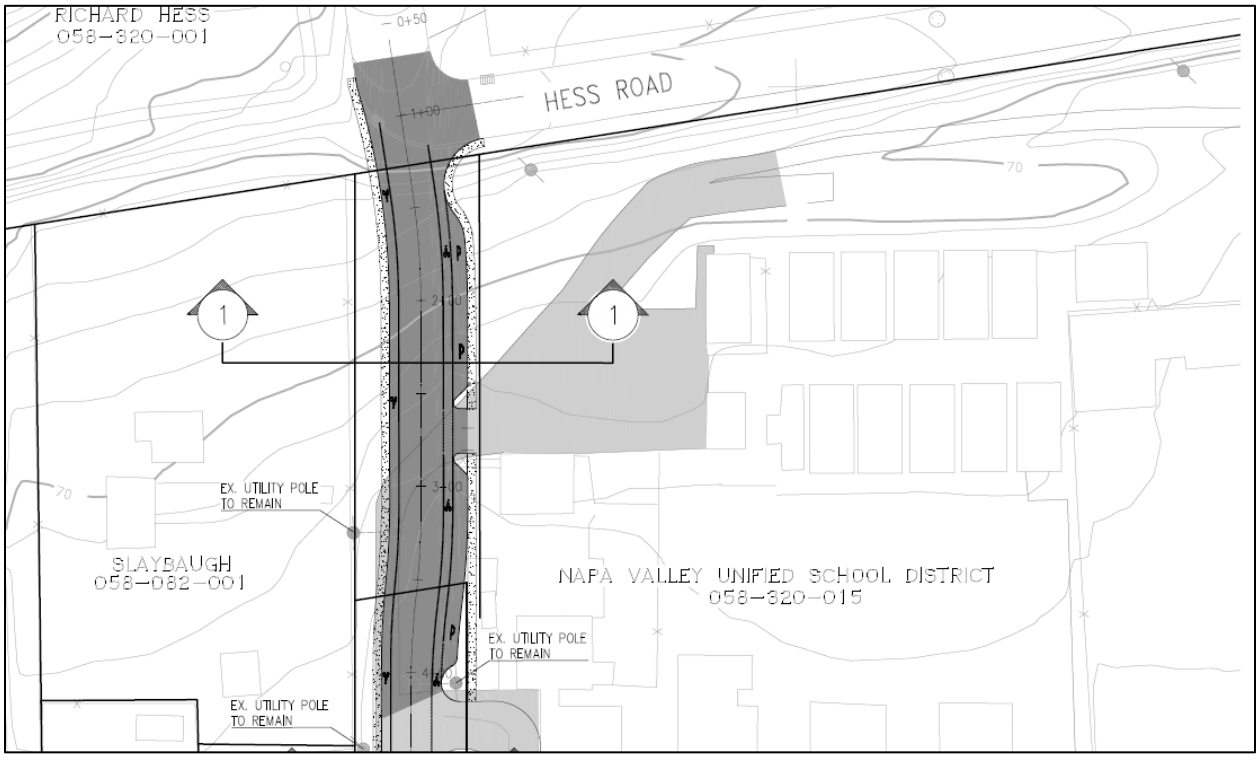

Figure 12: Napa Junction Road Extension proposed to be completed by the project will bring access and mobility to Oat Hill.

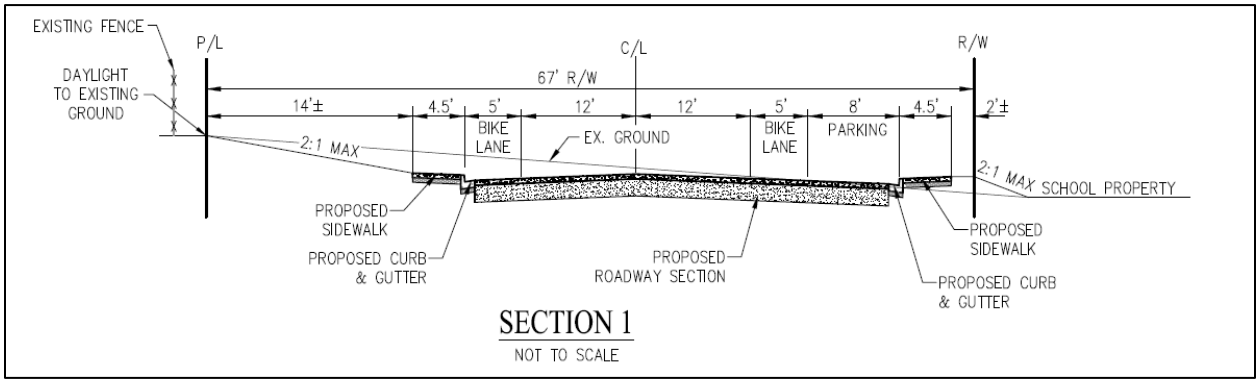

Figure 13: Preliminary cross-section drawing of the Napa Junction extension will include two travel lanes, bike lanes, sidewalks, and a single parking lane.

Part of the Napa Junction extension is owned by the Napa Valley Unified School District (NVUSD) and the applicant is required to make a good faith offer to NVUSD. This would include identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and offer to pay this amount. The obligation is identified as a condition of approval.

d. Oat Hill Views and Public Access Trail

For many years, the City considered views from Oat Hill to be an important public resource. In 1994, the General Plan designated Oat Hill with a Specialty Commercial overlay that highlights the unique views from Oat Hill. According to the General Plan Land Use Policy 1.17.3, [The City shall] *Require that development be sited and designed to emphasize the unique character of its setting and intended functions*

(e.g., maintenance of viewsheds) and convey a high level of quality in accordance with Policies 1.18.1 to 1.18.4. Additionally, in accordance to ACMC Section 19.19.030(B)(3), *projects using the specialty commercial overlay zoning that require approval of a design permit shall incorporate into the site plan a public pedestrian easement to the site with potential connections to adjacent properties that provides access to the site's unique views.*

The Parcel B application is lower in elevation and the views are not significant. The Parcel A application being higher on Oat Hill offers the best views. Recognizing the City's Oat Hill view policy, the Parcel A site plan includes a pedestrian path that takes advantage of the views. Figures 4, 5 and 6 depict the views from the upper pad. The path, shown in yellow highlight in Figure below, generally follows the edge of the development pad with no structures in the way to block the view.

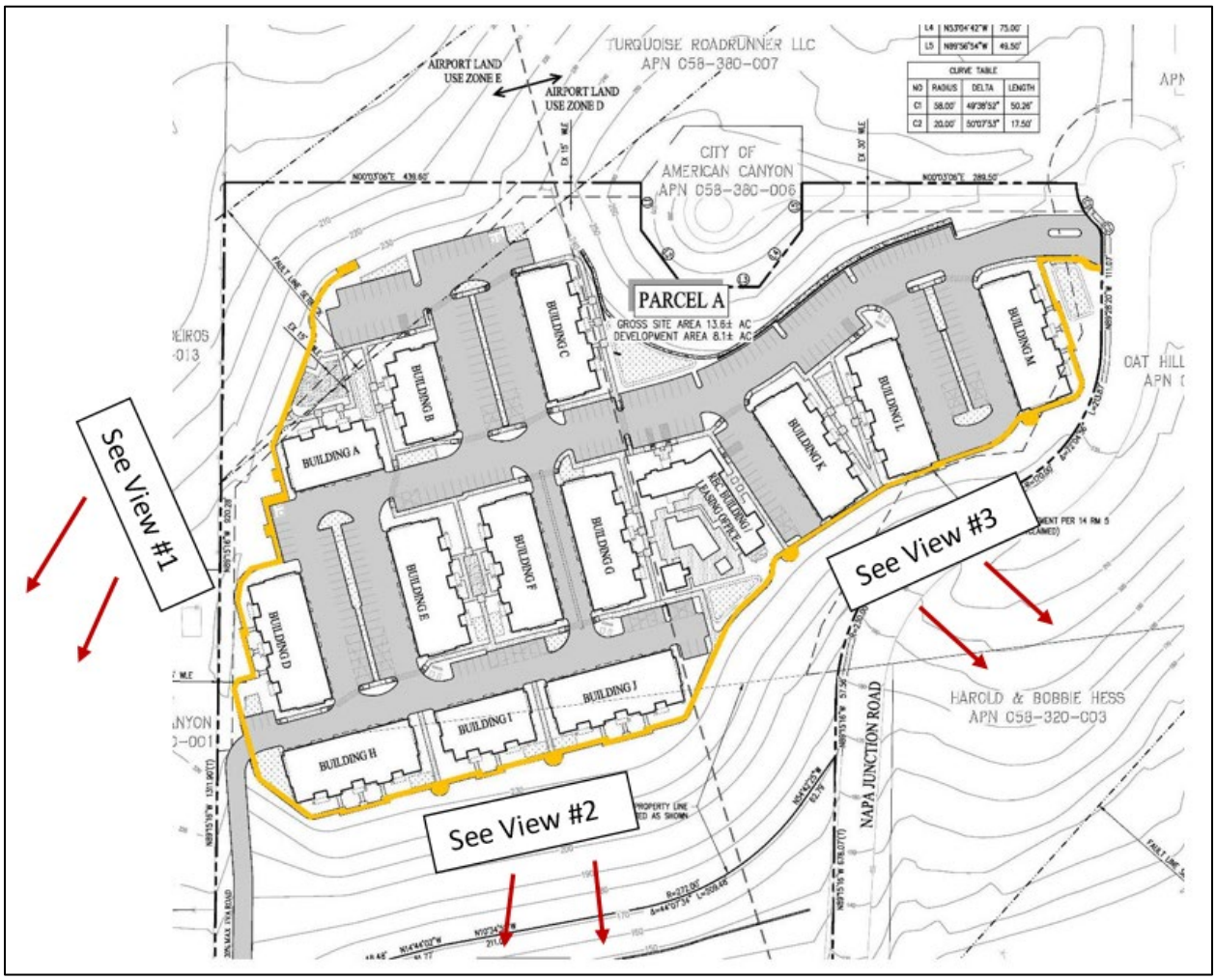

Figure 14: Proposed pedestrian view path shown in yellow.



Figure 15: View 1 – Southeast View



Figure 16: View #2 – East View



Figure 17: View #3 – Northeast View

The applicant attended an Open Space Advisory Committee (OSAC) meeting on March 3, 2021 and discussed the project with the committee. Mr. Hess explained that the pedestrian path, which he refers to as the "Community Loop Walkway", will be open to the public and maintained by the property-owner. The walkway is closest to the buildings where there are no apartment windows (i.e.: no privacy issue) and farther where it passes apartment unit front door entries. Mr. Hess explained that separating the path from the apartment buildings is constrained by the edge of Parcel A. The walkway will be at least 4 feet wide and contains look-out areas and benches to take advantage of Oat Hill views. Visitor parking will be

limited on site, but street parking along Napa Junction Road will be available as a first-come, first-serve basis.

e. Public Comments

A 30-day Notice of Intent was sent to the State Clearinghouse and published on February 5, 2021. Staff received three comments.

California Department of Fish and Wildlife. A California Department of Fish and Wildlife letter recommended revisions to the proposed Biological Resources mitigation measures. The revisions suggest expanding the size of pre-construction bird survey radiuses, and establishing tighter buffer zones. The biology consultant WRA Environmental Consultants reviewed the requests and is scheduled to updated Mitigation Measures BIO-1 to BIO-5 in the biology section.

Caltrans. A Department of Transportation letter recommended the applicant conduct annual monitoring reports, and inquired why the SR-29 / Napa Junction Road intersection was not considered in the group of analyzed areas in the traffic impact study. The letter also provided guidance on how to submit an encroachment permit application. The applicant's CEQA consultant, Raney Environmental, reviewed the requests and explained that subsequent to the publication of the IS/MND, a final traffic impact analysis (TIA) was prepared for the project. The final TIA, from February of 2021, includes the SR-29/Napa Junction Rd intersection. As noted in the final TIA, the Napa Junction Road/SR 29 intersection would operate at LOS F under Future Conditions with or without the proposed project. This operation was considered acceptable because the Napa Junction Road/SR 29 intersection is exempt from the City's LOS standard, and the California Department of Transportation (Caltrans) does not provide an operational standard. Therefore, the findings of the final TIA would not change the adequacy of the analysis, mitigation, or conclusions presented in the IS/MND. The final TIA is available in the Attachment 1, Exhibit A.

Resident. A resident of American Canyon inquired about why the IS/MND stated that there is no impact to our school system. The letter also stated that more housing would lead to increased traffic. The applicant's CEQA consultant reviewed the letter and will provide an explanation in the final IS/MND report. The applicant's CEQA consultant, Raney Environmental, reviewed the comment and responded. Raney explained that the applicant is required to pay a facilities fee to the Napa Valley Unified School District (NVUSD), which goes towards the cost of improvements and/or upgrades to school facilities. In regards to traffic, Raney explained that according to the TIA, the Oat Hill project would add traffic solely to the eastbound and westbound through movements in the Napa Junction / Lombard intersection, which do not have delays and are below average for the intersection as a whole. Project trips are expected to make use of the excess capacity, thus motorists would experience little, if any, change in conditions as a result of this project. See response to comments in Attachment 1, Exhibit A.

Property Owner. A property owner in a neighboring property provided a letter of support for the project. The comment does not address the adequacy of the IS/MND.

Public Outreach Efforts. The applicant conducted a public outreach study from September 18 to October 6 of 2020. The outreach area consisted of all property owners within 300 feet of the site and a few select neighbors beyond that proximity. The applicant met with neighbors in person, provided copies of the plans, and photo simulations. Several property owners provided letters of support as a result of these outreach efforts, see Attachment 1 Exhibit D.

CEQA Review

The City of American Canyon prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for the Mitigated Negative Declaration (MND) is the finding that the proposed Project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

The MND was circulated to the public for 30 days starting February 5, 2021. In response to the notice, the City received one letter. The letters are included as with the final Initial Study MND in Attachment 1 Exhibit A.

Staff Recommendation

Consider Resolutions to Recommend City Council approval of:

(1) The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
(2) A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(3) A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
(4) A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(5) A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
(6) A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
(7) A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
(8) A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
(9) A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

Attachments:

1. Resolution for the ISMND and MMRP
    a. Exhibit A – ISMND with technical studies and public comments
    b. Exhibit B – MMRP
    c. Affordable Housing Marketing Study
    d. Public Outreach Materials
2. Resolution for Parcel A General Plan Amendment (File No. PL20-0024)
3. Resolution for Parcel A Zone Change (File No. PL20-0024)
4. Resolution for Parcel A Tentative Subdivision Map (File No. PL20-0025)
    a. Exhibit A – Project Plans
5. Resolution for the Design Permit (File No. PL20-0022)
    a. Exhibit A – Project Plans
6. Resolution for Parcel B General Plan Amendment (File No. PL20-0026)

7. Resolution for Parcel B Zone Change (File No. PL20-0026)
8. Resolution for Parcel B Tentative Subdivision Map (File No. PL20-0027)
    a. Exhibit A – Project Plans
9. Resolution for Parcel B Design (File No. PL20-0023)
    a. Exhibit A – Project Plans

Copies (notification sent electronically):
Rick Hess Development Company

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RESOLUTION NO. 2021-04

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, 1.) ADOPT THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE OAT HILL PROJECT CONSISTING OF A GENERAL PLAN AMENDMENT, ZONE CHANGE, TENTATIVE SUBDIVISION MAP, AND DESIGN PERMIT TO DEVELOP 206 DWELLING UNITS ON A 13.6-ACRE PARCEL AND 85 DWELLING UNITS ON A 7.2-ACRE PARCEL; 2.) ADOPT THE MITIGATION MONITORING AND REPORTING PROGRAM; AND 3) DIRECTING STAFF TO FILE A NOTICE OF DETERMINATION, APN 058-380-008 AND 058-320-001 (FILE NO. PL20-0024 AND PL20-0026)

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application for Parcel A to allow 206 dwelling units on approximately 13.6 acres on the east side of Oat Hill south of Napa Junction Road APN 058-380-008 (File No. PL20-0024); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to for Parcel B allow 85 dwelling units on approximately 7.2 acres on the east side of Oat Hill south of Napa Junction Road APN 058-320-001 (File No. PL20-0026); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map and Design Permit application to create 206 dwelling units on 13.6 acres located at Oat Hill with access from Napa Junction Road, Assessor's Parcel Number 058-058-380-008 (File No. PL20-0022 and PL20-0025); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map and Design Permit application to create 85 dwelling units on 7.2 acres located at Oat Hill with access from Napa Junction Road, Assessor's Parcel Number 058-320-001 (File No. PL20-0023 and PL20-0027); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, on January 21, 2020, the City Council approved a resolution (CC Resolution 2020-06) that declared residential uses are the best use of the Rick Hess property on Oat Hill; and

WHEREAS, the City of American Canyon determined that the project was subject to the California Environmental Quality Act (CEQA) and prepared an Initial Study pursuant to CEQA evaluating the potential environmental effects of the project; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA"), an Initial Study/Mitigated Negative Declaration ("IS/MND"), that includes a "Mitigation and Monitoring Reporting Plan ("MMRP") was prepared for the Project and circulated for 30 days starting on February 5, 2021; and

WHEREAS, the IS/MND examined the Project at the project level to allow for construction; and

WHEREAS, a Notice of Completion ("NOC") was delivered to the State Clearinghouse in accordance with the CEQA requirements on February 5, 2021; and

WHEREAS, an NOI to adopt an MND was published in The Vallejo Times-Herald Democrat in accordance with the CEQA requirements on February 8, 2021 and the same noticing was mailed to property owners

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WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on March 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal; and

WHEREAS, a Response to Comments was provided to the Planning Commission addressing comments submitted at the March 25, 2021 Planning Commission hearing; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of American Canyon recommends to the City Council of the City of American Canyon, based upon the record, that the Project will not have a significant effect upon the environment if the mitigation measures listed in the MND and MMRP are implemented, and hereby 1) adopts the Initial Study and Mitigated Negative Declaration, attached hereto as Exhibit A and incorporated herein, for the Oat Hill Project; 2) adopts the Mitigation and Monitoring Reporting Program for the Project, attached hereto as Exhibit B and incorporated herein; and 3) directs staff to file a Notice of Determination for the Project consistent with the CEQA Guidelines.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of March 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
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Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
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Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
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William D. Ross, City Attorney

EXHIBITS

A. Initial Study and Mitigated Negative Declaration
B. Mitigation and Monitoring Reporting Program

Exhibit A: Initial Study / Mitigated Negative Declaration

City of American Canyon
Community Development Department

Oat Hill Multi-Family Project

Initial Study/Mitigated Negative Declaration

March 2021

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, ▪ Sacramento ▪ CA ▪ 95834
Office 916.372.6100 ▪ Fax 916.419.6108

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Appendix G – Traffic Impact Study (2020)
Appendix H – Traffic Impact Study (2021)

INITIAL STUDY

March 2021

A. BACKGROUND

1.	Project Title:	Oat Hill Multi-Family Project
2.	Lead Agency Name and Address:	City of American Canyon Community Development Department 4381 Broadway, Suite 201 American Canyon, CA 94503
3.	Contact Person and Phone Number:	Brent Cooper Community Development Director (707) 647-4348
4.	Project Location:	Southwest of the intersection of Napa Junction Road and Hess Road American Canyon, CA 94503 APNs: 058-380-008 and 058-320-001
5.	Project Sponsor's Name and Address:	R.H. Hess Development 3423 Broadway, Suite D-5 American Canyon, CA 94503
6.	Existing General Plan Designation:	Industrial: Commercial Specialty Overlay (I:CS) Residential Estate (RE)
7.	Existing Zoning Designation:	Light Industrial (LI) Residential Estate (RE)
8.	Proposed General Plan Designation:	Residential High, 16 dwelling units per acre (RH-1) Residential Medium, 12 dwelling units per acre (RM)
9.	Proposed Zoning Designation:	Residential High (RH) Residential Medium (RM)
10.	Required Approvals from Other Public Agencies:	California Department of Fish and Wildlife San Francisco Bay Regional Water Quality Control Board

11. Surrounding Land Uses and Setting:

The project site consists of two parcels (Parcel A and Parcel B) that total approximately 20.8 acres, located southwest of the Napa Junction Road and Hess Road intersection in the City of American Canyon, California. Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. In addition, a mobile home, scattered debris, and construction materials are located within Parcel B. The overall topography of the site is characterized by two generally flat terraces connected by a steep hillside, with elevations ranging from approximately 80 to 185 feet above mean sea level (msl). Parcel A consists of the flat terrace located within the western portion of the site, while Parcel B consists of the flat terrace located within the eastern portion of the site. Surrounding development in the project vicinity includes industrial businesses, such as RLM Enterprises, and recreational vehicle (RV) storage to the north, a light industrial building to the northwest, Napa Junction Magnet Elementary School to the northeast, single-family residences, a Baptist Church, and American Canyon City Hall to the east, and undeveloped land to the south and west. The City of American Canyon General Plan designates Parcel A as Industrial: Commercial Specialty Overlay (I:CS) and the parcel is zoned Light Industrial (LI). In addition, the City's General Plan designates Parcel B as Residential Estate (RE) and the parcel is zoned RE.

12. Project Description Summary:

The Oat Hill Multi-Family Project (proposed project) would develop a multi-family residential community consisting of 291 multi-family residential units. Development within Parcel A would consist of 206 multi-family residential units, a community loop trail, recreation building, an outdoor seating area, and a pool. In addition, Parcel A would include 53,571 square feet (sf) of common open space and 139,392 sf of hillside slope area. Development within Parcel B would consist of 85 multi-family residential units, a recreation building, a tot lot, and an outdoor lounge and viewing area. Parcel B would also include 27,647 sf of common space and 257,004 sf of hillside slope area. Primary access to the site would be provided from an extension of Napa Junction Road, which would connect to the site through two new driveways allowing internal access to the proposed residences. The project would require approval of a Tentative Map for Parcel A, a General Plan Amendment to redesignate Parcel A as Residential High Density, 16 dwelling units per acre (RH-1) and a rezone of Parcel A to Residential High Density (RH). The project would also require approval of a Tentative Map for Parcel B, a General Plan Amendment to redesignate Parcel B as Residential Medium Density, 12 dwelling units per acre (RM) and a rezone of Parcel B to Residential Medium Density (RM).

13. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the chairpersons of the Cortina Band of Indians, Federated Indians of Graton Rancheria, Middletown Rancheria of Pomo Indians, Mishewal-Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation. The letters were distributed on September 9, 2020. Requests to consult were not received within the 30-day response period.

B. SOURCES

The following documents are referenced information sources used for the purposes of this Initial Study:

1. AEI Consultants. *Phase I Environmental Site Assessment, Property Information: Napa Junction Road at Oat Hill, Assessor's Parcel Number 058-380-008, American Canyon, Napa County, California 94503*. August 11, 2020.
2. AEI Consultants. *Phase I Environmental Site Assessment, Property Information: Napa Junction Road at Oat Hill, Assessor's Parcel Number: 058-320-001, American Canyon, Napa County, California 94503.* August 11, 2020.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
4. Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. December 7, 2009.
5. California Air Resources Board. *AB 32 Scoping Plan [Appendix B].* Accessible at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed March 2020.
6. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.
7. California Building Standards Commission. *California Green Building Standards Code*. 2019.
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10. California Department of Forestry and Fire Protection. *California Fire Hazard Severity Zone Viewer*. Available at: https://egis.fire.ca.gov/FHSZ/. Accessed: August 2020.
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16. Carlson, Barbee & Gibson, Inc. *Water Demand, Oat Hill Multi-Family, American Canyon, California*. October 1, 2020.
17. City of American Canyon. *Energy Efficiency Climate Action Plan*. December 2012.
18. City of American Canyon. *General Plan.* November 3, 1994 (amended through March 2015).
19. City of American Canyon. *General Plan Final Environmental Impact Report*. November 3, 1994.
20. City of American Canyon. *Item9A – Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND).* September 18, 2020.
21. City of American Canyon. *2015 Urban Water Management Plan*. Adopted June 21, 2016.
22. Department of Toxic Substances Control. *EnviroStor.* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed February 2020.
23. Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective March 21, 2017.
24. Federal Highway Administration. *Roadway Construction Noise Model User's Guide.* January 2006.

25. Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Guidelines.* May 2006.
26. Flores, Areana. Environmental Planner, Planning and Climate Protection. Personal communication [phone] with Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning and Management, Inc. September 17, 2019.
27. Native American Heritage Commission. *Oat Hill Multi-Family Project, Napa County.* August 6, 2020.
28. Northwest Information Center. *Re: Record search results for the proposed Oat Hill Multi-Family Project, southwest of the Napa Junction Road and Hess Road, American Canyon, Napa County, CA.* August 11, 2020.
29. Reese & Associates. *Report, Soil Engineering Consultation, Oat Hill Residential Project Liquefaction Potential, American Canyon, California.* November 17, 2020.
30. Reese & Associates. *Report, Soil Investigation, Oat Hill Residential Project, Napa Junction Road, American Canyon, California.* December 11, 2019.
31. Saxelby Acoustics. *Environmental Noise Assessment, Oat Hill Apartments, City of American Canyon, California*. September 10, 2020.
32. U.S. Department of Labor Occupational Safety and Health Administration. *Guidance on Preparing Workplaces for COVID-19.* Available at: https://www.osha.gov/Publications/OSHA3990.pdf. Accessed January 2021.
33. WRA, Inc. *Biological Resources Technical Report, Oat Hill Multi-Family Development, American Canyon, Napa County, California.* July 2020.
34. W-Trans. *Traffic Impact Study for the Oat Hill Multi-Family Housing Project*. August 10, 2020.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less Than Significant with Mitigation Incorporated" or as indicated by the checklist on the following pages.

☒ **Aesthetics**	☐ **Agriculture and Forest Resources**	☒ **Air Quality**
☒ **Biological Resources**	☒ **Cultural Resources**	☐ **Energy**
☒ **Geology and Soils**	☒ **Greenhouse Gas Emissions**	☐ **Hazards and Hazardous Materials**
☐ **Hydrology and Water Quality**	☐ **Land Use and Planning**	☐ **Mineral Resources**
☒ **Noise**	☐ **Population and Housing**	☐ **Public Services**
☐ **Recreation**	☒ **Transportation**	☒ **Tribal Cultural Resources**
		☒ **COVID-19 Prevention**
☒ **Utilities and Service Systems**	☐ **Wildfire**	☐ **Mandatory Findings of Significance**

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D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

DocuSigned by:
Brent Cooper
D11948466E1E429...
Signature

2/4/2021
Date

Brent Cooper, AICP, Community Development Director
Printed Name

City of American Canyon
For

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) of the proposed project. The information and analysis presented in this document is organized in accordance with the order of the CEQA checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures are prescribed.

In 1994, the City of American Canyon completed the General Plan[1] and General Plan Environmental Impact Report (EIR).[2] The General Plan EIR was prepared as a program-level EIR, pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the City's General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan. The environmental setting and impact discussions for each section of this IS/MND have been largely based on technical studies prepared for the proposed project, as well as information in the American Canyon General Plan and associated EIR.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

On August 20, 2019, the American Canyon City Council conducted a public hearing to consider the most appropriate use for the project site, as well as an adjoining 10 acres located to the north of Parcel A. At the conclusion of the hearing, the City Council determined that residential development would be the best use for the project site and directed staff to work with the applicant to identify means by which the City might evaluate and consider a residential development proposal. The City Council's determination was subsequently ratified in a resolution adopted by the Council (Resolution No. 2020-06) on January 21, 2020. The entitlements for the proposed project are the result of the Resolution and subsequent discussions between the applicant and representatives of the City of American Canyon.

Two separate applications have been submitted to the City of American Canyon; one application for development within Parcel A and another application for development within Parcel B. As such, each "project" can be approved and developed independently; however, this IS/MND evaluates the project's both separately and together, where applicable. It should be noted that for the purposes of this environmental analysis, the term "project site" refers to the combined 20.8 acres. When discussing an individual parcel, the parcel letter, such as "Parcel A" or "Parcel B", is specifically identified.

During the Oat Hill Project IS/MND public review period, which commenced on February 5, 2021 and ended on March 10, 2021, four letters were received in regard to biological resources, public services, and transportation. In response to the comments, revisions have been made and included within this Final IS/MND. Where revisions to the IS/MND text were made, new text is <u>double underlined</u> and deleted text is ~~struck through~~.

[1] City of American Canyon. *General Plan.* November 3, 1994 (amended through March 2015).
[2] City of American Canyon. *General Plan Final Environmental Impact Report.* November 3, 1994.

F. PROJECT DESCRIPTION

A comprehensive description of the proposed project, including the project location, setting, project components, and entitlements, is provided below.

Project Location and Setting

The project site consists of two parcels (Parcel A and Parcel B) that total approximately 20.8 acres, located southwest of the Napa Junction Road and Hess Road intersection in the City of American Canyon, California (see Figure 1). The site is located approximately 0.22-mile northeast of State Route (SR) 29 and is identified by Assessor's Parcel Numbers (APNs) 058-380-008 (Parcel A) and 058-320-001 (Parcel B). Parcel A consists of approximately 11.3 acres and is located on the upper slope within the western portion of the site. Parcel B consists of approximately 9.5 acres and is located on the lower slope within the eastern portion of the site. Surrounding development in the project vicinity includes industrial businesses, such as RLM Enterprises, and RV storage to the north, a light industrial building to the northwest, Napa Junction Magnet Elementary School to the northeast, single-family residences, a Baptist Church, and American Canyon City Hall to the east, and undeveloped land to the south and west (see Figure 2). It should be noted that Napa Junction Magnet Elementary School is in the process of being relocated due to concerns regarding seismicity in the project region.

Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. The project site is currently used for goat and sheep grazing and contains the site caretaker's mobile home. The entire project site has been subject to high levels of disturbance from past construction, grading, and other human activities over the past 20 years. Scattered debris and other materials associated with past site disturbance are located within Parcel B. In addition, a remnant concrete lined v-ditch was mapped within Parcel B, which was constructed in the uplands and does not follow a stream course. Although the ditch connects to the existing storm drain at the base of the slope within Parcel B, the ditch is currently filled with debris and does not convey stormwater flows.

The overall topography of the site is characterized by two generally flat terraces connected by a steep hillside, with elevations ranging from approximately 80 to 185 feet above mean sea level. Parcel A consists of the flat terrace located within the western portion of the site, while Parcel B consists of the flat terrace located within the eastern portion of the site. The City of American Canyon General Plan designates Parcel A as I:CS and the parcel is zoned LI. In addition, the City's General Plan designates Parcel B as RE and the parcel is zoned RE.

Project Components

The proposed project would develop a multi-family residential community consisting of 291 multi-family residential units (see Figure 3). The proposed development on Parcels A and B would be separated by the existing steep hillside within the center of the project site. The hillside area would be primarily retained as open space, with the exception of an emergency vehicle access (EVA) road connecting the two parcels.

As part of the proposed project, landscaping improvements would be included throughout the project site. A variety of trees and shrubs would be provided along the project drive aisles and parking areas, as well as along the perimeter of the proposed units within the project site.

In addition, a new sidewalk would be constructed along the project frontage on Napa Junction Road. A new section of Napa Junction Road would be constructed between two disconnected segments east and west of Hess Road. The new roadway and pedestrian connections would result in a more direct route to the project site from SR 29 and other areas of the City and would require the removal of several existing trees located adjacent to Parcel B.

The proposed development within Parcel A and Parcel B is described separately in detail below.

Figure 1
Regional Project Location

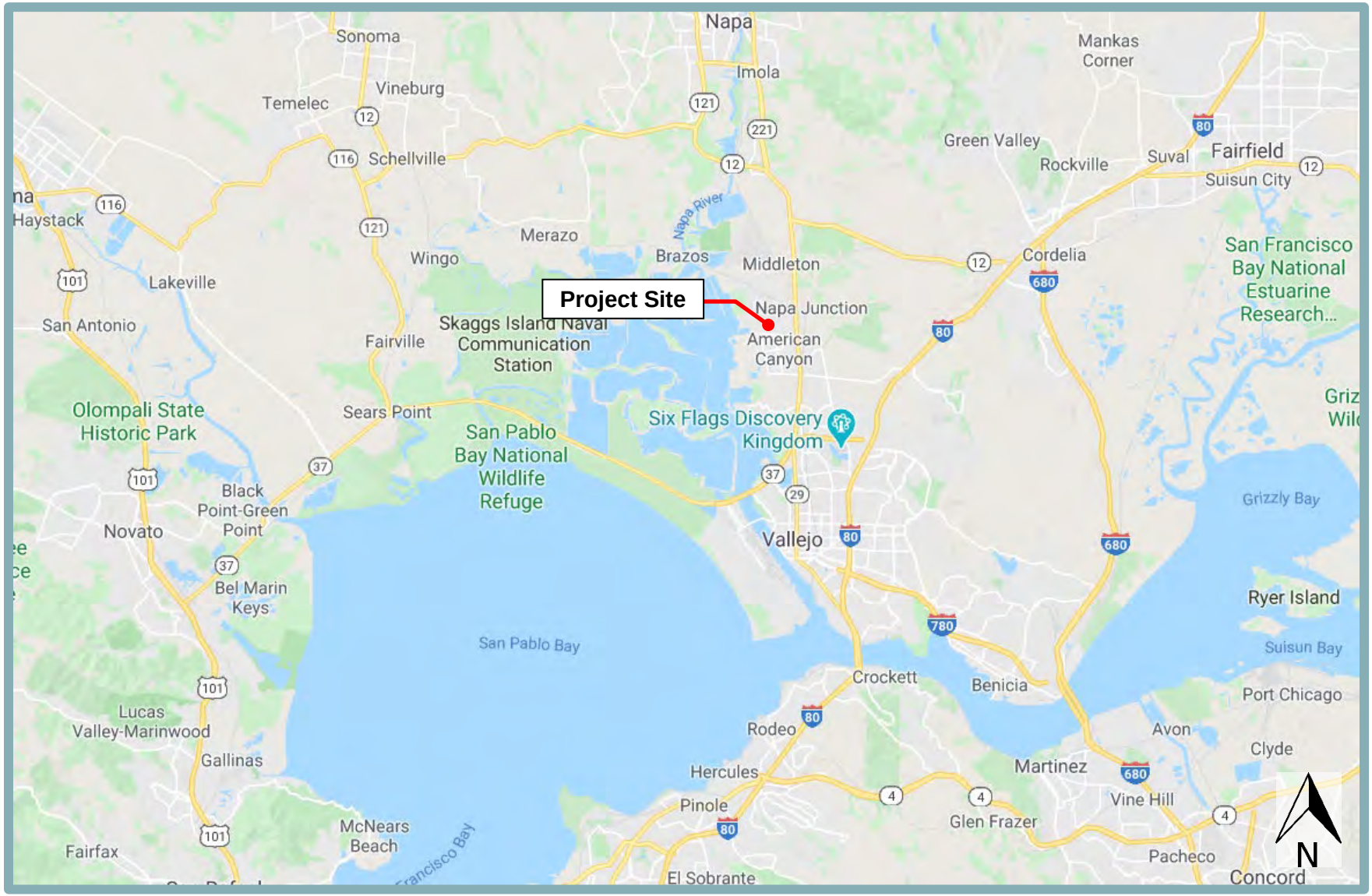


Figure 2
Project Site Boundaries Map



Figure 3
Project Site Plan



Parcel A

Development within Parcel A would require approval of a General Plan Amendment, rezone, and Tentative Map. A discussion of the aforementioned approvals and other project components for Parcel A are described in further detail below.

Parcel A – General Plan Amendment and Rezone

The proposed project would require approval of General Plan Amendment to change the designation of Parcel A from I:CS to RH-1. In addition, the proposed project would require approval of a rezone of Parcel A from LI to RH. Development of residences within Parcel A would result in a density of 15.1 dwelling units per acre, which would be consistent with the RH-1 land use designation and RH zoning, which permit a density of 12.0 to 16.0 dwelling units per acre for multi-family developments.

Tentative Map

Development within Parcel A would consist of 206 multi-family residential units distributed among 13, three-story buildings (see Figure 4). The proposed units would be constructed as condominiums and would be available for individual sale. In addition, Parcel A would include a single-story recreation building, a community loop trail, an outdoor seating area, and a pool, as well as 428 on-site parking spaces and 23 off-site, street parking spaces along the northern boundary of the site. Of the 206 multi-family residential units, 52 would be one-bedroom units, 108 would be two-bedroom units, and 46 would be three-bedroom units. Parcel A would also include 53,571 sf of common open space and 139,392 sf of hillside slope area.

The 428 on-site parking spaces would be comprised of 157 garage spaces, 49 carport spaces, and 222 uncovered spaces. Each of the 13 buildings would be allotted a certain number of garage spaces, carport spaces, and head-in spaces. Primary access to Parcel A would be provided by a new driveway located at the western end of Napa Junction Road. The new driveway would allow internal access to the proposed residences. The EVA noted above would allow access to Parcel B, should the driveway within Parcel A be compromised in any way.

Water and sewer service for the proposed project would be provided by the City. The project would be connected to an existing eight-inch water line along Napa Junction Road to the west by way of a new eight-inch water line. The eight-inch water line would be routed to a new pump station, located in the southwestern corner of Parcel A. From the pump station, water lines would be routed throughout Parcel A to connect to each residential building (see Figure 5). It should be noted that, as part of Capital Improvement Project (CIP) #W11, the project applicant would coordinate with the City to upsize the existing eight-inch water line in Napa Junction Road as part of project development.

The proposed project would include routing an eight-inch sanitary sewer line throughout the parcel to eventually connect to an existing six-inch sanitary sewer line within Napa Junction Road.

Stormwater from Parcel A would flow to 15 on-site drainage management areas (DMAs), each with their own bioretention area (see Figure 6). The bioretention areas would provide treatment of stormwater by allowing runoff to filter through layers of vegetated soil. Treated stormwater would be captured by an underdrain and routed to an underground detention facility that would be constructed within Parcel B, regardless of whether the proposed residences within Parcel B are approved.

Figure 4
Parcel A – Tentative Map

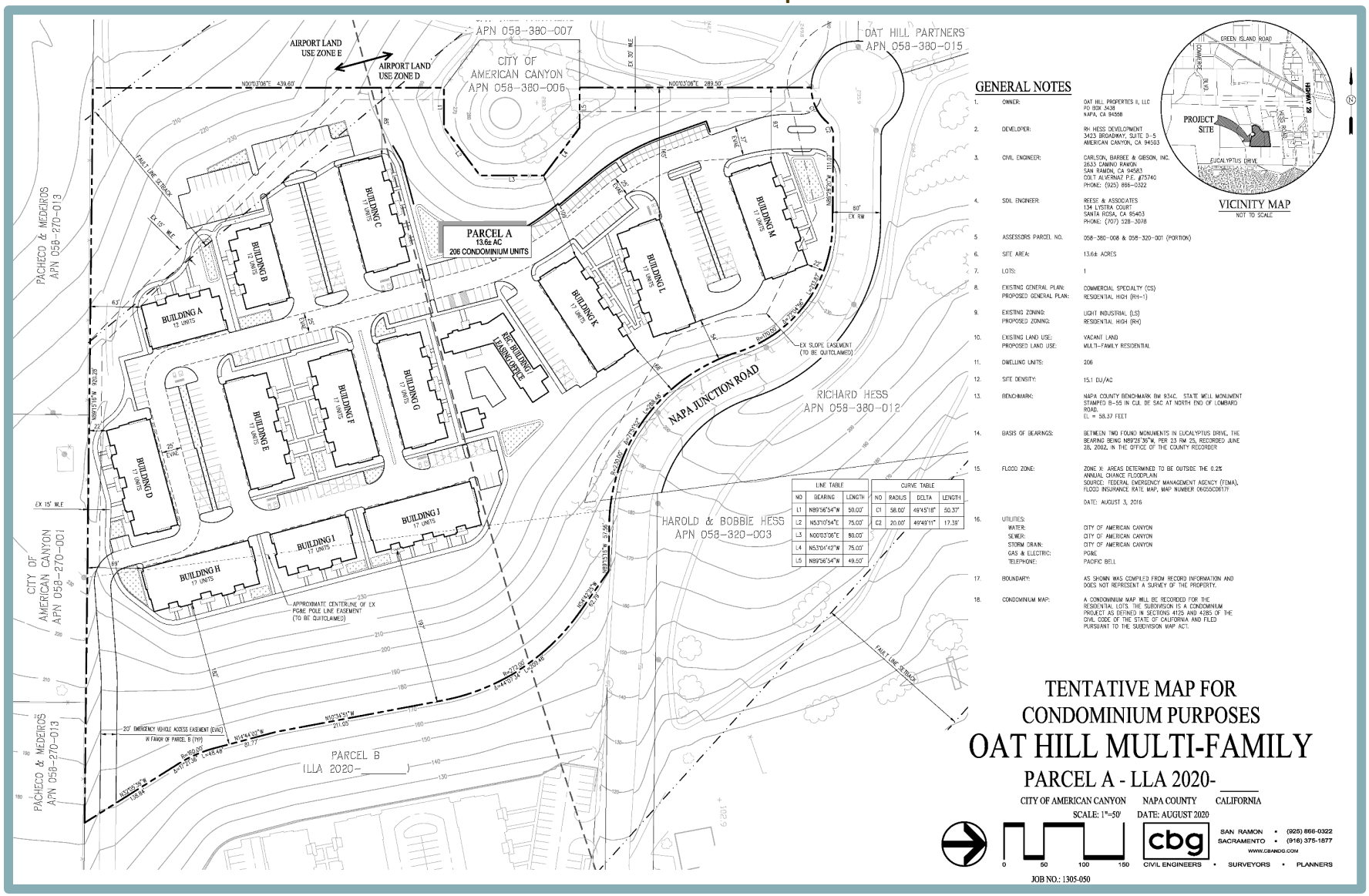


Figure 5
Parcel A – Preliminary Utility Plan

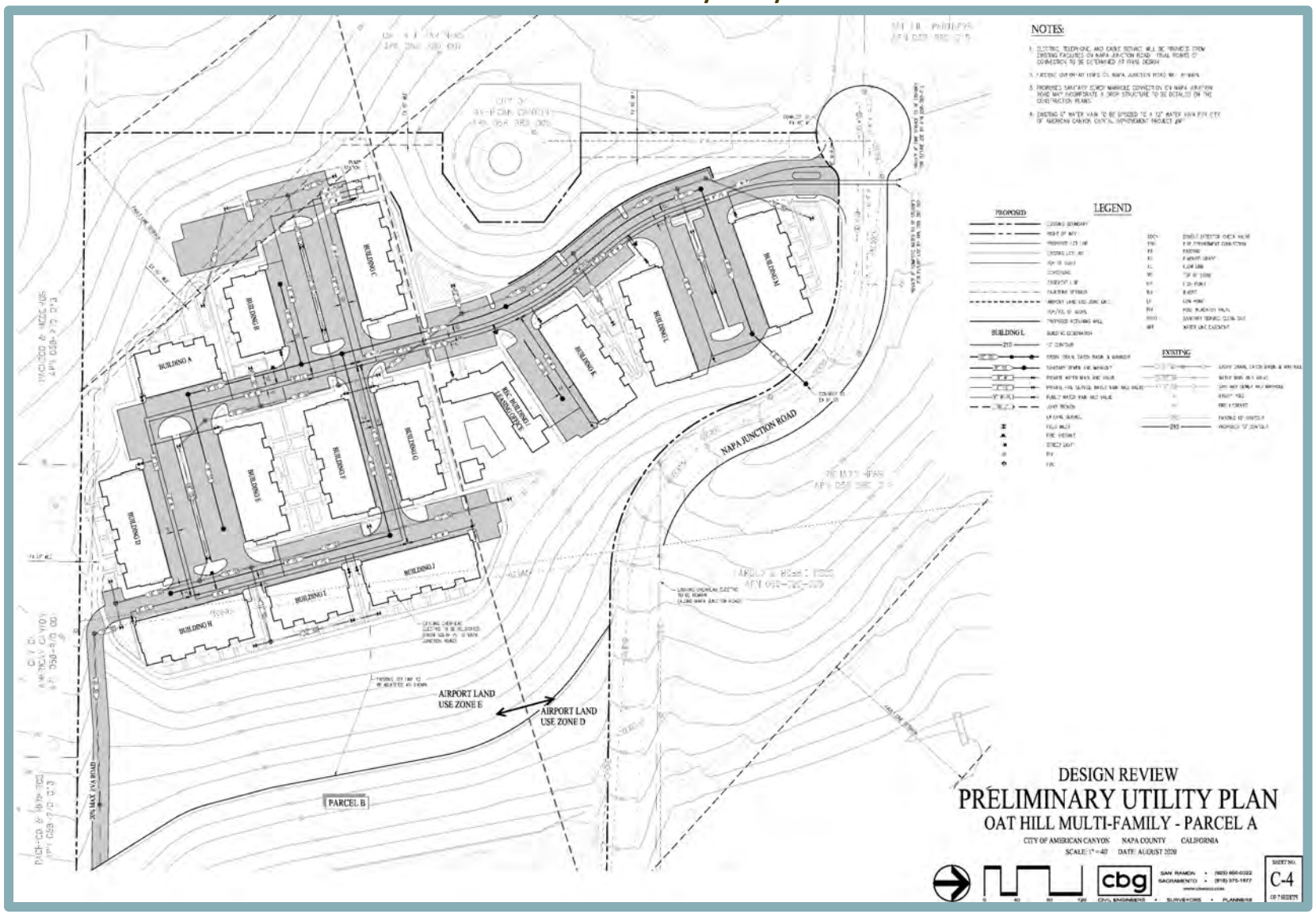
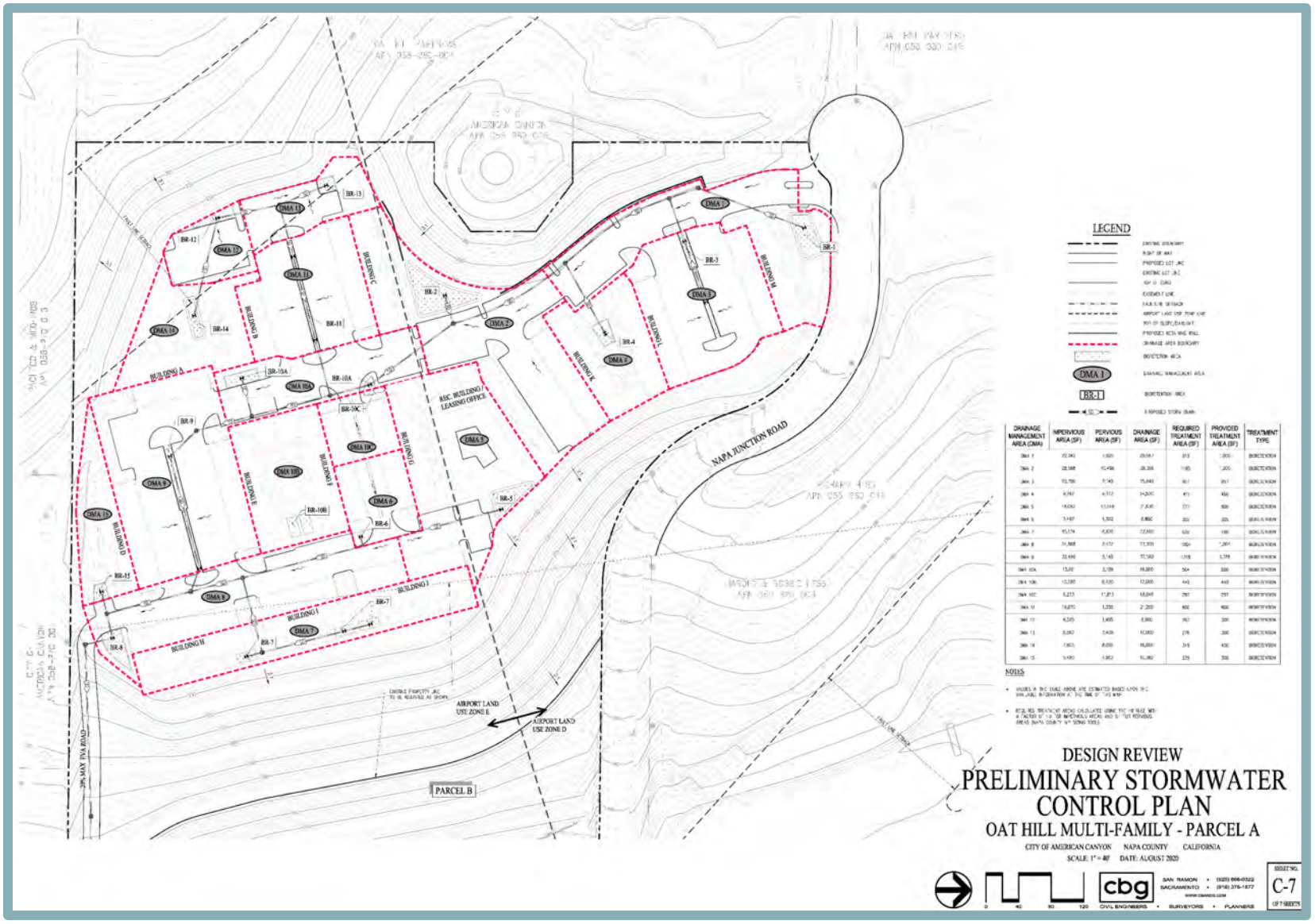


Figure 6
Parcel A – Stormwater Control Plan



Parcel B

Development within Parcel B would require approval of a General Plan Amendment, a rezone, and a Tentative Map. A discussion of the aforementioned approvals and other project components for Parcel B are described in further detail below.

Parcel B – General Plan Amendment and Rezone

The proposed project would require approval of General Plan Amendment to change the designation of Parcel B from RE to RM. In addition, the proposed project would require approval of a rezone of Parcel B from RE to RM. Development of residences within Parcel B would result in a density of 11.8 dwelling units per acre, which would be consistent with the RM General Plan land use designation and zoning designation, which permit a density of 5.0 to 12.0 dwelling units per acre for multi-family developments.

Tentative Map

Development within Parcel B would consist of 85 multi-family residential units distributed among five, three-story buildings (see Figure 7). The proposed units within Parcel B would also be designed as condominiums and would be available for individual sale. In addition, Parcel B would include a single-story recreation building, a tot lot, an outdoor lounge and viewing area, and 183 on-site parking spaces. Of the 183 on-site parking spaces, 65 would be garage spaces, 20 would be carport spaces, and 98 would be uncovered spaces. Parcel B would also include 27,647 sf of common space and 257,004 sf of hillside slope area that would be comprised of native vegetation.

Primary access to the site would be provided by a new driveway from Napa Junction Road. The new driveway would allow internal access to the proposed residences.

The project would connect to an existing water line within Napa Junction Road along the northern boundary of the site by way of a new eight-inch water line. The eight-inch water line would be routed throughout Parcel B to connect to each residential building (see Figure 8) The project applicant would coordinate with the City to upsize the existing eight-inch water line within Napa Junction Road to 12 inches as part of project development, per the City of American Canyon Capital Improvement Project #W11. The proposed project would include routing an eight-inch sanitary sewer line throughout Parcel B to eventually connect to an existing six-inch sanitary sewer line within Napa Junction Road.

Stormwater from impervious areas within Parcel B would drain to a bioretention area in the northeastern corner of the site (see Figure 9). The bioretention area would treat stormwater by allowing runoff to filter through layers of soil. Treated stormwater would be captured by an underdrain and routed to a 10-foot-wide and 470-foot-long, underground detention facility within Parcel B. From the detention facility, an 18-inch storm drain would connect to an existing 18-inch storm drain within Napa Junction Road. The detention facility would be constructed to capture all flows from both Parcel A and Parcel B during storm events and meter discharges into the City's stormwater at an acceptable level. In the event that development within Parcel A is approved and the Parcel B application is denied, the detention facility would still be required to be developed as an off-site improvement for Parcel A.

The proposed project would include the extension of Napa Junction Road to connect the project site with the residential neighborhoods and commercial uses located to the east. The extension of Napa Junction Road would require the removal of several existing eucalyptus trees adjacent to the eastern border of the project site.

Figure 7
Parcel B – Tentative Map

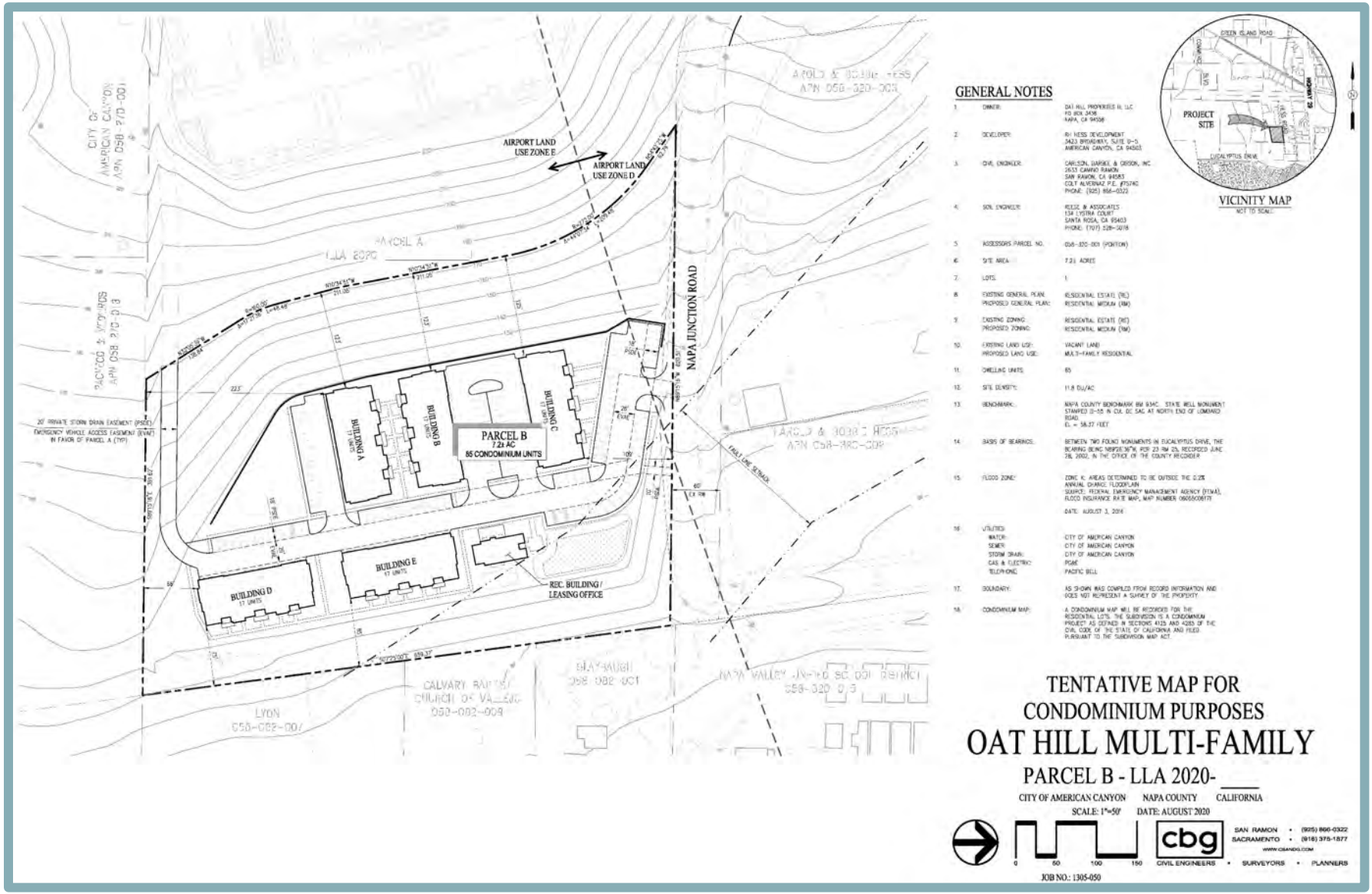


Figure 8
Parcel B – Preliminary Utility Plan

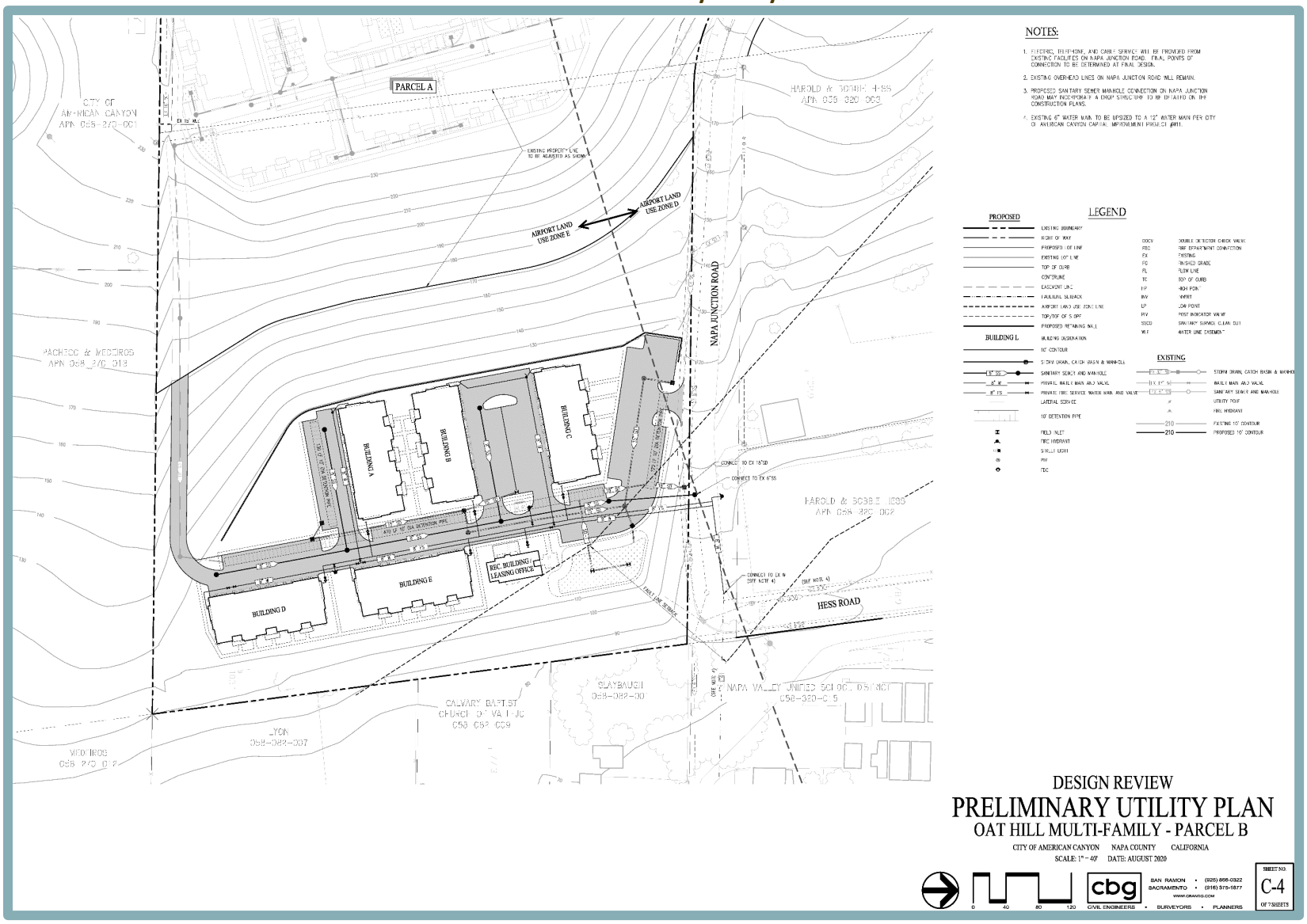
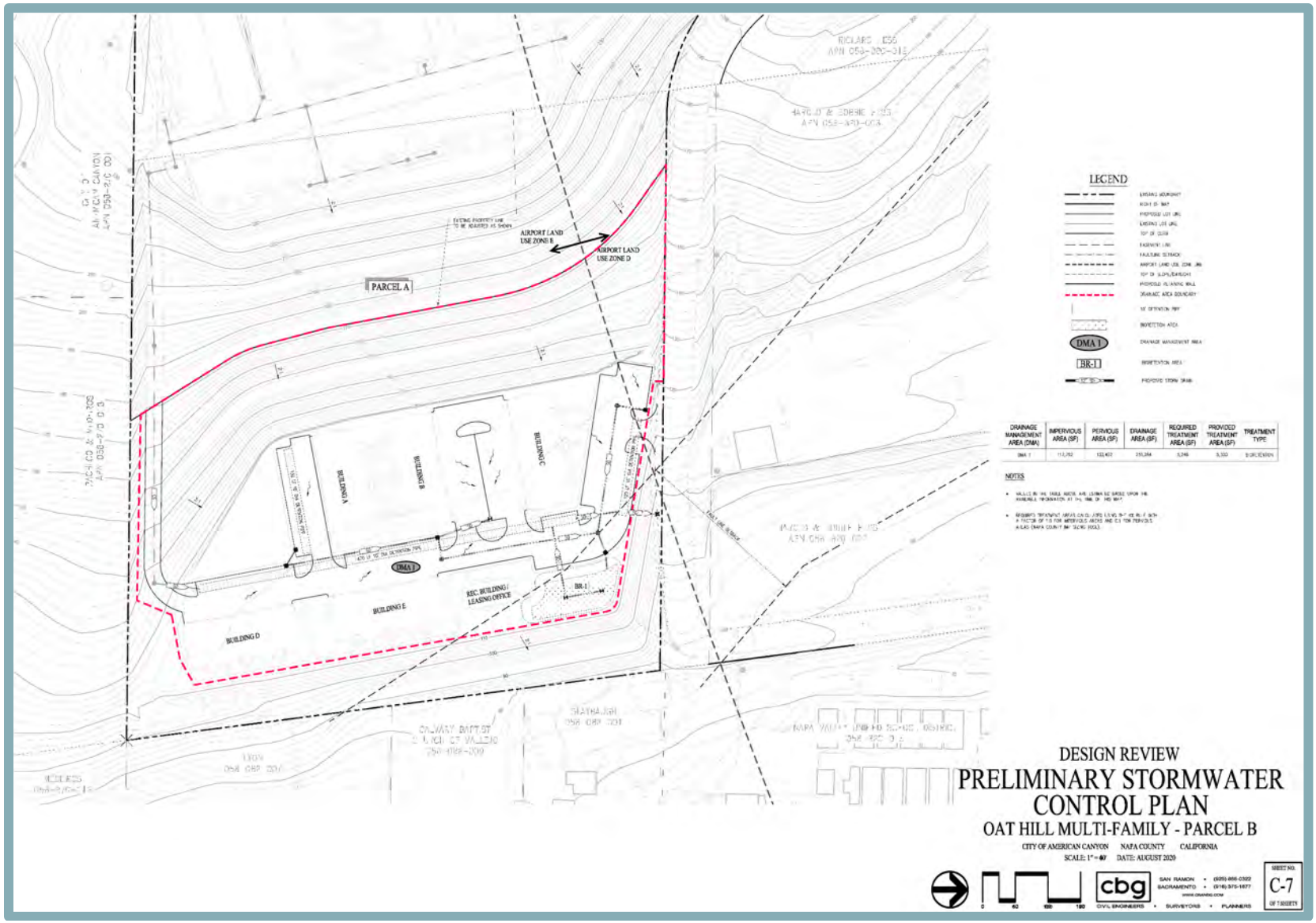


Figure 9
Parcel B – Stormwater Control Plan



Design Permit

Per Chapter 19.41 of the City's Zoning Code, the proposed project would require a Design Permit for each parcel. The purpose of the Design Permit process is to allow design review in order to establish procedures and standards to promote excellence in site planning and building design, to encourage the harmonious appearance of buildings and sites, to ensure that new and modified uses would be compatible with existing and potential development of the surrounding area, to ensure that projects comply with the design standards and intent of specific plans, and to produce an environment of stable and desirable character.

Discretionary Actions

The proposed project would require the following approvals from the City of American Canyon:

- Adoption of the Initial Study/Mitigated Negative Declaration;
- Adoption of the Mitigation Monitoring and Reporting Program;
- General Plan Amendment to redesignate Parcel A from Industrial: Commercial Specialty Overlay (I:CS) to Residential High, 12.0 to 16.0 units per acre (RH-1);
- General Plan Amendment to redesignate Parcel B from Residential Estate (RE) to Residential Medium (RM);
- Rezone of Parcel A from Light Industrial (LI) to Residential High (RH);
- Rezone of Parcel B Residential Estate (RE) to Residential Medium (RM);
- Two separate Tentative Maps for Parcel A and Parcel B; and
- Two separate design permits for Parcel A and Parcel B.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✖	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	✖	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	✖	☐	☐

Discussion

a,c. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. A scenic vista includes any such areas designated by a federal, state, or local agency. However, Oat Hill, on which the project is located, is considered a local scenic resource as the hill represents the highest and most visible hill feature on the west side of American Canyon. In addition, given that the project site is currently undeveloped, the visual character of the site would be changed from the existing character with implementation of the project.

Photo simulations were prepared for the project site in order to capture views from SR 29, nearby residences, and nearby church, as well as to provide illustrations of the potential views from the locations after implementation of the proposed project. The existing views of the project site are shown in Figure 10 through Figure 13. Figure 10 and Figure 11 both provide existing views of the site from the northeast and east along SR 29, respectively. Figure 12 provides existing views from the east along Theresa Avenue, while Figure 13 provides existing views form the southwest.

A discussion of the projects potential effects on scenic vistas and the potential to substantially degrade the existing visual character or quality of public views of the site is discussed in further detail below.

Parcel A

Development within Parcel A would consist of 206 multi-family residential units distributed amongst 13, three-story buildings. Parcel A is located at a relatively high elevation, within an existing flat terrace at the western edge of the project site. As such, any development within Parcel A would be visible to motorists on SR 29 and nearby residences in the northern portions of the City, which has the potential to have a significant effect on local scenic views of the site.

Figure 10
Existing View from the Northeast Along SR 29



Figure 11
Existing View from the East Along SR 29



Figure 12
Existing View from the East along Theresa Avenue



Figure 13
Existing View from the Southwest



Figure 14 through Figure 17 illustrate potential views of the proposed project following buildout. As shown in Figure 14 and Figure 15, the proposed buildings within Parcel A would be visible from the northeast and east along SR 29. In addition, as shown in Figure 16 and Figure 17, the proposed buildings would be visible from the east along Theresa Avenue and from the southwest of the site. Parcel A is currently designated in the General Plan I:CS and zoned LI. While buildout of the site was not anticipated for residential uses, development of the site for urban uses has been anticipated per the existing land use designations, and development of residential uses would not result in greater impacts as compared to development of the site with industrial uses. Should the site be built out under existing land use designations, development of Parcel A would likely be visible to the same degree as the proposed project, but the development would be industrial in nature, rather than residential.

The intent of the RH-1 designation is to "provide for development of uses that capitalize on and attract visitors due to their unique viewsheds […] topography, and other natural characteristics." Policy 1.17.3 in the Land Use Element of the General Plan specifies that "[…] development be sited and designed to emphasize the unique character of its setting and intended functions […] and convey a high level of quality in accordance with Policies 1.18.1 to 1.18.5. The aforementioned policies call for special architectural treatment, the incorporation of arcades and other recesses, articulation and differentiation of building entrances and floors, and the use of landscaping. Compliance with the foregoing goals and policies would ensure that the project meets specific City adopted standards. In addition, the City would ensure compliance through approval of a Design Permit. Approval of a Design Permit would ensure that the buildings would be designed with enhanced elevations, colors, and materials that both take advantage of the views from the hill, and complement the hillside and views of the project from below.

Therefore, once completed, the project would not be expected to have a substantial effect on the local views of or from Parcel A, as development of the project would be of high quality and attractive design that compliments the hillsides in accordance with City goals.

Parcel B

Development within Parcel B would consist of 85 multi-family residential units distributed amongst five, three-story buildings. Parcel B consists of approximately 9.5 acres and is located on the lower slope within the eastern portion of the site. As shown in Figure 14 and Figure 15, the proposed buildings within Parcel B would be visible from the northeast and east along SR 29. In addition, as shown in Figure 16, the proposed buildings would be visible from the east along Theresa Avenue. However, as shown in Figure 17, because the parcel is located on the lower slope within the eastern portion of the site, development within Parcel B would not be visible from the southwest.

Parcel B is currently anticipated for urban development and is located near existing areas of development to the east and north. Parcel B is currently designated in the General Plan RE and zoned RE. While the project would require a General Plan Amendment to change the site from RE to RM, development of the site with residential uses has been anticipated. Development of the site under existing land use designations would likely be visible from similar areas as the proposed project. Furthermore, Policy 1.17.3 in the Land Use Element of the General Plan specifies that "[…] development be sited and designed to emphasize the unique character of its setting and intended functions […] and convey a high level of quality in accordance with Policies 1.18.1 to 1.18.5.

Figure 14
Proposed View from the Northeast Along SR 29



Figure 15
Proposed View from the East Along SR 29



Figure 16
Proposed View from the East Along Theresa Avenue



Figure 17
Proposed View from the Southwest



The aforementioned policies call for special architectural treatment, the incorporation of arcades and other recesses, articulation and differentiation of building entrances and floors, and the use of landscaping. Compliance with the foregoing goals and policies would ensure that the project meets specific City adopted standards. In addition, the City would ensure compliance through Planning Commission approval of a Design Permit. Planning Commission approval of a Design Permit would ensure that the buildings would be designed with enhanced elevations, colors, and materials that both take advantage of the views from the hill, and complement the hillside and views of the project from below.

In addition, the entire project site has been subject to high levels of disturbance from past construction, grading, and other human activities over the past 20 years. Scattered debris and other materials associated with past site disturbance are located within Parcel B. Given that the project would remove existing debris and materials currently within the site, development within Parcel B would improve the overall visual quality of the parcel.

Therefore, once completed, the project would not be expected to have a substantial effect on the local views of Parcel B, would result in similar changes to views of the site as would occur with development of the site under existing land use designation, and would not substantially degrade the existing visual character of the site, as development would be of high quality and attractive design that compliments the hillsides in accordance with City goals.

Parcel A and Parcel B

Development within both parcels would be visible to nearby residences in the City and motorists along SR 29 and Theresa Avenue, which has the potential to have a significant effect on local views of the site. The proposed structures would be subject to General Plan Policies 1.18.1 to 1.18.5, which call for special architectural treatment, the incorporation of arcades and other recesses, articulation and differentiation of building entrances and floors, and the use of landscaping. In addition, all proposed structures would be required to adhere to Design Permit and Architectural Permits, which would ensure that the buildings would be designed with enhanced elevations, colors, and materials that both take advantage of the views from the hill, and complement the hillside and views of the project from below. As the entire project site has been subject to high levels of disturbance and contains scattered debris and materials, buildout of the project site with residential buildings compliant with the aforementioned policies would enhance, rather than degrade, the existing visual character and quality of the project site and its surroundings.

Conclusion

Based on the above, development of the proposed project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of the sites and their surroundings. Thus, a ***less-than-significant*** impact would occur.

b. **Parcel A and Parcel B**

According to the California Scenic Highway Mapping System, SR 29 is listed as eligible for State Scenic Highway designation. The project site is approximately 0.22-mile northeast of SR 29. Oat Hill is considered a local scenic resource as the hill represents the highest and most visible hill feature on the west side of American Canyon. Rock outcroppings, large trees, or historic buildings do not exist on-site, and such resources would not be adversely affected by the project.

Based on the above, development of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a ***less-than-significant*** impact would occur.

d. **Parcel A and Parcel B**

The project site does not contain any structures and, thus, does not currently emit any sources of light or glare. Development of the proposed residences would add new sources of light and glare to the site, where none currently exist. As previously discussed, the project site is located near existing development including similar land uses. Light and glare associated with the proposed project would be expected to be similar to that of the surrounding area.

The American Canyon Municipal Code prohibits light from crossing property lines and requires downcasting of all exterior lighting on-site, which is intended to reduce the effects resulting from lighting and glare on adjacent properties. However, as the proposed project is located on a hillside, project lighting could spill down the hillside slopes and glare could potentially affect day or nighttime views of existing residents in the vicinity of the project and/or vehicles traveling along SR 29. Thus, the nearby residence could potentially be affected by the new sources of light and glare, including night lighting, from the proposed project. Because the proposed project would create sources of light and glare where none currently exist, which could affect nearby land uses, impacts from light and glare associated with the proposed project could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

I-1. *Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.*

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	✖	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	✖	☐

Discussion

a,e. Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. The project site is currently used for goat and sheep grazing. Per the Department of Conservation Farmland Mapping and Monitoring Program, the entire project site consists of approximately 18.6 acres designated as "Grazing Land", approximately 0.7-acre of Farmland of Local Importance and approximately 0.2-acre of "Urban and Built-Up Land".[3] Potential impacts related to the conversion/loss of farmland are discussed separately for Parcel A and Parcel B below.

Parcel A

Parcel A consists of approximately 11.3 acres designated as "Grazing Land".[4] As such, the parcel is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, as noted above, the project site is currently used for goat and sheep grazing; however, the City's General Plan designates Parcel A as I:CS and the parcel is zoned LI:CS. Considering the existing land use designation for Parcel A, the City anticipated that Parcel A would be developed for urban uses, and did not anticipate on-going agricultural activity to occur within the site. Nonetheless, due to the existing California Department of Conservation designations of the parcel, implementation of the proposed project would convert land designated as Grazing Land to non-agricultural uses. While the project would result in the loss of Grazing Land, development of Parcel A for non-agricultural uses has been previously analyzed in the American Canyon General Plan EIR. Because the conversion of Grazing Land to non-agricultural uses at Parcel A was

[3] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed August 2020.

[4] *Ibid.*

anticipated in the City's General Plan and the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, the project's impact would be less than significant.

Parcel B

Parcel B consists of approximately 7.3 acres designated as "Grazing Land", approximately 0.7-acre of Farmland of Local Importance and approximately 0.2-acre of "Urban and Built-Up Land".[5] While the site is currently used for grazing activities, Parcel B is designated and zoned RE. Furthermore, Parcel B does not include land that has been designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. However, due to the existing California Department of Conservation designations of the parcel, implementation of the proposed project would convert land designated as Farmland of Local Importance and Grazing Land to non-agricultural uses. Similar to the discussion of Parcel A above, development of Parcel B for non-agricultural uses has been previously analyzed in the American Canyon General Plan EIR. Because the conversion of Farmland of Local Importance and Grazing Land to non-agricultural uses at Parcel B was anticipated in the City's General Plan and the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, the project's impact would be less than significant.

Conclusion

Based on the above, development of both Parcel A and Parcel B with residential uses would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use. Thus, a ***less-than-significant*** impact would occur.

b. **Parcel A and Parcel B**

The project site is currently designated I:CS and RE per the City's General Plan and is currently zoned LI and RE; thus, the site is not zoned for agricultural use. Additionally, the site is not under a Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract, and ***no impact*** would occur.

C,d. **Parcel A and Parcel B**

The project area is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

[5] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed August 2020.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	✖	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	✖	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	✖	☐

Discussion

a,b. The City of American Canyon is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM10 standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment

of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would help minimize construction-related emissions.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, compliance with the 2016 California Building Standards Code (CBSC), etc. To reflect compliance with the 2019 CBSC, the model is adjusted to incorporate a Title 24 exceedance. Where project-specific information is available, such information should be applied in the model.

Given the independent nature of development on Parcel A and Parcel B, emissions from construction and operation on each parcel was first estimated separately. However, because both projects could be undertaken simultaneously, an additional emissions modeling scenario was analyzed where buildout of both Parcel A and Parcel B would occur simultaneously. This approach was selected in order to provide air quality information on each project component independently and together.

The construction emissions associated with the proposed roadway extension along Napa Junction Road have been estimated using the Sacramento Metropolitan Air Quality Management District (SMAQMD)'s Road Construction Emissions Model (RoadMod), Version 9.0.0. While the project site is not located within the jurisdiction of SMAQMD, RoadMod is an industry standard tool for evaluating construction emissions throughout the State. SMAQMD's RoadMod requires the user to input information related to the area of disturbance, the length of time a project would occur, and, for linear non-roadway projects, a list of equipment that would be used during project construction. The extension to Napa Junction Road would be constructed regardless of whether only Parcel A, only Parcel B, or both parcels were developed. Therefore, the estimated emissions were added to each of the construction scenarios discussed in further depth below.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well. All CalEEMod and RoadMod results are included as Appendix A to this IS/MND.

Parcel A

The modeling for the proposed project on Parcel A assumed the following project and/or site-specific information:

- Construction would begin in August 2021;
- Construction would occur over an approximately three-year period;
- Land uses would include:
    - 206 mid-rise (three-story) apartments;
    - 294 parking spaces on an outdoor parking lot; and
    - 157 parking spaces in an enclosed parking garage.
- The entire 11.3-acre parcel would be disturbed during site preparation/grading;
- Fireplaces would not be included in any of the units;
- The project site is located within 0.2-mile of the nearest transit stop; and

- On-site renewable energy systems would be used to generate 100 percent of anticipated electricity use, pursuant to the 2019 CBSC.

Estimated emissions associated with construction and operations of the proposed project on Parcel A are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod and RoadMod results, buildout of Parcel A and the roadway improvements along Napa Junction Road would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2.

Table 2
Parcel A: Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	7.88	3.66	11.54	54	**NO**
NO_X	40.54	39.94	80.48	54	**YES**
PM_{10} (exhaust)	2.05	1.75	3.8	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	1.57	3.45	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, August 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

As shown in the table, construction emissions from the proposed project on Parcel A would be below the applicable thresholds of significance for all criteria pollutants except NO_X. Because buildout of Parcel A would exceed the applicable thresholds of significance for construction NO_X emissions, project construction could result in a potentially significant air quality impact.

Operational Emissions

According to the CalEEMod results, buildout of Parcel A would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3.

Table 3
Parcel A: Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	Lbs/day	tons/yr	lbs/day	tons/yr	
ROG	9.84	1.30	54	10	**NO**
NO_X	7.77	1.29	54	10	**NO**
PM_{10} (exhaust)	3.58	0.05	82	15	**NO**
PM_{10} (fugitive)	5.93	1.01	None	None	**N/A**
$PM_{2.5}$ (exhaust)	3.57	0.05	54	10	**NO**
$PM_{2.5}$ (fugitive)	1.59	0.27	None	None	**N/A**

Source: CalEEMod, August 2020 (see Appendix A).

As shown in the table, operations of the proposed project on Parcel A would be below the applicable thresholds of significance. Thus, operations of the project on Parcel A would not be considered to conflict with air quality plans during project operations.

Parcel B

The modeling for the proposed project on Parcel B assumed the following project and/or site-specific information:

- Construction would begin in August 2021;
- Construction would occur over an approximately three-year period;
- Land uses would include:
  - 85 mid-rise (three-story) apartments;
  - 117 parking spaces on an outdoor parking lot; and
  - 65 parking spaces in an enclosed parking garage.
- The entire 9.5-acre parcel would be disturbed during site preparation/grading;
- Fireplaces would not be included in any of the units;
- The project site is located within 0.2-mile of the nearest transit stop; and
- On-site renewable energy systems would be used to generate 100 percent of anticipated electricity use, pursuant to the 2019 CBSC.

Estimated emissions associated with construction and operations of the proposed project on Parcel B are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod results, buildout of Parcel B and the roadway improvements along Napa Junction Road would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 4.

Table 4
Parcel B: Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	4.37	3.66	8.03	54	**NO**
NO_X	40.54	39.94	80.48	54	**YES**
PM_{10} (exhaust)	2.05	1.75	3.8	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	1.57	3.45	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, August 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

As shown in the table, construction emissions from the proposed project on Parcel B would be below the applicable thresholds of significance for all criteria pollutants except NO_X. Because buildout of Parcel B would exceed the applicable thresholds of significance for construction NO_X emissions, project construction could result in a potentially significant air quality impact.

Operational Emissions

According to the CalEEMod results, operations of the proposed project on Parcel B would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 5.

Table 5
Parcel B: Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	Lbs/day	tons/yr	lbs/day	tons/yr	
ROG	4.06	0.53	54	10	**NO**
NO_X	3.21	0.53	54	10	**NO**
PM_{10} (exhaust)	1.48	0.02	82	15	**NO**
PM_{10} (fugitive)	2.45	0.42	None	None	**N/A**
$PM_{2.5}$ (exhaust)	1.47	0.02	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.65	0.11	None	None	**N/A**

Source: CalEEMod, August 2020 (see Appendix A).

As shown in the table, operations of the proposed project on Parcel B would be below the applicable thresholds of significance. Thus, operations of the project on Parcel B would not be considered to conflict with air quality plans during project operations.

Parcel A and Parcel B

The modeling for the proposed project on Parcel A and Parcel B assumed the following project and/or site-specific information:

- Construction would begin in August 2021;
- Construction would occur over an approximately three-year period;
- Land uses would include:
  - 291 mid-rise (three-story) apartments;
  - 411 parking spaces on an outdoor parking lot; and
  - 222 parking spaces in an enclosed parking garage.
- The entire 20.8-acre project site would be disturbed during site preparation/grading;
- Fireplaces would not be included in any of the units;
- The project site is located within 0.2-mile of the nearest transit stop; and
- On-site renewable energy systems would be used to generate 100 percent of anticipated electricity use, pursuant to the 2019 CBSC.

In order to present the most conservative analysis, the modeling assumed that construction of both Parcel A and Parcel B would happen concurrently. Therefore, the modeling would represent the most intense construction period. Estimated emissions associated with construction and operations of the proposed project on Parcel A and B are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod results, buildout of both Parcel A and Parcel B would result in maximum unmitigated construction criteria air pollutant emissions as shown in **Error! Reference source not found.**.

Table 6
Parcel A and Parcel B: Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.34	3.66	14.00	54	**NO**
NO_X	46.45	39.94	86.39	54	**YES**
PM_{10} (exhaust)	2.05	1.75	3.80	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	1.57	3.45	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, October 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

As shown in the table, construction emissions from the proposed project would be below the applicable thresholds of significance for all criteria pollutants except NO_X. Because the proposed project would exceed the applicable thresholds of significance for construction NO_X emissions, project construction could result in a potentially significant air quality impact.

Operational Emissions

According to the CalEEMod results, operations of the proposed project on both Parcel A and Parcel B would result in maximum unmitigated operational criteria air pollutant emissions as shown in **Error! Reference source not found.**.

Table 7
Parcel A and Parcel B: Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	Lbs/day	tons/yr	lbs/day	tons/yr	
ROG	13.89	1.83	54	10	**NO**
NO_X	10.98	1.82	54	10	**NO**
PM_{10} (exhaust)	5.05	0.07	82	15	**NO**
PM_{10} (fugitive)	8.37	1.43	None	None	**N/A**
$PM_{2.5}$ (exhaust)	5.05	0.07	54	10	**NO**
$PM_{2.5}$ (fugitive)	2.24	0.38	None	None	**N/A**

Source: CalEEMod, October 2020 (see Appendix A).

As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. Thus, the proposed project would not be considered to conflict with air quality plans during project operations.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in operational emissions below the applicable thresholds of significance, operations of the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions. However, as noted above, construction of the project under all modeled scenarios would exceed the applicable thresholds of significance. As such, construction of the proposed project could result in a short-term cumulatively considerable contribution to regional air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because construction of the proposed project could result in emissions that exceed the applicable thresholds of significance, the project could conflict with or obstruct implementation of regional air quality plans.

Based on the above, operations of the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant. However, construction of the proposed project could exceed the applicable threshold of significance for NO_X and, therefore, impacts would be considered ***potentially significant***.

Mitigation Measure(s)

The most effective way to reduce construction-related NO_X emissions is by improving the engine tier/engine efficiency of construction equipment. Off-road diesel engines that are used in construction equipment fall into efficiency tiers, with the most efficient being the Tier 4 emission standards. Engine Tiers 3 through 1 are regressively less efficient. Based on modeling conducted, as shown in Table 8, Table 9, and Table 10, use of Tier 4 construction equipment for the off-site improvements alone would be sufficient to reduce the project's overall construction-related emissions of NO_X to below the applicable threshold of significance. Therefore, implementation of the following mitigation measure would reduce the construction-related emissions of NO_X to below the applicable threshold of significance, and would reduce the above potential impact to a *less-than-significant* level.

Table 8
Parcel A: Mitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	7.88	1.91	9.79	54	**NO**
NO_X	40.54	4.18	44.72	54	**NO**
PM_{10} (exhaust)	2.05	0.27	2.32	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	0.22	2.10	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, August 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

Table 9
Parcel B: Mitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	4.37	1.91	6.28	54	**NO**
NO_X	40.54	4.18	44.72	54	**NO**
PM_{10} (exhaust)	2.05	0.27	2.32	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	0.22	2.10	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, August 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

Table 10
Parcel A and Parcel B: Mitigated Construction Emissions (lbs/day)

Pollutant	Project Development Emissions[1]	Roadway Improvement Emissions[2]	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.34	1.91	12.25	54	**NO**
NO_X	46.45	4.18	50.63	54	**NO**
PM_{10} (exhaust)	2.05	0.27	2.32	82	**NO**
PM_{10} (fugitive)	18.21	6.60	24.81	None	**N/A**
$PM_{2.5}$ (exhaust)	1.88	0.22	2.10	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	1.37	11.34	None	**N/A**

[1] ***Source: CalEEMod, October 2020 (see Appendix A).***
[2] ***Source: RoadMod, October 2020 (see Appendix A).***

Parcel A, Parcel B, or Parcel and Parcel B

III-1 *Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.*

c. **Parcel A and Parcel B**

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be Napa Junction Elementary School, located approximately 300 feet to the east of the site, and the single-family residences along Theresa Avenue, located approximately 320 feet east of the site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, toxic air contaminant (TAC), and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

To provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and

- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As noted in Section XVII, Transportation, of this IS/MND, the proposed project is expected to generate an average of 105 AM peak hour trips and 128 PM peak hour trips when both Parcel A and Parcel B are built out. Considering traffic volumes at nearby intersections range between one and 541 vehicles per peak hour, the additional traffic generated by the proposed project would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour.[6] Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The nearest existing sensitive receptors to the project site are the Napa Junction Elementary School, located approximately 300 feet to the east, and the single-family residences along Theresa Avenue, located approximately 320 feet east.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, as discussed above, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would likely be limited to approximately three years. All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

[6] W-Trans. *Traffic Impact Study for the Oat Hill Multi-Family Housing Project*. August 10, 2020.

During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time. Furthermore, any one nearby sensitive receptor would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere. Thus, emissions at the project site would be substantially dispersed at the nearest sensitive receptors, and the concentration of DPM at the nearest sensitive receptors would be lower than the concentration of DPM at the source of emissions.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the distance of the nearest sensitive receptor from the project site, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time, during development of either project alone or both project simultaneously, would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), and are designed to aid the district in achieving attainment of the NAAQS and CAAQS,[7] for which the SFBAAB is in nonattainment, but the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Rather, the thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS. Considering that, following implementation of Mitigation Measure III-1, the proposed project would not result in short-term construction-related or long-term operational emissions of criteria pollutants that would exceed BAAQMD standards, the proposed project would not inhibit attainment of regional NAAQS and CAAQS.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of pollutants, including localized CO, TACs, or criteria pollutants, during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

d. **Parcel A and Parcel B**

Emissions such as those leading to odor have the potential to adversely affect people. Emissions of principal concern include emissions leading to odors, emission that have the potential to cause

[7] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections "a" through "c" above. Therefore, the following discussion focuses on emissions of odors and dust.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[8] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and hours of operation for construction equipment would be restricted to the hours of 7:00 AM and 7:00 PM on Monday through Friday per Section 8.12.080 of the American Canyon Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects are minimized or eliminated.

With respect to dust, as noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's Basic Construction Mitigation Measures. While the project may require movement of material to and from the site, all haul trucks with loose material are required to be covered, which would ensure that material from the site would not create significant amounts of dust during transport. Additionally, the Construction Mitigation Measures limit vehicle speeds within the project site and require removal of all mud or dirt tracked on to adjacent roads, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, vehicles operating within the

[8] *Ibid*.

project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	✖	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	✖	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✖	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✖	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✖	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✖

Discussion

The following discussion is based primarily on a Biological Resources Technical Report (Biological Report) prepared for the proposed project by WRA, Inc (see Appendix B).[9]

a. **Parcel A and Parcel B**

The project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. The project site is currently used for goat and sheep grazing. The entire project site has been subject to high levels of disturbance from past construction, grading, and other human activities over the past 20 years. Scattered debris and other materials associated with past site disturbance are located within Parcel B. The overall topography of the site is characterized by two generally flat terraces connected by a steep hillside, with elevations ranging from approximately 80 to 185 feet above mean sea level.

Special-status species include plants, fish, and wildlife species that may be designated as threated or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for species differ under ESA and CESA,

[9] WRA, Inc. *Biological Resources Technical Report, Oat Hill Multi-Family Development, American Canyon, Napa County, California.* July 2020.

and a species' designation under one law does not automatically provide protection under the other. In addition, California Department of Fish and Wildlife (CDFW) has developed a list of special species as "a general term that refers to all of the taxa the California Natural Diversity Database is interested in tracking, regardless of their legal or protection Status." The list includes the inventory developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and United States Fish and Wildlife Services Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the local area (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive.

Fully protected and designated rare plant species include specific plant and wildlife species that are designated in California Fish and Game Code (CFGC) as protected even if not listed under CESA or the ESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a natural conservation community plan. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act (MBTA) of 1918 and CFGC, i.e., Sections 3503, 3503.5 and 3513. Under the MBTA and CFGC laws/codes, the intentional harm or collection of adult birds, as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and bats with a high or medium-high priority are typically given special consideration under CEQA.

On June 24, 2020, WRA, Inc. visited the project site to map vegetation, aquatic communities, unvegetated land cover types, document plant and wildlife species present, and evaluate habitat on-site for the potential to support special-status species as defined by CEQA. Prior to the site visit, WRA, Inc. reviewed literature resources and performed database searches to assess the potential for sensitive biological communities and special-status species to occur within the site. In addition, WRA, Inc. conducted a search of the California Natural Diversity Database (CNDDB) for the project site quadrangle, Cutting Wharf. The intent of the database review was to identify documented occurrences of special-status species in the vicinity of the project area, to determine their locations relative to the project site, and to evaluate whether the site meets the habitat requirements of such species. Based on the results of the CNDDB search, 11 special-status plant species and 32 special-status wildlife species have been documented in the vicinity of the project site.

Based on the site visit, WRA, Inc. concluded that the habitat types present within the project site include 19.51 acres of ruderal vegetation and 1.06 acres of disturbed/developed land. Ruderal vegetation is dominated by non-native annual grassland vegetation, with scattered native and non-native shrubs. Ruderal vegetation is not considered sensitive habitat. The disturbed/developed areas within the site include a gravel/dirt access road that bisects the site, abandoned construction materials, and a remnant concrete lined ditch. The off-site area where

Napa Junction Road would be extended includes various trees and shrubs, such as large eucalyptus, smaller pines, and snags. Although the roadway extension area was not specifically surveyed by WRA, Inc., the area is partially developed with a paved road for use by Napa Junction Elementary vehicles.

Several trees exist within the project site, mostly along the lower periphery of Parcel B. Trees within the site include valley oak (Quercus lobate), almond (Prunus dulcis), and plum (prunus sp.).

The potential for special-status species to occur on the project site is discussed in further detail below.

Special-Status Plants

Special-status plants generally occur in relatively undisturbed areas within vegetation communities such as vernal pools, marshes and swamps, chenopod scrub, seasonal wetlands, riparian scrub, chaparral, alkali playa, dunes, and areas with unusual soil characteristics.

Based on the results of the CNDDB search, 11 special-status plant species have been documented in the vicinity of the project site. However, special-status plant species documented within the vicinity are unlikely to occur on the project site due to one or more of the following reasons:

- Hydrologic conditions (e.g., tidal, riverine) are not present within the site;
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) are not present within the site;
- Topographic conditions (e.g., montane setting) necessary to support special-status species are not present within the site;
- Unique pH conditions (e.g., alkali scalds, acidic bogs) are not present within the site;
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the project site;
- The project site is geographically isolated (e.g. below elevation, coastal environ) from the documented range of the special-status plant species;
- The historical landscape and/or habitat(s) of the project site were not suitable habitat prior to land/type conversion (e.g., reclaimed shoreline) to support the special-status plant species; and/or
- Land use history and contemporary management (e.g., grading, intensive grazing) renders the site unsuitable habitat.

Due to the absence of special-status plants and habitat limitations, construction activities associated with the proposed project would not result in adverse effects to special-status plant species.

Special-Status Wildlife

As noted previously, the Biological Report concluded that 32 special-status wildlife species have been documented in the vicinity of the project site. However, special-status wildlife species are not expected to occur on the project site due to a lack of suitable habitat features, including vernal pools, perennial aquatic habitat, tidal marsh areas, old growth redwood or fir forest, serpentine soils, sandy beaches or alkaline flats, specific host plants, and caves, mine shafts, or abandoned buildings.

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species documented in the project vicinity. For instance, California red-legged frog (*Rana draytonii*) is known to occur in the project vicinity. However, in the American Canyon/Napa area, records of the California red-legged frog west of SR 29 do not exist. The closest known California red-legged frog occurrence is 0.81-mile east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank adjacent to a large quarry pond. SR 29 is located between the California red-legged frog occurrence location and the project site, which constitutes an effective geographic barrier to overland California red-legged frog movements. In addition, the project site does not provide suitable habitat for the California red-legged frog. Based on such, the project site does not provide suitable habitat for the California red-legged frog.

Given the site's relative proximity to sensitive habitats on the San Francisco Bay, many species documented nearby require marine or tidal marsh habitats that are not present on or in the immediate vicinity of the site.

Considering the limited habitats available within the site, only four of the 32 special status species have potential to occur in the immediate vicinity of or in portions of the site. The four species are Swainson's hawk (*Buteo swainsoni*), burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), and northern harrier (*Circus hudsonius*). Additionally, other avian species protected by the MBTA could use the existing grassland as foraging and potential nesting habitat.

Swainson's Hawk

Swainson's hawk is a summer resident and migrant in California's Central Valley and scattered portions of the southern California interior. Areas typically used for nesting include the edge of narrow bands of riparian vegetation, isolated patches of oak woodland, lone trees, and also planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including grasslands, open woodlands, and agricultural areas. According to the Biological Report, Swainson's hawk occurrences have been documented within 2.5 miles of the project site. While the site does not support any suitable nesting trees, large eucalyptus trees directly adjacent to the project site could provide suitable nesting habitat for Swainson's hawk. The eucalyptus trees identified by WRA, Inc. as potentially suitable nesting habitat are within the area of potential disturbance for the extension of Napa Junction Road. Consequently, the potential exists that implementation of the project could involve removal of the eucalyptus trees.

Considering the above, the project could result in direct impacts to Swainson's hawk if the species inhabit the site prior to construction activities. Therefore, the proposed project could result in significant adverse effects to Swainson's hawk.

Burrowing Owl

The burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat includes annual or perennial grassland, although human-modified areas, such as agricultural lands and airports are also used. Breeding typically takes place from March to July. According to the Biological Report, several burrowing owl occurrences have been documented within 2.5 miles of the project site. In addition, burrowing owls are known to winter in the nearby

American Canyon Wetlands, approximately 0.5 mile west of the project site. Several large debris piles and a few suitable California ground squirrel burrows were observed during the June 2020 site visit. Signs of active use by burrowing owl were not observed during the site visit.

Although signs of burrowing owl activity were not identified within the site, livestock grazing within the site keeps the vegetation relatively low, which increases the suitability of the project site for the species. In addition, several debris piles and various structures may provide perching locations. Considering the existence of suitable habitat for the species within the site, and the proximity of known occurrences of the species to the project site, the potential exists for the site to be used by burrowing owls in the future. Therefore, in the absence of pre-construction surveys, direct impacts to burrowing owls may occur due to the destruction of potentially occupied burrows or burrow surrogates during grading, vegetation removal, or other construction activities. Thus, the proposed project could result in significant adverse effects to burrowing owl.

White-tailed Kite, Northern Harrier, and Common Nesting Birds

Northern harrier occurs as a resident and winter visitor in open habitats throughout most of California, including freshwater and brackish marshes, grasslands and fields, agricultural areas, and deserts. Harriers typically nest in treeless areas within patches of dense, relatively tall, vegetation, the composition of which is highly variable. Nests are often located on the ground and near water or within wetlands. Marginal nesting habitat within the ruderal vegetation is present within the project site. Nesting sites for northern harrier have been documented within three miles of the project site.

White-tailed kite is a resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. White-tailed kite has been documented recently in the vicinity of the project site. Small and medium trees and shrubs on the perimeter of the project site, as well as the eucalyptus trees within the off-site disturbance area related to extension of Napa Junction Road, could provide suitable nesting habitat for white-tailed kite.

Common song birds (passerine birds) could also nest in the small trees and shrubs on the project site. The common song birds and other migratory species are protected under the MBTA and eggs and young are protected under CFGC Sections 3503, 3503.5.

The proposed project would involve ground disturbance and vegetation removal during project construction. Therefore, the proposed project could result in significant adverse effects to white-tailed kite, northern harrier, and other nesting bird species if such species are present during project implementation.

Conclusion

Based on the above, the proposed project would not result in any impacts to special-status plant species. Although the field survey did not identify any special-status wildlife species within the project site, and the site is considered low-quality habitat, implementation of the proposed project could potentially result in adverse effects to Swainson's hawk, burrowing owl, northern harrier, white-tailed kite, and other species protected by the MBTA. Thus, the proposed project could have an adverse effect, either directly or through habitat modifications, on species

identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS, and a ***potentially significant*** impact could result.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

Swainson's Hawk

IV-1. *Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a ~~quarter~~ 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with ~~CDFW's~~ the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000 ~~CDFG 1994~~), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within ~~0.25~~ 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required.*

IV-2. *If Swainson's hawks are found to be nesting on the project site or within ~~0.25~~ 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities. ~~consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW, but at a minimum, shall be a 300 foot non-disturbance buffer around the nest site.~~*

Burrowing Owl

IV-3. *Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before*

construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. ~~*a pre-construction survey shall be performed within 14 days of construction activities. The pre-construction survey shall occur regardless of the time of year, as burrowing owls may use the project site during the non-nesting season. The survey shall be performed according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012).*~~ *A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.*

IV-4. *If* ~~*occupied burrows are encountered on site, the species shall not be disturbed during the nesting season (February 1 through August 31) until juveniles from the occupied burrows are foraging independently and capable of independent survival.*~~

~~*If occupied burrows are encountered on-site during the non-nesting season (1 September to 31 January), and owls must be moved away from the disturbance area, passive relocation techniques shall be used rather than trapping, according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012). Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are vacant. At least 1 week shall be allowed to verify that the burrows are vacant and allow the owls to acclimate to alternate burrows. Burrowing owls shall not be excluded from burrows unless a Burrowing Owl Exclusion Plan is developed and approved by the applicable local CDFW office.*~~ *burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:*

- *From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.*
- *No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.*

If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

White-tailed Kite, Northern Harrier, and Common Nesting Birds

IV-5. *IV-5. If project activities must be conducted during the nesting season (~~March~~ February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 7~~14~~ days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, ~~surrounding vicinity~~ to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.*

If active nests of ~~native~~ nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission. ~~and shall vary based on species, nest location, existing visual buffers, noise levels, and other~~

~~*factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. The exclusion zone size shall be reduced from established levels by a qualified biologist if nest monitoring findings indicate that project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.*~~

b,c. **Parcel A and Parcel B**

According to the Biological Report, the site consists of ruderal vegetation that has been subject to continual livestock grazing. Additionally, the project site includes a gravel/dirt access road that bisects the site, the site caretaker's mobile home, several piles of construction materials, and the alignment of a remnant concrete v-ditch along the northern edge of the parcel. The v-ditch was constructed in an upland portion of the site and does not appear to convey flows. The project site does not contain riparian habitat or other sensitive natural communities, including wetlands, or potentially jurisdictional waters of the State. Therefore, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or federally protected wetlands, and a ***less-than-significant*** impact would occur.

d. **Parcel A and Parcel B**

The project site is located in a relatively urbanized area and is bordered by Napa Junction Road to the north, commercial development to the east, and undeveloped land to the south and west. In addition, the site is located approximately 0.22-mile northeast of SR 29. Such development acts a barrier for wildlife species with limited crossing opportunities. Despite the existence of urban development to the north and east, the undeveloped land to the west and south of the project site are connected to large tracts of open space. As such, common wildlife species likely use the site to some degree for local movements, but the site does not provide connectivity to any significant habitat areas and is not a designated wildlife corridor. Because the site does not provide connectivity between significant habitat areas, the loss of the project site as open space would not constitute a loss of a migration corridor on a regional scale.

Migratory birds may also use the habitat within the project site opportunistically; however, higher quality habitat exists along the San Francisco Bay and Napa River corridor. The habitat within the project site offers only marginal habitat for species along the Pacific Flyway.

Based on the above, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and a ***less-than-significant*** impact would occur.

e. **Parcel A and Parcel B**

Several trees are located throughout the project site, primarily along the eastern site boundary of Parcel B, and within the roadway alignment. The trees consist of mostly valley oak, almond, plum, and eucalyptus. The project would require the removal of two valley oaks, one coast live oak, and four other non-native trees within the project site. Extension of Napa Junction Road would also likely require the removal of several trees, including large, non-native eucalyptus.

Section 18.40.110 of the City's Municipal Code requires that any trees removed be replaced on the project site. Replacement trees shall be a minimum size of twenty-four-inch box of the same

species unless specifically approved by the City Council. Given that the proposed project would comply with Section 18.40.100, the project would not conflict with any local policies or ordinances protecting biological resources.

Based on the above, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a ***less-than-significant*** impact would occur.

f. **Parcel A and Parcel B**

Adopted Habitat Conservation Plans or Natural Conservation Community Plans covering the project site do not exist. Therefore, the proposed project would not conflict with the provisions of such a plan, and ***no impact*** would occur.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	✖	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	✖	☐	☐

Discussion

a.-c. **Parcel A and Parcel B**

Historical resources are typically features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. According to the City's General Plan EIR, listed State and federal inventories of historic properties are not within the Planning Area or the American Canyon City limits.

Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. The project site is currently used for goat and sheep grazing. The entire project site has been subject to high levels of disturbance from past construction, grading, and other human activities over the past 20 years. Scattered debris and other materials associated with past site disturbance are located within Parcel B. In addition, a remnant concrete lined v-ditch was mapped on the eastern portion of the project site. However, the site does not contain any permanent structures which could be considered historical resources pursuant to Section 15064.5 of the CEQA Guidelines. As part of the proposed off-site improvements, the extension of Napa Junction Road would disturb soils, some of which have been previously disturbed due to the construction of the existing access road associated with Napa Junction Magnet Elementary School. The areas associated with the proposed extension of Napa Junction Road have not been previously analyzed for historical resources. Thus, the potential for historical resources to occur within the proposed alignment of Napa Junction Road is unknown.

A records search of the California Historic Resources Information System (CHRIS) was performed on August 11, 2020 by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the project area. According to the records search, the project site does not contain any documented archaeological resources. The State Office of Historic Preservation Built Environment Resources Directory, which includes listings of the California State Points of Historical Interest, and the National Register of Historic Places, does not list recorded buildings or structures within or adjacent to the project site. However, the NWIC also stated that the California Inventory of Historic Resources states that an 1863 General Land Office Plat is located within the project area. The Plat documents the land holdings that existed in the project area dating back to the 19th century, and could indicate that activity occurred within the project site during the historic period. Therefore, a moderate to high potential exists for unrecorded historic resources

to be located on the project site.[10] In addition, a review of the Native American Heritage Commission (NAHC) Sacred Lands File returned positive results for the potential for the project site to contain tribal cultural resources.[11] Thus, while unlikely, the potential exists for subsurface, unrecorded archaeological resources to be encountered on the project site during grading and other ground-disturbing activities associated with the proposed project.

Based on the above, the possibility exists that previously undiscovered historical or archaeological resources, including human remains, could be uncovered during ground-disturbing activities associated with construction of the proposed project. Therefore, the project could result in a ***potentially significant*** impact with respect to causing a substantial adverse change in the significance of a unique historical or archaeological resource pursuant to Section 15064.5 and/or disturbing human remains.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

V-1. *Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.*

V-2. *If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the*

[10] Northwest Information Center. *Re: Record search results for the proposed Oat Hill Multi-Family Project, southwest of the Napa Junction Road and Hess Road, American Canyon, Napa County, CA.* August 11, 2020.

[11] Native American Heritage Commission. *Oat Hill Multi-Family Project, Napa County.* August 6, 2020.

applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	✖	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	✖	☐

Discussion

a,b. **Parcel A and Parcel B**

The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11) is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2020.[12] The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- For some single-family and low-rise residential structures developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, such as developments that are subject to substantial shading, rendering the use of on-site solar

[12] California Building Standards Commission. *California Green Building Standards Code*. 2019.

photovoltaic systems infeasible, may be exempt from the foregoing requirement on a case-by-case basis.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations, including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls. For residential buildings, compliance with the 2019 standards will use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards.[13] The Building Energy Efficiency Standards require residential buildings that are three stories or less to include solar photovoltaic systems. Once solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of each project parcel would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would therefore help to improve fuel efficiency for equipment used in construction of the proposed project. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction.

The CARB prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),[14] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided

[13] California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
[14] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for heating, ventilation, and air conditioning (HVAC), interior and exterior building lighting, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. As noted above, the project would be required to include a solar photovoltaic system in accordance with the Building Energy Efficiency Standards. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential development.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CALGreen Code and the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this IS/MND, the project site is located in an urban area with access to several public transit lines. Transit would provide access to several grocery stores, restaurants, banks, and schools within close proximity to the project site. The site's access to public transit and proximity to such uses would reduce VMT and, consequently, fuel consumption associated with the proposed project.

Conclusion

Based on the above, construction and operations of the proposed residences, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	✖	☐	☐
ii. Strong seismic ground shaking?	☐	✖	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	✖	☐	☐
iv. Landslides?	☐	✖	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	✖	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	✖	☐	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	✖	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	✖	☐	☐

Discussion

ai.-ii. **Parcel A and Parcel B**

The project site has been the subject of several Soil Investigations from 2005 to August 2020. Appendix C contains the most recent Soil Investigations and addenda that present the relevant information for the proposed project. According to the Soil Investigation prepared by Reese & Associates, Giblin Associates performed a geologic hazards and preliminary geotechnical investigation for a previous iteration of the proposed project, which only included development of Parcel A in August of 2005. Based on the findings of the 2005 reports, Reese & Associates determined that two active faults are located within the project site. The main trace of the West Napa fault runs northwesterly through the eastern project area, parallel to the project site, and establishes the western boundary of the Fault Exclusion Zone. The presence of the faults indicates a potential for ground rupture.

According to the Soil Investigation, an earthquake of moderate to high magnitude generated by the above faults could cause seismic ground shaking and fault rupture at the project site. Proper engineering of the proposed buildings in compliance with the existing standards of the CBSC

would ensure that the proposed project would not be subject to substantial risks related to seismic ground shaking. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is enforced through building plan review and approval by the City. However, the potential still exists for seismic related ground rupture to occur on the project site. Therefore, a ***potentially significant*** impact could occur related to seismic surface rupture.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VII-1. *Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.*

aiii.,aiv.,

c. **Parcel A and Parcel B**

The proposed project's potential effects related to liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below.

Liquefaction and Settlement

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Additionally, loose unsaturated sandy soils have the potential to settle during strong seismic shaking. Liquefaction can often result in subsidence or settlement.

The Soil Investigation encountered a substantial accumulation of fill within Parcel B and throughout the project site. Based on the materials observed in test pits, the fills appear to be about six-feet thick and consist of medium stiff sandy clays and silts with occasional gravels. Below the existing fill deposits, and elsewhere at the ground surfaces within the project site, natural sandy clays and sandy silts were encountered. Such soil types would not likely be subject to liquefaction. In addition, the project site is not located within an area of mapped liquefaction

potential.[15] Thus, the proposed project would not be subject to substantial liquefaction risks and would not expose people or structures to potential risk of loss, injury, or death involving liquefaction and settlement.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. As part of the Soil Investigation, soil testing was conducted to identify soil characteristics within the site. According to the Soil Investigation, Test Pits 3 and 5 through 10 are comprised of exposed, well-developed, landslide planes at depths that vary from about eight to 19 feet. Based on the findings of the Soil Investigation, landslides could present a hazard at the project site.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The project site would not be exposed to liquefaction. However, the site includes sloping topography. Therefore, lateral spreading could present a hazard at the project site.

Conclusion

Although the proposed project would not be exposed to hazards related to liquefaction and settlement, the proposed project could be subject to substantial risks related to landslides and lateral spreading. Without implementation of the necessary minimization measures, the proposed project could cause substantial adverse effects related to such. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VII-2. Implement Mitigation Measure VII-1.

b. **Parcel A and Parcel B**

The proposed project would include grading of the project site prior to construction of the proposed residences. During construction activities, topsoil would be moved and graded, leading to disturbed soils. Such disturbed soils could suffer from wind and water erosion while the topsoil is exposed. Following development of the site, all exposed soils would be covered with impervious surfaces or landscaping, and, thus, long-term erosion would not occur.

The proposed project would be designed to minimize the potential for future erosion. Nonetheless, due to the potential for exposure of topsoil on the proposed project site during construction activities, implementation of the proposed project could result in substantial erosion or the loss of topsoil. Therefore, a ***potentially significant*** impact could occur.

[15] Reese & Associates. *Report: Soil Engineering Consultation, Oat Hill Residential Project Liquefaction Potential, American Canyon, California.* November 17, 2020.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VII-3. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

d. **Parcel A and Parcel B**

Expansive soils can undergo significant volume changes with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil. According to the soil investigation, a substantial accumulation of fill was encountered within Parcel B and throughout the project site. As described above, the fills appear to be about six-feet thick and consist of medium stiff sandy clays and silts with occasional gravels. Laboratory tests performed on the fill materials indicated that the soils vary in consistency and present a moderate expansion potential. Below the existing fill deposits, and elsewhere at the ground surfaces within the project site, natural sandy clays and sandy silts were encountered. The natural soils exhibit a moderate to high expansion potential with shrinkage cracks extending about one foot below the existing ground surface. Because the project site could be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VII-4. *Implement Mitigation Measure VII-1.*

e. **Parcel A and Parcel B**

The proposed project would connect to existing City sewer services. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, ***no impact*** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

f. **Parcel A and Parcel B**

The City's General Plan does not note the existence of any unique geologic features within the City. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features. In addition, the majority of the surrounding area is developed and paleontological resources have not been encountered in the vicinity. Thus, existing paleontological resources are not expected to occur on the site. Nonetheless, the potential exists for previously unknown paleontological resources could exist within the project site. Ground-disturbing activity such as grading, trenching, or excavating associated with implementation of the proposed project would have the potential to disturb or destroy such resources if present. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VII-5. Implement Mitigation Measures V-1 and V-2.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	✖	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	✖	☐	☐

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The BAAQMD developed a threshold of significance for project-level GHG emissions in 2009. The District's approach to developing the threshold was to identify a threshold level of GHG emissions for which a project would not be expected to substantially conflict with existing California legislation. At the time that the thresholds were developed, the foremost legislation regarding GHG emissions was AB 32, which established an emissions reduction goal of reducing statewide emissions to 1990 levels by 2020.[16] The GHG emissions threshold of significance recommended by BAAQMD to determine compliance with AB 32 is 1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$ per service population per year ($MTCO_2e$/SP/yr). If a project generates GHG emissions above the BAAQMD's adopted threshold level, the project is considered to generate significant GHG emissions and conflict with AB 32.

The foregoing threshold is intended for use in assessing operational GHG emissions only. Construction of a proposed project would result in GHG emissions over a short-period of time in comparison to the operational lifetime of the project. To capture the construction-related GHG

[16] Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. May 2017.

emissions due to buildout of the proposed project, such emissions are amortized over the duration of the construction period and added to the operational GHG emissions. Given that construction-related GHG emissions would not occur concurrently with operational emissions and would cease upon completion of construction activities, combining the two emissions sources represents a conservative estimate of total project GHG emissions.

Since the adoption of BAAQMD's GHG thresholds of significance, the State legislature has passed SB 32, which builds upon AB 32 and establishes a statewide GHG reduction target of 40 percent below 1990 levels by 2030. Considering the legislative progress that has occurred regarding statewide reduction goals since the adoption of BAAQMD's standards, the emissions thresholds presented above would determine whether a proposed project would be in compliance with the 2020 emissions reductions goals of AB 32, but would not necessarily demonstrate whether a project would be in compliance with SB 32. In accordance with the changing legislative environment, the BAAQMD has begun updating the CEQA Guidelines; however, updated GHG thresholds of significance have not yet been adopted. In addition, GHG emissions resulting from the proposed project have been assessed in relation to other existing statewide, regional, and Citywide plans related to climate change, including the 2017 Scoping Plan, Plan Bay Area 2040, and the City of American Canyon Climate Action Plan.

Based on the above, project-related GHG emissions have been quantitatively assessed in comparison to BAAQMD's adopted emissions thresholds for compliance with AB 32, and qualitatively assessed in comparison with the recommended mitigation measures in the 2017 Scoping Plan for compliance with SB 32. In addition, the project's consistency with the goals of the Plan Bay Area 2040 and the policies of the City's Climate Action Plan is discussed.

BAAQMD Thresholds

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project's construction GHG emissions, as well as operational emissions, have been estimated using CalEEMod and RoadMod under the same assumptions discussed in Section III, Air Quality, of this IS/MND (see Appendix A).

For this analysis, the total construction GHG emissions were amortized over the three-year construction period and included in the annual operational GHG emissions. Including the amortized construction emissions, which are a one-time release that would occur only during construction of the project, with the annual operational emissions represents a conservative analysis for the annual operational GHG emissions.

Parcel A

The emissions estimates prepared for the proposed project determined that unmitigated construction of the project on Parcel A would result in total GHG emissions of 1,848.96 $MTCO_2e$. In addition, GHG emissions associated with the extension of Napa Junction Road were estimated to be 53.64 $MTCO_2e$. When project construction and roadway extension emissions are summed and amortized over the approximately three-year construction period, construction of Parcel A would emit approximately 634.20 $MTCO_2e$/yr.

As shown in Table 11, the total unmitigated annual GHG emissions in the first year of operation of Parcel A only, 2025, including amortized construction-related emissions, were estimated to be

approximately 1,770.94 $MTCO_2e$/yr. Construction of the 206 units on Parcel A would generate approximately 717 residents and, thus, the project annual GHG emissions per capita would be 2.47 $MTCO_2e$/SP/yr, which is below the BAAQMD's 4.6 $MTCO_2e$/SP/yr threshold of significance for GHG emissions. Thus, the proposed project on Parcel A would not be considered to conflict with the emissions reduction target of AB 32.

Table 11
Parcel A: Unmitigated Annual Project GHG Emissions

	Annual GHG Emissions ($MTCO_2e$/yr)
Amortized Construction GHG Emissions	634.20
Operational GHG Emissions:	
Area	6.16
Energy	91.29
Mobile	991.53
Waste	23.83
Water	23.93
Total Annual GHG Emissions	**1,770.94**
Total Annual GHG Emissions per Capita	**2.47 $MTCO_2e$/SP/yr**
BAAQMD Threshold	**1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/SP/yr**

Note: 206 units x 3.48 residents/unit = 717 residents

Source: CalEEMod, August 2020 (see Appendix A).

Parcel B

The emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total GHG emissions of 1,315.63 $MTCO_2e$. In addition, GHG emissions associated with the extension of Napa Junction Road were estimated to be 53.64 $MTCO_2e$. When project construction and roadway extension emissions are summed and amortized over the approximately three-year construction period, construction of Parcel B would emit approximately 456.42 $MTCO_2e$/yr.

Table 12
Parcel B: Unmitigated Annual Project GHG Emissions

	Annual GHG Emissions ($MTCO_2e$/yr)
Amortized Construction GHG Emissions	456.42
Operational GHG Emissions:	
Area	2.54
Energy	37.67
Mobile	409.13
Waste	9.82
Water	9.65
Total Annual GHG Emissions	**925.23**
Total Annual GHG Emissions per Capita	**3.13 $MTCO_2e$/SP/yr**
BAAQMD Threshold	**1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/SP/yr**

Note: 85 units x 3.48 residents/unit = 296 residents

Source: CalEEMod, August 2020 (see Appendix A).

As shown in Table 12, the total unmitigated annual GHG emissions in the first year of operation of Parcel B only, including amortized construction emissions, were estimated to be approximately 925.23 $MTCO_2e$/yr, which is below the BAAQMD's 1,100 $MTCO_2e$/yr threshold of significance for GHG emissions. The 85 units on Parcel B would generate approximately 296 residents. Therefore, the project's annual GHG emissions would be 3.13 $MTCO_2e$/SP/yr, which is below the BAAQMD's 4.6 $MTCO_2e$/SP/yr threshold of significance. Thus, the proposed project on Parcel B would not be considered to conflict with the emissions reduction target of AB 32.

Parcel A and Parcel B

The emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total GHG emissions of 2,388.38 $MTCO_2e$. In addition, GHG emissions associated with the extension of Napa Junction Road were estimated to be 53.64 $MTCO_2e$. When project construction and roadway extension emissions are summed and amortized over the approximately three-year construction period, construction of both Parcel A and Parcel B would emit approximately 814.01 $MTCO_2e$/yr.

As shown in Table 13, the project's total unmitigated annual GHG emissions in the first year of project operation, including amortized construction emissions, were estimated to be approximately 2,419.01 $MTCO_2e$/yr. Construction of all 291 units on both Parcel A and Parcel B would generate approximately 1,013 residents. Based on the expected population, the project annual GHG emissions per capita would be 2.39 $MTCO_2e$/SP/yr, which is below the BAAQMD's 4.6 $MTCO_2e$/SP/yr threshold of significance for GHG emissions. Thus, the proposed project would not be considered to conflict with the emissions reduction target of AB 32.

Table 13
Parcel A and Parcel B:
Unmitigated Annual Project GHG Emissions

	Annual GHG Emissions ($MTCO_2e$/yr)
Amortized Construction GHG Emissions	814.01
Operational GHG Emissions:	
Area	8.69
Energy	128.96
Mobile	1,400.65
Waste	33.66
Water	33.04
Total Annual GHG Emissions	**2,419.01**
Total Annual GHG Emissions per Capita	**2.39 $MTCO_2e$/SP/yr**
BAAQMD Threshold	**1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/SP/yr**

Note: 291 units x 3.48 residents/unit = 1,013 residents

Source: CalEEMod, October 2020 (see Appendix A).

Consistency with 2017 Scoping Plan

In the absence of adopted GHG emissions thresholds to assess compliance with SB 32, the BAAQMD has directed jurisdictions to qualitatively assess a project's compliance with the recommended mitigation measures within the *California's 2017 Climate Change Scoping Plan*

(2017 Scoping Plan) as an alternative means of assessing a project's potential impacts related to GHG emissions.[17]

Appendix B to the CARB's 2017 Scoping Plan provides examples of potentially feasible mitigation measures that could be considered to assess a project's compliance with the State's 2030 GHG emissions reductions goals. Thus, general compliance with the Local Actions within the 2017 Scoping Plan could be considered to demonstrate the project's compliance with SB 32. The project's consistency with the applicable Local Actions within the 2017 Scoping Plan is assessed in Table 14 below.

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
Construction	
Enforce idling time restrictions for construction vehicles.	CARB's In-Use Off-Road Vehicle Regulations include restrictions that limit idling time to five minutes under most situations. Construction fleets and all equipment operated as part of on-site construction activities would be subject to CARB's idling restrictions. As such, the proposed project would be required to comply with this measure.
Require construction vehicles to operate with the highest tier engines commercially available.	In compliance with Mitigation Measure III-1, the project applicant would be required to use construction equipment that complies with the highest tier engines commercially available for off-site work associated with the extension of Napa Junction Road. As such, the proposed project would comply with this measure.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible.	The CALGreen code requires the diversion of construction and demolition waste, and the proposed project would be required to comply with the most up-to-date CALGreen Code. The project applicant has not committed to using locally-sourced building materials or materials with a high recycled content, and, thus, compliance with this portion of the suggested measure is uncertain at this time.
Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance.	The project would require the removal two valley oaks, one coast live oak, and four other non-native trees. However, Section 18.40.110 of the City's Municipal Code requires that any trees removed be replaced on the project site. As such, the project would be considered to generally comply with the suggested measure.
Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators.	The contractor would use existing grid electricity to the extent feasible. However, the possibility exists that temporary generators will be used for electricity in instances where grid electricity is not accessible. Overall, the project would be considered to generally comply with the suggested measure.
Increase use of electric and renewable fuel powered construction equipment	The project applicant has not committed to the use of alternatively fueled construction equipment. Furthermore, the commercial availability of renewable diesel in the project area

[17] Flores, Areana. Environmental Planner, Bay Area Air Quality Management District. Personal communication [phone] with Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning and Management, Inc. September 17, 2019.

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
and require renewable diesel fuel where commercially available.	is currently unknown. Consequently, compliance with this suggested measure is uncertain at this time.
Require diesel equipment fleets to be lower emitting than any current emission standard.	In compliance with Mitigation Measure III-1, the project applicant would be required to use Tier 4 construction equipment for off-site work associated with the extension of Napa Junction Road. Such engines are considered lower emitting than any current emission standard. As such, the proposed project would comply with this measure.
Operations	
Comply with lead agency's standards for mitigating transportation impacts under SB 743.	As noted in Section XVII, Transportation, of this IS/MND, implementation of the project would result in a less-than-significant impact to VMT with implementation of the TDM measures. As such, the proposed project would comply with this measure.
Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.	Per the 2019 CALGreen Code, the project is required to provide the infrastructure necessary to facilitate installation of EV charging systems in six percent of total on-site parking spaces. Compliance with the 2019 CALGreen Code would ensure that the proposed project provides sufficient EV charging infrastructure to comply with this suggested measure.
Dedicate on-site parking for shared vehicles.	The project applicant has not committed to providing dedicated parking for shared vehicles. Therefore, compliance with the suggested measure is uncertain at this time.
Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects.	As required per Mitigation Measure XVII-2 the project would include the provision of short-term and long-term bicycle parking. Accordingly, the project would comply with the suggested measure.
Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.	The proposed project would provide on-site pedestrian infrastructure as well as off-site pedestrian improvements along the project frontage with a connection to the existing sidewalk on the south side of Napa Junction Road. In addition, the local roadways are considered bikeable, and American Canyon Transit provides bus service at the American Canyon City Hall bus stop, located approximately 0.2-mile from the project site. Per the American Canyon Bicycle Plan, a future Class II Bike Lane is proposed along Hess Road, which would further promote bicycle connectivity. Considering the project would provide pedestrian facility improvements and is located in close proximity to existing and planned bicycle and transit facilities, the proposed project would be generally consistent with the suggested measure.
Require on-site renewable energy generation.	The 2019 CBSC requires that residential structures that are three-stories or less in height be constructed with renewable energy systems sufficient to provide 100 percent of the electricity required for the residence. The proposed single-family residences would be subject to such requirements. Due to the CBSC's requirements regarding renewable energy systems for residential land uses, the proposed project would

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
	include on-site renewable energy generation and would comply with this measure.
Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size development.	The proposed project would not include wood-burning fireplaces. Thus, the proposed project would comply with the suggested measure.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	The 2019 CBSC contains requirements for the thermal emittance, three-year aged reflectance, and Solar Reflectance Index (SRI) of roofing materials used in new construction and re-roofing projects. Such standards, with which the project would be required to comply, would help to reduce heating and cooling costs associated with the proposed project. In addition, approximately 291 parking spaces would be located within internal garages or shaded carports, which reduces the amount of exposed pavement surfaces. Therefore, surface lot heat effects would be reduced compared to provision of all necessary parking spaces in uncovered surface lots. Therefore, the proposed project would generally comply with the suggested measure.
Require solar-ready roofs.	The 2019 CBSC requires that new residential structures under three stories generate 100 percent of electricity needs from on-site solar. Therefore, the proposed project would comply with this suggested measure.
Require organic collection in new developments.	California state legislature AB 1826 requires commercial and multi-family customers to subscribe to organics recycling. Therefore, the proposed multi-family residential buildings would be required to include organic collection, and organic composting is mandatory for all businesses and institutions with four or more cubic yards of garbage service. In addition, the City's garbage provider offers food scraps collection services for multi-family residential buildings. As such, future residents may have access to the organic collection service. Thus, the proposed project would include organic collection and the project would comply with the suggested measure.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	Landscaping within the project site would be required to comply with the CALGreen code and all water efficiency measures therein, including the MWELO, as well as all regulations set forth in Chapter 16.14, Water-Efficient Landscaping, of the City's Municipal Code. Accordingly, the proposed project is anticipated to comply with this measure.
Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code.	The project applicant has not committed to achieving Zero Net Energy. Thus, compliance with the suggested measure is uncertain at this time. However, in accordance with the CALGreen code, 100 percent of all electricity needs generated by the proposed project would be met through on-site solar systems.

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge.	The project applicant has not committed to achieving third-party green building certification. Consequently, compliance with this suggested measure is uncertain at this time.
Require the design of bike lanes to connect to the regional bicycle network.	Marked bike lanes do not exist in the project vicinity. However, nearby roadways have safe speed limits to allow for shared access for bicyclists. Per the American Canyon Bicycle Plan, a future Class II Bike Lane is proposed along Hess Road, which would further promote connectivity between the project site and the regional bicycle network. As noted in the Traffic Impact Study prepared for the proposed project, due to the steep slope of Napa Junction Road, bicycle trips to and from the site are expected to be minimal. Considering the above, the proposed project would comply with the general intent of the suggested measure.
Expand urban forestry and green infrastructure in new land development.	Landscaping improvements would be included throughout the project site. A variety of trees and shrubs would be provided along the project drive aisles and parking areas, as well as along the perimeter of the proposed units within the project site. As such, the development would expand upon urban forestry and green infrastructure, and would comply with this measure.
Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use.	The measure relates to larger-scale residential projects and commercial land uses. As a result, the measure does not apply to the proposed project. Nonetheless, as required per Mitigation Measure XVII-2 the project would include other carpool incentives.
Develop a rideshare program targeting commuters to major employment centers.	The project site would be developed with residences and therefore, would not be considered a major employment center. Consequently, the measure does not apply to the proposed project. However, the project would include transit benefits and a ride-matching program which would encourage commuters to rideshare to places of employment.
Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available.	The project applicant has not committed to providing natural gas service for outdoor cooking appliances. Accordingly, compliance with this measure is uncertain at this time.
Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment.[2]	Pursuant to California Electrical Code, Article 210.52(E), the project would be required to include at least one electrical outlet to be located in the perimeter of a balcony, desk, or porch. The project applicant has not committed to providing additional exterior electrical outlets to promote the use of electric landscape maintenance equipment. Consequently, the project would partially comply with the suggested measure.
Require the design of the electric outlets and/or wiring in new	The CBSC requires that new residential unit garages be designed with wiring sufficient to provide future installation of

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
residential unit garages to promote electric vehicle usage.	electric vehicle charging infrastructure. Therefore, the proposed project would be required to comply with this measure.
Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands.	The project applicant has not committed to providing electrical outlets in the private parks or landscaping areas proposed for the project site. Compliance with this measure is uncertain at this time.
Require each residential unit to be "solar ready," including installing the appropriate hardware and proper structural engineering.	The CBSC requires all residences three-stories or less in height to include renewable energy systems. The proposed residences would by three-stories or less in height, and would thereby be required to generate 100 percent of project electricity needs from on-site solar. Thus, the proposed project would comply with this measure.
Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans.	The proposed project would be required to comply with the CBSC, which includes standards related to installation of energy-efficient appliances and building features such as water heaters and ventilation systems. Thus, the project would generally comply with the suggested measure.
Require each residential and commercial building equip buildings [sic] with energy efficient AC units and heating systems with programmable thermostats/timers.	The proposed project would be required to comply with the CBSC, which includes standards related to energy-efficient heating and cooling systems. Thus, the project would generally comply with the suggested measure.
Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use.	The project applicant has not committed to reporting energy use or setting specific energy use targets. Accordingly, compliance with this suggested measure is uncertain at this time.
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3).	The proposed project would be required to comply with the residential water efficiency regulations within CALGreen. Thus, the proposed project would comply with this suggested measure.
Require the use of energy-efficient lighting for all street, parking, and area lighting.	All proposed exterior lighting would be LED type, consistent with the 2019 Building Energy Efficiency Standards. Thus, the proposed project would comply with the suggested measure.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch.	The preliminary landscaping plans include tree planting throughout the proposed parking areas. In addition, pursuant to Section 16.14.100, Landscaping Design Plan, of the Municipal Code, a minimum three-inch layer of mulch would be applied on all exposed soil surfaces. Thus, the proposed project would comply with the suggested measure.
Incorporate water retention in the design of parking lots and landscaping, including using compost/mulch.	As noted above, the proposed project would include the use of mulch on all exposed soil surfaces in landscaped areas to aid in water retention. In addition, several bioretention basins are proposed on-site to treat runoff from each drainage management area. As such, water retention is incorporated

Table 14
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
	into the overall project design, and the proposed project would comply with the suggested measure.
Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district. The project may alternatively purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district.	The suggested mitigation measures included in the 2017 Scoping Plan are not considered to be requirements for local projects under CEQA, but instead represent options for projects to demonstrate compliance with the 2017 Scoping Plan. The inclusion of GHG off-set mitigation projects or the purchase of carbon credits is typically dependent on a project's exceedance of the previously identified quantitative GHG thresholds. However, neither BAAQMD nor the City's EECAP have identified quantitative thresholds that could be used to determine that the project's anticipated emissions would be such that an off-site mitigation project or purchase of GHG reduction credits would be required in order to comply with SB 32. Considering that the project has been shown to be generally consistent with the foregoing measures, the City, in its discretion as lead agency, has chosen not to require the project to implement an off-site mitigation project or purchase GHG reduction credits.

Source: California Air Resources Board. AB 32 Scoping Plan [Appendix B]. Accessible at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed March 2020.

As shown in Table 14, the proposed project would comply with the majority of the suggested measures and, thus, the proposed project would be considered generally consistent with the 2017 Scoping Plan. Because the 2017 Scoping Plan is the CARB's strategy for meeting the State's 2030 emissions goals established by SB 32, the project would be considered to comply with the goals of SB 32.

Consistency with Plan Bay Area 2040

The San Francisco Bay Area's Plan Bay Area 2040 has been prepared jointly by the San Francisco Bay Area Metropolitan Transportation Commission (MTC) and the ABAG. Plan Bay Area 2040 is a regional plan intended to provide a strategy for the reduction of GHG emissions and air pollutants within the San Francisco Bay Area. The Plan Bay Area 2040 is a long-range plan that serves as a Regional Transportation Plan and Sustainable Communities Strategy (SCS). As an SCS, the Plan Bay Area 2040 is required to comply with regional targets for reducing GHG emissions through the integration of transportation and land use planning. ABAG has not provided a specified means of identifying an individual development project's compliance with the Plan Bay Area 2040. For the purposes of this analysis, the proposed project is compared to the overall goal of the Plan Bay Area 2040, which is to reduce regional GHG emissions through the reduction of transportation-related emissions.

The proposed project would include pedestrian infrastructure on-site as well as off-site pedestrian facility improvements. The project would include construction of a new sidewalk along the project frontage which would connect to the existing pedestrian network. Considering the steepness of

Napa Junction Road, bicycle trips to and from the site are expected to be minimal. Nonetheless, the nearby roadways are considered bikeable, and the American Canyon Bike Plan identified a planned Class II Bicycle Lane adjacent to the project site, along Hess Road. The nearest public transit stop is the American Canyon City Hall bus stop, which is located approximately 0.2-mile from the project site. The proposed project's pedestrian connectively and proximity to public transit would help to reduce VMT levels.

Furthermore, compliance with Mitigation Measure XVII-2 would ensure that the project applicant implements a transportation demand management program with VMT-reducing measures including, but not limited to, the following: unbundled parking costs for residents; transit pass programs and benefits; expanded bicycle parking and maintenance tools; and availability of a ride-matching/carpooling program. Implementation of the aforementioned measures would further reduce VMT generated by future resident trips.

Because the project would not be considered to significantly contribute to an increase in regional VMT, the proposed project would be considered consistent with the Plan Bay Area 2040, and would not conflict with the regional GHG reduction targets therein.

City of American Canyon Energy Efficiency Climate Action Plan

In December of 2012, the City of American Canyon approved an Energy Efficiency Climate Action Plan (EECAP). The EECAP included emissions reduction targets for the City, as well as reduction measures, but did not specify project-level emissions thresholds. The project's consistency with the applicable reduction measures is assessed in Table 15 below. The following measures were relevant to the proposed project. Other measures included in the EECAP that were specific to existing buildings, non-residential developments, or municipal operations were not included in the table.

Table 15
Project Consistency with the EECAP

Suggested Measure	Consistency Discussion
Measure C-8: Require Energy Efficiency Beyond State Code for New Residential Construction. Through 2013, provide a streamlined permit process for new residential construction projects that incorporate energy efficiency improvements over Title 24, include all items on a voluntary energy efficiency checklist, or include renewable energy improvements. Starting in 2014 or 2017, require that all new residential construction achieve Tier 1 of Title 24 standards (15 percent more stringent than the mandatory standards.)	While the project would comply with all mandatory requirements set forth in the 2019 CBSC, the project applicant has not yet committed to achieving Tier 1 of the Title 24 standards. With implementation of Mitigation Measure VIII-1, the project would comply with this measure.
Measure C-11: Solar Ready Roofs for New Construction. For new construction: Require solar ready roofs that are pre-wired and ready for	The 2019 CBSC requires all residences three-stories or less in height to include renewable energy systems. The proposed residences would by three-stories or less in height, and would thereby be required to generate 100 percent of all electricity

Table 15
Project Consistency with the EECAP

Suggested Measure	Consistency Discussion
the installation of solar photovoltaic panels and solar water heating systems.	use from on-site solar. Thus, the proposed project would comply with this measure.
Measure C-13: Community Water Reduction. Reduce community water use through building and landscape design and improvements.	Both indoor and outdoor water use would be limited through compliance with Division 4.3, Water Efficiency and Conservation, of the 2019 CALGreen Code. As noted therein, landscaping and landscape irrigation systems within the project site would be required to comply with the MWELO, as well as all regulations set forth in Chapter 16.14, Water-Efficient Landscaping, of the City's Municipal Code. As such, the proposed project would comply with this measure.

Source: City of American Canyon. Energy Efficiency Climate Action Plan. December 2012.

As shown in the table, the proposed project would generally be consistent with the applicable reduction measures, with the exception of Measure C-8.

Conclusion

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. In addition, the project would not be considered to conflict with the 2017 Scoping Plan or the Plan Bay Area, which are used for analysis of SB 32. However, the project has the potential to conflict with the American Canyon EECAP. As such, the project may conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

VIII-1 *Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:*

- *Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.*
- *Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.*
- *One of the following options is required:*
  - *A4.203.1.2.1 – Roof deck insulation or ducts in conditioned space.*
  - *A4.203.1.2.2 – High performance walls.*

- *A4.203.1.2.3 – HERS-verified compact hot water distribution system.*
- *A4.203.1.2.4 – HERS-verified drain water heat recovery.*

- *Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.*
- *Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.*

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	✖	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	✖	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✖
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	✖	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	✖	☐

Discussion

a. **Parcel A and Parcel B**

Residential uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The use of chemicals required for construction activities would be required to comply with all relevant California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Additionally, on-site operational maintenance may involve the use common household cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the small amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. **Existing Conditions**

The following discussion provides an analysis of potential hazards related to existing conditions within Parcel A and Parcel B.

Parcel A

A Phase I ESA was prepared by AEI Consultants for the purpose of identifying potential recognized environmental conditions (RECs) associated with Parcel A (see Appendix D).[18] As discussed previously, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. According to the Phase I ESA, Parcel A has been subject to past agricultural activities, particularly the farming of hay for some portion of the time between 1937 and 1948. Although some farming activities in the past relied on the use of organochlorine pesticides (OCPs), which can lead to residual soil contamination, AEI Consultants concluded that the timing of farming within the project site and the type of crop farmed, hay, indicate that OCPs or other agricultural chemicals were not likely used. Thus, previous farming within the site is not expected to represent a significant environmental concern.

In addition, various debris exist within Parcel A, which include concrete, wood, metal, and empty water drums/containers for goats. According to the Phase I ESA the items are all non-hazardous and the presence of the items does not present a significant environmental concern. The Phase I ESA also identified electrical or mechanical equipment that is likely to contain fluids on the adjoining sites during the site reconnaissance. Toxic polychlorinated biphenyls (PCBs) were commonly used historically in electrical equipment, such as transformers, fluorescent lamp ballasts, and capacitors. The management of PCB-containing transformers is the responsibility of the local utility or transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing. However, spills, staining, or leaks were not observed on or around the transformers and the equipment appears to be in good condition. Given that the equipment is in good condition and is located within adjoining properties and not within Parcel A, the transformers and other equipment would not present a significant environmental concern.

Parcel B

A separate Phase I ESA was prepared for Parcel B by AEI Consultants for the purposes of identifying RECs within the parcel (see Appendix E).[19] Similar to Parcel A, Parcel B has been subject to past agricultural activities. However, as discussed above for hay farming within Parcel A, the farming of hay in Parcel B was not considered to create a significant environmental concern.

In addition, the Phase I ESA also identified electrical or mechanical equipment that is likely to contain fluids on an adjoining site during the site reconnaissance. However, spills, staining, or leaks were not observed on or around the transformers and the equipment appears to be in good condition. Given that the equipment is in good condition and is located within an adjoining site and not within Parcel B, the transformers and other equipment would not present a significant environmental concern.

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[18] AEI Consultants. *Phase I Environmental Site Assessment, Property Information: Napa Junction Road at Oat Hill, Assessor's Parcel Number 058-380-008, American Canyon, Napa County, California 94503*. August 11, 2020.

[19] AEI Consultants. *Phase I Environmental Site Assessment, Property Information: Napa Junction Road at Oat Hill, Assessor's Parcel Number: 058-320-001, American Canyon, Napa County, California 94503.* August 11, 2020.

Construction Activities

The following discussion provides an analysis of potential hazards related to the proposed construction activities.

Parcel A and Parcel B

Because neither site contains any recognized environmental concerns, the ground disturbing activity associated with project construction would not have the potential to release hazardous materials or result in hazardous conditions due to existing site conditions.

Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and the use of other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, construction of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Conclusion

Based on the above, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment and a ***less-than-significant*** impact would occur.

c. **Parcel A and Parcel B**

The nearest school relative to the project site is Napa Junction Elementary School, which is located approximately 700 feet northeast of Parcel A and approximately 300 feet northeast of Parcel B. As discussed under question 'b' above, construction of the proposed project could include the use of small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment); however, the project contractor would be required to comply with all State and local City ordinances regulating the use of such products. In addition, residential developments do not typically include the use of or emission of hazardous materials. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and a ***less-than-significant*** impact would occur.

d. **Parcel A and Parcel B**

According to the Phase I ESA prepared for Parcel A and the Phase ESA prepared for Parcel B, the parcels are not located on or near a site that is included a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[20] Therefore, the proposed project would have ***no impact*** with respect to being located on a hazardous materials site.

[20] Department of Toxic Substances Control. *EnviroStor.* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed February 2020.

e. **Parcel A and Parcel B**

The nearest airport to the project site is the Napa County Airport, located approximately 1.75 miles north of the project site. As shown in the Napa County ALUCP, the proposed project site is located within ALUC Zones D and E, as provided by the County of Napa. Zone E permits the development of residential units; however, Zone D restricts development to industrial or other non-residential uses.

Four areas of land use compatibility are typically assessed for any type of near-airport development: 1) regular, nearly continuous adverse noise impact on residents and occupiers of structures near the airport; 2) safety of persons and structures/property on the ground under the normal, established aircraft flight paths; 3) possible vertical penetration of proposed structures into the Federal Aviation Regulation (FAR) Part 77 "imaginary surfaces" surrounding the airport; and 4) short-term but frequent overflight annoyance to persons residing in, or occupying structures under the normal, established flight paths. As described in a report prepared by Mead & Hunt (2005), which was peer reviewed by Walter Gillfilland and Associates (2005) development within the project site would not conflict with noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. It should also be noted that the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths.

The City of American Canyon noted in their comment letter on the Terminal Area Redevelopment IS/MND that substantial evidence exists to support a reduction in Zone D.[21] The potential reduction is based on the findings of the Terminal Area Redevelopment IS/MND that the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Likewise, a noise report prepared for the proposed project by Saxelby Acoustics demonstrates that the proposed project exterior noise levels within Parcel A and Parcel B would not exceed 65 dBA L_{dn} for outdoor activity areas, nor would the interior noise levels within both parcels exceed the 45 dBA L_{dn} standards for interior transportation noise exposure levels.[22] Prior to review by the City Council, the ALUC would review project plans to ensure that the proposed project would be a compatible use in proximity to the Napa County Airport.

Because the proposed project would not be subject to excessive noise levels associated with the Napa County Airport, a ***less-than-significant*** impact would occur related to a safety hazard or excessive noise for people residing or working in the project area.

f. **Parcel A and Parcel B**

During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. In addition, the proposed project

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21 City of American Canyon. *Item9A – Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND).* September 18, 2020.

22 Saxelby Acoustics. *Environmental Noise Assessment, Oat Hill Apartments, City of American Canyon, California*. September 10, 2020.

would include the construction of a new EVA road and a new section of Napa Junction Road between the two disconnected segments east and west of Hess Road. Provision of an EVA road within the project site would ensure that multiple routes of access exist between Parcel A and B, which would improve emergency vehicle circulation within the site. The new connection of Napa Junction Road would significantly improve emergency vehicle access to the project site by providing a more direct route to the project site from SR 29 and other areas of the City. As a result, the proposed project would have a ***less-than-significant*** impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

g. **Parcel A and Parcel B**

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High or High Fire Hazard Severity Zone (FHSZ).[23] In addition, the site is located in a relatively urbanized area of the City and is located near existing development to the north and east. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a ***less-than-significant*** impact would occur.

[23] California Department of Forestry and Fire Protection. *California Fire Hazard Severity Zone Viewer*. Available at: https://egis.fire.ca.gov/FHSZ/. Accessed: August 2020.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	✖	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	✖	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	✖	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	✖	☐
iv. Impede or redirect flood flows?	☐	☐	☐	✖
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	✖
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	✖	☐

Discussion

a, ci-ciii. The following discussion provides a summary of the proposed project's potential to violate water quality standards/waste discharge requirement, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation.

Potential Water Quality Violations During Construction

The following discussion provides a summary of the proposed project's potential to violate water quality standards during construction activities.

Parcel A and Parcel B

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground with impervious surfaces,

structures, or landscaping, the potential exists for wind and water to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

Water quality degradation is regulated by the federal National Pollutant Discharge Elimination System (NPDES) Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the State Water Resources Control Board through nine Regional Water Quality Control Boards (RWQCBs). The project site is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). Projects that disturb one or more acres of soil, or disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). A Notice of Intent must be filed with the RWQCB and the General Permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared. Because the both Parcel A and Parcel B are larger than one acre, the project would be subject to the aforementioned State NPDES General Permit conditions. Preparation of an SWPPP would ensure that any adverse construction-related impacts to water quality degradation would be prevented by the inclusion of best management practices (BMPs) for erosion and pollution prevention. Per Chapter 14.28 of the American Canyon Municipal Code, erosion control BMPs may include, but are not limited to, scheduling and timing of grading activities, timely revegetation of graded areas, the use of hydroseed and hydraulic mulches, and installation of erosion control blankets. Pollution prevention practices may include designated washout areas or facilities, control of trash and recycled materials, tarping of materials stored on-site, and proper location of and maintenance of temporary sanitary facilities.

Potential Water Quality Violations During Operation

To reduce stormwater pollution in the Napa River watershed and provide a consistent approach to stormwater regulations, the City joined with other Napa County municipalities to form the Napa Countywide Stormwater Pollution Prevention Program. The Stormwater Pollution Prevention Plan incorporates the efforts of Napa County to meet the Phase II Small Municipal Separate Storm Sewer System (MS4) Program requirements. The City is covered by the State's NPDES permits, Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa and Solano Counties. Projects are required to address post-development stormwater quality using treatment measures. In addition, Per City of American Canyon standard specifications, peak discharge from project sites in the post-development condition cannot exceed 90 percent of the undeveloped peak flow for the 24-hour, 100-year event.

Following completion of project buildout, the site would be largely covered with impervious surfaces and landscaping areas, and topsoil would no longer be exposed. As such, the potential for erosion and associated impacts to water quality would be reduced. However, addition of the impervious surfaces on the site would result in the generation of urban runoff during project operations, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. A Stormwater Control Plan (SWCP) was prepared for development within each parcel and includes stormwater control measures in the form of bioretention basins that would manage runoff within the site. A discussion of the SWCPs prepared for each parcel is provided in further detail below.

Parcel A

Stormwater from Parcel A would flow to 15 on-site DMAs, each with their own bioretention area (see Figure 6). The bioretention areas in each DMA would provide treatment of stormwater by allowing runoff to filter through layers of vegetative soil. By allowing stormwater to pass through soil layers, the stormwater from the site would be treated prior to discharge, thus ensuring that the project would not degrade water quality. Treated stormwater would then be captured by an underdrain within each bioretention area and routed to an underground detention facility constructed within Parcel B. The underground detention facility would capture all flows from stormwater events and meter stormwater discharge into the City's stormwater system at an acceptable rate. The combined effect of stormwater treatment through the bioretention basins and underground detention facility would ensure stormwater runoff from Parcel A is properly treated to avoid discharge of polluted stormwater, would not exceed existing runoff conditions at the project site, and that stormwater discharges would not result in erosion or off-site siltation. Because the proposed project would not result in a significant contribution of stormwater runoff beyond the existing flows currently accommodated by the City's stormwater system, the proposed project would not create or exacerbate any existing capacity issues with the City's stormwater systems.

Parcel B

Stormwater from impervious areas within Parcel B would drain to a bioretention area in the northeastern corner of the site (see Figure 9). The bioretention area would treat stormwater by allowing runoff to filter through layers of soil, which would ensure the proposed project would not degrade stormwater quality. Treated stormwater would be captured by an underdrain and routed to a 10-foot-wide and 470-foot-long, underground detention facility within Parcel B. From the detention facility, a new 18-inch storm drain would connect to an existing 18-inch storm drain within Napa Junction Road. The detention facility would capture all flows from both Parcel A and Parcel B during storm events and meter discharges into the City's stormwater system at an acceptable level. The discharge of stormwater at acceptable levels would ensure the flow of stormwater from Parcel B would not exceed existing stormwater infrastructure capacity. Overall, the combined effect of the bioretention areas and underground detention facility would treat stormwater on-site prior to discharge, sufficiently slow the rate of stormwater discharge from the project site so as to not exceed the current amount of runoff generated at the project site, and avoid off-site erosion or siltation. Because the proposed project would not result in a significant contribution of stormwater runoff beyond the existing flows currently accommodated by the City's stormwater system, the proposed project would not create or exacerbate any existing capacity issues with the City's stormwater systems.

Conclusion

Based on the above, the development of an SWPPP designed in accordance with NPDES General Permit requirements and implementation of appropriate BMPs as noted in the City's Municipal Code would ensure the proposed project would not violate water quality standards/waste discharge requirements or alter the drainage pattern of the site resulting in erosion or siltation. Proposed utilities improvements, including bioretention areas and underground detention facilities, would ensure the proposed project will not increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation. Thus, a ***less-than-significant*** impact would occur.

b,e. **Parcel A and Parcel B**

Water would be provided to the project site via new connections to the existing water infrastructure surrounding the project site. The City does not currently use groundwater as a supply source. The City of American Canyon meets customer water demands by supplying water from the following existing sources:

- State Water Project water;
- Permit (raw) water from the City of Vallejo;
- Treated water from Vallejo;
- Treated water from the City of Napa;
- Recycled water from the City's wastewater treatment plant (WWTP); and
- Recycled water from Napa Sanitation District (NSD) that serves a portion of the City's water service area.

Other than recycled water from the City's WWTP and NSD, all of the City's raw water supplies are transported via the North Bay Aqueduct (NBA) system. Consequently, the project would not rely on groundwater as a source of water supply, and the proposed project would not contribute to depletion of groundwater supplies.

As noted above, the project's on-site drainage system would include bio-retention basins within Parcel A and Parcel B that manage runoff from all on-site impervious areas. While a portion of the runoff would be drained from the bio-retention basins into the City's existing storm drain system, the area in between Parcel A and Parcel B would remain undeveloped and would allow for continued groundwater recharge in the project area. Therefore, the proposed project would result in a ***less-than-significant*** impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

civ. **Parcel A and Parcel B**

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the project site, the project site is located within an Area of Minimal Flood Hazard (Zone X).[24] The site is not classified as a Special Flood Hazard Area or otherwise located within a 100-year or 500-year floodplain. Therefore, development of the proposed project would not impede or redirect flood flows and ***no impact*** would result.

d. **Parcel A and Parcel B**

As discussed under question 'civ' above, the project site is not located within a flood hazard zone. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to a large closed body of water. Based on the above, the proposed project would not pose a risk related to release of pollutants due to project inundation flooding, tsunami, or seiche, and ***no impact*** would occur.

[24] Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective March 21, 2017.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	✖	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✖	☐

Discussion

a. **Parcel A and Parcel B**

A project risks dividing an established community if the project introduces infrastructure, alters land use conditions in the surrounding community, or isolates an existing land use. Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. Surrounding development in the project vicinity includes industrial businesses, such as RLM Enterprises, and a recreational vehicle (RV) park to the north, an office building to the northwest, Napa Junction Magnet Elementary School to the northeast, single-family residences, a Baptist Church, and American Canyon City Hall to the east, and undeveloped land to the south and west. The proposed residences would be compatible with the existing development in the project area. The proposed project involves construction on a vacant site. Therefore, the project would not divide an established community. In fact, the proposed Napa Junction Road extension would improve connectivity between the proposed residences and surrounding uses in the project area, which include schools, parks, and commercial uses. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. **Parcel A**

According to the City's General Plan, Parcel A is designated as I:CS and zoned LI:CS. The proposed project includes a request for a General Plan Amendment from I:CS to RH-1, as well as a rezone from LI:CS to RH-1. Upon approval of both entitlements, the proposed project would develop 206 multi-family residential units on Parcel A, and the current designations would be amended to reflect the characteristics of the proposed project. Although the City has not anticipated residential uses on the project site, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would be required to pay the City's parks and recreation impact fees or donate parkland and/or improvements to the City. In addition, in compliance with the Section 18.40.100 of the City's Municipal Code, the proposed project would be required to include replacement trees for any that are removed within Parcel A. Implementation of the mitigation measures included within this IS/MND would ensure all environmental impacts of the proposed project have been reduced to a less-than-significant level.

Parcel B

According to the City's General Plan, Parcel B is designated as RE and zoned RE. The proposed project includes a request for a General Plan Amendment from RE to RM, as well as a rezone from RE to RM. Upon approval of both entitlements, the proposed project would develop 85 multi-family residential units on Parcel B. Similar to the discussion above for Parcel A, the current designations would be amended to reflect the characteristics of the proposed project. In addition, although the City has not anticipated residential uses on the project site, the proposed project

would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would be required to pay the City's parks and recreation impact fees or donate parkland and/or improvements to the City. Tree removal associated with the extension of Napa Junction Road would similarly require compliance with Section 18.40.110 of the City's Municipal Code. Therefore, implementation of the mitigation measures included within this IS/MND would ensure all environmental impacts of the proposed project have been reduced to a less-than-significant level.

Conclusion

Implementation of the mitigation measures included within this IS/MND would ensure all potential environmental impacts associated with development within Parcel A and Parcel B have been reduced to a less-than-significant level. Based on the above, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and thus, a ***less-than-significant*** impact would occur.

XII. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	✖
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	✖

Discussion

a,b. **Parcel A and Parcel B**

The City of American Canyon General Plan does not identify any regionally or locally important mineral resources within the City and much of the adjacent land to the north and east consists of existing development. Because the site is located near an existing elementary school and residential development, the site would not be suitable for mining operations. Thus, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site. The proposed project would have ***no impact*** to mineral resources.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	✖	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	✖	☐

Discussion

The following discussion is based primarily on an Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics (see Appendix F).[25] The Environmental Noise Assessment included consideration of development of both Parcel A and Parcel B.

a. The following sections present information regarding sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.
- Average, or equivalent, sound level (L_{eq}): The L_{eq} corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour).
- Day-Night Average Level (Ldn): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

[25] Saxelby Acoustics. *Environmental Noise Assessment, Oat Hill Apartments, City of American Canyon, California*. September 10, 2020.

In the vicinity of the project site, sensitive land uses include Napa Junction Magnet Elementary School to the northeast and single-family residences and a Baptist Church to the east.

Existing Noise Environment

The existing noise environment in the project area is primarily defined by traffic on SR 29. Other noise sources include airplane flyovers to and from the Napa County Airport, transportation noise from the Union Pacific Railroad line to the north of the project site and operational noise originating from a lumber processing facility to the southwest.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted two continuous noise level measurements in the vicinity of the project site. Noise measurement locations are shown in Figure 18, and a summary of the noise level measurement survey results is provided in Table 16.

Table 16
Summary of Existing Background Noise Measurement Data

Site	Date	L_{dn}	Average Measured Hourly Noise Levels (dBA)					
			Daytime (7 AM to 10 PM)			Nighttime (10 PM to 7 AM)		
			L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
LT-1	08/05/20 – 08/06/20	55	51	49	64	48	46	60
LT-2	08/05/20 – 08/06/20	55	49	47	66	48	46	61

Source: Saxelby Acoustics, 2020.

Standards of Significance

The City of American Canyon establishes an exterior noise level criterion of 65 dB L_{dn} or less within outdoor activity areas of residential land uses. Additionally, the City requires that cumulative noise exposure from exterior noise sources within noise-sensitive dwellings not exceed 45 dB L_{dn}.

The American Canyon Municipal Code establishes maximum noise limits for construction activities. Specifically, Section 8.12.080 limits construction noise at residential receptors to a maximum of 75 dBA between the hours of 7:00 AM and 7:00 PM and 60 dBA between 7:00 PM and 7:00 AM every day of the week.

Impact Analysis

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Construction Noise – Parcel A and Parcel B

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on proximity of construction activities to that point. Standard construction equipment, such as backhoes, dozers, and dump trucks would be used on-site.

Figure 18
Noise Measurement Locations

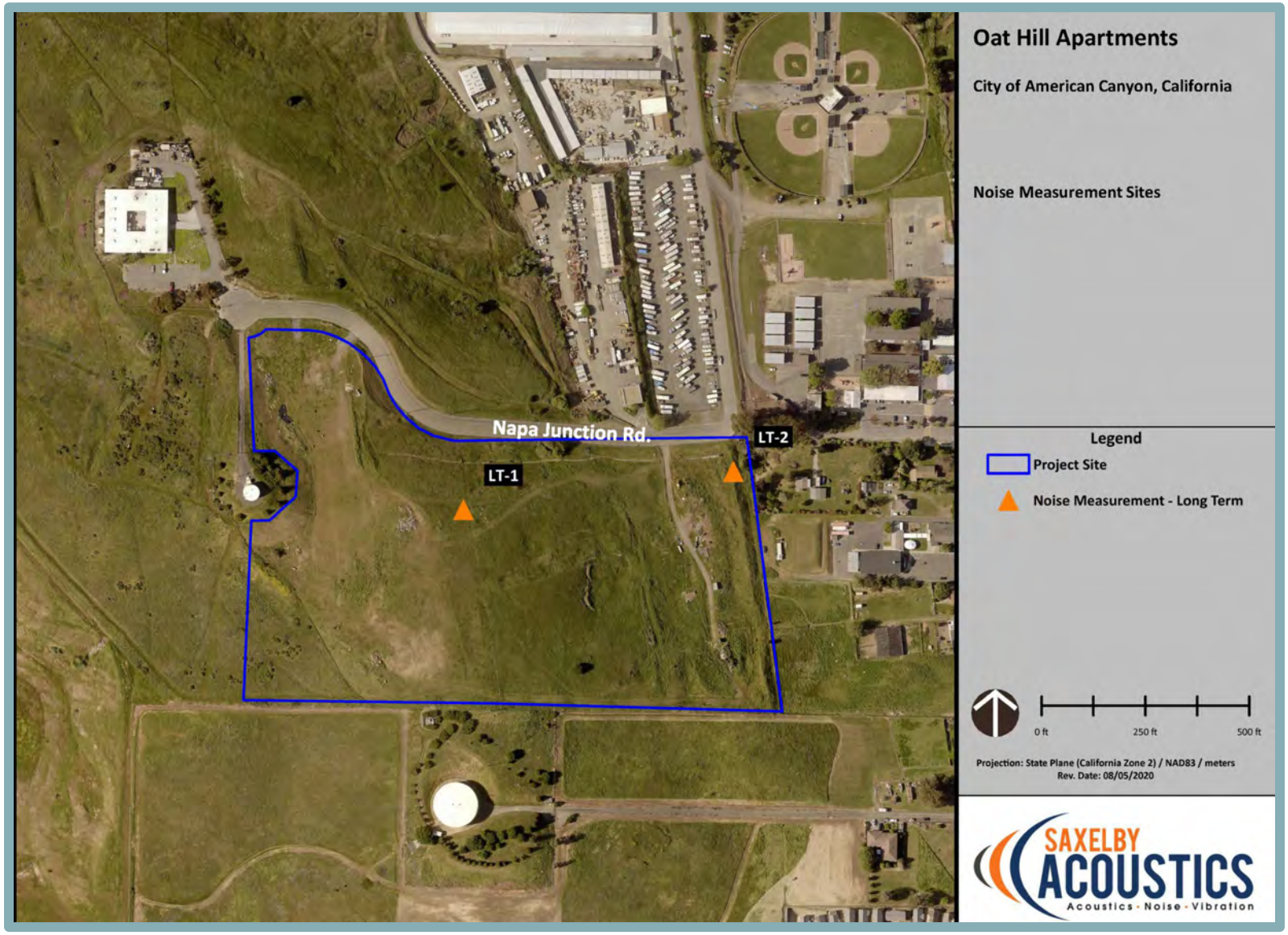


Table 17 shows predicted construction noise levels for development of the proposed project. Based on the table, typical construction activities would generate maximum noise levels up to 90 dB at a distance of 50 feet. Construction activities would be temporary and occur during normal daytime hours.

Table 17
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: ***Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.***

Noise would also be generated during the construction phase by increased truck traffic on area roadways, including truck traffic associated with heavy material and equipment transport to and from the construction site. Noise increases from truck traffic related to the material movement would be short duration, and likely occur during daytime hours.

The City of American Canyon establishes maximum noise limits for construction activities of 75 dBA between the hours of 7:00 AM and 7:00 PM and 60 dBA between 7:00 PM and 7:00 AM. The nearest residential uses are located approximately 320 feet to the east, as measured from the center of Parcel B. At 320 feet, the maximum construction noise levels would range 60 dBA to 74 dBA L_{max} in the backyards of the nearest residential uses. Construction in Parcel A is farther from the nearest sensitive receptor, and, thus, the Parcel A construction noise experienced by the nearest receptor would be less intense than the noise experienced from Parcel B development. Therefore, noise generated from on-site construction would not significantly impact noise levels in the surrounding environment.

In addition to construction activities within the on-site parcels, off-site improvements would include the Napa Junction Road extension. Construction of the Napa Junction Road extension would occur over a much shorter time and subject to the same maximum noise limits than the residential development. Although off-site improvements would take place near Napa Junction Elementary School, the school is in the process of being relocated due to concerns regarding seismicity in the project region. However, construction of the roadway extension would take place approximately 80 feet north of the nearest residential building. At 80 feet from the nearest sensitive receptor, the maximum construction noise levels associated with the roadway extension may exceed the City's 75 dBA noise limit. Therefore, mitigation would be required to ensure that roadway extension construction activities would not adversely affect noise levels in the surrounding environment.

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, on-site and off-site construction-related noise may disturb sleep at existing noise-sensitive land uses in the vicinity of the project if construction activities were to occur outside the normal daytime hours. Therefore, substantial temporary or permanent ambient noise level impacts in the vicinity of the project that exceed general plan or noise ordinance standards could be considered significant.

Project Operational Noise – Parcel A and Parcel B

The proposed project would primarily generate traffic noise on nearby roadways. Transportation related noise within the project area and at sensitive receptors is discussed in further detail below.

Traffic Noise Increases

As further discussed in Section XVII. Transportation/Traffic, of this IS/MND, the proposed project would increase vehicle trips and noise on local roadways. For the purposes of this analysis, where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a 5.0 dB L_{dn} increase in roadway noise levels would be considered significant. Table 18 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the project vicinity.

Table 18
Predicted Traffic Noise Level and Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level					
		Existing No Project	Existing Plus Project	Change	Future No Project	Future Plus Project	Change
Napa Junction Road	West of Theresa Avenue	47.3	52.2	4.9	47.8	52.4	4.6
Theresa Avenue	South of Napa Junction Road	60.2	60.5	0.3	60.7	61.0	0.3
Napa Junction Road	East of Theresa Avenue	60.6	61.1	0.5	61.1	61.6	0.4
Theresa Avenue	North of Eucalyptus Drive	62.5	62.8	0.3	63.1	63.4	0.3

Note: All noise levels are predicted at closest sensitive receptors in terms of dBA, L_{dn}.

Source: Saxelby Acoustics, 2020

As shown in Table 18, the maximum traffic noise increase would be approximately 4.9 dB along Napa Junction Road on the segment west of Theresa Avenue. Considering the proposed project would not increase traffic noise by 5.0 dB, the proposed project would not substantially increase traffic noise in the project vicinity.

Traffic Noise at New Sensitive Receptors

Recent rulings by the California Supreme Court have clarified that environmental analyses prepared under CEQA are intended to analyze a project's impact on the environment, rather than the potential impact of the environment on the project. In the case of the proposed project,

potential impacts related to future traffic noise on new sensitive receptors within the project site, such as the proposed residences, would be an example of impacts of the environment on the project. Consequently, impacts of noise on future on-site receptors would not typically be considered a required topic of analysis under CEQA. Nevertheless, the City has elected to prepare an analysis of potential noise-related impacts on future residences within the project site to ensure that the proposed project complies with all City regulations intended to protect the health and welfare of the citizens of American Canyon.

As shown in Figure 19, the proposed project would be exposed to transportation noise levels of up to 56 dB at the outdoor activity area within Parcel B and 50 dB at the outdoor activity area within Parcel A. Therefore, new sensitive receptors would not be exposed to noise levels above the City of American Canyon General Plan standard of 65 dB for outdoor activity areas.

The City of American Canyon General Plan requires that interior noise levels of new residential units be 45 dB or less. Standard residential construction practices typically reduce interior noise 25 dB below the exterior noise. The proposed residences would be exposed to noise levels up to 57 dB within Parcel B and 55 dB within Parcel A. Based on a 25 dB reduction, the interior noise level would be approximately 22 dB within Parcel B and 20 dB within Parcel A. Therefore, interior traffic noise levels would be considered less than significant.

Conclusion

Based on the above, operation of the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the Municipal Code. However, considering temporary construction noise levels in the project area exceed general plan or noise ordinance, or applicable standards of other agencies standards, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

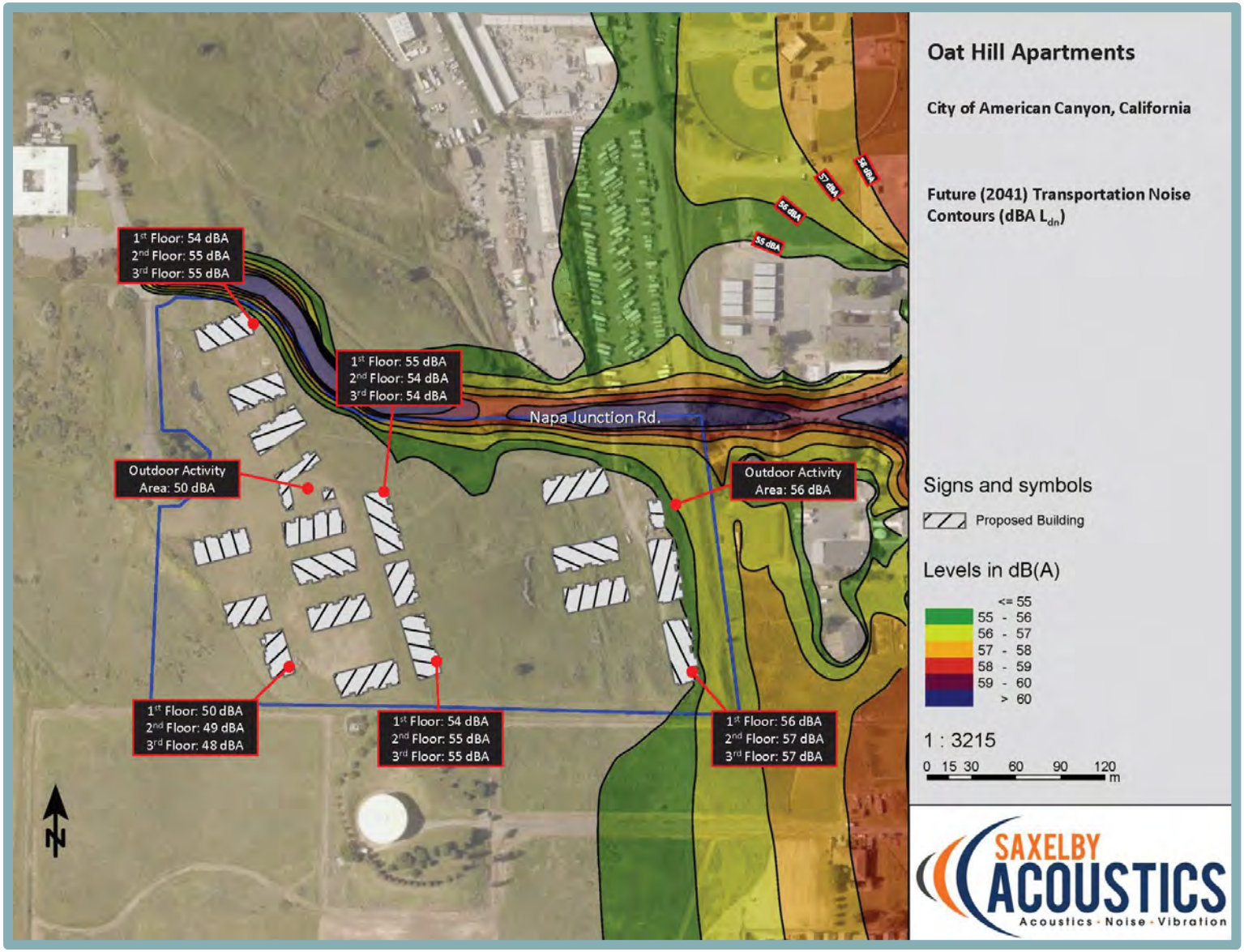
Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XIII-1. *Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:*

- *Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;*
  Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations
- *Equipment engine shrouds shall be closed during equipment operation;*
- *When not in use, motorized construction equipment shall not be left idling for more than five minutes; and*
- *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.*

Figure 19
Future Traffic Noise Contours



Construction noise BMPs shall be included in the grading plans and project improvement plans submitted by the applicant for review and approval by the Community Development Department.

b. **Parcel A and Parcel B**

Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 19, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and paving occur. Table 20 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed project. The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Vibratory compactors/rollers may be used during on-site parking areas and Napa Junction Road extension construction. However, such activity would occur more than 26 feet north and south from the nearest existing structures and the proposed roadway alignment. A 26 foot or greater separation between existing structures and the groundborne vibration source, would be less than 0.2 in/sec PPV, and, thus, would not cause physical damage to structures or annoy nearby sensitive receptors. Therefore, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and no impact would occur.

Based on the above, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels and a ***less-than-significant*** impact would occur.

Table 19
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

Table 20
Vibration Levels for Various Construction Equipment

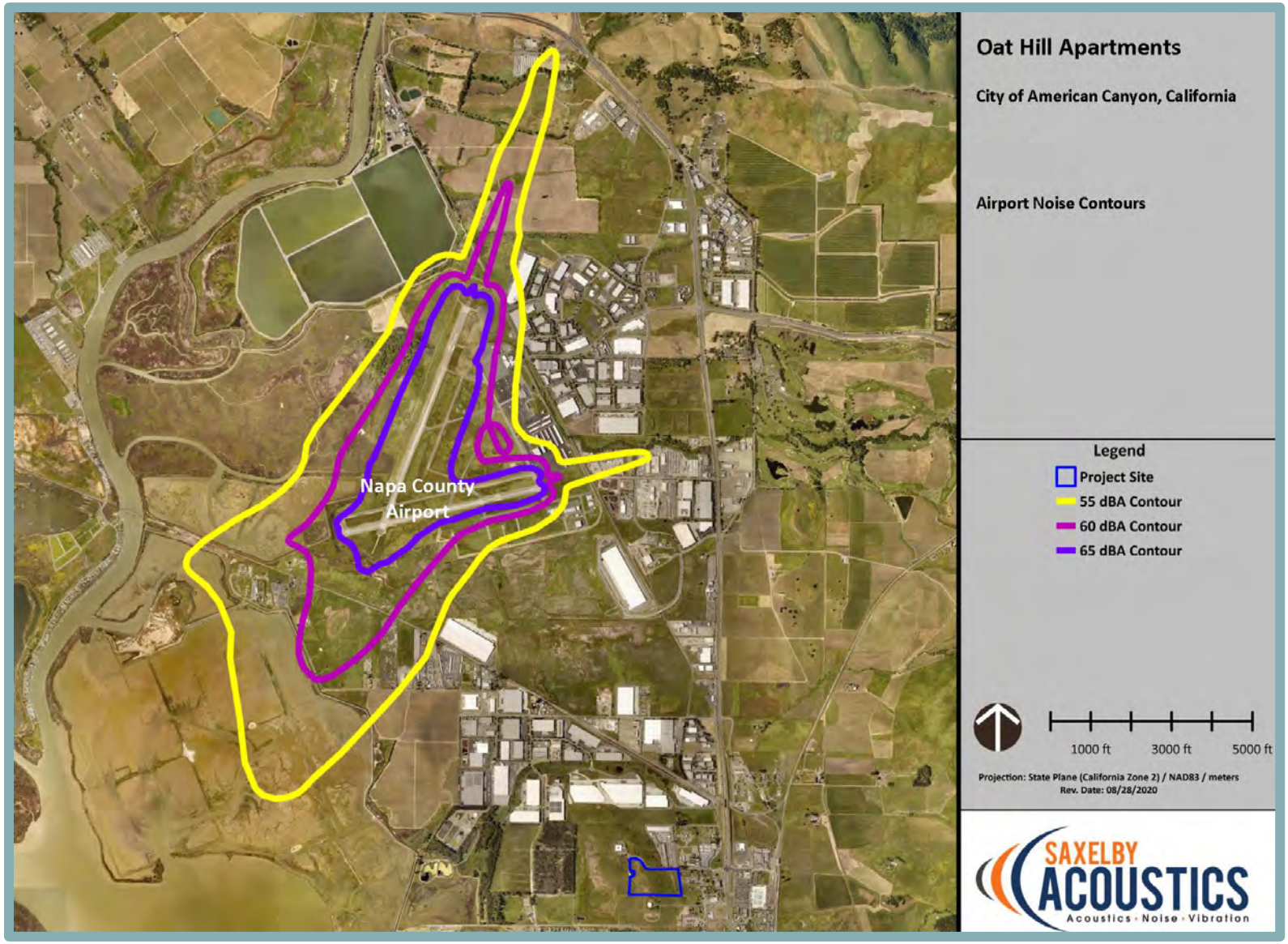
Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/Drill Rigs	0.089	0.031
Jackhammer	0.035	0.012
Vibratory Hammer	0.070	0.025
Vibratory Compactor/roller	0.210 (less than 0.20 at 26 feet)	0.074

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

c. **Parcel A and Parcel B**

The nearest airport to the site is the Napa County Airport, located approximately 1.75 miles north of the site. The site is included in the Napa County Airport Land Use Compatibility Plan. As shown in Figure 20, the project is located approximately 1.4 miles outside of the estimated 55 dB CNEL noise contour. In addition, according to Table 2-1 of the Napa County Airport Land Use Compatibility Plan, multi-family residential land uses exposed to noise levels less than 55 dB CNEL are "Clearly Acceptable." Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***less-than-significant*** impact would occur.

Figure 20
Airport Noise Contours



XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. **Parcel A and Parcel B**

The proposed project would include development of 291 multi-family residential units. Using the Department of Finance's average persons per household value for the City of American Canyon of 3.48, the proposed project's addition of 291 multi-family residential units would result in approximately 1,013 new residents.[26] The Department of Finance estimates the 2019 population of American Canyon, based on the 2010 Census, to be approximately 20,837.[27] The increase in population would constitute a 4.9 percent increase in the City's population. Population growth itself does not constitute an environmental impact; rather, increased demands on the physical environment resulting from population increases are considered environmental impacts. The physical environmental effects associated with development of the proposed project are evaluated throughout this IS/MND.

As discussed in Section XVIII, Utilities and Services Systems, of this IS/MND, adequate utility infrastructure and services exist to meet the additional demands created by the proposed project.As discussed in Section XIV, Public Services, of this IS/MND, public service providers such as local police and fire departments would be capable of accommodating the increased demands of the proposed project.

As a result, the project would have a ***less-than-significant*** impact with respect to substantial unplanned population growth in an area, either directly or indirectly.

b. **Parcel A and Parcel B**

The project site is vacant except for one mobile home occupied by the site's caretaker. As such, the proposed project would not displace a substantial number of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, **no impact** would occur.

[26] California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2019, with 2010 Benchmark*. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed August 2020.

[27] *Ibid.*

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

Discussion

a. Parcel A and Parcel B

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services to the project site. ACFPD has one fire station at 911 East Donaldson Way located approximately 1.9 miles southeast of the project site. Ambulance services are provided at 225 James Road, approximately two miles away from the project site. In 2015 the ACFPD received reports of 81 incidents in the City of American Canyon Industrial Area. Of the incidents that the ACFPD responded to, 20 percent of the responses were five minutes or less, which conflicts with the ACFPD's goal of five minutes or faster response times for a majority of incidents. The proposed project complies with local and statewide fire safety regulations. The fire safety features included in project plans ensure the proposed project does not substantially degrade fire response times.

The proposed project would be required to comply with the 2019 California Fire Building Codes with Local Code Amendments and ordinances adopted by the ACFPD, which are intended to reduce the risk of fire hazards on-site. The proposed project would also be subject to the applicable fire service fees required by the City, including a one-time Fire Mitigation Fee of $0.3030/sf in addition to an annual Fire Service Fee. Furthermore, the Napa Junction Road extension would substantially improve emergency vehicle response times to the project site as compared to existing conditions. By providing a more direct route to the project site from SR 29 and Theresa Avenue, emergency vehicles would no longer have to loop around the little league fields to the east of the project site using Lombard Road and Hess Road.

The City requires new development to submit plans demonstrating the project provides "defensible space." Defensible space is considered to provide the greatest level of protection against wildfire spread by reducing combustible fuels (i.e.: vegetation, debris) around buildings. Given that the hillside between Parcel A and Parcel B would remain as open space, the project would include a significant amount of defendable space. Furthermore, because the site has already been planned for urban uses by the City, the proposed project would not result in greater demand for fire protection as compared to what has been anticipated for the site in the City's General Plan.

Given that the proposed project would pay fire mitigation fees, comply with the conditions of approval, and improve circulation, maintaining "defensible space," is consistent with the General

Plan intent to allow the site for urban uses. The proposed project is not expected to cause significant degradation to response times or service ratios, which would induce the need for physically altered or expanded governmental facilities and the project would, therefore, result in a ***less-than-significant*** impact.

b. **Parcel A and Parcel B**

The American Canyon Police Department contracts with the Napa County Sheriff's Department for law enforcement service. Through an agreement with the California Highway Patrol, the Police Department is responsible for traffic related enforcement on SR 29 in conjunction with the Highway Patrol. The police department facility (co-located with the ACFPD facility) is located on Donaldson Way, approximately 1.10 miles from the site. With implementation of the policies in the General Plan, the project would not be expected to create an excess burden of service on existing police staff. Additionally, the proposed project would include increased lighting throughout the site and along the project site frontage. On-site and improved street lighting could deter crime in the project vicinity by increasing nighttime visibility in the area. Furthermore, the proposed project would be subject to fees for civic facilities that would support any increase in service demand created by residents at the site which may require the expansion of police stations.

The proposed project would develop a currently vacant site with new residential development, thereby increasing the current demand for services. However, the proposed project would not induce the need for physically altered or expanded governmental facilities beyond what has been anticipated in the existing General Plan EIR for the existing industrial and residential land use designations of the site. Therefore, the proposed project would result in a ***less-than-significant*** impact.

c. **Parcel A and Parcel B**

The Napa Valley Unified School District (NVUSD), which encompasses the southern portion of Napa County, provides educational services to the City of American Canyon. The proposed project would result in 291 multi-family residential units, which would increase the demand for educational services in the area. The NVUSD's generation factors and enrollment estimate for each specific grade level include: 0.4 students per household for kindergarten through 6th grade; 0.1 students per household for 6th grade through 7th grade; and 0.2 students per household for 9th grade through 12th grade. Based on the foregoing student generation factors, the proposed project would result in approximately 117 kindergarten through 6th grade students, approximately 30 6th grade and 7th grade students, and approximately 59 9th grade through 12th grade students, for a total of 206 students. NVUSD charges residential development fees of $4.08 per square foot for dwelling units. According to Government Code Section 65995 et. seq. and Education Code Section 17620 et. seq., payment of applicable development fees is sufficient to reduce impacts associated with an increase in student from the project. Furthermore, the NVUSD reports that the district's enrollment numbers have been steadily declining over the last decade, and are anticipated to continue dropping.[28] Therefore, the proposed project would result in a ***less-than-significant*** impact regarding an increase in demand for schools.

d,e. **Parcel A and Parcel B**

[28] Napa Valley Unified School District. *NVUSD Districtwide Financial Update*. Available at: http://nvusd-ca.schoolloop.com/news/view?id=1559644342111. June 4, 2019.

The City of American Canyon provides and maintains City-owned public parks and recreational opportunities within the City. These opportunities are facilitated by recreational centers, and various types of parks. The maintenance program consists of standard inspection and service of all buildings and parklands. Additionally, the City provides several community activities and events throughout the year. The programs are offered to all residents of the City and surrounding areas and include recreational classes and trips, special community events, and senior health assessment programs.

The proposed project would develop 291 multi-family residential units and would, therefore, result in the addition of residents to the City. Because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would pay the City's parks and recreation impact fees as required by Section 15.08.050 of the City's Municipal Code, or donate parkland and/or improvements to the City.

Parcel A would be developed with a community pool, loop trail, outdoor seating area, and a recreation center. Similarly, Parcel B would include development of a tot lot, outdoor lounge and viewing area, and a dedicated recreation center. However, the proposed project would not dedicate on-site parks, and, thus, would be subject to payment of the City's parks and recreation impact fee as required by Section 15.08.050 of the City's Municipal Code. Additionally, the proposed project would be subject to development fees to reduce impacts on other public facilities. Therefore, with payment of the City's parks and recreation impact fee and development fees, the project would result in a ***less-than-significant*** impact on parks and other public facilities.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	✖	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

Discussion

a,b. **Parcel A and Parcel B**

The City of American Canyon provides and maintains the parks and recreational opportunities within the City. These opportunities are facilitated by recreational centers, and various types of parks. The maintenance program consists of standard inspection and service of all buildings and parklands. Additionally, the City provides several community activities and events throughout the year. The programs are offered to all residents of the City and surrounding areas and include recreational classes and trips, special community events, and senior health assessment programs.

The proposed project would develop 291 multi-family residential units and would, therefore, result in the addition of residents to the City and a potential increase in the use of the existing parks and/or the demand for new neighborhood or community parks and recreation facilities in the area. However, the proposed project would include on-site recreational amenities, including a community pool, a community loop trail, a tot lot, outdoor seating and viewing areas, and a recreational building located within each parcel. While the proposed project would increase population and subsequent demand on recreational facilities, the on-site recreational facilities included in the proposed project would help to offset an increase in demand.

In addition, the project would pay the City's parks and recreation impact fees as required by Section 15.08.050 of the City's Municipal Code or donate parkland and/or improvements to the City. The City's parks and recreation impact fee is $5,740.99 per residential unit. Therefore, the proposed project would result in a ***less-than-significant*** impact on recreation.

XVII. TRANSPORTATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	✖	☐	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	✖	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
d. Result in inadequate emergency access?	☐	☐	✖	☐

Discussion

a. **Parcel A and Parcel B**

The following discussion is based primarily on a Traffic Impact Study (TIS) prepared for the proposed project by W-Trans (see Appendix G).[29] The TIS includes a discussion of the proposed project's potential impacts on transit, bicycle, and pedestrian facilities which are discussed in further detail below. As a result of Senate Bill (SB) 743, discussed further below, local jurisdictions may not rely on vehicle Level of Service (LOS) and similar measures related to delay as the sole basis for determining the significance of transportation impacts under CEQA. However, existing LOS at the study roadway facilities is presented herein to comply with General Plan LOS policies.

Study Intersections

As part of the TIS, W-Trans evaluated transportation conditions at the following three study intersections (see Figure 21):

1. Napa Junction Road/Theresa Avenue
2. Napa Junction Road/Lombard Road (southbound approach)
3. Eucalyptus Drive/Theresa Avenue

W-Trans evaluated transportation conditions at all three existing intersections that would serve the project site. Transportation conditions were assessed during the AM (7:00 AM - 9:00 AM) and PM (4:00 PM - 6:00 PM) peak periods for a typical weekday with clear weather. The study intersections were selected in consultation with City staff based on the anticipated trip generation and travel pattern for project trips.

Study Scenarios

Conditions at each intersection were analyzed under the following scenarios:

- **Existing Conditions** – Provides an evaluation of current operations based on existing traffic volumes during the AM and PM peak periods;
- **Existing Plus Project Conditions** – Similar to Existing Conditions, but with the net new trips that would be generated by the project;

[29] W-Trans. *Traffic Impact Study for the Oat Hill Multi-Family Housing Project.* August 10, 2020.

Figure 21
Study Intersection Locations





Source: W-Trans, 2020.

- **Future Conditions** – Future peak hour volumes were developed based on projections contained in the build-out analysis prepared for the Napa Junction III Analysis Report. The Future Conditions scenario represents cumulative traffic conditions expected upon build-out of the land uses identified in the City of American Canyon General Plan.
- **Future Plus Project Conditions** – Similar to Future Conditions, but including vehicle trips generated by the project. The Future Plus Project Conditions impact analysis includes other projects completed within a similar timeframe as the project.

LOS Standards

Operations at each study intersection were evaluated based on LOS, a qualitative measure that describes operational conditions related to traffic stream and perceptions by motorists and passengers. The LOS generally describes conditions in terms of speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Operational levels of service are given letter designations from A to F, with A representing the best operating conditions and F representing the worst conditions.

The City of American Canyon General Plan Circulation Element specifies minimum level-of-service standards for all streets and intersections in the City's jurisdiction. In section 4.1.6, the City establishes the following performance standards for acceptable LOS:

> Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak hours where possible for as long as possible. However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or VMT planned for in the Land Use Element of the General Plan. The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy:
>
> - SR 29 through the City;
> - American Canyon Road from SR 29 to Flosden Road-Newell Drive; and
> - Flosden Road south of American Canyon Road.

Project Trip Generation and Distribution

Project vehicle trip generation rates were obtained from the Institute of Transportation Engineers (ITEs) Trip Generation Manual (10th Edition). Based on the ITE rates, the proposed project is estimated to generate ~~660~~ 1,583 daily vehicle trips, including 105 AM peak hour and 128 PM peak hour trips (see Table 21).

The pattern used to allocate new project trips to the street network was based on familiarity with the area and the surrounding region, as well as likely destinations for future residents of the project.

Table 21
Project Vehicle Trip Generation

Land Use (ITE Code)	Size	Daily Vehicle Trips		AM Peak Hour Vehicle Trips				PM Peak hour Vehicle Trips			
		Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Multi-Family Housing (Mid-Rise)	291 units	5.44	1,583	0.36	27	78	105	0.44	78	50	128

Source: W-Trans, 2020.

Figure 22 illustrates the distribution of project trips on the study intersections and nearby roadway segments.

Existing Plus Project Conditions

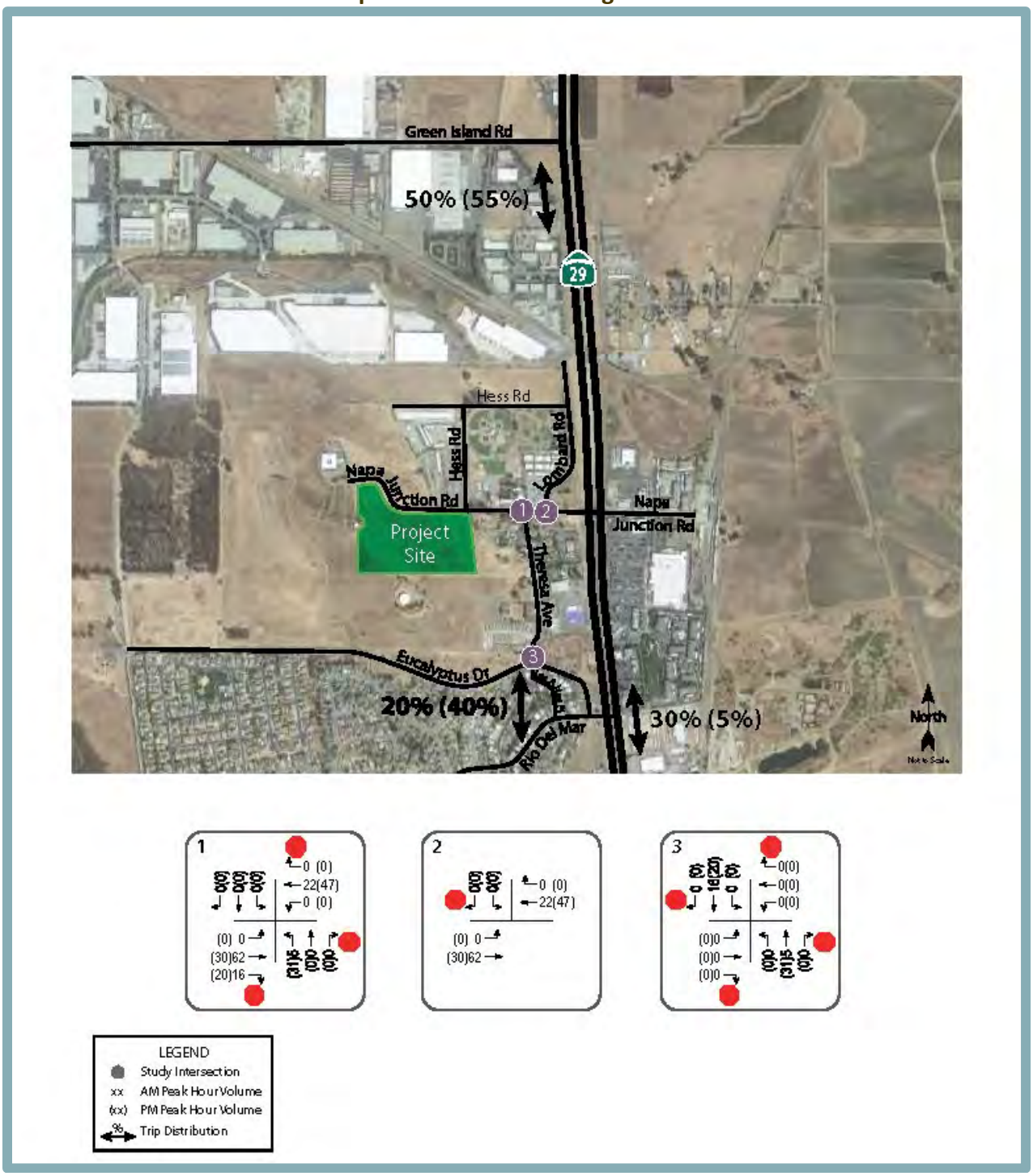
Adding project trips to each study intersection, Table 22 summarizes the peak hour study intersection LOS under Existing Conditions without the proposed project and Existing Plus Project conditions. As shown in Table 22, all of the study intersections would operate at an acceptable LOS under Existing Plus Project Conditions.

The addition of project traffic would slightly decrease average peak hour delay at the Napa Junction Road/Lombard Road intersection. While a reduction in peak hour delay appears counterintuitive in light of the addition of project traffic, this reduction in delay occurs when trips are added to underutilized movements or when current delays are below the intersection average, thus resulting in a better balance between approaches and lower overall average delay. The proposed project would add traffic solely to the eastbound and westbound through movements at this location, rather than the southbound through movements. The eastbound and westbound approaches do not have delays and are therefore below average for the intersection as a whole, which results in a slight reduction in the overall average delay. The conclusion could incorrectly be drawn that intersection operations would improve with the proposed project; however, the more appropriate conclusion would be that project trips are expected to make use of excess capacity, so motorists would experience little, if any, change in conditions as a result of the proposed project. Thus, implementation of the proposed project would not exceed the City's thresholds for intersection operations, and, thus, would not create a conflict with an adopted plan related to the City's circulation system.

Future Plus Project Conditions

Table 23 summarizes Future study intersection peak hour LOS conditions without the Proposed Project and with Future Plus Project. As shown in Table 23, all of the study intersections would operate at an acceptable LOS under Future Plus Project Conditions. Although not included in the study area of the TIS, the section of SR 29 near Napa Junction Road has been documented in other analyses as operating unacceptably under Existing Conditions and is expected to worsen by the Future Condition horizon year of 2040. The proposed project would be expected to add 77 new trips to SR 29 during the critical evening peak hour.

Figure 22
Trip Distribution and Assignment



Source: W-Trans, 2020.

Table 22
Existing Plus Project Conditions Intersection LOS

Intersection	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
		Delay[1]	LOS	Delay[1]	LOS
1. Napa Junction Road/Theresa Avenue	AM	9.9	A	10.5	B
	PM	17.6	C	22.7	C
2. Napa Junction Road/Lombard Road	AM	2.0	A	1.5	A
	PM	0.8	A	0.7	A
Southbound (Lombard Road) Approach	AM	*11.9*	*B*	*12.1*	*B*
	PM	*13.6*	*B*	*15.1*	*C*
3. Eucalyptus Drive/Theresa Avenue	AM	10.3	B	10.5	B
	PM	13.6	B	14.5	B

[1] Delay: Average control delay in seconds per vehicle. Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Source: W-Trans, 2020.

Table 23
Future Plus Project Conditions Intersection LOS

Intersection	Peak Hour	Future Conditions		Future Plus Project Conditions	
		Delay[1]	LOS	Delay[1]	LOS
1. Napa Junction Road/Theresa Avenue	AM	9.4	A	10.2	B
	PM	19.8	C	26.8	D
2. Napa Junction Road/Lombard Road	AM	2.0	A	1.8	A
	PM	0.9	A	0.8	A
Southbound (Lombard Road) Approach	AM	*11.2*	*B*	*11.8*	*B*
	PM	*14.7*	*B*	*15.7*	*C*
3. Eucalyptus Drive/Theresa Avenue	AM	10.2	B	10.3	B
	PM	14.9	B	15.9	C

[1] Delay: Average control delay in seconds per vehicle. Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Source: W-Trans, 2020.

The *City of American Canyon – Broadway District Specific Plan Program EIR* and the General Plan states that SR 29 is planned to have three travel lanes in each direction through American Canyon. In addition, several multimodal improvements to State Route 29 are proposed near Napa Junction Road as described within the State Route 29 Comprehensive Multimodal Corridor Plan, including the extension and addition of shared use paths for bicycling and walking, eight-foot shoulders, and intersection improvements to South Kelly Road, Green Island Road, and North Kelly Road. Multimodal improvements near the project site would provide safer routes for bicycle and pedestrian crossing, thus encouraging the use of alternative modes of transportation and reducing the impact of project generated traffic on SR 29. Parallel capacity improvements and integrated corridor management systems, such as traffic monitoring detectors, CCTV cameras, and variable message signs, would take place throughout the City of American Canyon to further improve circulation along the SR 29 corridor. As mandated by the City, the project applicant would be required to pay a proportional share fee toward the cost of this planned future infrastructure improvement to the SR 29 corridor. Furthermore, it should be noted that the General Plan EIR

Circulation Element EIR adopted a Statement of Overriding Consideration for impacts to SR-29 LOS caused by buildout of the General Plan.

Based on the above, implementation of the proposed project would not exceed the City's thresholds for intersection operations, and, thus, would not create a conflict with an adopted plan related to the City's circulation system.

Pedestrian, Bicycle, and Transit Facilities

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian, signal phases, curb ramps, curb extensions, and various streetscape amenities, such as lighting and benches. In general sidewalk coverage in the project area is limited; however, connectivity to points of interest is provided.

Sidewalks are provided along the south side of Napa Junction Road between SR 29 and about 100 feet west of Theresa Avenue; however large gaps in sidewalk coverage are present on the north side of Napa Junction Road. Continuous sidewalks are also provided on the west side of Theresa Avenue from Eucalyptus Drive to Napa Junction Road. Sidewalks are not provided on the east side of the street, and sidewalks are not currently provided along the project site frontage. The proposed project would include a community loop within Parcel A and a sidewalk along the project frontage would be provided. The provision of a sidewalk along the frontage would encourage pedestrian access to the surrounding commercial uses to the east. However, the provision of a sidewalk along the extension of Napa Junction Road is not identified on the site plan. Therefore, in order to promote pedestrian connectivity to surrounding uses, the proposed sidewalk along the project frontage should extend to the proposed extension of Napa Junction Road to connect with the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing.

Bicycle Facilities

According to the TIS, bicyclists currently ride in the roadways and/or on sidewalks in the project area, as dedicated bike facilities do not currently exist. However, the Napa Countywide Bicycle Plan includes a number of planned bike facilities for the project area. Specifically, a Class I Multi-Use Path is planned to be developed from Wetlands Edge Road to Theresa Avenue and be approximately 0.80-mile in length. Another Class I Multi-Use Path is planned to be developed from Donaldson Way to Paoli Road and be approximately 1.06 miles in length. In addition, the *Napa Countywide Bicycle Plan* anticipates three Class II bike lanes to be developed along Napa Junction Road, Lombard Avenue, Theresa Avenue, and the *American Canyon Bicycle Plan* anticipates the development of a Class II bike lane along Hess Road.

Based on the above, the existing and planned bike facilities in the project area are generally adequate to serve the proposed project. However, the project does not include spaces for residents to store bicycles. As such, the TIS recommends including space for bicycle storage either on balconies or other outside spaces dedicated to each housing unit, in garages, or other storage spaces for each unit, or through provision of bike racks.

Considering the above, the proposed project may conflict with adopted programs, plans, ordinances, or policies addressing bicycle facilities and a potentially significant impact would occur related to bicycle facilities.

Transit Facilities

The Napa County Transportation and Planning Agency (NCTPA) includes transit systems that provide service for local residents and visitors within the City. American Canyon Transit (ACT) is a bus service that provides a 90-minute roundtrip route through the City on weekdays between 7:30 AM and 6:00 PM. The ACT system has two morning and afternoon routes that stop at the American Canyon City Hall, approximately 0.20-mile from the project site. In the study area, ACT bus stops are located at the Napa Junction Wal-Mart center, the intersection at Napa Junction/Theresa Avenue, and the intersection at Rio Del Mar/Eucalyptus Drive. Napa Valley Transit (VINE) is another transit service that provides bus routes to several cities in Napa County. For American Canyon, VINE offers bus stops within a mile of the project site. One route stops at SR-29/Rio Del Mar and another route stops at SR 29/Crawford Way.

In addition, dial-a-ride, also known as paratransit, or door-to-door service, is available for individuals who are unable to independently use the transit system due to a physical or mental disability. VINE Paratransit is designed to serve the needs of individuals with disabilities within City of American Canyon and the greater City of American Canyon area.

Based on the above, future residents at the project site would have access to transit services. The project would not conflict with any existing or planned transit facilities. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy addressing transit service and a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle, facilities. However, the proposed project could conflict with a program, plan, ordinance, or policy addressing the circulation system related to bicycle and pedestrian facilities. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XVII-1 *Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be*

confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.

b. **Parcel A and Parcel B**

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. A lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. The following analysis is based on the report prepared by W-2 Trans, which evaluated the project's potential VMT impact qualitatively.

Given the rural land use pattern throughout Napa County, the project VMT is expected below the countywide average per capita because the project site is proximate to public transit and nearby commercial, industrial and civic land uses. In addition, the Napa Junction Road extension would shorten travel distances between the proposed project and surrounding uses, and reduce pedestrian distance to shopping and transit thus reducing the Project's VMT. As noted in question 'a' above, the project site would be served by the Napa Valley Transportation Authority (ACT system), which provides fixed route bus service in the City. The ACT system has two morning and afternoon routes that stop at the southwest corner Napa Junction Road/SR-29 intersection, approximately 0.20-mile from the project site. Furthermore, development of the proposed project would increase connectivity to the nearby neighborhoods by constructing new sidewalks along the project site frontage. By providing pedestrian and bicycle connectivity between the proposed residential units and the surrounding neighborhoods, and with implementation of the transportation demand management measures, the VMT associated with the proposed project would be expected to be below the countywide average VMT per capita. However, to ensure VMT is reduced to the greatest extent possible, transportation demand management measures would be required. Therefore, the proposed project could conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XVII-2 *Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS:*

- *Unbundled Parking;*
- *Free Transit Passes;*
- *Secure Bicycle Parking and Maintenance Tools;*
- *Tele-Work/Compressed Schedules;*
- *Carpooling and Ride-Matching Program;*
- *Transportation Coordinator;*
- *Welcome Packet for New Residents; and*
- *Monitoring of Program Performance.*

Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.

c,d. **Parcel A and Parcel B**

Access to the project site is proposed from two new connections to Napa Junction Road, one approximately 200 feet west of Hess Road and the other from the cul-de-sac at the western terminus of Napa Junction Road. With construction of the proposed project, a new section of Napa Junction Road would be constructed between Hess Road and Theresa Avenue. The new Napa Junction Road connection would result in a more direct route to the project site from SR 29 and other areas of the City. The new roadway segment would be designed and constructed to meet currently applicable codes and requirements and to ensure that the roadway would not result in any increased hazards.

An emergency vehicle access connection is proposed to link Parcel A and Parcel B so that residents would be able to use the other parcel's connection to Napa Junction Road, should one driveway be compromised in an emergency situation. All interior drive aisles and parking stalls would comply with City design standards, and, thus, on-site circulation would be expected to function acceptably for emergency response vehicles. In addition, the new Napa Junction Road extension would reduce emergency response times by providing a more direct route to the project site from SR 29 and other areas of the City than the current Lombard Road and Hess Road travel route. As such, the new street connection would improve emergency access and response times to the western segment of Napa Junction Road.

Conclusion

Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	☐	✖	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	✖	☐	☐

Discussion

a,b. **Parcel A and Parcel B**

As discussed in Section V, Cultural Resources, of this IS/MND, a records search of the CHRIS was performed on August 11, 2020 by the NWIC for cultural resource site records and survey reports within the project area. The CHRIS search indicated a moderate to high potential for unrecorded historic resources on the project site. In addition, a search of the NAHC Sacred Lands File returned positive results for the potential of the project site to contain Tribal Cultural Resources.[30] Because the NAHC Sacred Lands File search results indicated that the project site could contain Tribal Cultural Resources, a project notification letter was sent to the Mishewal-Wappo Tribe of Alexander Valley; however, responses from the tribe have not been received.

As part of the proposed off-site improvements, the Napa Junction Road extension would disturb soils. However, the Napa Junction Road extension would be located on the same alignment as an existing access road for the Napa Junction Magnet Elementary School. The proposed Napa Junction Road extension has not been previously analyzed for tribal cultural resources. Thus, the potential for tribal cultural resources to occur within the proposed Napa Junction Road extension is unknown.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the chairpersons of the Cortina Band of Indians, Federated Indians of Graton Rancheria, Middletown Rancheria of Pomo Indians, Mishewal-Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation. The letters were distributed on September 9, 2020. Requests to consult were not received within the 30-day response period.

[30] Native American Heritage Commission. *Oat Hill Multi-Family Project, Napa County.* August 6, 2020.

Based on previous disturbance of the project site and the lack of identified tribal cultural resources, tribal cultural resources are not expected to occur on-site. Nevertheless, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XVIII-1. Implement Mitigation Measures V-1 and V-2.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	✖	☐	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	✖	☐	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	✖	☐	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	✖	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a-c. **Parcel A**

Brief discussions of the water, sewer service, and stormwater drainage facilities that would serve Parcel A are included below.

Water

The City of American Canyon supplies water service to residential, commercial, and industrial users within the City and the extraterritorial service area. The City's water distribution system consists of various-sized pipelines, including major (16-inch) pipelines and smaller pipelines (four- to eight-inch) that connect to the outer areas of the City. The majority of the existing service area is served by a two-million-gallon Oat Hill storage reservoir. This reservoir is located on Medeiros Lane, approximately 200 feet south of Parcel A.

Water service for the proposed project would be provided by the City. The project would connect to an existing eight-inch water line on Napa Junction Road with a new eight-inch water line. The eight-inch water line would be routed to a new pump station, located in the southwestern corner of Parcel A. From the pump station, water lines would be routed throughout the parcel to connect to each residential building. The existing Napa Junction Road eight-inch water line is scheduled to be replaced with a 12-inch water line as part of project development, per the City of American Canyon Capital Improvement Project #W11.

As a part of ongoing water conservation efforts, the City of American Canyon has adopted a Zero Water Footprint (ZWF) policy. The primary goal of the ZWF is to ensure that losses in reliability and increases in water rates for existing water service customers do not occur due to new demand for water within the City's water service area. The ZWF requires developers to ensure that new developments offset the amount of increased potable water that will be consumed by their project on a one-to-one basis. As part of the process, developers may minimize project demand for new potable water by using measures such as water efficient fixtures, consuming recycled water for non-potable uses when available, dual plumbing buildings, and installing water wise landscaping and irrigation.

As part of the proposed project, water demand calculations were prepared by Carlson, Barbee & Gibson, Inc. (CBG) to determine project compliance with the City's water efficiency goals. Water system demands for the Oat Hill Apartments were obtained from the City's 2016 Potable Water Master Plan (Master Plan) prepared by GHD. Per the Master Plan, the average day demand (ADD) per multi-family unit is 160 gpd/unit. Additionally, the maximum day demand (MDD) and peak hour demand (PHD) were calculated from the ADD using peaking factors from the Master Plan of 2.0 and 3.5, respectively.

According to the water demand calculations, development within Parcel A requires an average daily water use of approximately 32,960 gallons per day (gpd) with a maximum day demand of approximately 65,920 gpd.[31] In comparison, buildout of the project site under the existing LI designation for the site would be expected to result in an average daily water use of approximately 8,905 gpd with a maximum day demand of approximately 17,810 gpd. Based on such, the proposed residences within Parcel A would result in an increase in average daily water use of 24,055 gpd and an increase in maximum day water use of 48,110 gpd.

According to the City's Urban Water Management Plan (UWMP) (Resolution No. 2016-58) , water supply is anticipated to exceed demand through the year 2040 except in the case of a single-dry year event.[32] Under multiple-dry water year conditions, the supply is sufficient through 2035, although the demand curve trend suggests shortages may appear shortly thereafter. The proposed residences would require a substantial increase in water demand than previously been anticipated for the site. Therefore, the proposed project could result in a potentially significant impact related to water supply.

Sewer Service

The City's wastewater is conveyed to the City's Water Reclamation Facility (WRF) through gravity pipelines and pump stations. Two force mains deliver wastewater to the WRF. The WRF has a total wastewater treatment capacity of 2.5 million gallons per day (mgd) at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions. The City's wastewater treatment and recycled water program is operated under a permit from the San Francisco Bay Regional Water Quality Control Board, which covers the City's discharge to the North Slough on the Napa River and to a constructed wetland that eventually flows to the North Slough.

The 2016 Sewer Master Plan (SMP) estimates full buildout of the General Plan generates an approximately 2.113 mgd average daily water flow. Peak dry weather flows would be approximately 3.42 mgd, while peak wet weather flows would be approximately 12.9 mgd. To

[31] Carlson, Barbee & Gibson, Inc. *Water Demand, Oat Hill Multi-Family, American Canyon, California*. October 1, 2020.

[32] City of American Canyon. *2015 Urban Water Management Plan.* Adopted June 21, 2016.

support future population growth and associated increases in wastewater treatment demand, the SMP identified ten capital improvement projects, including the replacement of the existing six-inch sewer main along Theresa Avenue with an eight-inch and 10-inch main to improve hydraulic capacity for wet weather flows (CIP #SS6). Additional citywide improvements include new pump stations, piping, emergency generator improvements, and new gravity sewers. In addition, in order to determine the remaining treatment capacity of the City of American Canyon Water Reclamation Facility (WRF), the City is expecting a stress test as part of a Local Limits assessment and Permit renewal process in early 2021.

The sewer capacity calculations prepared by CBG indicate that development within Parcel A would result in a peak flow of 231,750 gpd of wastewater. The City's WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions, which would be considered sufficient to treat wastewater generated by the proposed project. In addition, CIP #SS6, which would directly increase the hydraulic capacity of the sewer main lines downstream of the proposed project, is considered a near-term CIP priority for the City. CIP #SS6, in addition to several other recommended improvement projects provided in the 2016 Sewer Master Plan, are intended to address existing deficiencies while also accommodating future growth. Therefore, given the available wastewater facility capacity and planned infrastructure improvements, the proposed project would not result in inadequate capacity to serve the project's projected demand in addition to the existing commitments.

Stormwater Systems

As discussed in Section X, Hydrology and Water Quality, stormwater from Parcel A would flow to 15 on-site DMAs, each with their own bioretention area. The bioretention areas would treat stormwater by filtering runoff through vegetative soil layers. Treated stormwater would be captured by an underdrain and routed to a 10-foot-wide and 470-foot-long, underground detention facility within Parcel B. From the detention facility, an 18-inch storm drain would connect to the existing 18-inch storm drain within Napa Junction Road. The detention facility would capture all flows from both Parcel A and Parcel B during storm events and would meter discharges into the City's stormwater infrastructure at similar rates to existing stormwater discharge from the project site. Implementation of the Preliminary Stormwater Control Plan designed in accordance with the standards of the City's MS4 Permits would ensure that, after development of the proposed project, stormwater runoff would not exceed the existing rate of stormwater runoff generated at the project site. Because the proposed project would not result in a significant contribution of stormwater runoff beyond the existing flows currently accommodated by the City's stormwater system, the proposed project would not create or exacerbate any existing capacity issues with the City's stormwater systems.

Parcel B

Discussions of the water, sewer service, and stormwater drainage facilities that would serve Parcel B are included below.

Water

Water service for the proposed project would be provided by the City. The project would connect to an existing water line within Napa Junction Road along the northern boundary of the site by way of a new eight-inch water line. The eight-inch water line would be routed throughout Parcel B to connect to each residential building. The existing six-inch water line within Napa Junction

Road would be upsized to a 12-inch water line as part of project development, per the City of American Canyon Capital Improvement Project #W11.

According to the water demand calculations prepared by CBG, development within Parcel B would result in average daily water use of approximately 13,600 gpd with a maximum day demand of approximately 27,200 gpd.[33] The existing RE designation for the site would be expected to result in an average daily water use of approximately 1,889 gpd with a maximum day demand of approximately 3,777 gpd. Based on such, the proposed residences within Parcel B would result in an increase in average daily water use of 11,711 gpd and an increase in maximum day water use of 23,423 gpd. As noted above for Parcel A, the City's water supply is anticipated to exceed demand through the year 2040 except in the case of a single-dry year event.[34] Under multiple-dry water year conditions, the supply is sufficient through 2035, although the demand curve trend suggests that shortages will appear shortly thereafter. Although the City maintains an anticipated surplus in future water supplies, the proposed residences would result in a substantial increase in water demand than what has previously been anticipated for the site. Therefore, the proposed project could result in a potentially significant impact related to water supply.

Sewer Service

As noted under Parcel A, the City's WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions. The City's wastewater treatment and recycled water program is operated under a permit from the San Francisco Bay Regional Water Quality Control Board, which covers the City's discharge to the North Slough on the Napa River and to a constructed wetland that eventually flows to the North Slough. According to the sewer capacity calculations prepared by CBG, development within Parcel B would result in a peak flow of 95,625 gpd of wastewater.[35] Based on the capacity of the WRF under buildout conditions and the aforementioned planned infrastructural improvements to the citywide sewer system, the proposed project would not result in inadequate capacity to serve the projected demand from Parcel B in addition to the existing commitments.

Stormwater Systems

As discussed in Section X, Hydrology and Water Quality, of this IS/MND, stormwater from impervious areas within Parcel B would drain to a bioretention area in the northeastern corner of the site. The bioretention area would treat stormwater by allowing runoff to filter through layers of soil. Treated stormwater would be captured by an underdrain and routed to a 10-foot-wide and 470-foot-long, underground detention facility within Parcel B. From the detention facility, an 18-inch storm drain would connect to an existing 18-inch storm drain within Napa Junction Road. The detention facility would capture all flows from both Parcel A and Parcel B during storm events and would meter discharges into the City's stormwater infrastructure at similar rates to existing stormwater discharge from the project site. Implementation of the Preliminary Stormwater Control Plan designed in accordance with the standards of the City's MS4 Permits would ensure that, after development of the proposed project, stormwater runoff would not exceed the existing rate of stormwater runoff generated at the project site. Because the proposed project would not result in a significant contribution of stormwater runoff beyond the existing flows

[33] Carlson, Barbee & Gibson, Inc. *Water Demand, Oat Hill Multi-Family, American Canyon, California*. October 1, 2020.

[34] City of American Canyon. *2015 Urban Water Management Plan.* Adopted June 21, 2016.

[35] Carlson, Barbee & Gibson, Inc. *Preliminary Sanitary Sewer Flow Generation Calculations, Oat Hill Multi-family, American Canyon California*. August 6, 2020.

currently accommodated by the City's stormwater system, the proposed project would not create or exacerbate any existing capacity issues with the City's stormwater systems.

Other Utilities – Parcel A and Parcel B

Electricity, natural gas, and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity. PG&E would provide electricity and natural gas services to the project site. The proposed project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts to electricity, natural gas, and telecommunications infrastructure would be less than significant.

Water, Sewer Service, Stormwater Systems – Parcel A and Parcel B

The City's WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions to treat the combined wastewater generation of both parcels, which would total approximately 327,375 gallons per day. In light of planned infrastructure improvements to the Citywide sewer system, adverse impacts to sewer services by the proposed project are not anticipated. Stormwater infrastructure within both parcels would be sufficient to avoid discharge of polluted stormwater into the City's storm drain system and ensure that stormwater discharge would not result in erosion or off-site siltation through the incorporation of DMA's, several bioretention areas, and an underground detention system with capacity to treat stormwater from both Parcel A and Parcel B.

The City's water supply is anticipated to exceed demand through the year 2040 except in the case of a single-dry year event. Under multiple-dry water year conditions, the supply is sufficient through 2035, although the demand curve trend suggests that shortages will appear shortly thereafter. The combined average day water demand of Parcel A and Parcel B would total approximately 46,560 gpd, while the combined maximum day demand of both parcels would total approximately 93,120 gpd. Although the City maintains an anticipated surplus in future water supplies, the total water demand of the combined proposed residences would result in a substantial increase in water demand. Thus, the proposed project could result in a potentially significant impact related to water supply.

Conclusions

Based on the above, the project would not require the relocation or construction of new or expanded wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. However, development within Parcel A and Parcel B would result in a substantial increase in water demand from what has been anticipated for the site by the City, and could result in a ***potentially significant*** impact related to the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XIX-1 *The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water"*

offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water:

- *Reducing existing potable water demands on-site;*
- *Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;*
- *Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or*
- *Purchasing new water supplies from other water providers.*

Compliance with the Zero Water Footprint Policy shall be ensured by submission of a "Will-Serve" Water Application to the City's Public Works Department for review and approval. Project plans shall demonstrate the applicant's inclusion of the selected wet-water offsets.

XIX-2. *The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.*

XIX-3. *At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.*

XIX-4. *The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.*

XIX-5 *Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.*

XIX-6. *Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.*

XIX-7. *Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures, such as, but not limited to:*

- *Drought-resistant vegetation;*
- *Irrigation systems employing the following features:*
  - *drip irrigation;*
  - *low-precipitation-rate sprinklers;*
  - *bubbler/soaker systems;*
  - *programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);*
  - *Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;*
  - *Conservative sprinkler spacings that minimize overspray onto paved surfaces; and*
  - *Hydrozones that keep plants with similar water needs in the same irrigation zone*
- *Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and*
- *Organic topdressing in non-turf areas to decrease evaporation and increase water retention.*

d,e. **Parcel A and Parcel B**

The proposed project would generate solid waste during construction and operation phases. The City receives solid waste and recycling services from Recology American Canyon. Recology transports solid waste to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. From the transfer station, solid waste is transported to the Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill covers 2,600 acres of land; 244 acres are permitted for disposal. The site currently handles 2,500 tons of waste per day, although the permit for the site allows up to 3,500 tons of waste per day to be managed at the facility. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a remaining capacity of 63,408,410 cubic yards out of a total permitted capacity of 75,018,280 cubic yards, or 85 percent remaining capacity.[36] Considering the remaining available capacity remaining at the Keller Canyon Landfill, sufficient capacity would be available to accommodate the project's solid waste disposal needs. Therefore, a ***less-than-significant*** impact related to solid waste would occur as a result of the proposed project.

[36] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary: Keller Canyon Landfill (07-AA-0032)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/228. Accessed August 2020.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	✖	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	✖	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	✖	☐

Discussion

a-d. **Parcel A and Parcel B**

According to the CAL FIRE Fire and Resource Assessment Program, the project site is not located within a Very High or High FHSZ.[37] In addition, the site is located in a relatively urbanized area of the City and near existing development. Although the project site is located in proximity to grassland, the grasslands are relatively isolated and are not located in a Very High or High FHSZ. Thus, the proposed project would not result in substantial risks or hazards related to wildfires, and a ***less-than-significant*** impact would occur.

[37] California Department of Forestry and Fire Protection. *California Fire Hazard Severity Zone Viewer*. Available at: https://egis.fire.ca.gov/FHSZ/. Accessed: August 2020.

XXI. COVID-19 HAZARDS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially affect the spread of COVID-19?	☐	✖	☐	☐

Discussion

a. Parcel A and Parcel B

On March 4, 2020, Governor Gavin Newsom proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19. Governor Newsom and other state and local agencies have issued various orders, directives, and policies, to address the COVID-19 pandemic and the health, safety, and welfare of California residents, including a stay-at-home mandate and provisions intended to provide for the continued delivery of necessary goods and services.

Executive Order N-33-20, which includes the stay-at-home mandate, provided that residents working in critical infrastructure sectors identified by the federal government may continue working because of the importance of these sectors to California's health and well-being. Under this order, local governments, including the City of American Canyon and Napa County, have continued to provide critical functions and services to the public. These functions and services include law enforcement, fire protection, public safety, emergency management, emergency medical technicians, public works, healthcare, and transportation. Additionally, local government agencies have emergency plans that provide appropriate procedures and actions to implement during emergency situations such as the COVID-19 pandemic. The plans address many of the concerns associated with the consequences of the pandemic, such as the continued provision of emergency and medical services.

Buildout of the proposed project and full occupancy of the site is not expected until after the current state of emergency has expired. While it is expected that a COVID-19 vaccine would be available in the near future, distribution of the vaccine has not currently been widespread enough to ensure "herd immunity," which occurs when a large portion of a community becomes immune to a disease, thus making the spread of disease from person to person unlikely. If construction is initiated prior to the expiration of the state of emergency and/or the availability of a vaccine, construction activities would be subject to various safety measures necessary to reduce for the spread of the virus. Such measures would be included in a project construction site safety plan and could include, among other measures, social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. Additional COVID-19 safety measures for the construction industry have been published by the California Department of Public Health and the California Division of Occupational Safety and Health (CalOSHA).[38] Similarly, the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) and the Center for Disease Control (CDC) have published planning

[38] California For All. *COVID-19 Industry Guidance: Construction*. Available at: https://covid19.ca.gov/industry-guidance. Accessed January 2021.

guidance to help identify risk levels in workplace settings and to determine any appropriate control measures to implement in the workplace.[39]

Without implementation of a project construction site safety plan compliant with local and statewide COVID-19 safety measures, the proposed project would have a ***potentially significant*** impact in regards to affecting the spread of COVDI-19. To ensure that the proposed project implements a COVID-19 Exposure Control Plan, Mitigation Measure XXI-I has been included in the IS/MND to reduce impacts to a less-than-significant level.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XXI-1 *The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.*

[39] U.S. Department of Labor Occupational Safety and Health Administration. *Guidance on Preparing Workplaces for COVID-19.* Available at: https://www.osha.gov/Publications/OSHA3990.pdf. Accessed January 2021.

XXII. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✖	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	✖	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

Discussion

a. **Parcel A and Parcel B**

As discussed in Section IV, Biological Resources, of this IS/MND, while a limited potential exists for Swainson's hawk, burrowing owl, white-tailed kite, Northern Harrier, and common nesting birds to occur on-site, Mitigation Measures IV-1 through IV-5 would ensure that any impacts related to special-status species would be reduced to a less-than-significant level.

The project site does not contain any on-site structures or known historic or prehistoric resources. Implementation of the proposed project is not anticipated to have the potential to result in impacts related to historic or prehistoric resources. Mitigation Measures V-1 and V-2 would ensure that in the event that prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

The proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.

b. **Parcel A and Parcel B**

The proposed project, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance

with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts, and the project's incremental contribution to cumulative impacts would be ***less than significant***.

c. **Parcel A and Parcel B**

As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section VII, Geology and Soils, Section VIII, Greenhouse Gas Emissions, Section XIII, Noise, and Section XVII, Transportation, of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to hazardous materials and noise. For example, Mitigation Measure VII-1 would require compliance with the Tier 1 Energy Efficiency division of the Title 24 standards to ensure the project would not conflict with the American Canyon EECAP. Therefore, the proposed project would result in a ***less-than-significant*** impact.

APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS
CALEEMOD AND ROADMOD RESULTS

Oat Hill Project - Parcel A

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	157.00	Space	0.00	62,800.00	0
Parking Lot	294.00	Space	3.17	117,600.00	0
Apartments Mid Rise	206.00	Dwelling Unit	4.93	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill Project - Parcel A - Bay Area AQMD Air District, Annual

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plan

Construction Phase - Phase timing based on AQ Questionnaire.

Grading - Total acres graded ajusted per site plans.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th Ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - applied inherent site lcoation features

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC.

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste diversion applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	20.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	30.90	0.00
tblFireplaces	NumberNoFireplace	8.24	206.00
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	60.00	11.30
tblLandUse	LotAcreage	1.41	0.00
tblLandUse	LotAcreage	2.65	3.17
tblLandUse	LotAcreage	5.42	4.93
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1325	1.4017	0.9041	1.7100e-003	0.3739	0.0661	0.4399	0.2010	0.0608	0.2618	0.0000	150.7019	150.7019	0.0471	0.0000	151.8785
2022	0.9407	2.9158	3.1551	7.8700e-003	0.3501	0.1183	0.4684	0.1060	0.1117	0.2177	0.0000	704.7733	704.7733	0.0884	0.0000	706.9841
2023	0.9826	2.6147	3.1585	8.0300e-003	0.3207	0.1025	0.4232	0.0863	0.0970	0.1833	0.0000	719.6847	719.6847	0.0849	0.0000	721.8073
2024	0.3852	0.9279	1.1673	2.9900e-003	0.1214	0.0339	0.1553	0.0327	0.0320	0.0647	0.0000	267.5130	267.5130	0.0314	0.0000	268.2971
Maximum	**0.9826**	**2.9158**	**3.1585**	**8.0300e-003**	**0.3739**	**0.1183**	**0.4684**	**0.2010**	**0.1117**	**0.2618**	**0.0000**	**719.6847**	**719.6847**	**0.0884**	**0.0000**	**721.8073**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1325	1.4017	0.9041	1.7100e-003	0.3739	0.0661	0.4399	0.2010	0.0608	0.2618	0.0000	150.7017	150.7017	0.0471	0.0000	151.8783
2022	0.9407	2.9158	3.1551	7.8700e-003	0.3501	0.1183	0.4684	0.1060	0.1117	0.2177	0.0000	704.7729	704.7729	0.0884	0.0000	706.9837
2023	0.9826	2.6147	3.1585	8.0300e-003	0.3207	0.1025	0.4232	0.0863	0.0970	0.1833	0.0000	719.6843	719.6843	0.0849	0.0000	721.8069
2024	0.3852	0.9279	1.1673	2.9900e-003	0.1214	0.0339	0.1553	0.0327	0.0320	0.0647	0.0000	267.5128	267.5128	0.0314	0.0000	268.2969
Maximum	**0.9826**	**2.9158**	**3.1585**	**8.0300e-003**	**0.3739**	**0.1183**	**0.4684**	**0.2010**	**0.1117**	**0.2618**	**0.0000**	**719.6843**	**719.6843**	**0.0884**	**0.0000**	**721.8069**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2021**	**10-31-2021**	0.9279	0.9279
2	**11-1-2021**	**1-31-2022**	0.8368	0.8368
3	**2-1-2022**	**4-30-2022**	0.9510	0.9510
4	**5-1-2022**	**7-31-2022**	0.9987	0.9987
5	**8-1-2022**	**10-31-2022**	1.0010	1.0010
6	**11-1-2022**	**1-31-2023**	0.9743	0.9743
7	**2-1-2023**	**4-30-2023**	0.8815	0.8815
8	**5-1-2023**	**7-31-2023**	0.9075	0.9075

9	**8-1-2023**	**10-31-2023**	0.9094	0.9094
10	**11-1-2023**	**1-31-2024**	0.8989	0.8989
11	**2-1-2024**	**4-30-2024**	0.8504	0.8504
12	**5-1-2024**	**7-31-2024**	0.1644	0.1644
		Highest	1.0010	1.0010

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0274	0.0200	1.6794	5.6000e-004		0.0325	0.0325		0.0325	0.0325	3.2129	2.5066	5.7195	0.0174	0.0000	6.1554
Energy	9.6000e-003	0.0820	0.0349	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003	0.0000	227.4361	227.4361	0.0182	5.1400e-003	229.4226
Mobile	0.2710	1.2616	3.0399	0.0121	1.1506	9.8300e-003	1.1604	0.3088	9.1700e-003	0.3179	0.0000	1,111.6547	1,111.6547	0.0373	0.0000	1,112.5877
Waste						0.0000	0.0000		0.0000	0.0000	19.2354	0.0000	19.2354	1.1368	0.0000	47.6550
Water						0.0000	0.0000		0.0000	0.0000	4.2581	10.8546	15.1127	0.4387	0.0106	29.2403
Total	**1.3080**	**1.3636**	**4.7541**	**0.0132**	**1.1506**	**0.0490**	**1.1996**	**0.3088**	**0.0483**	**0.3570**	**26.7065**	**1,352.4520**	**1,379.1584**	**1.6485**	**0.0157**	**1,425.0609**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0274	0.0200	1.6794	5.6000e-004		0.0325	0.0325		0.0325	0.0325	3.2129	2.5066	5.7195	0.0174	0.0000	6.1554
Energy	9.1700e-003	0.0784	0.0334	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.7527	90.7527	1.7400e-003	1.6600e-003	91.2920
Mobile	0.2594	1.1931	2.7744	0.0108	1.0148	8.8300e-003	1.0237	0.2723	8.2300e-003	0.2805	0.0000	990.6748	990.6748	0.0341	0.0000	991.5277
Waste						0.0000	0.0000		0.0000	0.0000	9.6177	0.0000	9.6177	0.5684	0.0000	23.8275
Water						0.0000	0.0000		0.0000	0.0000	3.4065	8.6837	12.0902	0.3510	8.4800e-003	23.3923
Total	**1.2960**	**1.2915**	**4.4871**	**0.0118**	**1.0148**	**0.0477**	**1.0625**	**0.2723**	**0.0471**	**0.3194**	**16.2371**	**1,092.6178**	**1,108.8549**	**0.9726**	**0.0101**	**1,136.1947**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.92**	**5.29**	**5.62**	**10.18**	**11.80**	**2.64**	**11.43**	**11.80**	**2.55**	**10.55**	**39.20**	**19.21**	**19.60**	**41.00**	**35.58**	**20.27**

3.0 Construction Detail

Construction Phase

Oat Hill Project - Parcel A - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11.3

Acres of Paving: 3.17

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,824 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	224.00	52.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	45.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3222	0.0000	0.3222	0.1744	0.0000	0.1744	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1202	1.2987	0.8325	1.5600e-003		0.0609	0.0609		0.0560	0.0560	0.0000	136.7819	136.7819	0.0442	0.0000	137.8879
Total	**0.1202**	**1.2987**	**0.8325**	**1.5600e-003**	**0.3222**	**0.0609**	**0.3831**	**0.1744**	**0.0560**	**0.2305**	**0.0000**	**136.7819**	**136.7819**	**0.0442**	**0.0000**	**137.8879**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6700e-003	0.0177	6.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2604	5.2604	1.2000e-004	0.0000	5.2634
Total	**2.4200e-003**	**1.6700e-003**	**0.0177**	**6.0000e-005**	**6.2200e-003**	**4.0000e-005**	**6.2600e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.2604**	**5.2604**	**1.2000e-004**	**0.0000**	**5.2634**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3222	0.0000	0.3222	0.1744	0.0000	0.1744	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1202	1.2987	0.8325	1.5600e-003		0.0609	0.0609		0.0560	0.0560	0.0000	136.7818	136.7818	0.0442	0.0000	137.8877
Total	**0.1202**	**1.2987**	**0.8325**	**1.5600e-003**	**0.3222**	**0.0609**	**0.3831**	**0.1744**	**0.0560**	**0.2305**	**0.0000**	**136.7818**	**136.7818**	**0.0442**	**0.0000**	**137.8877**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6700e-003	0.0177	6.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2604	5.2604	1.2000e-004	0.0000	5.2634
Total	**2.4200e-003**	**1.6700e-003**	**0.0177**	**6.0000e-005**	**6.2200e-003**	**4.0000e-005**	**6.2600e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.2604**	**5.2604**	**1.2000e-004**	**0.0000**	**5.2634**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0512	0.0000	0.0512	0.0255	0.0000	0.0255	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.1564	0.1146	2.2000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	19.5411	19.5411	6.3200e-003	0.0000	19.6991
Total	**0.0146**	**0.1564**	**0.1146**	**2.2000e-004**	**0.0512**	**7.0600e-003**	**0.0582**	**0.0255**	**6.4900e-003**	**0.0320**	**0.0000**	**19.5411**	**19.5411**	**6.3200e-003**	**0.0000**	**19.6991**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.1000e-004	2.3200e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7239	0.7239	2.0000e-005	0.0000	0.7243
Total	**3.2000e-004**	**2.1000e-004**	**2.3200e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7239**	**0.7239**	**2.0000e-005**	**0.0000**	**0.7243**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0512	0.0000	0.0512	0.0255	0.0000	0.0255	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.1564	0.1146	2.2000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	19.5411	19.5411	6.3200e-003	0.0000	19.6991
Total	**0.0146**	**0.1564**	**0.1146**	**2.2000e-004**	**0.0512**	**7.0600e-003**	**0.0582**	**0.0255**	**6.4900e-003**	**0.0320**	**0.0000**	**19.5411**	**19.5411**	**6.3200e-003**	**0.0000**	**19.6991**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.1000e-004	2.3200e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7239	0.7239	2.0000e-005	0.0000	0.7243
Total	**3.2000e-004**	**2.1000e-004**	**2.3200e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7239**	**0.7239**	**2.0000e-005**	**0.0000**	**0.7243**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0111	0.0146	2.0000e-005		5.7000e-004	5.7000e-004		5.2000e-004	5.2000e-004	0.0000	2.0028	2.0028	6.5000e-004	0.0000	2.0190
Paving	4.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2500e-003**	**0.0111**	**0.0146**	**2.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.0028**	**2.0028**	**6.5000e-004**	**0.0000**	**2.0190**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**4.0000e-005**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0965**	**0.0965**	**0.0000**	**0.0000**	**0.0966**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0111	0.0146	2.0000e-005		5.7000e-004	5.7000e-004		5.2000e-004	5.2000e-004	0.0000	2.0028	2.0028	6.5000e-004	0.0000	2.0190
Paving	4.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2500e-003**	**0.0111**	**0.0146**	**2.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.0028**	**2.0028**	**6.5000e-004**	**0.0000**	**2.0190**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**4.0000e-005**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0965**	**0.0965**	**0.0000**	**0.0000**	**0.0966**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5462	281.5462	0.0675	0.0000	283.2324
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5462**	**281.5462**	**0.0675**	**0.0000**	**283.2324**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.6250	0.1549	1.6900e-003	0.0414	1.2400e-003	0.0427	0.0120	1.1900e-003	0.0132	0.0000	162.2469	162.2469	7.7000e-003	0.0000	162.4393
Worker	0.0779	0.0517	0.5610	1.9400e-003	0.2151	1.3700e-003	0.2164	0.0572	1.2700e-003	0.0585	0.0000	175.1351	175.1351	3.6600e-003	0.0000	175.2265
Total	**0.0966**	**0.6767**	**0.7158**	**3.6300e-003**	**0.2565**	**2.6100e-003**	**0.2591**	**0.0692**	**2.4600e-003**	**0.0717**	**0.0000**	**337.3820**	**337.3820**	**0.0114**	**0.0000**	**337.6658**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5458	281.5458	0.0675	0.0000	283.2321
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5458**	**281.5458**	**0.0675**	**0.0000**	**283.2321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.6250	0.1549	1.6900e-003	0.0414	1.2400e-003	0.0427	0.0120	1.1900e-003	0.0132	0.0000	162.2469	162.2469	7.7000e-003	0.0000	162.4393
Worker	0.0779	0.0517	0.5610	1.9400e-003	0.2151	1.3700e-003	0.2164	0.0572	1.2700e-003	0.0585	0.0000	175.1351	175.1351	3.6600e-003	0.0000	175.2265
Total	**0.0966**	**0.6767**	**0.7158**	**3.6300e-003**	**0.2565**	**2.6100e-003**	**0.2591**	**0.0692**	**2.4600e-003**	**0.0717**	**0.0000**	**337.3820**	**337.3820**	**0.0114**	**0.0000**	**337.6658**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.5156	0.1483	1.7500e-003	0.0443	5.9000e-004	0.0449	0.0128	5.7000e-004	0.0134	0.0000	168.7323	168.7323	7.0200e-003	0.0000	168.9078
Worker	0.0779	0.0497	0.5521	1.9900e-003	0.2301	1.4400e-003	0.2315	0.0612	1.3300e-003	0.0625	0.0000	180.2109	180.2109	3.5100e-003	0.0000	180.2986
Total	**0.0929**	**0.5653**	**0.7004**	**3.7400e-003**	**0.2744**	**2.0300e-003**	**0.2765**	**0.0740**	**1.9000e-003**	**0.0759**	**0.0000**	**348.9432**	**348.9432**	**0.0105**	**0.0000**	**349.2063**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.5156	0.1483	1.7500e-003	0.0443	5.9000e-004	0.0449	0.0128	5.7000e-004	0.0134	0.0000	168.7323	168.7323	7.0200e-003	0.0000	168.9078
Worker	0.0779	0.0497	0.5521	1.9900e-003	0.2301	1.4400e-003	0.2315	0.0612	1.3300e-003	0.0625	0.0000	180.2109	180.2109	3.5100e-003	0.0000	180.2986
Total	**0.0929**	**0.5653**	**0.7004**	**3.7400e-003**	**0.2744**	**2.0300e-003**	**0.2765**	**0.0740**	**1.9000e-003**	**0.0759**	**0.0000**	**348.9432**	**348.9432**	**0.0105**	**0.0000**	**349.2063**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4468	112.4468	0.0266	0.0000	113.1116
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4468**	**112.4468**	**0.0266**	**0.0000**	**113.1116**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4200e-003	0.1902	0.0533	6.5000e-004	0.0165	2.2000e-004	0.0168	4.7800e-003	2.1000e-004	4.9900e-003	0.0000	62.5253	62.5253	2.5700e-003	0.0000	62.5894
Worker	0.0273	0.0168	0.1908	7.1000e-004	0.0859	5.3000e-004	0.0864	0.0228	4.9000e-004	0.0233	0.0000	64.5717	64.5717	1.1800e-003	0.0000	64.6011
Total	**0.0327**	**0.2070**	**0.2441**	**1.3600e-003**	**0.1024**	**7.5000e-004**	**0.1031**	**0.0276**	**7.0000e-004**	**0.0283**	**0.0000**	**127.0969**	**127.0969**	**3.7500e-003**	**0.0000**	**127.1905**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4467	112.4467	0.0266	0.0000	113.1114
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4467**	**112.4467**	**0.0266**	**0.0000**	**113.1114**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4200e-003	0.1902	0.0533	6.5000e-004	0.0165	2.2000e-004	0.0168	4.7800e-003	2.1000e-004	4.9900e-003	0.0000	62.5253	62.5253	2.5700e-003	0.0000	62.5894
Worker	0.0273	0.0168	0.1908	7.1000e-004	0.0859	5.3000e-004	0.0864	0.0228	4.9000e-004	0.0233	0.0000	64.5717	64.5717	1.1800e-003	0.0000	64.6011
Total	**0.0327**	**0.2070**	**0.2441**	**1.3600e-003**	**0.1024**	**7.5000e-004**	**0.1031**	**0.0276**	**7.0000e-004**	**0.0283**	**0.0000**	**127.0969**	**127.0969**	**3.7500e-003**	**0.0000**	**127.1905**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.6016**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.9500e-003	0.1081	3.7000e-004	0.0414	2.6000e-004	0.0417	0.0110	2.4000e-004	0.0113	0.0000	33.7355	33.7355	7.0000e-004	0.0000	33.7531
Total	**0.0150**	**9.9500e-003**	**0.1081**	**3.7000e-004**	**0.0414**	**2.6000e-004**	**0.0417**	**0.0110**	**2.4000e-004**	**0.0113**	**0.0000**	**33.7355**	**33.7355**	**7.0000e-004**	**0.0000**	**33.7531**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.6016**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.9500e-003	0.1081	3.7000e-004	0.0414	2.6000e-004	0.0417	0.0110	2.4000e-004	0.0113	0.0000	33.7355	33.7355	7.0000e-004	0.0000	33.7531
Total	**0.0150**	**9.9500e-003**	**0.1081**	**3.7000e-004**	**0.0414**	**2.6000e-004**	**0.0417**	**0.0110**	**2.4000e-004**	**0.0113**	**0.0000**	**33.7355**	**33.7355**	**7.0000e-004**	**0.0000**	**33.7531**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.6696**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0157	9.9800e-003	0.1109	4.0000e-004	0.0462	2.9000e-004	0.0465	0.0123	2.7000e-004	0.0126	0.0000	36.2031	36.2031	7.0000e-004	0.0000	36.2207
Total	**0.0157**	**9.9800e-003**	**0.1109**	**4.0000e-004**	**0.0462**	**2.9000e-004**	**0.0465**	**0.0123**	**2.7000e-004**	**0.0126**	**0.0000**	**36.2031**	**36.2031**	**7.0000e-004**	**0.0000**	**36.2207**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.6696**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0157	9.9800e-003	0.1109	4.0000e-004	0.0462	2.9000e-004	0.0465	0.0123	2.7000e-004	0.0126	0.0000	36.2031	36.2031	7.0000e-004	0.0000	36.2207
Total	**0.0157**	**9.9800e-003**	**0.1109**	**4.0000e-004**	**0.0462**	**2.9000e-004**	**0.0465**	**0.0123**	**2.7000e-004**	**0.0126**	**0.0000**	**36.2031**	**36.2031**	**7.0000e-004**	**0.0000**	**36.2207**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.2750**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0500e-003	3.7100e-003	0.0423	1.6000e-004	0.0190	1.2000e-004	0.0191	5.0600e-003	1.1000e-004	5.1700e-003	0.0000	14.3093	14.3093	2.6000e-004	0.0000	14.3158
Total	**6.0500e-003**	**3.7100e-003**	**0.0423**	**1.6000e-004**	**0.0190**	**1.2000e-004**	**0.0191**	**5.0600e-003**	**1.1000e-004**	**5.1700e-003**	**0.0000**	**14.3093**	**14.3093**	**2.6000e-004**	**0.0000**	**14.3158**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.2750**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0500e-003	3.7100e-003	0.0423	1.6000e-004	0.0190	1.2000e-004	0.0191	5.0600e-003	1.1000e-004	5.1700e-003	0.0000	14.3093	14.3093	2.6000e-004	0.0000	14.3158
Total	**6.0500e-003**	**3.7100e-003**	**0.0423**	**1.6000e-004**	**0.0190**	**1.2000e-004**	**0.0191**	**5.0600e-003**	**1.1000e-004**	**5.1700e-003**	**0.0000**	**14.3093**	**14.3093**	**2.6000e-004**	**0.0000**	**14.3158**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2594	1.1931	2.7744	0.0108	1.0148	8.8300e-003	1.0237	0.2723	8.2300e-003	0.2805	0.0000	990.6748	990.6748	0.0341	0.0000	991.5277
Unmitigated	0.2710	1.2616	3.0399	0.0121	1.1506	9.8300e-003	1.1604	0.3088	9.1700e-003	0.3179	0.0000	1,111.6547	1,111.6547	0.0373	0.0000	1,112.5877

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,369.90	1,316.34	1207.16	3,092,564	2,727,642
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,369.90	1,316.34	1,207.16	3,092,564	2,727,642

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	132.4631	132.4631	0.0164	3.4000e-003	133.8853
NaturalGas Mitigated	9.1700e-003	0.0784	0.0334	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.7527	90.7527	1.7400e-003	1.6600e-003	91.2920
NaturalGas Unmitigated	9.6000e-003	0.0820	0.0349	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003	0.0000	94.9730	94.9730	1.8200e-003	1.7400e-003	95.5374

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.77973e+006	9.6000e-003	0.0820	0.0349	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003	0.0000	94.9730	94.9730	1.8200e-003	1.7400e-003	95.5374
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.6000e-003**	**0.0820**	**0.0349**	**5.2000e-004**		**6.6300e-003**	**6.6300e-003**		**6.6300e-003**	**6.6300e-003**	**0.0000**	**94.9730**	**94.9730**	**1.8200e-003**	**1.7400e-003**	**95.5374**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.70064e+006	9.1700e-003	0.0784	0.0334	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.7527	90.7527	1.7400e-003	1.6600e-003	91.2920
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.1700e-003**	**0.0784**	**0.0334**	**5.0000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**	**0.0000**	**90.7527**	**90.7527**	**1.7400e-003**	**1.6600e-003**	**91.2920**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	850440	90.2894	0.0112	2.3100e-003	91.2588
Enclosed Parking Structure	356076	37.8038	4.6800e-003	9.7000e-004	38.2097
Parking Lot	41160	4.3699	5.4000e-004	1.1000e-004	4.4168
Total		**132.4631**	**0.0164**	**3.3900e-003**	**133.8853**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0274	0.0200	1.6794	5.6000e-004		0.0325	0.0325		0.0325	0.0325	3.2129	2.5066	5.7195	0.0174	0.0000	6.1554
Unmitigated	1.0274	0.0200	1.6794	5.6000e-004		0.0325	0.0325		0.0325	0.0325	3.2129	2.5066	5.7195	0.0174	0.0000	6.1554

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8162					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	2.4000e-003	0.1471	4.8000e-004		0.0240	0.0240		0.0240	0.0240	3.2129	0.0000	3.2129	0.0150	0.0000	3.5884
Landscaping	0.0463	0.0176	1.5323	8.0000e-005		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	2.5066	2.5066	2.4100e-003	0.0000	2.5669
Total	**1.0274**	**0.0200**	**1.6794**	**5.6000e-004**		**0.0325**	**0.0325**		**0.0325**	**0.0325**	**3.2129**	**2.5066**	**5.7195**	**0.0174**	**0.0000**	**6.1554**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8162					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	2.4000e-003	0.1471	4.8000e-004		0.0240	0.0240		0.0240	0.0240	3.2129	0.0000	3.2129	0.0150	0.0000	3.5884
Landscaping	0.0463	0.0176	1.5323	8.0000e-005		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	2.5066	2.5066	2.4100e-003	0.0000	2.5669
Total	**1.0274**	**0.0200**	**1.6794**	**5.6000e-004**		**0.0325**	**0.0325**		**0.0325**	**0.0325**	**3.2129**	**2.5066**	**5.7195**	**0.0174**	**0.0000**	**6.1554**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.0902	0.3510	8.4800e-003	23.3923
Unmitigated	15.1127	0.4387	0.0106	29.2403

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152	15.1127	0.4387	0.0106	29.2403
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.1127**	**0.4387**	**0.0106**	**29.2403**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.7374 / 6.76922	12.0902	0.3510	8.4800e-003	23.3923
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**12.0902**	**0.3510**	**8.4800e-003**	**23.3923**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.6177	0.5684	0.0000	23.8275
Unmitigated	19.2354	1.1368	0.0000	47.6550

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76	19.2354	1.1368	0.0000	47.6550
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**19.2354**	**1.1368**	**0.0000**	**47.6550**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.38	9.6177	0.5684	0.0000	23.8275
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**9.6177**	**0.5684**	**0.0000**	**23.8275**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel A

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	157.00	Space	0.00	62,800.00	0
Parking Lot	294.00	Space	3.17	117,600.00	0
Apartments Mid Rise	206.00	Dwelling Unit	4.93	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill Project - Parcel A - Bay Area AQMD Air District, Summer

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plan

Construction Phase - Phase timing based on AQ Questionnaire.

Grading - Total acres graded ajusted per site plans.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th Ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - applied inherent site lcoation features

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC.

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste diversion applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	20.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	30.90	0.00
tblFireplaces	NumberNoFireplace	8.24	206.00
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	60.00	11.30
tblLandUse	LotAcreage	1.41	0.00
tblLandUse	LotAcreage	2.65	3.17
tblLandUse	LotAcreage	5.42	4.93
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9461	40.5309	21.5964	0.0395	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,828.2096	3,828.2096	1.1952	0.0000	3,858.0897
2022	7.8254	22.5704	25.4572	0.0645	6.2452	0.9416	7.1868	3.3537	0.8663	4.2200	0.0000	6,375.9216	6,375.9216	0.9313	0.0000	6,394.4332
2023	7.5878	20.0314	24.7433	0.0633	2.5618	0.7883	3.3501	0.6875	0.7458	1.4332	0.0000	6,256.2667	6,256.2667	0.7207	0.0000	6,274.2846
2024	7.4256	18.9231	24.2227	0.0625	2.5618	0.6917	3.2535	0.6875	0.6540	1.3415	0.0000	6,168.6932	6,168.6932	0.7113	0.0000	6,186.4764
Maximum	**7.8254**	**40.5309**	**25.4572**	**0.0645**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,375.9216**	**6,375.9216**	**1.1952**	**0.0000**	**6,394.4332**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9461	40.5309	21.5964	0.0395	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,828.2096	3,828.2096	1.1952	0.0000	3,858.0897
2022	7.8254	22.5704	25.4572	0.0645	6.2452	0.9416	7.1868	3.3537	0.8663	4.2200	0.0000	6,375.9216	6,375.9216	0.9313	0.0000	6,394.4332
2023	7.5878	20.0314	24.7433	0.0633	2.5618	0.7883	3.3501	0.6875	0.7458	1.4332	0.0000	6,256.2667	6,256.2667	0.7207	0.0000	6,274.2845
2024	7.4256	18.9231	24.2227	0.0625	2.5618	0.6917	3.2535	0.6875	0.6540	1.3415	0.0000	6,168.6932	6,168.6932	0.7113	0.0000	6,186.4764
Maximum	**7.8254**	**40.5309**	**25.4572**	**0.0645**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,375.9216**	**6,375.9216**	**1.1952**	**0.0000**	**6,394.4332**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Energy	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516
Mobile	1.7564	6.8987	17.8203	0.0718	6.7197	0.0553	6.7750	1.7974	0.0515	1.8489		7,278.1693	7,278.1693	0.2322		7,283.9741
Total	**9.9046**	**7.8839**	**55.8707**	**0.1435**	**6.7197**	**3.5847**	**10.3044**	**1.7974**	**3.5809**	**5.3783**	**501.6493**	**7,882.5126**	**8,384.1619**	**2.6179**	**0.0105**	**8,452.7423**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Energy	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
Mobile	1.6902	6.5375	16.1402	0.0640	5.9268	0.0496	5.9764	1.5853	0.0462	1.6315		6,485.0982	6,485.0982	0.2116		6,490.3872
Total	**9.8361**	**7.5027**	**54.1821**	**0.1356**	**5.9268**	**3.5774**	**9.5042**	**1.5853**	**3.5740**	**5.1593**	**501.6493**	**7,063.9505**	**7,565.5998**	**2.5967**	**0.0101**	**7,633.5130**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.69**	**4.84**	**3.02**	**5.55**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.76**	**0.81**	**4.47**	**9.69**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11.3

Acres of Paving: 3.17

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,824 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	224.00	52.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	45.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1220**	**1.1599**	**7.2819**	**3.3210**	**1.0671**	**4.3881**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
Total	**0.0482**	**0.0282**	**0.3685**	**1.1900e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**118.7939**	**118.7939**	**2.6600e-003**		**118.8603**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1220**	**1.1599**	**7.2819**	**3.3210**	**1.0671**	**4.3881**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
Total	**0.0482**	**0.0282**	**0.3685**	**1.1900e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**118.7939**	**118.7939**	**2.6600e-003**		**118.8603**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1220**	**0.9409**	**7.0628**	**3.3210**	**0.8656**	**4.1866**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1220**	**0.9409**	**7.0628**	**3.3210**	**0.8656**	**4.1866**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	4.1527					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.2555**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	4.1527					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.2555**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1504	5.0929	1.1917	0.0140	0.3520	0.0101	0.3621	0.1013	9.6500e-003	0.1110		1,487.9514	1,487.9514	0.0674		1,489.6371
Worker	0.6704	0.3775	5.0699	0.0171	1.8401	0.0113	1.8514	0.4881	0.0104	0.4985		1,708.8856	1,708.8856	0.0356		1,709.7759
Total	**0.8208**	**5.4704**	**6.2617**	**0.0312**	**2.1921**	**0.0214**	**2.2135**	**0.5894**	**0.0201**	**0.6095**		**3,196.8370**	**3,196.8370**	**0.1030**		**3,199.4130**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1504	5.0929	1.1917	0.0140	0.3520	0.0101	0.3621	0.1013	9.6500e-003	0.1110		1,487.9514	1,487.9514	0.0674		1,489.6371
Worker	0.6704	0.3775	5.0699	0.0171	1.8401	0.0113	1.8514	0.4881	0.0104	0.4985		1,708.8856	1,708.8856	0.0356		1,709.7759
Total	**0.8208**	**5.4704**	**6.2617**	**0.0312**	**2.1921**	**0.0214**	**2.2135**	**0.5894**	**0.0201**	**0.6095**		**3,196.8370**	**3,196.8370**	**0.1030**		**3,199.4130**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1127	3.9357	1.0729	0.0136	0.3520	4.4800e-003	0.3565	0.1013	4.2800e-003	0.1056		1,446.0936	1,446.0936	0.0576		1,447.5343
Worker	0.6258	0.3396	4.6759	0.0165	1.8401	0.0111	1.8512	0.4881	0.0102	0.4983		1,643.3732	1,643.3732	0.0320		1,644.1726
Total	**0.7385**	**4.2753**	**5.7488**	**0.0301**	**2.1921**	**0.0156**	**2.2077**	**0.5894**	**0.0145**	**0.6039**		**3,089.4668**	**3,089.4668**	**0.0896**		**3,091.7069**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1127	3.9357	1.0729	0.0136	0.3520	4.4800e-003	0.3565	0.1013	4.2800e-003	0.1056		1,446.0936	1,446.0936	0.0576		1,447.5343
Worker	0.6258	0.3396	4.6759	0.0165	1.8401	0.0111	1.8512	0.4881	0.0102	0.4983		1,643.3732	1,643.3732	0.0320		1,644.1726
Total	**0.7385**	**4.2753**	**5.7488**	**0.0301**	**2.1921**	**0.0156**	**2.2077**	**0.5894**	**0.0145**	**0.6039**		**3,089.4668**	**3,089.4668**	**0.0896**		**3,091.7069**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1091	3.8922	1.0337	0.0135	0.3520	4.4000e-003	0.3564	0.1013	4.2100e-003	0.1056		1,436.2154	1,436.2154	0.0565		1,437.6280
Worker	0.5871	0.3068	4.3402	0.0158	1.8401	0.0109	1.8510	0.4881	0.0100	0.4981		1,578.2681	1,578.2681	0.0288		1,578.9889
Total	**0.6962**	**4.1989**	**5.3738**	**0.0294**	**2.1921**	**0.0153**	**2.2074**	**0.5894**	**0.0142**	**0.6036**		**3,014.4835**	**3,014.4835**	**0.0853**		**3,016.6169**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1091	3.8922	1.0337	0.0135	0.3520	4.4000e-003	0.3564	0.1013	4.2100e-003	0.1056		1,436.2154	1,436.2154	0.0565		1,437.6280
Worker	0.5871	0.3068	4.3402	0.0158	1.8401	0.0109	1.8510	0.4881	0.0100	0.4981		1,578.2681	1,578.2681	0.0288		1,578.9889
Total	**0.6962**	**4.1989**	**5.3738**	**0.0294**	**2.1921**	**0.0153**	**2.2074**	**0.5894**	**0.0142**	**0.6036**		**3,014.4835**	**3,014.4835**	**0.0853**		**3,016.6169**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**5.1637**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1347	0.0758	1.0185	3.4400e-003	0.3697	2.2700e-003	0.3719	0.0981	2.0900e-003	0.1001		343.3029	343.3029	7.1500e-003		343.4818
Total	**0.1347**	**0.0758**	**1.0185**	**3.4400e-003**	**0.3697**	**2.2700e-003**	**0.3719**	**0.0981**	**2.0900e-003**	**0.1001**		**343.3029**	**343.3029**	**7.1500e-003**		**343.4818**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**5.1637**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1347	0.0758	1.0185	3.4400e-003	0.3697	2.2700e-003	0.3719	0.0981	2.0900e-003	0.1001		343.3029	343.3029	7.1500e-003		343.4818
Total	**0.1347**	**0.0758**	**1.0185**	**3.4400e-003**	**0.3697**	**2.2700e-003**	**0.3719**	**0.0981**	**2.0900e-003**	**0.1001**		**343.3029**	**343.3029**	**7.1500e-003**		**343.4818**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**5.1508**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1257	0.0682	0.9394	3.3100e-003	0.3697	2.2300e-003	0.3719	0.0981	2.0500e-003	0.1001		330.1419	330.1419	6.4200e-003		330.3025
Total	**0.1257**	**0.0682**	**0.9394**	**3.3100e-003**	**0.3697**	**2.2300e-003**	**0.3719**	**0.0981**	**2.0500e-003**	**0.1001**		**330.1419**	**330.1419**	**6.4200e-003**		**330.3025**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**5.1508**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1257	0.0682	0.9394	3.3100e-003	0.3697	2.2300e-003	0.3719	0.0981	2.0500e-003	0.1001		330.1419	330.1419	6.4200e-003		330.3025
Total	**0.1257**	**0.0682**	**0.9394**	**3.3100e-003**	**0.3697**	**2.2300e-003**	**0.3719**	**0.0981**	**2.0500e-003**	**0.1001**		**330.1419**	**330.1419**	**6.4200e-003**		**330.3025**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.1399**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1179	0.0616	0.8719	3.1800e-003	0.3697	2.1800e-003	0.3719	0.0981	2.0100e-003	0.1001		317.0628	317.0628	5.7900e-003		317.2076
Total	**0.1179**	**0.0616**	**0.8719**	**3.1800e-003**	**0.3697**	**2.1800e-003**	**0.3719**	**0.0981**	**2.0100e-003**	**0.1001**		**317.0628**	**317.0628**	**5.7900e-003**		**317.2076**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.1399**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1179	0.0616	0.8719	3.1800e-003	0.3697	2.1800e-003	0.3719	0.0981	2.0100e-003	0.1001		317.0628	317.0628	5.7900e-003		317.2076
Total	**0.1179**	**0.0616**	**0.8719**	**3.1800e-003**	**0.3697**	**2.1800e-003**	**0.3719**	**0.0981**	**2.0100e-003**	**0.1001**		**317.0628**	**317.0628**	**5.7900e-003**		**317.2076**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6902	6.5375	16.1402	0.0640	5.9268	0.0496	5.9764	1.5853	0.0462	1.6315		6,485.0982	6,485.0982	0.2116		6,490.3872
Unmitigated	1.7564	6.8987	17.8203	0.0718	6.7197	0.0553	6.7750	1.7974	0.0515	1.8489		7,278.1693	7,278.1693	0.2322		7,283.9741

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,369.90	1,316.34	1207.16	3,092,564	2,727,642
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,369.90	1,316.34	1,207.16	3,092,564	2,727,642

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
NaturalGas Unmitigated	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4875.96	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0526**	**0.4494**	**0.1912**	**2.8700e-003**		**0.0363**	**0.0363**		**0.0363**	**0.0363**		**573.6428**	**573.6428**	**0.0110**	**0.0105**	**577.0516**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.65929	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0503**	**0.4294**	**0.1827**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1518**	**548.1518**	**0.0105**	**0.0101**	**551.4092**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Unmitigated	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4723					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.2941	0.3399	20.8341	0.0680		3.3987	3.3987		3.3987	3.3987	501.6493	0.0000	501.6493	2.3451	0.0000	560.2771
Landscaping	0.5140	0.1960	17.0251	9.0000e-004		0.0944	0.0944		0.0944	0.0944		30.7005	30.7005	0.0296		31.4395
Total	**8.0957**	**0.5359**	**37.8592**	**0.0689**		**3.4931**	**3.4931**		**3.4931**	**3.4931**	**501.6493**	**30.7005**	**532.3498**	**2.3747**	**0.0000**	**591.7166**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4723					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.2941	0.3399	20.8341	0.0680		3.3987	3.3987		3.3987	3.3987	501.6493	0.0000	501.6493	2.3451	0.0000	560.2771
Landscaping	0.5140	0.1960	17.0251	9.0000e-004		0.0944	0.0944		0.0944	0.0944		30.7005	30.7005	0.0296		31.4395
Total	**8.0957**	**0.5359**	**37.8592**	**0.0689**		**3.4931**	**3.4931**		**3.4931**	**3.4931**	**501.6493**	**30.7005**	**532.3498**	**2.3747**	**0.0000**	**591.7166**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel A

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	157.00	Space	0.00	62,800.00	0
Parking Lot	294.00	Space	3.17	117,600.00	0
Apartments Mid Rise	206.00	Dwelling Unit	4.93	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill Project - Parcel A - Bay Area AQMD Air District, Winter

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plan

Construction Phase - Phase timing based on AQ Questionnaire.

Grading - Total acres graded ajusted per site plans.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th Ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - applied inherent site lcoation features

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC.

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste diversion applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	20.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	30.90	0.00
tblFireplaces	NumberNoFireplace	8.24	206.00
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	60.00	11.30
tblLandUse	LotAcreage	1.41	0.00
tblLandUse	LotAcreage	2.65	3.17
tblLandUse	LotAcreage	5.42	4.93
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9495	40.5389	21.5679	0.0393	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,816.9735	3,816.9735	1.1950	0.0000	3,846.8482
2022	7.8845	22.7153	25.2190	0.0625	6.2452	0.9416	7.1868	3.3537	0.8663	4.2200	0.0000	6,176.2545	6,176.2545	0.9311	0.0000	6,194.8272
2023	7.6444	20.1461	24.4810	0.0614	2.5618	0.7885	3.3503	0.6875	0.7460	1.4334	0.0000	6,064.3136	6,064.3136	0.7221	0.0000	6,082.3670
2024	7.4818	19.0279	23.9676	0.0606	2.5618	0.6919	3.2537	0.6875	0.6542	1.3417	0.0000	5,983.5003	5,983.5003	0.7128	0.0000	6,001.3196
Maximum	**7.8845**	**40.5389**	**25.2190**	**0.0625**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,176.2545**	**6,176.2545**	**1.1950**	**0.0000**	**6,194.8272**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9495	40.5389	21.5679	0.0393	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,816.9735	3,816.9735	1.1950	0.0000	3,846.8482
2022	7.8845	22.7153	25.2190	0.0625	6.2452	0.9416	7.1868	3.3537	0.8663	4.2200	0.0000	6,176.2545	6,176.2545	0.9311	0.0000	6,194.8272
2023	7.6444	20.1461	24.4810	0.0614	2.5618	0.7885	3.3503	0.6875	0.7460	1.4334	0.0000	6,064.3136	6,064.3136	0.7221	0.0000	6,082.3670
2024	7.4818	19.0279	23.9676	0.0606	2.5618	0.6919	3.2537	0.6875	0.6542	1.3417	0.0000	5,983.5003	5,983.5003	0.7128	0.0000	6,001.3196
Maximum	**7.8845**	**40.5389**	**25.2190**	**0.0625**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,176.2545**	**6,176.2545**	**1.1950**	**0.0000**	**6,194.8272**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Energy	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516
Mobile	1.5054	7.2098	17.8547	0.0673	6.7197	0.0555	6.7752	1.7974	0.0517	1.8491		6,822.8013	6,822.8013	0.2370		6,828.7255
Total	**9.6536**	**8.1950**	**55.9051**	**0.1390**	**6.7197**	**3.5849**	**10.3046**	**1.7974**	**3.5812**	**5.3785**	**501.6493**	**7,427.1446**	**7,928.7939**	**2.6226**	**0.0105**	**7,997.4937**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Energy	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
Mobile	1.4399	6.8085	16.3565	0.0599	5.9268	0.0498	5.9766	1.5853	0.0464	1.6317		6,077.5070	6,077.5070	0.2171		6,082.9346
Total	**9.5858**	**7.7738**	**54.3984**	**0.1315**	**5.9268**	**3.5776**	**9.5044**	**1.5853**	**3.5742**	**5.1595**	**501.6493**	**6,656.3593**	**7,158.0086**	**2.6023**	**0.0101**	**7,226.0604**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.70**	**5.14**	**2.70**	**5.39**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.72**	**0.78**	**4.47**	**9.65**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11.3

Acres of Paving: 3.17

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,824 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	224.00	52.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	45.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1220**	**1.1599**	**7.2819**	**3.3210**	**1.0671**	**4.3881**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
Total	**0.0511**	**0.0348**	**0.3447**	**1.1000e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**109.4305**	**109.4305**	**2.4800e-003**		**109.4924**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1220**	**1.1599**	**7.2819**	**3.3210**	**1.0671**	**4.3881**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
Total	**0.0511**	**0.0348**	**0.3447**	**1.1000e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**109.4305**	**109.4305**	**2.4800e-003**		**109.4924**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1220**	**0.9409**	**7.0628**	**3.3210**	**0.8656**	**4.1866**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1220	0.0000	6.1220	3.3210	0.0000	3.3210			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1220**	**0.9409**	**7.0628**	**3.3210**	**0.8656**	**4.1866**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	4.1527					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.2555**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	4.1527					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.2555**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1593	5.1313	1.3692	0.0137	0.3520	0.0105	0.3625	0.1013	0.0100	0.1113		1,449.9623	1,449.9623	0.0729		1,451.7844
Worker	0.7122	0.4662	4.7239	0.0158	1.8401	0.0113	1.8514	0.4881	0.0104	0.4985		1,574.2541	1,574.2541	0.0331		1,575.0818
Total	**0.8715**	**5.5975**	**6.0930**	**0.0295**	**2.1921**	**0.0218**	**2.2139**	**0.5894**	**0.0204**	**0.6098**		**3,024.2164**	**3,024.2164**	**0.1060**		**3,026.8662**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1593	5.1313	1.3692	0.0137	0.3520	0.0105	0.3625	0.1013	0.0100	0.1113		1,449.9623	1,449.9623	0.0729		1,451.7844
Worker	0.7122	0.4662	4.7239	0.0158	1.8401	0.0113	1.8514	0.4881	0.0104	0.4985		1,574.2541	1,574.2541	0.0331		1,575.0818
Total	**0.8715**	**5.5975**	**6.0930**	**0.0295**	**2.1921**	**0.0218**	**2.2139**	**0.5894**	**0.0204**	**0.6098**		**3,024.2164**	**3,024.2164**	**0.1060**		**3,026.8662**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1198	3.9549	1.2158	0.0133	0.3520	4.6800e-003	0.3567	0.1013	4.4700e-003	0.1058		1,409.5434	1,409.5434	0.0619		1,411.0903
Worker	0.6671	0.4191	4.3385	0.0152	1.8401	0.0111	1.8512	0.4881	0.0102	0.4983		1,513.9671	1,513.9671	0.0296		1,514.7077
Total	**0.7868**	**4.3740**	**5.5543**	**0.0285**	**2.1921**	**0.0158**	**2.2079**	**0.5894**	**0.0147**	**0.6041**		**2,923.5105**	**2,923.5105**	**0.0915**		**2,925.7979**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1198	3.9549	1.2158	0.0133	0.3520	4.6800e-003	0.3567	0.1013	4.4700e-003	0.1058		1,409.5434	1,409.5434	0.0619		1,411.0903
Worker	0.6671	0.4191	4.3385	0.0152	1.8401	0.0111	1.8512	0.4881	0.0102	0.4983		1,513.9671	1,513.9671	0.0296		1,514.7077
Total	**0.7868**	**4.3740**	**5.5543**	**0.0285**	**2.1921**	**0.0158**	**2.2079**	**0.5894**	**0.0147**	**0.6041**		**2,923.5105**	**2,923.5105**	**0.0915**		**2,925.7979**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1157	3.9108	1.1701	0.0132	0.3520	4.5800e-003	0.3566	0.1013	4.3800e-003	0.1057		1,400.1933	1,400.1933	0.0606		1,401.7080
Worker	0.6283	0.3785	4.0141	0.0146	1.8401	0.0109	1.8510	0.4881	0.0100	0.4981		1,454.0515	1,454.0515	0.0266		1,454.7174
Total	**0.7441**	**4.2893**	**5.1842**	**0.0278**	**2.1921**	**0.0155**	**2.2076**	**0.5894**	**0.0144**	**0.6038**		**2,854.2448**	**2,854.2448**	**0.0872**		**2,856.4254**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1157	3.9108	1.1701	0.0132	0.3520	4.5800e-003	0.3566	0.1013	4.3800e-003	0.1057		1,400.1933	1,400.1933	0.0606		1,401.7080
Worker	0.6283	0.3785	4.0141	0.0146	1.8401	0.0109	1.8510	0.4881	0.0100	0.4981		1,454.0515	1,454.0515	0.0266		1,454.7174
Total	**0.7441**	**4.2893**	**5.1842**	**0.0278**	**2.1921**	**0.0155**	**2.2076**	**0.5894**	**0.0144**	**0.6038**		**2,854.2448**	**2,854.2448**	**0.0872**		**2,856.4254**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**5.1637**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1431	0.0937	0.9490	3.1700e-003	0.3697	2.2700e-003	0.3719	0.0981	2.0900e-003	0.1001		316.2564	316.2564	6.6500e-003		316.4227
Total	**0.1431**	**0.0937**	**0.9490**	**3.1700e-003**	**0.3697**	**2.2700e-003**	**0.3719**	**0.0981**	**2.0900e-003**	**0.1001**		**316.2564**	**316.2564**	**6.6500e-003**		**316.4227**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**5.1637**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1431	0.0937	0.9490	3.1700e-003	0.3697	2.2700e-003	0.3719	0.0981	2.0900e-003	0.1001		316.2564	316.2564	6.6500e-003		316.4227
Total	**0.1431**	**0.0937**	**0.9490**	**3.1700e-003**	**0.3697**	**2.2700e-003**	**0.3719**	**0.0981**	**2.0900e-003**	**0.1001**		**316.2564**	**316.2564**	**6.6500e-003**		**316.4227**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**5.1508**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1340	0.0842	0.8716	3.0500e-003	0.3697	2.2300e-003	0.3719	0.0981	2.0500e-003	0.1001		304.1452	304.1452	5.9500e-003		304.2940
Total	**0.1340**	**0.0842**	**0.8716**	**3.0500e-003**	**0.3697**	**2.2300e-003**	**0.3719**	**0.0981**	**2.0500e-003**	**0.1001**		**304.1452**	**304.1452**	**5.9500e-003**		**304.2940**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**5.1508**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1340	0.0842	0.8716	3.0500e-003	0.3697	2.2300e-003	0.3719	0.0981	2.0500e-003	0.1001		304.1452	304.1452	5.9500e-003		304.2940
Total	**0.1340**	**0.0842**	**0.8716**	**3.0500e-003**	**0.3697**	**2.2300e-003**	**0.3719**	**0.0981**	**2.0500e-003**	**0.1001**		**304.1452**	**304.1452**	**5.9500e-003**		**304.2940**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.1399**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1262	0.0760	0.8064	2.9300e-003	0.3697	2.1800e-003	0.3719	0.0981	2.0100e-003	0.1001		292.1086	292.1086	5.3500e-003		292.2423
Total	**0.1262**	**0.0760**	**0.8064**	**2.9300e-003**	**0.3697**	**2.1800e-003**	**0.3719**	**0.0981**	**2.0100e-003**	**0.1001**		**292.1086**	**292.1086**	**5.3500e-003**		**292.2423**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.1399**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1262	0.0760	0.8064	2.9300e-003	0.3697	2.1800e-003	0.3719	0.0981	2.0100e-003	0.1001		292.1086	292.1086	5.3500e-003		292.2423
Total	**0.1262**	**0.0760**	**0.8064**	**2.9300e-003**	**0.3697**	**2.1800e-003**	**0.3719**	**0.0981**	**2.0100e-003**	**0.1001**		**292.1086**	**292.1086**	**5.3500e-003**		**292.2423**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4399	6.8085	16.3565	0.0599	5.9268	0.0498	5.9766	1.5853	0.0464	1.6317		6,077.5070	6,077.5070	0.2171		6,082.9346
Unmitigated	1.5054	7.2098	17.8547	0.0673	6.7197	0.0555	6.7752	1.7974	0.0517	1.8491		6,822.8013	6,822.8013	0.2370		6,828.7255

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,369.90	1,316.34	1207.16	3,092,564	2,727,642
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,369.90	1,316.34	1,207.16	3,092,564	2,727,642

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
NaturalGas Unmitigated	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4875.96	0.0526	0.4494	0.1912	2.8700e-003		0.0363	0.0363		0.0363	0.0363		573.6428	573.6428	0.0110	0.0105	577.0516
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0526**	**0.4494**	**0.1912**	**2.8700e-003**		**0.0363**	**0.0363**		**0.0363**	**0.0363**		**573.6428**	**573.6428**	**0.0110**	**0.0105**	**577.0516**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.65929	0.0503	0.4294	0.1827	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1518	548.1518	0.0105	0.0101	551.4092
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0503**	**0.4294**	**0.1827**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1518**	**548.1518**	**0.0105**	**0.0101**	**551.4092**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166
Unmitigated	8.0957	0.5359	37.8592	0.0689		3.4931	3.4931		3.4931	3.4931	501.6493	30.7005	532.3498	2.3747	0.0000	591.7166

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4723					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.2941	0.3399	20.8341	0.0680		3.3987	3.3987		3.3987	3.3987	501.6493	0.0000	501.6493	2.3451	0.0000	560.2771
Landscaping	0.5140	0.1960	17.0251	9.0000e-004		0.0944	0.0944		0.0944	0.0944		30.7005	30.7005	0.0296		31.4395
Total	**8.0957**	**0.5359**	**37.8592**	**0.0689**		**3.4931**	**3.4931**		**3.4931**	**3.4931**	**501.6493**	**30.7005**	**532.3498**	**2.3747**	**0.0000**	**591.7166**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4723					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.2941	0.3399	20.8341	0.0680		3.3987	3.3987		3.3987	3.3987	501.6493	0.0000	501.6493	2.3451	0.0000	560.2771
Landscaping	0.5140	0.1960	17.0251	9.0000e-004		0.0944	0.0944		0.0944	0.0944		30.7005	30.7005	0.0296		31.4395
Total	**8.0957**	**0.5359**	**37.8592**	**0.0689**		**3.4931**	**3.4931**		**3.4931**	**3.4931**	**501.6493**	**30.7005**	**532.3498**	**2.3747**	**0.0000**	**591.7166**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel A

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65976E+001	7.65976E+001	4.69000E-003	0.00000E+000	7.67149E+001
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33076E+002	1.33076E+002	4.30400E-002	0.00000E+000	1.34152E+002
Excavators	1.35500E-002	1.26380E-001	1.96180E-001	3.10000E-004	6.13000E-003	5.64000E-003	0.00000E+000	2.72248E+001	2.72248E+001	8.81000E-003	0.00000E+000	2.74449E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	4.10000E-004	4.20000E-003	5.77000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	8.26010E-001	8.26010E-001	2.70000E-004	0.00000E+000	8.32680E-001
Paving Equipment	3.60000E-004	3.48000E-003	5.09000E-003	1.00000E-005	1.70000E-004	1.60000E-004	0.00000E+000	7.15710E-001	7.15710E-001	2.30000E-004	0.00000E+000	7.21500E-001
Rollers	3.30000E-004	3.45000E-003	3.72000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	4.61040E-001	4.61040E-001	1.50000E-004	0.00000E+000	4.64770E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10704E+001
Tractors/Loaders/ Backhoes	1.57580E-001	1.59810E+000	2.18877E+000	3.04000E-003	8.38300E-002	7.71200E-002	0.00000E+000	2.67245E+002	2.67245E+002	8.64300E-002	0.00000E+000	2.69405E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64662E+001	5.64662E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65975E+001	7.65975E+001	4.69000E-003	0.00000E+000	7.67148E+001
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33075E+002	1.33075E+002	4.30400E-002	0.00000E+000	1.34151E+002
Excavators	1.35500E-002	1.26380E-001	1.96180E-001	3.10000E-004	6.13000E-003	5.64000E-003	0.00000E+000	2.72248E+001	2.72248E+001	8.81000E-003	0.00000E+000	2.74449E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	4.10000E-004	4.20000E-003	5.77000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	8.26010E-001	8.26010E-001	2.70000E-004	0.00000E+000	8.32680E-001
Paving Equipment	3.60000E-004	3.48000E-003	5.09000E-003	1.00000E-005	1.70000E-004	1.60000E-004	0.00000E+000	7.15710E-001	7.15710E-001	2.30000E-004	0.00000E+000	7.21500E-001
Rollers	3.30000E-004	3.45000E-003	3.72000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	4.61040E-001	4.61040E-001	1.50000E-004	0.00000E+000	4.64770E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10703E+001
Tractors/Loaders/Backhoes	1.57580E-001	1.59810E+000	2.18876E+000	3.04000E-003	8.38300E-002	7.71200E-002	0.00000E+000	2.67244E+002	2.67244E+002	8.64300E-002	0.00000E+000	2.69405E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64661E+001	5.64661E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17317E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20232E-006	1.20232E-006	0.00000E+000	0.00000E+000	1.19268E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10194E-006	1.10194E-006	0.00000E+000	0.00000E+000	1.45746E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15834E-006	1.15834E-006	0.00000E+000	0.00000E+000	1.14905E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.23710E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.43165E-006	1.43165E-006	0.00000E+000	0.00000E+000	1.13613E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18435E-006	1.18435E-006	0.00000E+000	0.00000E+000	1.17485E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	4.56878E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19741E-006	1.19741E-006	0.00000E+000	0.00000E+000	1.18780E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23621E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		

No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.11	0.03	0.11	0.03	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.63	0.17	0.63	0.17	0.00	0.00
Grading	Fugitive Dust	0.37	0.20	0.37	0.20	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.05	0.02	0.05	0.02	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	100.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.27	5.43	8.73	10.93	10.17	10.25	0.00	10.88	10.88	8.60	0.00	10.88
Natural Gas	4.48	4.45	4.44	3.85	4.37	4.37	0.00	4.44	4.44	4.40	4.60	4.44
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	20.00	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.10	0.32		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.18	0.20		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.10			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00			
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.12			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	7.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	0.00	100.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Oat Hill Project - Parcel B

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	65.00	Space	0.00	26,000.00	0
Parking Lot	117.00	Space	1.36	46,800.00	0
Apartments Mid Rise	85.00	Dwelling Unit	2.24	85,000.00	243

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E□s RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing provided by applicant on AQ Questionnaire.

Grading - Total acres graded based on site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - Water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste reduction applied to reflect compliance with AB 341

Oat Hill Project - Parcel B - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	8.00	120.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	PhaseEndDate	8/25/2022	5/28/2024
tblConstructionPhase	PhaseEndDate	7/6/2022	5/14/2024
tblConstructionPhase	PhaseEndDate	8/18/2021	1/21/2022
tblConstructionPhase	PhaseEndDate	8/1/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	8/2/2022	2/9/2022
tblConstructionPhase	PhaseStartDate	8/19/2021	1/26/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	1/22/2022
tblFireplaces	NumberGas	12.75	0.00
tblFireplaces	NumberNoFireplace	3.40	85.00
tblFireplaces	NumberWood	14.45	0.00
tblGrading	AcresOfGrading	60.00	9.50
tblLandUse	LotAcreage	0.59	0.00
tblLandUse	LotAcreage	1.05	1.36
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1325	1.4017	0.9041	1.7100e-003	0.3729	0.0661	0.4390	0.2009	0.0608	0.2617	0.0000	150.7019	150.7019	0.0471	0.0000	151.8785
2022	0.5327	2.5052	2.6651	5.4900e-003	0.1729	0.1165	0.2894	0.0584	0.1101	0.1684	0.0000	484.2703	484.2703	0.0811	0.0000	486.2986
2023	0.5396	2.2721	2.6782	5.5800e-003	0.1309	0.1011	0.2320	0.0352	0.0957	0.1309	0.0000	491.1768	491.1768	0.0782	0.0000	493.1325
2024	0.2063	0.8024	0.9977	2.0800e-003	0.0496	0.0334	0.0829	0.0133	0.0316	0.0449	0.0000	183.6015	183.6015	0.0290	0.0000	184.3262
Maximum	**0.5396**	**2.5052**	**2.6782**	**5.5800e-003**	**0.3729**	**0.1165**	**0.4390**	**0.2009**	**0.1101**	**0.2617**	**0.0000**	**491.1768**	**491.1768**	**0.0811**	**0.0000**	**493.1325**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1325	1.4017	0.9041	1.7100e-003	0.3729	0.0661	0.4390	0.2009	0.0608	0.2617	0.0000	150.7017	150.7017	0.0471	0.0000	151.8783
2022	0.5327	2.5052	2.6651	5.4900e-003	0.1729	0.1165	0.2894	0.0584	0.1101	0.1684	0.0000	484.2699	484.2699	0.0811	0.0000	486.2982
2023	0.5396	2.2720	2.6782	5.5800e-003	0.1309	0.1011	0.2320	0.0352	0.0957	0.1309	0.0000	491.1764	491.1764	0.0782	0.0000	493.1321
2024	0.2063	0.8024	0.9977	2.0800e-003	0.0496	0.0334	0.0829	0.0133	0.0316	0.0449	0.0000	183.6014	183.6014	0.0290	0.0000	184.3260
Maximum	**0.5396**	**2.5052**	**2.6782**	**5.5800e-003**	**0.3729**	**0.1165**	**0.4390**	**0.2009**	**0.1101**	**0.2617**	**0.0000**	**491.1764**	**491.1764**	**0.0811**	**0.0000**	**493.1321**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2021	10-31-2021	0.9279	0.9279
2	11-1-2021	1-31-2022	0.8227	0.8227
3	2-1-2022	4-30-2022	0.7416	0.7416
4	5-1-2022	7-31-2022	0.7758	0.7758
5	8-1-2022	10-31-2022	0.7767	0.7767
6	11-1-2022	1-31-2023	0.7562	0.7562
7	2-1-2023	4-30-2023	0.6882	0.6882
8	5-1-2023	7-31-2023	0.7099	0.7099

9	**8-1-2023**	**10-31-2023**	0.7107	0.7107
10	**11-1-2023**	**1-31-2024**	0.6990	0.6990
11	**2-1-2024**	**4-30-2024**	0.6576	0.6576
12	**5-1-2024**	**7-31-2024**	0.1197	0.1197
		Highest	0.9279	0.9279

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4238	8.2700e-003	0.6929	2.3000e-004		0.0134	0.0134		0.0134	0.0134	1.3257	1.0342	2.3599	7.1900e-003	0.0000	2.5398
Energy	3.9600e-003	0.0338	0.0144	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	93.8335	93.8335	7.5200e-003	2.1200e-003	94.6531
Mobile	0.1118	0.5206	1.2543	4.9800e-003	0.4748	4.0600e-003	0.4788	0.1274	3.7800e-003	0.1312	0.0000	458.6925	458.6925	0.0154	0.0000	459.0774
Waste						0.0000	0.0000		0.0000	0.0000	7.9370	0.0000	7.9370	0.4691	0.0000	19.6635
Water						0.0000	0.0000		0.0000	0.0000	1.7570	4.4789	6.2358	0.1810	4.3800e-003	12.0652
Total	**0.5396**	**0.5627**	**1.9616**	**5.4300e-003**	**0.4748**	**0.0202**	**0.4950**	**0.1274**	**0.0199**	**0.1473**	**11.0197**	**558.0390**	**569.0587**	**0.6802**	**6.5000e-003**	**587.9989**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4238	8.2700e-003	0.6929	2.3000e-004		0.0134	0.0134		0.0134	0.0134	1.3257	1.0342	2.3599	7.1900e-003	0.0000	2.5398
Energy	3.7800e-003	0.0323	0.0138	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	37.4465	37.4465	7.2000e-004	6.9000e-004	37.6690
Mobile	0.1071	0.4923	1.1448	4.4400e-003	0.4187	3.6400e-003	0.4224	0.1124	3.4000e-003	0.1158	0.0000	408.7736	408.7736	0.0141	0.0000	409.1255
Waste						0.0000	0.0000		0.0000	0.0000	3.9685	0.0000	3.9685	0.2345	0.0000	9.8317
Water						0.0000	0.0000		0.0000	0.0000	1.4056	3.5831	4.9887	0.1448	3.5000e-003	9.6521
Total	**0.5346**	**0.5329**	**1.8515**	**4.8800e-003**	**0.4187**	**0.0197**	**0.4384**	**0.1124**	**0.0194**	**0.1318**	**6.6998**	**450.8374**	**457.5371**	**0.4013**	**4.1900e-003**	**468.8181**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.92**	**5.29**	**5.62**	**10.13**	**11.80**	**2.72**	**11.43**	**11.81**	**2.56**	**10.55**	**39.20**	**19.21**	**19.60**	**41.00**	**35.54**	**20.27**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
4	Paving	Paving	1/22/2022	1/25/2022	5	2	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 1.36

Residential Indoor: 172,125; Residential Outdoor: 57,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,368 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	92.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3212	0.0000	0.3212	0.1743	0.0000	0.1743	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1202	1.2987	0.8325	1.5600e-003		0.0609	0.0609		0.0560	0.0560	0.0000	136.7819	136.7819	0.0442	0.0000	137.8879
Total	**0.1202**	**1.2987**	**0.8325**	**1.5600e-003**	**0.3212**	**0.0609**	**0.3821**	**0.1743**	**0.0560**	**0.2304**	**0.0000**	**136.7819**	**136.7819**	**0.0442**	**0.0000**	**137.8879**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6700e-003	0.0177	6.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2604	5.2604	1.2000e-004	0.0000	5.2634
Total	**2.4200e-003**	**1.6700e-003**	**0.0177**	**6.0000e-005**	**6.2200e-003**	**4.0000e-005**	**6.2600e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.2604**	**5.2604**	**1.2000e-004**	**0.0000**	**5.2634**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3212	0.0000	0.3212	0.1743	0.0000	0.1743	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1202	1.2987	0.8325	1.5600e-003		0.0609	0.0609		0.0560	0.0560	0.0000	136.7818	136.7818	0.0442	0.0000	137.8877
Total	**0.1202**	**1.2987**	**0.8325**	**1.5600e-003**	**0.3212**	**0.0609**	**0.3821**	**0.1743**	**0.0560**	**0.2304**	**0.0000**	**136.7818**	**136.7818**	**0.0442**	**0.0000**	**137.8877**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6700e-003	0.0177	6.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2604	5.2604	1.2000e-004	0.0000	5.2634
Total	**2.4200e-003**	**1.6700e-003**	**0.0177**	**6.0000e-005**	**6.2200e-003**	**4.0000e-005**	**6.2600e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.2604**	**5.2604**	**1.2000e-004**	**0.0000**	**5.2634**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0502	0.0000	0.0502	0.0254	0.0000	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.1564	0.1146	2.2000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	19.5411	19.5411	6.3200e-003	0.0000	19.6991
Total	**0.0146**	**0.1564**	**0.1146**	**2.2000e-004**	**0.0502**	**7.0600e-003**	**0.0573**	**0.0254**	**6.4900e-003**	**0.0319**	**0.0000**	**19.5411**	**19.5411**	**6.3200e-003**	**0.0000**	**19.6991**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.1000e-004	2.3200e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7239	0.7239	2.0000e-005	0.0000	0.7243
Total	**3.2000e-004**	**2.1000e-004**	**2.3200e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7239**	**0.7239**	**2.0000e-005**	**0.0000**	**0.7243**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0502	0.0000	0.0502	0.0254	0.0000	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.1564	0.1146	2.2000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	19.5411	19.5411	6.3200e-003	0.0000	19.6991
Total	**0.0146**	**0.1564**	**0.1146**	**2.2000e-004**	**0.0502**	**7.0600e-003**	**0.0573**	**0.0254**	**6.4900e-003**	**0.0319**	**0.0000**	**19.5411**	**19.5411**	**6.3200e-003**	**0.0000**	**19.6991**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.1000e-004	2.3200e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7239	0.7239	2.0000e-005	0.0000	0.7243
Total	**3.2000e-004**	**2.1000e-004**	**2.3200e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7239**	**0.7239**	**2.0000e-005**	**0.0000**	**0.7243**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5462	281.5462	0.0675	0.0000	283.2324
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5462**	**281.5462**	**0.0675**	**0.0000**	**283.2324**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5500e-003	0.2524	0.0626	6.8000e-004	0.0167	5.0000e-004	0.0172	4.8400e-003	4.8000e-004	5.3200e-003	0.0000	65.5228	65.5228	3.1100e-003	0.0000	65.6005
Worker	0.0320	0.0212	0.2304	8.0000e-004	0.0883	5.6000e-004	0.0889	0.0235	5.2000e-004	0.0240	0.0000	71.9305	71.9305	1.5000e-003	0.0000	71.9680
Total	**0.0395**	**0.2736**	**0.2930**	**1.4800e-003**	**0.1051**	**1.0600e-003**	**0.1061**	**0.0283**	**1.0000e-003**	**0.0293**	**0.0000**	**137.4533**	**137.4533**	**4.6100e-003**	**0.0000**	**137.5685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5458	281.5458	0.0675	0.0000	283.2321
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5458**	**281.5458**	**0.0675**	**0.0000**	**283.2321**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5500e-003	0.2524	0.0626	6.8000e-004	0.0167	5.0000e-004	0.0172	4.8400e-003	4.8000e-004	5.3200e-003	0.0000	65.5228	65.5228	3.1100e-003	0.0000	65.6005
Worker	0.0320	0.0212	0.2304	8.0000e-004	0.0883	5.6000e-004	0.0889	0.0235	5.2000e-004	0.0240	0.0000	71.9305	71.9305	1.5000e-003	0.0000	71.9680
Total	**0.0395**	**0.2736**	**0.2930**	**1.4800e-003**	**0.1051**	**1.0600e-003**	**0.1061**	**0.0283**	**1.0000e-003**	**0.0293**	**0.0000**	**137.4533**	**137.4533**	**4.6100e-003**	**0.0000**	**137.5685**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0700e-003	0.2082	0.0599	7.1000e-004	0.0179	2.4000e-004	0.0181	5.1800e-003	2.3000e-004	5.4100e-003	0.0000	68.1419	68.1419	2.8400e-003	0.0000	68.2128
Worker	0.0320	0.0204	0.2268	8.2000e-004	0.0945	5.9000e-004	0.0951	0.0251	5.4000e-004	0.0257	0.0000	74.0152	74.0152	1.4400e-003	0.0000	74.0512
Total	**0.0381**	**0.2286**	**0.2867**	**1.5300e-003**	**0.1124**	**8.3000e-004**	**0.1132**	**0.0303**	**7.7000e-004**	**0.0311**	**0.0000**	**142.1571**	**142.1571**	**4.2800e-003**	**0.0000**	**142.2640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0700e-003	0.2082	0.0599	7.1000e-004	0.0179	2.4000e-004	0.0181	5.1800e-003	2.3000e-004	5.4100e-003	0.0000	68.1419	68.1419	2.8400e-003	0.0000	68.2128
Worker	0.0320	0.0204	0.2268	8.2000e-004	0.0945	5.9000e-004	0.0951	0.0251	5.4000e-004	0.0257	0.0000	74.0152	74.0152	1.4400e-003	0.0000	74.0512
Total	**0.0381**	**0.2286**	**0.2867**	**1.5300e-003**	**0.1124**	**8.3000e-004**	**0.1132**	**0.0303**	**7.7000e-004**	**0.0311**	**0.0000**	**142.1571**	**142.1571**	**4.2800e-003**	**0.0000**	**142.2640**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4468	112.4468	0.0266	0.0000	113.1116
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4468**	**112.4468**	**0.0266**	**0.0000**	**113.1116**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0768	0.0215	2.6000e-004	6.6800e-003	9.0000e-005	6.7700e-003	1.9300e-003	8.0000e-005	2.0200e-003	0.0000	25.2506	25.2506	1.0400e-003	0.0000	25.2765
Worker	0.0112	6.8800e-003	0.0784	2.9000e-004	0.0353	2.2000e-004	0.0355	9.3800e-003	2.0000e-004	9.5800e-003	0.0000	26.5205	26.5205	4.8000e-004	0.0000	26.5326
Total	**0.0134**	**0.0837**	**0.0999**	**5.5000e-004**	**0.0419**	**3.1000e-004**	**0.0422**	**0.0113**	**2.8000e-004**	**0.0116**	**0.0000**	**51.7711**	**51.7711**	**1.5200e-003**	**0.0000**	**51.8091**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4467	112.4467	0.0266	0.0000	113.1114
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4467**	**112.4467**	**0.0266**	**0.0000**	**113.1114**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0768	0.0215	2.6000e-004	6.6800e-003	9.0000e-005	6.7700e-003	1.9300e-003	8.0000e-005	2.0200e-003	0.0000	25.2506	25.2506	1.0400e-003	0.0000	25.2765
Worker	0.0112	6.8800e-003	0.0784	2.9000e-004	0.0353	2.2000e-004	0.0355	9.3800e-003	2.0000e-004	9.5800e-003	0.0000	26.5205	26.5205	4.8000e-004	0.0000	26.5326
Total	**0.0134**	**0.0837**	**0.0999**	**5.5000e-004**	**0.0419**	**3.1000e-004**	**0.0422**	**0.0113**	**2.8000e-004**	**0.0116**	**0.0000**	**51.7711**	**51.7711**	**1.5200e-003**	**0.0000**	**51.8091**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8000e-004	9.5200e-003	0.0122	2.0000e-005		4.9000e-004	4.9000e-004		4.5000e-004	4.5000e-004	0.0000	1.6376	1.6376	5.1000e-004	0.0000	1.6505
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**9.5200e-003**	**0.0122**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**1.6376**	**1.6376**	**5.1000e-004**	**0.0000**	**1.6505**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1287	0.1287	0.0000	0.0000	0.1288
Total	**6.0000e-005**	**4.0000e-005**	**4.1000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1287**	**0.1287**	**0.0000**	**0.0000**	**0.1288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8000e-004	9.5200e-003	0.0122	2.0000e-005		4.9000e-004	4.9000e-004		4.5000e-004	4.5000e-004	0.0000	1.6376	1.6376	5.1000e-004	0.0000	1.6505
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**9.5200e-003**	**0.0122**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**1.6376**	**1.6376**	**5.1000e-004**	**0.0000**	**1.6505**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1287	0.1287	0.0000	0.0000	0.1288
Total	**6.0000e-005**	**4.0000e-005**	**4.1000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1287**	**0.1287**	**0.0000**	**0.0000**	**0.1288**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.2621**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-003	3.9800e-003	0.0432	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.4942	13.4942	2.8000e-004	0.0000	13.5013
Total	**6.0000e-003**	**3.9800e-003**	**0.0432**	**1.5000e-004**	**0.0166**	**1.1000e-004**	**0.0167**	**4.4100e-003**	**1.0000e-004**	**4.5100e-003**	**0.0000**	**13.4942**	**13.4942**	**2.8000e-004**	**0.0000**	**13.5013**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.2621**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-003	3.9800e-003	0.0432	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.4942	13.4942	2.8000e-004	0.0000	13.5013
Total	**6.0000e-003**	**3.9800e-003**	**0.0432**	**1.5000e-004**	**0.0166**	**1.1000e-004**	**0.0167**	**4.4100e-003**	**1.0000e-004**	**4.5100e-003**	**0.0000**	**13.4942**	**13.4942**	**2.8000e-004**	**0.0000**	**13.5013**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.2908**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2600e-003	3.9900e-003	0.0444	1.6000e-004	0.0185	1.2000e-004	0.0186	4.9200e-003	1.1000e-004	5.0300e-003	0.0000	14.4812	14.4812	2.8000e-004	0.0000	14.4883
Total	**6.2600e-003**	**3.9900e-003**	**0.0444**	**1.6000e-004**	**0.0185**	**1.2000e-004**	**0.0186**	**4.9200e-003**	**1.1000e-004**	**5.0300e-003**	**0.0000**	**14.4812**	**14.4812**	**2.8000e-004**	**0.0000**	**14.4883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.2908**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2600e-003	3.9900e-003	0.0444	1.6000e-004	0.0185	1.2000e-004	0.0186	4.9200e-003	1.1000e-004	5.0300e-003	0.0000	14.4812	14.4812	2.8000e-004	0.0000	14.4883
Total	**6.2600e-003**	**3.9900e-003**	**0.0444**	**1.6000e-004**	**0.0185**	**1.2000e-004**	**0.0186**	**4.9200e-003**	**1.1000e-004**	**5.0300e-003**	**0.0000**	**14.4812**	**14.4812**	**2.8000e-004**	**0.0000**	**14.4883**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1094					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.1191**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.4800e-003	0.0169	6.0000e-005	7.6100e-003	5.0000e-005	7.6600e-003	2.0200e-003	4.0000e-005	2.0700e-003	0.0000	5.7237	5.7237	1.0000e-004	0.0000	5.7263
Total	**2.4200e-003**	**1.4800e-003**	**0.0169**	**6.0000e-005**	**7.6100e-003**	**5.0000e-005**	**7.6600e-003**	**2.0200e-003**	**4.0000e-005**	**2.0700e-003**	**0.0000**	**5.7237**	**5.7237**	**1.0000e-004**	**0.0000**	**5.7263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1094					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.1191**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.4800e-003	0.0169	6.0000e-005	7.6100e-003	5.0000e-005	7.6600e-003	2.0200e-003	4.0000e-005	2.0700e-003	0.0000	5.7237	5.7237	1.0000e-004	0.0000	5.7263
Total	**2.4200e-003**	**1.4800e-003**	**0.0169**	**6.0000e-005**	**7.6100e-003**	**5.0000e-005**	**7.6600e-003**	**2.0200e-003**	**4.0000e-005**	**2.0700e-003**	**0.0000**	**5.7237**	**5.7237**	**1.0000e-004**	**0.0000**	**5.7263**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1071	0.4923	1.1448	4.4400e-003	0.4187	3.6400e-003	0.4224	0.1124	3.4000e-003	0.1158	0.0000	408.7736	408.7736	0.0141	0.0000	409.1255
Unmitigated	0.1118	0.5206	1.2543	4.9800e-003	0.4748	4.0600e-003	0.4788	0.1274	3.7800e-003	0.1312	0.0000	458.6925	458.6925	0.0154	0.0000	459.0774

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	565.25	543.15	498.10	1,276,058	1,125,483
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	565.25	543.15	498.10	1,276,058	1,125,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	54.6456	54.6456	6.7700e-003	1.4000e-003	55.2323
NaturalGas Mitigated	3.7800e-003	0.0323	0.0138	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	37.4465	37.4465	7.2000e-004	6.9000e-004	37.6690
NaturalGas Unmitigated	3.9600e-003	0.0338	0.0144	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.1879	39.1879	7.5000e-004	7.2000e-004	39.4208

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	734353	3.9600e-003	0.0338	0.0144	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.1879	39.1879	7.5000e-004	7.2000e-004	39.4208
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.9600e-003**	**0.0338**	**0.0144**	**2.2000e-004**		**2.7400e-003**	**2.7400e-003**		**2.7400e-003**	**2.7400e-003**	**0.0000**	**39.1879**	**39.1879**	**7.5000e-004**	**7.2000e-004**	**39.4208**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	701721	3.7800e-003	0.0323	0.0138	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	37.4465	37.4465	7.2000e-004	6.9000e-004	37.6690
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.7800e-003**	**0.0323**	**0.0138**	**2.1000e-004**		**2.6100e-003**	**2.6100e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**37.4465**	**37.4465**	**7.2000e-004**	**6.9000e-004**	**37.6690**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	350910	37.2553	4.6200e-003	9.6000e-004	37.6553
Enclosed Parking Structure	147420	15.6513	1.9400e-003	4.0000e-004	15.8193
Parking Lot	16380	1.7390	2.2000e-004	4.0000e-005	1.7577
Total		**54.6456**	**6.7800e-003**	**1.4000e-003**	**55.2323**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4238	8.2700e-003	0.6929	2.3000e-004		0.0134	0.0134		0.0134	0.0134	1.3257	1.0342	2.3599	7.1900e-003	0.0000	2.5398
Unmitigated	0.4238	8.2700e-003	0.6929	2.3000e-004		0.0134	0.0134		0.0134	0.0134	1.3257	1.0342	2.3599	7.1900e-003	0.0000	2.5398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6800e-003	9.9000e-004	0.0607	2.0000e-004		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	1.3257	0.0000	1.3257	6.2000e-003	0.0000	1.4807
Landscaping	0.0191	7.2800e-003	0.6322	3.0000e-005		3.5000e-003	3.5000e-003		3.5000e-003	3.5000e-003	0.0000	1.0342	1.0342	1.0000e-003	0.0000	1.0591
Total	**0.4238**	**8.2700e-003**	**0.6929**	**2.3000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**1.3257**	**1.0342**	**2.3599**	**7.2000e-003**	**0.0000**	**2.5398**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6800e-003	9.9000e-004	0.0607	2.0000e-004		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	1.3257	0.0000	1.3257	6.2000e-003	0.0000	1.4807
Landscaping	0.0191	7.2800e-003	0.6322	3.0000e-005		3.5000e-003	3.5000e-003		3.5000e-003	3.5000e-003	0.0000	1.0342	1.0342	1.0000e-003	0.0000	1.0591
Total	**0.4238**	**8.2700e-003**	**0.6929**	**2.3000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**1.3257**	**1.0342**	**2.3599**	**7.2000e-003**	**0.0000**	**2.5398**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.9887	0.1448	3.5000e-003	9.6521
Unmitigated	6.2358	0.1810	4.3800e-003	12.0652

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.53809 / 3.49141	6.2358	0.1810	4.3800e-003	12.0652
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.2358**	**0.1810**	**4.3800e-003**	**12.0652**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.43047 / 2.79312	4.9887	0.1448	3.5000e-003	9.6521
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.9887**	**0.1448**	**3.5000e-003**	**9.6521**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.9685	0.2345	0.0000	9.8317
Unmitigated	7.9370	0.4691	0.0000	19.6635

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	39.1	7.9370	0.4691	0.0000	19.6635
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**7.9370**	**0.4691**	**0.0000**	**19.6635**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	19.55	3.9685	0.2345	0.0000	9.8317
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**3.9685**	**0.2345**	**0.0000**	**9.8317**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel B

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	65.00	Space	0.00	26,000.00	0
Parking Lot	117.00	Space	1.36	46,800.00	0
Apartments Mid Rise	85.00	Dwelling Unit	2.24	85,000.00	243

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E□s RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing provided by applicant on AQ Questionnaire.

Grading - Total acres graded based on site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - Water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste reduction applied to reflect compliance with AB 341

Oat Hill Project - Parcel B - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	8.00	120.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	PhaseEndDate	8/25/2022	5/28/2024
tblConstructionPhase	PhaseEndDate	7/6/2022	5/14/2024
tblConstructionPhase	PhaseEndDate	8/18/2021	1/21/2022
tblConstructionPhase	PhaseEndDate	8/1/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	8/2/2022	2/9/2022
tblConstructionPhase	PhaseStartDate	8/19/2021	1/26/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	1/22/2022
tblFireplaces	NumberGas	12.75	0.00
tblFireplaces	NumberNoFireplace	3.40	85.00
tblFireplaces	NumberWood	14.45	0.00
tblGrading	AcresOfGrading	60.00	9.50
tblLandUse	LotAcreage	0.59	0.00
tblLandUse	LotAcreage	1.05	1.36
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9461	40.5309	21.5964	0.0395	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,828.2096	3,828.2096	1.1952	0.0000	3,858.0897
2022	4.3458	20.8804	21.1480	0.0440	6.2293	0.9416	7.1709	3.3520	0.8663	4.2183	0.0000	4,275.8700	4,275.8700	0.9313	0.0000	4,292.7447
2023	4.1624	17.4441	20.7846	0.0435	1.0458	0.7778	1.8236	0.2806	0.7360	1.0166	0.0000	4,227.6709	4,227.6709	0.6637	0.0000	4,244.2624
2024	4.0298	16.3850	20.5257	0.0432	1.0458	0.6813	1.7271	0.2806	0.6444	0.9250	0.0000	4,192.1994	4,192.1994	0.6572	0.0000	4,208.6288
Maximum	**4.3458**	**40.5309**	**21.5964**	**0.0440**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**4,275.8700**	**4,275.8700**	**1.1952**	**0.0000**	**4,292.7447**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9461	40.5309	21.5964	0.0395	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,828.2096	3,828.2096	1.1952	0.0000	3,858.0897
2022	4.3458	20.8804	21.1480	0.0440	6.2293	0.9416	7.1709	3.3520	0.8663	4.2183	0.0000	4,275.8700	4,275.8700	0.9313	0.0000	4,292.7447
2023	4.1624	17.4441	20.7846	0.0435	1.0458	0.7778	1.8236	0.2806	0.7360	1.0166	0.0000	4,227.6709	4,227.6709	0.6637	0.0000	4,244.2624
2024	4.0298	16.3850	20.5257	0.0432	1.0458	0.6813	1.7271	0.2806	0.6444	0.9250	0.0000	4,192.1994	4,192.1994	0.6572	0.0000	4,208.6288
Maximum	**4.3458**	**40.5309**	**21.5964**	**0.0440**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**4,275.8700**	**4,275.8700**	**1.1952**	**0.0000**	**4,292.7447**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Energy	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038
Mobile	0.7247	2.8466	7.3530	0.0296	2.7727	0.0228	2.7955	0.7416	0.0213	0.7629		3,003.1281	3,003.1281	0.0958		3,005.5233
Total	**4.0860**	**3.2531**	**23.0530**	**0.0592**	**2.7727**	**1.4791**	**4.2518**	**0.7416**	**1.4776**	**2.2192**	**206.9912**	**3,252.4922**	**3,459.4834**	**1.0802**	**4.3400e-003**	**3,487.7811**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Energy	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
Mobile	0.6974	2.6975	6.6598	0.0264	2.4455	0.0205	2.4660	0.6541	0.0191	0.6732		2,675.8900	2,675.8900	0.0873		2,678.0724
Total	**4.0578**	**3.0958**	**22.3562**	**0.0559**	**2.4455**	**1.4761**	**3.9216**	**0.6541**	**1.4747**	**2.1288**	**206.9912**	**2,914.7360**	**3,121.7272**	**1.0715**	**4.1500e-003**	**3,149.7496**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.69**	**4.84**	**3.02**	**5.54**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.76**	**0.81**	**4.38**	**9.69**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
4	Paving	Paving	1/22/2022	1/25/2022	5	2	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 1.36

Residential Indoor: 172,125; Residential Outdoor: 57,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,368 (Architectural Coating – sqft)

OffRoad Equipment

Oat Hill Project - Parcel B - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	92.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1060**	**1.1599**	**7.2660**	**3.3193**	**1.0671**	**4.3864**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
Total	**0.0482**	**0.0282**	**0.3685**	**1.1900e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**118.7939**	**118.7939**	**2.6600e-003**		**118.8603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1060**	**1.1599**	**7.2660**	**3.3193**	**1.0671**	**4.3864**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
Total	**0.0482**	**0.0282**	**0.3685**	**1.1900e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**118.7939**	**118.7939**	**2.6600e-003**		**118.8603**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1060**	**0.9409**	**7.0469**	**3.3193**	**0.8656**	**4.1849**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1060**	**0.9409**	**7.0469**	**3.3193**	**0.8656**	**4.1849**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0607	2.0568	0.4813	5.6700e-003	0.1422	4.0800e-003	0.1462	0.0409	3.9000e-003	0.0448		600.9035	600.9035	0.0272		601.5842
Worker	0.2753	0.1551	2.0823	7.0400e-003	0.7558	4.6400e-003	0.7604	0.2005	4.2800e-003	0.2047		701.8637	701.8637	0.0146		702.2294
Total	**0.3361**	**2.2118**	**2.5636**	**0.0127**	**0.8979**	**8.7200e-003**	**0.9066**	**0.2414**	**8.1800e-003**	**0.2496**		**1,302.7672**	**1,302.7672**	**0.0419**		**1,303.8136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0607	2.0568	0.4813	5.6700e-003	0.1422	4.0800e-003	0.1462	0.0409	3.9000e-003	0.0448		600.9035	600.9035	0.0272		601.5842
Worker	0.2753	0.1551	2.0823	7.0400e-003	0.7558	4.6400e-003	0.7604	0.2005	4.2800e-003	0.2047		701.8637	701.8637	0.0146		702.2294
Total	**0.3361**	**2.2118**	**2.5636**	**0.0127**	**0.8979**	**8.7200e-003**	**0.9066**	**0.2414**	**8.1800e-003**	**0.2496**		**1,302.7672**	**1,302.7672**	**0.0419**		**1,303.8136**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0455	1.5894	0.4333	5.5000e-003	0.1422	1.8100e-003	0.1440	0.0409	1.7300e-003	0.0427		583.9993	583.9993	0.0233		584.5812
Worker	0.2570	0.1395	1.9205	6.7700e-003	0.7558	4.5500e-003	0.7603	0.2005	4.1900e-003	0.2047		674.9569	674.9569	0.0131		675.2852
Total	**0.3026**	**1.7289**	**2.3537**	**0.0123**	**0.8979**	**6.3600e-003**	**0.9043**	**0.2414**	**5.9200e-003**	**0.2473**		**1,258.9562**	**1,258.9562**	**0.0364**		**1,259.8664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0455	1.5894	0.4333	5.5000e-003	0.1422	1.8100e-003	0.1440	0.0409	1.7300e-003	0.0427		583.9993	583.9993	0.0233		584.5812
Worker	0.2570	0.1395	1.9205	6.7700e-003	0.7558	4.5500e-003	0.7603	0.2005	4.1900e-003	0.2047		674.9569	674.9569	0.0131		675.2852
Total	**0.3026**	**1.7289**	**2.3537**	**0.0123**	**0.8979**	**6.3600e-003**	**0.9043**	**0.2414**	**5.9200e-003**	**0.2473**		**1,258.9562**	**1,258.9562**	**0.0364**		**1,259.8664**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0440	1.5718	0.4174	5.4600e-003	0.1422	1.7800e-003	0.1439	0.0409	1.7000e-003	0.0426		580.0101	580.0101	0.0228		580.5806
Worker	0.2411	0.1260	1.7826	6.5000e-003	0.7558	4.4600e-003	0.7602	0.2005	4.1100e-003	0.2046		648.2172	648.2172	0.0118		648.5133
Total	**0.2852**	**1.6978**	**2.2000**	**0.0120**	**0.8979**	**6.2400e-003**	**0.9042**	**0.2414**	**5.8100e-003**	**0.2472**		**1,228.2273**	**1,228.2273**	**0.0347**		**1,229.0939**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0440	1.5718	0.4174	5.4600e-003	0.1422	1.7800e-003	0.1439	0.0409	1.7000e-003	0.0426		580.0101	580.0101	0.0228		580.5806
Worker	0.2411	0.1260	1.7826	6.5000e-003	0.7558	4.4600e-003	0.7602	0.2005	4.1100e-003	0.2046		648.2172	648.2172	0.0118		648.5133
Total	**0.2852**	**1.6978**	**2.2000**	**0.0120**	**0.8979**	**6.2400e-003**	**0.9042**	**0.2414**	**5.8100e-003**	**0.2472**		**1,228.2273**	**1,228.2273**	**0.0347**		**1,229.0939**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	1.7816					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7581**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	**0.0599**	**0.0337**	**0.4527**	**1.5300e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**152.5791**	**152.5791**	**3.1800e-003**		**152.6586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	1.7816					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7581**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	**0.0599**	**0.0337**	**0.4527**	**1.5300e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**152.5791**	**152.5791**	**3.1800e-003**		**152.6586**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**2.2497**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0539	0.0303	0.4074	1.3800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		137.3212	137.3212	2.8600e-003		137.3927
Total	**0.0539**	**0.0303**	**0.4074**	**1.3800e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**137.3212**	**137.3212**	**2.8600e-003**		**137.3927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**2.2497**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0539	0.0303	0.4074	1.3800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		137.3212	137.3212	2.8600e-003		137.3927
Total	**0.0539**	**0.0303**	**0.4074**	**1.3800e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**137.3212**	**137.3212**	**2.8600e-003**		**137.3927**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.2368**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0273	0.3757	1.3200e-003	0.1479	8.9000e-004	0.1488	0.0392	8.2000e-004	0.0400		132.0568	132.0568	2.5700e-003		132.1210
Total	**0.0503**	**0.0273**	**0.3757**	**1.3200e-003**	**0.1479**	**8.9000e-004**	**0.1488**	**0.0392**	**8.2000e-004**	**0.0400**		**132.0568**	**132.0568**	**2.5700e-003**		**132.1210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.2368**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0273	0.3757	1.3200e-003	0.1479	8.9000e-004	0.1488	0.0392	8.2000e-004	0.0400		132.0568	132.0568	2.5700e-003		132.1210
Total	**0.0503**	**0.0273**	**0.3757**	**1.3200e-003**	**0.1479**	**8.9000e-004**	**0.1488**	**0.0392**	**8.2000e-004**	**0.0400**		**132.0568**	**132.0568**	**2.5700e-003**		**132.1210**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**2.2259**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0247	0.3488	1.2700e-003	0.1479	8.7000e-004	0.1487	0.0392	8.0000e-004	0.0400		126.8251	126.8251	2.3200e-003		126.8830
Total	**0.0472**	**0.0247**	**0.3488**	**1.2700e-003**	**0.1479**	**8.7000e-004**	**0.1487**	**0.0392**	**8.0000e-004**	**0.0400**		**126.8251**	**126.8251**	**2.3200e-003**		**126.8830**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**2.2259**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0247	0.3488	1.2700e-003	0.1479	8.7000e-004	0.1487	0.0392	8.0000e-004	0.0400		126.8251	126.8251	2.3200e-003		126.8830
Total	**0.0472**	**0.0247**	**0.3488**	**1.2700e-003**	**0.1479**	**8.7000e-004**	**0.1487**	**0.0392**	**8.0000e-004**	**0.0400**		**126.8251**	**126.8251**	**2.3200e-003**		**126.8830**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6974	2.6975	6.6598	0.0264	2.4455	0.0205	2.4660	0.6541	0.0191	0.6732		2,675.8900	2,675.8900	0.0873		2,678.0724
Unmitigated	0.7247	2.8466	7.3530	0.0296	2.7727	0.0228	2.7955	0.7416	0.0213	0.7629		3,003.1281	3,003.1281	0.0958		3,005.5233

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	565.25	543.15	498.10	1,276,058	1,125,483
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	565.25	543.15	498.10	1,276,058	1,125,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
NaturalGas Unmitigated	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2011.93	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0217**	**0.1854**	**0.0789**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**		**236.6973**	**236.6973**	**4.5400e-003**	**4.3400e-003**	**238.1038**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.92252	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1772**	**0.0754**	**1.1300e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**		**226.1791**	**226.1791**	**4.3400e-003**	**4.1500e-003**	**227.5232**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Unmitigated	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.9466	0.1402	8.5966	0.0281		1.4024	1.4024		1.4024	1.4024	206.9912	0.0000	206.9912	0.9676	0.0000	231.1823
Landscaping	0.2121	0.0809	7.0245	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.6668	12.6668	0.0122		12.9717
Total	**3.3396**	**0.2211**	**15.6211**	**0.0284**		**1.4413**	**1.4413**		**1.4413**	**1.4413**	**206.9912**	**12.6668**	**219.6580**	**0.9798**	**0.0000**	**244.1539**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.9466	0.1402	8.5966	0.0281		1.4024	1.4024		1.4024	1.4024	206.9912	0.0000	206.9912	0.9676	0.0000	231.1823
Landscaping	0.2121	0.0809	7.0245	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.6668	12.6668	0.0122		12.9717
Total	**3.3396**	**0.2211**	**15.6211**	**0.0284**		**1.4413**	**1.4413**		**1.4413**	**1.4413**	**206.9912**	**12.6668**	**219.6580**	**0.9798**	**0.0000**	**244.1539**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel B

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	65.00	Space	0.00	26,000.00	0
Parking Lot	117.00	Space	1.36	46,800.00	0
Apartments Mid Rise	85.00	Dwelling Unit	2.24	85,000.00	243

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E□s RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing provided by applicant on AQ Questionnaire.

Grading - Total acres graded based on site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ Questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - Water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - Waste reduction applied to reflect compliance with AB 341

Oat Hill Project - Parcel B - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	600.00
tblConstructionPhase	NumDays	230.00	600.00
tblConstructionPhase	NumDays	8.00	120.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	PhaseEndDate	8/25/2022	5/28/2024
tblConstructionPhase	PhaseEndDate	7/6/2022	5/14/2024
tblConstructionPhase	PhaseEndDate	8/18/2021	1/21/2022
tblConstructionPhase	PhaseEndDate	8/1/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	8/2/2022	2/9/2022
tblConstructionPhase	PhaseStartDate	8/19/2021	1/26/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	1/22/2022
tblFireplaces	NumberGas	12.75	0.00
tblFireplaces	NumberNoFireplace	3.40	85.00
tblFireplaces	NumberWood	14.45	0.00
tblGrading	AcresOfGrading	60.00	9.50
tblLandUse	LotAcreage	0.59	0.00
tblLandUse	LotAcreage	1.05	1.36
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9495	40.5389	21.5679	0.0393	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,816.9735	3,816.9735	1.1950	0.0000	3,846.8482
2022	4.3699	20.8864	21.0497	0.0432	6.2293	0.9416	7.1709	3.3520	0.8663	4.2183	0.0000	4,194.4146	4,194.4146	0.9311	0.0000	4,211.3136
2023	4.1855	17.4909	20.6766	0.0427	1.0458	0.7779	1.8237	0.2806	0.7361	1.0167	0.0000	4,149.3626	4,149.3626	0.6642	0.0000	4,165.9681
2024	4.0527	16.4278	20.4207	0.0424	1.0458	0.6814	1.7272	0.2806	0.6445	0.9251	0.0000	4,116.6528	4,116.6528	0.6578	0.0000	4,133.0964
Maximum	**4.3699**	**40.5389**	**21.5679**	**0.0432**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**4,194.4146**	**4,194.4146**	**1.1950**	**0.0000**	**4,211.3136**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9495	40.5389	21.5679	0.0393	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,816.9735	3,816.9735	1.1950	0.0000	3,846.8482
2022	4.3699	20.8864	21.0497	0.0432	6.2293	0.9416	7.1709	3.3520	0.8663	4.2183	0.0000	4,194.4146	4,194.4146	0.9311	0.0000	4,211.3136
2023	4.1855	17.4909	20.6766	0.0427	1.0458	0.7779	1.8237	0.2806	0.7361	1.0167	0.0000	4,149.3626	4,149.3626	0.6642	0.0000	4,165.9681
2024	4.0527	16.4278	20.4207	0.0424	1.0458	0.6814	1.7272	0.2806	0.6445	0.9251	0.0000	4,116.6528	4,116.6528	0.6578	0.0000	4,133.0964
Maximum	**4.3699**	**40.5389**	**21.5679**	**0.0432**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**4,194.4146**	**4,194.4146**	**1.1950**	**0.0000**	**4,211.3136**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Energy	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038
Mobile	0.6212	2.9749	7.3672	0.0278	2.7727	0.0229	2.7956	0.7416	0.0214	0.7630		2,815.2336	2,815.2336	0.0978		2,817.6780
Total	**3.9825**	**3.3815**	**23.0672**	**0.0574**	**2.7727**	**1.4792**	**4.2519**	**0.7416**	**1.4777**	**2.2193**	**206.9912**	**3,064.5976**	**3,271.5888**	**1.0822**	**4.3400e-003**	**3,299.9358**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Energy	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
Mobile	0.5941	2.8094	6.7490	0.0247	2.4455	0.0206	2.4661	0.6541	0.0192	0.6733		2,507.7092	2,507.7092	0.0896		2,509.9488
Total	**3.9545**	**3.2076**	**22.4455**	**0.0543**	**2.4455**	**1.4762**	**3.9217**	**0.6541**	**1.4748**	**2.1289**	**206.9912**	**2,746.5551**	**2,953.5464**	**1.0738**	**4.1500e-003**	**2,981.6259**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.70**	**5.14**	**2.70**	**5.37**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.72**	**0.78**	**4.38**	**9.65**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
4	Paving	Paving	1/22/2022	1/25/2022	5	2	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 1.36

Residential Indoor: 172,125; Residential Outdoor: 57,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,368 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	92.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1060**	**1.1599**	**7.2660**	**3.3193**	**1.0671**	**4.3864**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
Total	**0.0511**	**0.0348**	**0.3447**	**1.1000e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**109.4305**	**109.4305**	**2.4800e-003**		**109.4924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.1060**	**1.1599**	**7.2660**	**3.3193**	**1.0671**	**4.3864**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
Total	**0.0511**	**0.0348**	**0.3447**	**1.1000e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.1000e-004**	**0.0334**		**109.4305**	**109.4305**	**2.4800e-003**		**109.4924**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1060**	**0.9409**	**7.0469**	**3.3193**	**0.8656**	**4.1849**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1060	0.0000	6.1060	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.1060**	**0.9409**	**7.0469**	**3.3193**	**0.8656**	**4.1849**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0643	2.0723	0.5529	5.5200e-003	0.1422	4.2200e-003	0.1464	0.0409	4.0400e-003	0.0450		585.5617	585.5617	0.0294		586.2975
Worker	0.2925	0.1915	1.9402	6.4800e-003	0.7558	4.6400e-003	0.7604	0.2005	4.2800e-003	0.2047		646.5687	646.5687	0.0136		646.9086
Total	**0.3568**	**2.2637**	**2.4931**	**0.0120**	**0.8979**	**8.8600e-003**	**0.9068**	**0.2414**	**8.3200e-003**	**0.2497**		**1,232.1304**	**1,232.1304**	**0.0430**		**1,233.2061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0643	2.0723	0.5529	5.5200e-003	0.1422	4.2200e-003	0.1464	0.0409	4.0400e-003	0.0450		585.5617	585.5617	0.0294		586.2975
Worker	0.2925	0.1915	1.9402	6.4800e-003	0.7558	4.6400e-003	0.7604	0.2005	4.2800e-003	0.2047		646.5687	646.5687	0.0136		646.9086
Total	**0.3568**	**2.2637**	**2.4931**	**0.0120**	**0.8979**	**8.8600e-003**	**0.9068**	**0.2414**	**8.3200e-003**	**0.2497**		**1,232.1304**	**1,232.1304**	**0.0430**		**1,233.2061**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0484	1.5972	0.4910	5.3700e-003	0.1422	1.8900e-003	0.1441	0.0409	1.8100e-003	0.0427		569.2387	569.2387	0.0250		569.8634
Worker	0.2740	0.1721	1.7819	6.2300e-003	0.7558	4.5500e-003	0.7603	0.2005	4.1900e-003	0.2047		621.8079	621.8079	0.0122		622.1121
Total	**0.3223**	**1.7693**	**2.2729**	**0.0116**	**0.8979**	**6.4400e-003**	**0.9044**	**0.2414**	**6.0000e-003**	**0.2474**		**1,191.0466**	**1,191.0466**	**0.0372**		**1,191.9755**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0484	1.5972	0.4910	5.3700e-003	0.1422	1.8900e-003	0.1441	0.0409	1.8100e-003	0.0427		569.2387	569.2387	0.0250		569.8634
Worker	0.2740	0.1721	1.7819	6.2300e-003	0.7558	4.5500e-003	0.7603	0.2005	4.1900e-003	0.2047		621.8079	621.8079	0.0122		622.1121
Total	**0.3223**	**1.7693**	**2.2729**	**0.0116**	**0.8979**	**6.4400e-003**	**0.9044**	**0.2414**	**6.0000e-003**	**0.2474**		**1,191.0466**	**1,191.0466**	**0.0372**		**1,191.9755**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0467	1.5794	0.4725	5.3300e-003	0.1422	1.8500e-003	0.1440	0.0409	1.7700e-003	0.0427		565.4627	565.4627	0.0245		566.0744
Worker	0.2581	0.1554	1.6487	5.9900e-003	0.7558	4.4600e-003	0.7602	0.2005	4.1100e-003	0.2046		597.1997	597.1997	0.0109		597.4732
Total	**0.3048**	**1.7348**	**2.1212**	**0.0113**	**0.8979**	**6.3100e-003**	**0.9042**	**0.2414**	**5.8800e-003**	**0.2473**		**1,162.6624**	**1,162.6624**	**0.0354**		**1,163.5476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0467	1.5794	0.4725	5.3300e-003	0.1422	1.8500e-003	0.1440	0.0409	1.7700e-003	0.0427		565.4627	565.4627	0.0245		566.0744
Worker	0.2581	0.1554	1.6487	5.9900e-003	0.7558	4.4600e-003	0.7602	0.2005	4.1100e-003	0.2046		597.1997	597.1997	0.0109		597.4732
Total	**0.3048**	**1.7348**	**2.1212**	**0.0113**	**0.8979**	**6.3100e-003**	**0.9042**	**0.2414**	**5.8800e-003**	**0.2473**		**1,162.6624**	**1,162.6624**	**0.0354**		**1,163.5476**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	1.7816					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7581**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	**0.0636**	**0.0416**	**0.4218**	**1.4100e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**140.5584**	**140.5584**	**2.9600e-003**		**140.6323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	1.7816					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7581**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	**0.0636**	**0.0416**	**0.4218**	**1.4100e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**140.5584**	**140.5584**	**2.9600e-003**		**140.6323**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**2.2497**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0572	0.0375	0.3796	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5026	126.5026	2.6600e-003		126.5691
Total	**0.0572**	**0.0375**	**0.3796**	**1.2700e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**126.5026**	**126.5026**	**2.6600e-003**		**126.5691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**2.2497**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0572	0.0375	0.3796	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5026	126.5026	2.6600e-003		126.5691
Total	**0.0572**	**0.0375**	**0.3796**	**1.2700e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**126.5026**	**126.5026**	**2.6600e-003**		**126.5691**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.2368**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0337	0.3486	1.2200e-003	0.1479	8.9000e-004	0.1488	0.0392	8.2000e-004	0.0400		121.6581	121.6581	2.3800e-003		121.7176
Total	**0.0536**	**0.0337**	**0.3486**	**1.2200e-003**	**0.1479**	**8.9000e-004**	**0.1488**	**0.0392**	**8.2000e-004**	**0.0400**		**121.6581**	**121.6581**	**2.3800e-003**		**121.7176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.2368**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0337	0.3486	1.2200e-003	0.1479	8.9000e-004	0.1488	0.0392	8.2000e-004	0.0400		121.6581	121.6581	2.3800e-003		121.7176
Total	**0.0536**	**0.0337**	**0.3486**	**1.2200e-003**	**0.1479**	**8.9000e-004**	**0.1488**	**0.0392**	**8.2000e-004**	**0.0400**		**121.6581**	**121.6581**	**2.3800e-003**		**121.7176**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**2.2259**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0304	0.3226	1.1700e-003	0.1479	8.7000e-004	0.1487	0.0392	8.0000e-004	0.0400		116.8434	116.8434	2.1400e-003		116.8969
Total	**0.0505**	**0.0304**	**0.3226**	**1.1700e-003**	**0.1479**	**8.7000e-004**	**0.1487**	**0.0392**	**8.0000e-004**	**0.0400**		**116.8434**	**116.8434**	**2.1400e-003**		**116.8969**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.0451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**2.2259**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0304	0.3226	1.1700e-003	0.1479	8.7000e-004	0.1487	0.0392	8.0000e-004	0.0400		116.8434	116.8434	2.1400e-003		116.8969
Total	**0.0505**	**0.0304**	**0.3226**	**1.1700e-003**	**0.1479**	**8.7000e-004**	**0.1487**	**0.0392**	**8.0000e-004**	**0.0400**		**116.8434**	**116.8434**	**2.1400e-003**		**116.8969**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5941	2.8094	6.7490	0.0247	2.4455	0.0206	2.4661	0.6541	0.0192	0.6733		2,507.7092	2,507.7092	0.0896		2,509.9488
Unmitigated	0.6212	2.9749	7.3672	0.0278	2.7727	0.0229	2.7956	0.7416	0.0214	0.7630		2,815.2336	2,815.2336	0.0978		2,817.6780

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	565.25	543.15	498.10	1,276,058	1,125,483
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	565.25	543.15	498.10	1,276,058	1,125,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
NaturalGas Unmitigated	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2011.93	0.0217	0.1854	0.0789	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.6973	236.6973	4.5400e-003	4.3400e-003	238.1038
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0217**	**0.1854**	**0.0789**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**		**236.6973**	**236.6973**	**4.5400e-003**	**4.3400e-003**	**238.1038**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.92252	0.0207	0.1772	0.0754	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.1791	226.1791	4.3400e-003	4.1500e-003	227.5232
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1772**	**0.0754**	**1.1300e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**		**226.1791**	**226.1791**	**4.3400e-003**	**4.1500e-003**	**227.5232**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539
Unmitigated	3.3396	0.2211	15.6211	0.0284		1.4413	1.4413		1.4413	1.4413	206.9912	12.6668	219.6580	0.9798	0.0000	244.1539

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.9466	0.1402	8.5966	0.0281		1.4024	1.4024		1.4024	1.4024	206.9912	0.0000	206.9912	0.9676	0.0000	231.1823
Landscaping	0.2121	0.0809	7.0245	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.6668	12.6668	0.0122		12.9717
Total	**3.3396**	**0.2211**	**15.6211**	**0.0284**		**1.4413**	**1.4413**		**1.4413**	**1.4413**	**206.9912**	**12.6668**	**219.6580**	**0.9798**	**0.0000**	**244.1539**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.9466	0.1402	8.5966	0.0281		1.4024	1.4024		1.4024	1.4024	206.9912	0.0000	206.9912	0.9676	0.0000	231.1823
Landscaping	0.2121	0.0809	7.0245	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.6668	12.6668	0.0122		12.9717
Total	**3.3396**	**0.2211**	**15.6211**	**0.0284**		**1.4413**	**1.4413**		**1.4413**	**1.4413**	**206.9912**	**12.6668**	**219.6580**	**0.9798**	**0.0000**	**244.1539**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill Project - Parcel B

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65976E+001	7.65976E+001	4.69000E-003	0.00000E+000	7.67149E+001
Cement and Mortar Mixers	9.00000E-005	5.50000E-004	4.60000E-004	0.00000E+000	2.00000E-005	2.00000E-005	0.00000E+000	6.87400E-002	6.87400E-002	1.00000E-005	0.00000E+000	6.89200E-002
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33076E+002	1.33076E+002	4.30400E-002	0.00000E+000	1.34152E+002
Excavators	1.35500E-002	1.26380E-001	1.96180E-001	3.10000E-004	6.13000E-003	5.64000E-003	0.00000E+000	2.72248E+001	2.72248E+001	8.81000E-003	0.00000E+000	2.74449E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	2.10000E-004	2.10000E-003	2.88000E-003	0.00000E+000	1.00000E-004	9.00000E-005	0.00000E+000	4.13000E-001	4.13000E-001	1.30000E-004	0.00000E+000	4.16340E-001
Paving Equipment	2.70000E-004	2.61000E-003	3.82000E-003	1.00000E-005	1.30000E-004	1.20000E-004	0.00000E+000	5.36780E-001	5.36780E-001	1.70000E-004	0.00000E+000	5.41120E-001
Rollers	2.50000E-004	2.59000E-003	2.79000E-003	0.00000E+000	1.50000E-004	1.40000E-004	0.00000E+000	3.45780E-001	3.45780E-001	1.10000E-004	0.00000E+000	3.48570E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10704E+001
Tractors/Loaders/ Backhoes	1.57750E-001	1.59978E+000	2.19100E+000	3.05000E-003	8.39200E-002	7.72000E-002	0.00000E+000	2.67518E+002	2.67518E+002	8.65200E-002	0.00000E+000	2.69681E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64662E+001	5.64662E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65975E+001	7.65975E+001	4.69000E-003	0.00000E+000	7.67148E+001
Cement and Mortar Mixers	9.00000E-005	5.50000E-004	4.60000E-004	0.00000E+000	2.00000E-005	2.00000E-005	0.00000E+000	6.87400E-002	6.87400E-002	1.00000E-005	0.00000E+000	6.89200E-002
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33075E+002	1.33075E+002	4.30400E-002	0.00000E+000	1.34151E+002
Excavators	1.35500E-002	1.26380E-001	1.96180E-001	3.10000E-004	6.13000E-003	5.64000E-003	0.00000E+000	2.72248E+001	2.72248E+001	8.81000E-003	0.00000E+000	2.74449E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	2.10000E-004	2.10000E-003	2.88000E-003	0.00000E+000	1.00000E-004	9.00000E-005	0.00000E+000	4.13000E-001	4.13000E-001	1.30000E-004	0.00000E+000	4.16340E-001
Paving Equipment	2.70000E-004	2.61000E-003	3.82000E-003	1.00000E-005	1.30000E-004	1.20000E-004	0.00000E+000	5.36780E-001	5.36780E-001	1.70000E-004	0.00000E+000	5.41120E-001
Rollers	2.50000E-004	2.59000E-003	2.79000E-003	0.00000E+000	1.50000E-004	1.40000E-004	0.00000E+000	3.45780E-001	3.45780E-001	1.10000E-004	0.00000E+000	3.48570E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10703E+001
Tractors/Loaders/Backhoes	1.57750E-001	1.59978E+000	2.19100E+000	3.05000E-003	8.39200E-002	7.72000E-002	0.00000E+000	2.67518E+002	2.67518E+002	8.65200E-002	0.00000E+000	2.69681E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64661E+001	5.64661E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17317E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20232E-006	1.20232E-006	0.00000E+000	0.00000E+000	1.19268E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10194E-006	1.10194E-006	0.00000E+000	0.00000E+000	1.45746E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15834E-006	1.15834E-006	0.00000E+000	0.00000E+000	1.14905E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.23710E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.43165E-006	1.43165E-006	0.00000E+000	0.00000E+000	1.13613E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18435E-006	1.18435E-006	0.00000E+000	0.00000E+000	1.17485E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19618E-006	1.19618E-006	0.00000E+000	0.00000E+000	1.18659E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23621E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.04	0.01	0.04	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.26	0.07	0.26	0.07	0.00	0.00
Grading	Fugitive Dust	0.37	0.20	0.37	0.20	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.05	0.02	0.05	0.02	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	100.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.27	5.43	8.73	10.84	10.34	10.05	0.00	10.88	10.88	8.57	0.00	10.88
Natural Gas	4.55	4.46	4.44	4.55	4.74	4.74	0.00	4.44	4.44	4.00	4.17	4.44
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	20.09	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.10	0.31		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.18	0.20		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.10			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.12			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	7.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	0.00	100.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Oat Hill - Parcel A and Parcel B

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	222.00	Space	0.00	88,800.00	0
Parking Lot	411.00	Space	4.53	164,400.00	0
Apartments Mid Rise	291.00	Dwelling Unit	7.18	291,000.00	832

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill - Parcel A and Parcel B - Bay Area AQMD Air District, Annual

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing left as defaults, except architectural coating shifted to occur during building cosntruction.

Grading - Total acres adjusted per site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - inherent site location features applied

Area Mitigation -

Energy Mitigation - title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - solid waste reduction applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	300.00	600.00
tblConstructionPhase	NumDays	30.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	43.65	0.00
tblFireplaces	NumberNoFireplace	11.64	291.00
tblFireplaces	NumberWood	49.47	0.00
tblGrading	AcresOfGrading	300.00	20.80
tblLandUse	LotAcreage	2.00	0.00
tblLandUse	LotAcreage	3.70	4.53
tblLandUse	LotAcreage	7.66	7.18
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2331	2.5396	1.6986	3.4300e-003	0.3810	0.1094	0.4904	0.2021	0.1007	0.3028	0.0000	301.7721	301.7721	0.0954	0.0000	304.1570
2022	1.2389	3.3284	3.5953	9.7400e-003	0.4770	0.1247	0.6018	0.1393	0.1176	0.2569	0.0000	877.3220	877.3220	0.1002	0.0000	879.8279
2023	1.2928	2.8473	3.4896	9.7200e-003	0.4516	0.1034	0.5550	0.1216	0.0978	0.2194	0.0000	876.3230	876.3230	0.0895	0.0000	878.5595
2024	0.5104	1.0131	1.2841	3.6100e-003	0.1710	0.0342	0.2052	0.0460	0.0324	0.0784	0.0000	325.0078	325.0078	0.0330	0.0000	325.8325
Maximum	**1.2928**	**3.3284**	**3.5953**	**9.7400e-003**	**0.4770**	**0.1247**	**0.6018**	**0.2021**	**0.1176**	**0.3028**	**0.0000**	**877.3220**	**877.3220**	**0.1002**	**0.0000**	**879.8279**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2331	2.5396	1.6986	3.4300e-003	0.3810	0.1094	0.4904	0.2021	0.1007	0.3028	0.0000	301.7717	301.7717	0.0954	0.0000	304.1567
2022	1.2389	3.3283	3.5953	9.7400e-003	0.4770	0.1247	0.6018	0.1393	0.1176	0.2569	0.0000	877.3216	877.3216	0.1002	0.0000	879.8274
2023	1.2928	2.8473	3.4896	9.7200e-003	0.4516	0.1034	0.5550	0.1216	0.0978	0.2194	0.0000	876.3226	876.3226	0.0895	0.0000	878.5591
2024	0.5104	1.0131	1.2841	3.6100e-003	0.1710	0.0342	0.2052	0.0460	0.0324	0.0784	0.0000	325.0076	325.0076	0.0330	0.0000	325.8324
Maximum	**1.2928**	**3.3283**	**3.5953**	**9.7400e-003**	**0.4770**	**0.1247**	**0.6018**	**0.2021**	**0.1176**	**0.3028**	**0.0000**	**877.3216**	**877.3216**	**0.1002**	**0.0000**	**879.8274**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2021**	**10-31-2021**	1.6524	1.6524
2	**11-1-2021**	**1-31-2022**	1.5066	1.5066
3	**2-1-2022**	**4-30-2022**	1.0953	1.0953
4	**5-1-2022**	**7-31-2022**	1.1524	1.1524
5	**8-1-2022**	**10-31-2022**	1.1556	1.1556
6	**11-1-2022**	**1-31-2023**	1.1248	1.1248
7	**2-1-2023**	**4-30-2023**	1.0150	1.0150
8	**5-1-2023**	**7-31-2023**	1.0440	1.0440

9	**8-1-2023**	**10-31-2023**	1.0467	1.0467
10	**11-1-2023**	**1-31-2024**	1.0371	1.0371
11	**2-1-2024**	**4-30-2024**	0.9836	0.9836
12	**5-1-2024**	**7-31-2024**	0.1955	0.1955
		Highest	1.6524	1.6524

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4512	0.0283	2.3722	7.9000e-004		0.0459	0.0459		0.0459	0.0459	4.5387	3.5408	8.0794	0.0246	0.0000	8.6951
Energy	0.0136	0.1158	0.0493	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	321.2696	321.2696	0.0258	7.2600e-003	324.0757
Mobile	0.3828	1.7821	4.2942	0.0171	1.6254	0.0139	1.6393	0.4361	0.0130	0.4491	0.0000	1,570.3472	1,570.3472	0.0527	0.0000	1,571.6651
Waste						0.0000	0.0000		0.0000	0.0000	27.1724	0.0000	27.1724	1.6058	0.0000	67.3184
Water						0.0000	0.0000		0.0000	0.0000	6.0151	15.3335	21.3486	0.6197	0.0150	41.3055
Total	**1.8476**	**1.9263**	**6.7157**	**0.0186**	**1.6254**	**0.0692**	**1.6945**	**0.4361**	**0.0682**	**0.5044**	**37.7261**	**1,910.4910**	**1,948.2171**	**2.3287**	**0.0222**	**2,013.0598**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4512	0.0283	2.3722	7.9000e-004		0.0459	0.0459		0.0459	0.0459	4.5387	3.5408	8.0794	0.0246	0.0000	8.6951
Energy	0.0130	0.1107	0.0471	7.1000e-004		8.9500e-003	8.9500e-003		8.9500e-003	8.9500e-003	0.0000	128.1992	128.1992	2.4600e-003	2.3500e-003	128.9610
Mobile	0.3665	1.6854	3.9192	0.0152	1.4336	0.0125	1.4460	0.3847	0.0116	0.3963	0.0000	1,399.4484	1,399.4484	0.0482	0.0000	1,400.6532
Waste						0.0000	0.0000		0.0000	0.0000	13.5862	0.0000	13.5862	0.8029	0.0000	33.6592
Water						0.0000	0.0000		0.0000	0.0000	4.8121	12.2668	17.0789	0.4958	0.0120	33.0444
Total	**1.8307**	**1.8244**	**6.3386**	**0.0167**	**1.4336**	**0.0673**	**1.5009**	**0.3847**	**0.0665**	**0.4511**	**22.9369**	**1,543.4552**	**1,566.3921**	**1.3740**	**0.0143**	**1,605.0129**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.92**	**5.29**	**5.62**	**10.17**	**11.80**	**2.66**	**11.43**	**11.80**	**2.57**	**10.55**	**39.20**	**19.21**	**19.60**	**41.00**	**35.57**	**20.27**

3.0 Construction Detail

Construction Phase

Oat Hill - Parcel A and Parcel B - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.8

Acres of Paving: 4.53

Residential Indoor: 589,275; Residential Outdoor: 196,425; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 15,192 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	316.00	73.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3006	0.3006	1.0000e-005	0.0000	0.3008
Total	**1.4000e-004**	**1.0000e-004**	**1.0100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3006**	**0.3006**	**1.0000e-005**	**0.0000**	**0.3008**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3272	0.0000	0.3272	0.1750	0.0000	0.1750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2200	2.4360	1.6211	3.2600e-003		0.1042	0.1042		0.0959	0.0959	0.0000	286.0987	286.0987	0.0925	0.0000	288.4119
Total	**0.2200**	**2.4360**	**1.6211**	**3.2600e-003**	**0.3272**	**0.1042**	**0.4314**	**0.1750**	**0.0959**	**0.2709**	**0.0000**	**286.0987**	**286.0987**	**0.0925**	**0.0000**	**288.4119**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	2.2200e-003	0.0236	8.0000e-005	8.3000e-003	5.0000e-005	8.3500e-003	2.2100e-003	5.0000e-005	2.2600e-003	0.0000	7.0139	7.0139	1.6000e-004	0.0000	7.0178
Total	**3.2200e-003**	**2.2200e-003**	**0.0236**	**8.0000e-005**	**8.3000e-003**	**5.0000e-005**	**8.3500e-003**	**2.2100e-003**	**5.0000e-005**	**2.2600e-003**	**0.0000**	**7.0139**	**7.0139**	**1.6000e-004**	**0.0000**	**7.0178**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3272	0.0000	0.3272	0.1750	0.0000	0.1750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2200	2.4360	1.6211	3.2600e-003		0.1042	0.1042		0.0959	0.0959	0.0000	286.0983	286.0983	0.0925	0.0000	288.4116
Total	**0.2200**	**2.4360**	**1.6211**	**3.2600e-003**	**0.3272**	**0.1042**	**0.4314**	**0.1750**	**0.0959**	**0.2709**	**0.0000**	**286.0983**	**286.0983**	**0.0925**	**0.0000**	**288.4116**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	2.2200e-003	0.0236	8.0000e-005	8.3000e-003	5.0000e-005	8.3500e-003	2.2100e-003	5.0000e-005	2.2600e-003	0.0000	7.0139	7.0139	1.6000e-004	0.0000	7.0178
Total	**3.2200e-003**	**2.2200e-003**	**0.0236**	**8.0000e-005**	**8.3000e-003**	**5.0000e-005**	**8.3500e-003**	**2.2100e-003**	**5.0000e-005**	**2.2600e-003**	**0.0000**	**7.0139**	**7.0139**	**1.6000e-004**	**0.0000**	**7.0178**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0562	0.0000	0.0562	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.2913	0.2178	4.7000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	40.9010	40.9010	0.0132	0.0000	41.2317
Total	**0.0272**	**0.2913**	**0.2178**	**4.7000e-004**	**0.0562**	**0.0123**	**0.0685**	**0.0260**	**0.0113**	**0.0373**	**0.0000**	**40.9010**	**40.9010**	**0.0132**	**0.0000**	**41.2317**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.8000e-004	3.0900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9653	0.9653	2.0000e-005	0.0000	0.9658
Total	**4.3000e-004**	**2.8000e-004**	**3.0900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9653**	**0.9653**	**2.0000e-005**	**0.0000**	**0.9658**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0562	0.0000	0.0562	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.2913	0.2178	4.7000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	40.9009	40.9009	0.0132	0.0000	41.2316
Total	**0.0272**	**0.2913**	**0.2178**	**4.7000e-004**	**0.0562**	**0.0123**	**0.0685**	**0.0260**	**0.0113**	**0.0373**	**0.0000**	**40.9009**	**40.9009**	**0.0132**	**0.0000**	**41.2316**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.8000e-004	3.0900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9653	0.9653	2.0000e-005	0.0000	0.9658
Total	**4.3000e-004**	**2.8000e-004**	**3.0900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9653**	**0.9653**	**2.0000e-005**	**0.0000**	**0.9658**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0111	0.0146	2.0000e-005		5.7000e-004	5.7000e-004		5.2000e-004	5.2000e-004	0.0000	2.0028	2.0028	6.5000e-004	0.0000	2.0190
Paving	5.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0300e-003**	**0.0111**	**0.0146**	**2.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.0028**	**2.0028**	**6.5000e-004**	**0.0000**	**2.0190**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**4.0000e-005**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0965**	**0.0965**	**0.0000**	**0.0000**	**0.0966**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0111	0.0146	2.0000e-005		5.7000e-004	5.7000e-004		5.2000e-004	5.2000e-004	0.0000	2.0028	2.0028	6.5000e-004	0.0000	2.0190
Paving	5.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0300e-003**	**0.0111**	**0.0146**	**2.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.0028**	**2.0028**	**6.5000e-004**	**0.0000**	**2.0190**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**4.0000e-005**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0965**	**0.0965**	**0.0000**	**0.0000**	**0.0966**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5462	281.5462	0.0675	0.0000	283.2324
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5462**	**281.5462**	**0.0675**	**0.0000**	**283.2324**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0263	0.8774	0.2174	2.3700e-003	0.0582	1.7500e-003	0.0599	0.0168	1.6700e-003	0.0185	0.0000	227.7696	227.7696	0.0108	0.0000	228.0398
Worker	0.1098	0.0729	0.7914	2.7300e-003	0.3034	1.9400e-003	0.3053	0.0807	1.7800e-003	0.0825	0.0000	247.0656	247.0656	5.1600e-003	0.0000	247.1945
Total	**0.1361**	**0.9503**	**1.0088**	**5.1000e-003**	**0.3615**	**3.6900e-003**	**0.3652**	**0.0975**	**3.4500e-003**	**0.1010**	**0.0000**	**474.8352**	**474.8352**	**0.0160**	**0.0000**	**475.2343**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2073	1.8973	1.9882	3.2700e-003		0.0983	0.0983		0.0925	0.0925	0.0000	281.5458	281.5458	0.0675	0.0000	283.2321
Total	**0.2073**	**1.8973**	**1.9882**	**3.2700e-003**		**0.0983**	**0.0983**		**0.0925**	**0.0925**	**0.0000**	**281.5458**	**281.5458**	**0.0675**	**0.0000**	**283.2321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0263	0.8774	0.2174	2.3700e-003	0.0582	1.7500e-003	0.0599	0.0168	1.6700e-003	0.0185	0.0000	227.7696	227.7696	0.0108	0.0000	228.0398
Worker	0.1098	0.0729	0.7914	2.7300e-003	0.3034	1.9400e-003	0.3053	0.0807	1.7800e-003	0.0825	0.0000	247.0656	247.0656	5.1600e-003	0.0000	247.1945
Total	**0.1361**	**0.9503**	**1.0088**	**5.1000e-003**	**0.3615**	**3.6900e-003**	**0.3652**	**0.0975**	**3.4500e-003**	**0.1010**	**0.0000**	**474.8352**	**474.8352**	**0.0160**	**0.0000**	**475.2343**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0211	0.7238	0.2082	2.4600e-003	0.0622	8.3000e-004	0.0631	0.0180	8.0000e-004	0.0188	0.0000	236.8741	236.8741	9.8600e-003	0.0000	237.1205
Worker	0.1099	0.0701	0.7789	2.8100e-003	0.3246	2.0300e-003	0.3266	0.0864	1.8700e-003	0.0882	0.0000	254.2261	254.2261	4.9500e-003	0.0000	254.3497
Total	**0.1310**	**0.7939**	**0.9871**	**5.2700e-003**	**0.3869**	**2.8600e-003**	**0.3897**	**0.1044**	**2.6700e-003**	**0.1070**	**0.0000**	**491.1002**	**491.1002**	**0.0148**	**0.0000**	**491.4703**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0211	0.7238	0.2082	2.4600e-003	0.0622	8.3000e-004	0.0631	0.0180	8.0000e-004	0.0188	0.0000	236.8741	236.8741	9.8600e-003	0.0000	237.1205
Worker	0.1099	0.0701	0.7789	2.8100e-003	0.3246	2.0300e-003	0.3266	0.0864	1.8700e-003	0.0882	0.0000	254.2261	254.2261	4.9500e-003	0.0000	254.3497
Total	**0.1310**	**0.7939**	**0.9871**	**5.2700e-003**	**0.3869**	**2.8600e-003**	**0.3897**	**0.1044**	**2.6700e-003**	**0.1070**	**0.0000**	**491.1002**	**491.1002**	**0.0148**	**0.0000**	**491.4703**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4468	112.4468	0.0266	0.0000	113.1116
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4468**	**112.4468**	**0.0266**	**0.0000**	**113.1116**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6100e-003	0.2670	0.0748	9.1000e-004	0.0232	3.0000e-004	0.0235	6.7200e-003	2.9000e-004	7.0100e-003	0.0000	87.7758	87.7758	3.6000e-003	0.0000	87.8659
Worker	0.0385	0.0236	0.2692	1.0100e-003	0.1211	7.4000e-004	0.1219	0.0322	6.8000e-004	0.0329	0.0000	91.0922	91.0922	1.6600e-003	0.0000	91.1337
Total	**0.0462**	**0.2906**	**0.3440**	**1.9200e-003**	**0.1443**	**1.0400e-003**	**0.1454**	**0.0389**	**9.7000e-004**	**0.0399**	**0.0000**	**178.8680**	**178.8680**	**5.2600e-003**	**0.0000**	**178.9996**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0714	0.6520	0.7841	1.3100e-003		0.0298	0.0298		0.0280	0.0280	0.0000	112.4467	112.4467	0.0266	0.0000	113.1114
Total	**0.0714**	**0.6520**	**0.7841**	**1.3100e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**112.4467**	**112.4467**	**0.0266**	**0.0000**	**113.1114**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6100e-003	0.2670	0.0748	9.1000e-004	0.0232	3.0000e-004	0.0235	6.7200e-003	2.9000e-004	7.0100e-003	0.0000	87.7758	87.7758	3.6000e-003	0.0000	87.8659
Worker	0.0385	0.0236	0.2692	1.0100e-003	0.1211	7.4000e-004	0.1219	0.0322	6.8000e-004	0.0329	0.0000	91.0922	91.0922	1.6600e-003	0.0000	91.1337
Total	**0.0462**	**0.2906**	**0.3440**	**1.9200e-003**	**0.1443**	**1.0400e-003**	**0.1454**	**0.0389**	**9.7000e-004**	**0.0399**	**0.0000**	**178.8680**	**178.8680**	**5.2600e-003**	**0.0000**	**178.9996**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.8398**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0210	0.0139	0.1513	5.2000e-004	0.0580	3.7000e-004	0.0584	0.0154	3.4000e-004	0.0158	0.0000	47.2297	47.2297	9.9000e-004	0.0000	47.2544
Total	**0.0210**	**0.0139**	**0.1513**	**5.2000e-004**	**0.0580**	**3.7000e-004**	**0.0584**	**0.0154**	**3.4000e-004**	**0.0158**	**0.0000**	**47.2297**	**47.2297**	**9.9000e-004**	**0.0000**	**47.2544**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.1641	0.2113	3.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	29.7454	29.7454	1.9400e-003	0.0000	29.7938
Total	**0.8398**	**0.1641**	**0.2113**	**3.5000e-004**		**9.5200e-003**	**9.5200e-003**		**9.5200e-003**	**9.5200e-003**	**0.0000**	**29.7454**	**29.7454**	**1.9400e-003**	**0.0000**	**29.7938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0210	0.0139	0.1513	5.2000e-004	0.0580	3.7000e-004	0.0584	0.0154	3.4000e-004	0.0158	0.0000	47.2297	47.2297	9.9000e-004	0.0000	47.2544
Total	**0.0210**	**0.0139**	**0.1513**	**5.2000e-004**	**0.0580**	**3.7000e-004**	**0.0584**	**0.0154**	**3.4000e-004**	**0.0158**	**0.0000**	**47.2297**	**47.2297**	**9.9000e-004**	**0.0000**	**47.2544**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9355**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0219	0.0140	0.1553	5.6000e-004	0.0647	4.0000e-004	0.0651	0.0172	3.7000e-004	0.0176	0.0000	50.6843	50.6843	9.9000e-004	0.0000	50.7090
Total	**0.0219**	**0.0140**	**0.1553**	**5.6000e-004**	**0.0647**	**4.0000e-004**	**0.0651**	**0.0172**	**3.7000e-004**	**0.0176**	**0.0000**	**50.6843**	**50.6843**	**9.9000e-004**	**0.0000**	**50.7090**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9355**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0219	0.0140	0.1553	5.6000e-004	0.0647	4.0000e-004	0.0651	0.0172	3.7000e-004	0.0176	0.0000	50.6843	50.6843	9.9000e-004	0.0000	50.7090
Total	**0.0219**	**0.0140**	**0.1553**	**5.6000e-004**	**0.0647**	**4.0000e-004**	**0.0651**	**0.0172**	**3.7000e-004**	**0.0176**	**0.0000**	**50.6843**	**50.6843**	**9.9000e-004**	**0.0000**	**50.7090**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.3844**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4700e-003	5.2000e-003	0.0592	2.2000e-004	0.0266	1.6000e-004	0.0268	7.0900e-003	1.5000e-004	7.2400e-003	0.0000	20.0330	20.0330	3.7000e-004	0.0000	20.0422
Total	**8.4700e-003**	**5.2000e-003**	**0.0592**	**2.2000e-004**	**0.0266**	**1.6000e-004**	**0.0268**	**7.0900e-003**	**1.5000e-004**	**7.2400e-003**	**0.0000**	**20.0330**	**20.0330**	**3.7000e-004**	**0.0000**	**20.0422**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0652	0.0968	1.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	13.6599	13.6599	7.7000e-004	0.0000	13.6791
Total	**0.3844**	**0.0652**	**0.0968**	**1.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**13.6599**	**13.6599**	**7.7000e-004**	**0.0000**	**13.6791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4700e-003	5.2000e-003	0.0592	2.2000e-004	0.0266	1.6000e-004	0.0268	7.0900e-003	1.5000e-004	7.2400e-003	0.0000	20.0330	20.0330	3.7000e-004	0.0000	20.0422
Total	**8.4700e-003**	**5.2000e-003**	**0.0592**	**2.2000e-004**	**0.0266**	**1.6000e-004**	**0.0268**	**7.0900e-003**	**1.5000e-004**	**7.2400e-003**	**0.0000**	**20.0330**	**20.0330**	**3.7000e-004**	**0.0000**	**20.0422**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3665	1.6854	3.9192	0.0152	1.4336	0.0125	1.4460	0.3847	0.0116	0.3963	0.0000	1,399.4484	1,399.4484	0.0482	0.0000	1,400.6532
Unmitigated	0.3828	1.7821	4.2942	0.0171	1.6254	0.0139	1.6393	0.4361	0.0130	0.4491	0.0000	1,570.3472	1,570.3472	0.0527	0.0000	1,571.6651

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,935.15	1,859.49	1705.26	4,368,622	3,853,125
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,935.15	1,859.49	1,705.26	4,368,622	3,853,125

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.1087	187.1087	0.0232	4.8000e-003	189.1176
NaturalGas Mitigated	0.0130	0.1107	0.0471	7.1000e-004		8.9500e-003	8.9500e-003		8.9500e-003	8.9500e-003	0.0000	128.1992	128.1992	2.4600e-003	2.3500e-003	128.9610
NaturalGas Unmitigated	0.0136	0.1158	0.0493	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	134.1609	134.1609	2.5700e-003	2.4600e-003	134.9581

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.51408e+006	0.0136	0.1158	0.0493	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	134.1609	134.1609	2.5700e-003	2.4600e-003	134.9581
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0136**	**0.1158**	**0.0493**	**7.4000e-004**		**9.3700e-003**	**9.3700e-003**		**9.3700e-003**	**9.3700e-003**	**0.0000**	**134.1609**	**134.1609**	**2.5700e-003**	**2.4600e-003**	**134.9581**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.40236e+006	0.0130	0.1107	0.0471	7.1000e-004		8.9500e-003	8.9500e-003		8.9500e-003	8.9500e-003	0.0000	128.1992	128.1992	2.4600e-003	2.3500e-003	128.9610
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0130**	**0.1107**	**0.0471**	**7.1000e-004**		**8.9500e-003**	**8.9500e-003**		**8.9500e-003**	**8.9500e-003**	**0.0000**	**128.1992**	**128.1992**	**2.4600e-003**	**2.3500e-003**	**128.9610**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20135e+006	127.5447	0.0158	3.2700e-003	128.9141
Enclosed Parking Structure	503496	53.4551	6.6200e-003	1.3700e-003	54.0290
Parking Lot	57540	6.1089	7.6000e-004	1.6000e-004	6.1745
Total		**187.1087**	**0.0232**	**4.8000e-003**	**189.1176**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4512	0.0283	2.3722	7.9000e-004		0.0459	0.0459		0.0459	0.0459	4.5387	3.5408	8.0794	0.0246	0.0000	8.6951
Unmitigated	1.4512	0.0283	2.3722	7.9000e-004		0.0459	0.0459		0.0459	0.0459	4.5387	3.5408	8.0794	0.0246	0.0000	8.6951

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0229	3.3900e-003	0.2078	6.8000e-004		0.0339	0.0339		0.0339	0.0339	4.5387	0.0000	4.5387	0.0212	0.0000	5.0691
Landscaping	0.0654	0.0249	2.1645	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5408	3.5408	3.4100e-003	0.0000	3.6260
Total	**1.4512**	**0.0283**	**2.3722**	**7.9000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**4.5387**	**3.5408**	**8.0794**	**0.0246**	**0.0000**	**8.6951**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0229	3.3900e-003	0.2078	6.8000e-004		0.0339	0.0339		0.0339	0.0339	4.5387	0.0000	4.5387	0.0212	0.0000	5.0691
Landscaping	0.0654	0.0249	2.1645	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5408	3.5408	3.4100e-003	0.0000	3.6260
Total	**1.4512**	**0.0283**	**2.3722**	**7.9000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**4.5387**	**3.5408**	**8.0794**	**0.0246**	**0.0000**	**8.6951**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.0789	0.4958	0.0120	33.0444
Unmitigated	21.3486	0.6197	0.0150	41.3055

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.9598 / 11.9529	21.3486	0.6197	0.0150	41.3055
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**21.3486**	**0.6197**	**0.0150**	**41.3055**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.1679 / 9.56234	17.0789	0.4958	0.0120	33.0444
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.0789**	**0.4958**	**0.0120**	**33.0444**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.5862	0.8029	0.0000	33.6592
Unmitigated	27.1724	1.6058	0.0000	67.3184

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	133.86	27.1724	1.6058	0.0000	67.3184
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**27.1724**	**1.6058**	**0.0000**	**67.3184**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	66.93	13.5862	0.8029	0.0000	33.6592
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.5862**	**0.8029**	**0.0000**	**33.6592**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill - Parcel A and Parcel B

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	222.00	Space	0.00	88,800.00	0
Parking Lot	411.00	Space	4.53	164,400.00	0
Apartments Mid Rise	291.00	Dwelling Unit	7.18	291,000.00	832

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill - Parcel A and Parcel B - Bay Area AQMD Air District, Summer

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing left as defaults, except architectural coating shifted to occur during building cosntruction.

Grading - Total acres adjusted per site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - inherent site location features applied

Area Mitigation -

Energy Mitigation - title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - solid waste reduction applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	300.00	600.00
tblConstructionPhase	NumDays	30.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	43.65	0.00
tblFireplaces	NumberNoFireplace	11.64	291.00
tblFireplaces	NumberWood	49.47	0.00
tblGrading	AcresOfGrading	300.00	20.80
tblLandUse	LotAcreage	2.00	0.00
tblLandUse	LotAcreage	3.70	4.53
tblLandUse	LotAcreage	7.66	7.18
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2555	46.4374	31.3697	0.0636	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	6,165.4353	6,165.4353	1.9463	0.0000	6,214.0939
2022	10.2604	38.8772	29.4942	0.0786	6.3702	1.6359	8.0061	3.3737	1.5050	4.8787	0.0000	7,816.0099	7,816.0099	1.9474	0.0000	7,835.6395
2023	9.9858	21.7876	27.4727	0.0769	3.6076	0.7956	4.4032	0.9681	0.7525	1.7206	0.0000	7,647.2797	7,647.2797	0.7597	0.0000	7,666.2719
2024	9.8031	20.6456	26.7714	0.0757	3.6076	0.6988	4.3064	0.9681	0.6607	1.6287	0.0000	7,523.7456	7,523.7456	0.7483	0.0000	7,542.4533
Maximum	**10.2604**	**46.4374**	**31.3697**	**0.0786**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**7,816.0099**	**7,816.0099**	**1.9474**	**0.0000**	**7,835.6395**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2555	46.4374	31.3697	0.0636	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	6,165.4353	6,165.4353	1.9463	0.0000	6,214.0938
2022	10.2604	38.8772	29.4942	0.0786	6.3702	1.6359	8.0061	3.3737	1.5050	4.8787	0.0000	7,816.0099	7,816.0099	1.9474	0.0000	7,835.6395
2023	9.9858	21.7876	27.4727	0.0769	3.6076	0.7956	4.4032	0.9681	0.7525	1.7206	0.0000	7,647.2797	7,647.2797	0.7597	0.0000	7,666.2719
2024	9.8031	20.6456	26.7714	0.0757	3.6076	0.6988	4.3064	0.9681	0.6607	1.6287	0.0000	7,523.7456	7,523.7456	0.7483	0.0000	7,542.4533
Maximum	**10.2604**	**46.4374**	**31.3697**	**0.0786**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**7,816.0099**	**7,816.0099**	**1.9474**	**0.0000**	**7,835.6395**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Energy	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555
Mobile	2.4811	9.7452	25.1734	0.1014	9.4924	0.0781	9.5705	2.5390	0.0728	2.6118		10,281.2975	10,281.2975	0.3280		10,289.4974
Total	**13.9906**	**11.1370**	**78.9237**	**0.2028**	**9.4924**	**5.0638**	**14.5562**	**2.5390**	**5.0585**	**7.5975**	**708.6406**	**11,135.0047**	**11,843.6453**	**3.6980**	**0.0149**	**11,940.5234**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Energy	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
Mobile	2.3876	9.2350	22.7999	0.0903	8.3723	0.0700	8.4424	2.2394	0.0653	2.3047		9,160.9883	9,160.9883	0.2989		9,168.4597
Total	**13.8939**	**10.5985**	**76.5383**	**0.1915**	**8.3723**	**5.0535**	**13.4258**	**2.2394**	**5.0487**	**7.2882**	**708.6406**	**9,978.6865**	**10,687.3270**	**3.6682**	**0.0142**	**10,783.2625**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.69**	**4.84**	**3.02**	**5.55**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.76**	**0.81**	**4.44**	**9.69**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.8

Acres of Paving: 4.53

Residential Indoor: 589,275; Residential Outdoor: 196,425; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 15,192 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	316.00	73.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.2059**	**1.9853**	**8.1913**	**3.3301**	**1.8265**	**5.1566**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
Total	**0.0643**	**0.0376**	**0.4913**	**1.5900e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**158.3919**	**158.3919**	**3.5400e-003**		**158.4804**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.2059**	**1.9853**	**8.1913**	**3.3301**	**1.8265**	**5.1566**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
Total	**0.0643**	**0.0376**	**0.4913**	**1.5900e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**158.3919**	**158.3919**	**3.5400e-003**		**158.4804**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.2059**	**1.6349**	**7.8408**	**3.3301**	**1.5041**	**4.8342**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	**0.0599**	**0.0337**	**0.4527**	**1.5300e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**152.5791**	**152.5791**	**3.1800e-003**		**152.6586**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.2059**	**1.6349**	**7.8408**	**3.3301**	**1.5041**	**4.8342**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	**0.0599**	**0.0337**	**0.4527**	**1.5300e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**152.5791**	**152.5791**	**3.1800e-003**		**152.6586**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	5.9343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**7.0371**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	5.9343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**7.0371**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	**0.0449**	**0.0253**	**0.3395**	**1.1500e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**114.4343**	**114.4343**	**2.3800e-003**		**114.4939**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2112	7.1496	1.6730	0.0197	0.4942	0.0142	0.5083	0.1423	0.0136	0.1558		2,088.8549	2,088.8549	0.0947		2,091.2214
Worker	0.9457	0.5326	7.1522	0.0242	2.5959	0.0160	2.6118	0.6885	0.0147	0.7032		2,410.7494	2,410.7494	0.0502		2,412.0053
Total	**1.1569**	**7.6822**	**8.8252**	**0.0439**	**3.0900**	**0.0301**	**3.1202**	**0.8308**	**0.0282**	**0.8590**		**4,499.6042**	**4,499.6042**	**0.1449**		**4,503.2267**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2112	7.1496	1.6730	0.0197	0.4942	0.0142	0.5083	0.1423	0.0136	0.1558		2,088.8549	2,088.8549	0.0947		2,091.2214
Worker	0.9457	0.5326	7.1522	0.0242	2.5959	0.0160	2.6118	0.6885	0.0147	0.7032		2,410.7494	2,410.7494	0.0502		2,412.0053
Total	**1.1569**	**7.6822**	**8.8252**	**0.0439**	**3.0900**	**0.0301**	**3.1202**	**0.8308**	**0.0282**	**0.8590**		**4,499.6042**	**4,499.6042**	**0.1449**		**4,503.2267**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1582	5.5252	1.5062	0.0191	0.4942	6.2900e-003	0.5005	0.1423	6.0100e-003	0.1483		2,030.0929	2,030.0929	0.0809		2,032.1155
Worker	0.8829	0.4790	6.5964	0.0233	2.5959	0.0156	2.6115	0.6885	0.0144	0.7029		2,318.3301	2,318.3301	0.0451		2,319.4578
Total	**1.0411**	**6.0042**	**8.1025**	**0.0424**	**3.0901**	**0.0219**	**3.1120**	**0.8308**	**0.0204**	**0.8512**		**4,348.4230**	**4,348.4230**	**0.1260**		**4,351.5733**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1582	5.5252	1.5062	0.0191	0.4942	6.2900e-003	0.5005	0.1423	6.0100e-003	0.1483		2,030.0929	2,030.0929	0.0809		2,032.1155
Worker	0.8829	0.4790	6.5964	0.0233	2.5959	0.0156	2.6115	0.6885	0.0144	0.7029		2,318.3301	2,318.3301	0.0451		2,319.4578
Total	**1.0411**	**6.0042**	**8.1025**	**0.0424**	**3.0901**	**0.0219**	**3.1120**	**0.8308**	**0.0204**	**0.8512**		**4,348.4230**	**4,348.4230**	**0.1260**		**4,351.5733**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1531	5.4640	1.4511	0.0190	0.4942	6.1800e-003	0.5004	0.1423	5.9100e-003	0.1482		2,016.2255	2,016.2255	0.0793		2,018.2086
Worker	0.8282	0.4327	6.1227	0.0223	2.5959	0.0153	2.6112	0.6885	0.0141	0.7027		2,226.4853	2,226.4853	0.0407		2,227.5022
Total	**0.9813**	**5.8967**	**7.5738**	**0.0413**	**3.0901**	**0.0215**	**3.1116**	**0.8308**	**0.0200**	**0.8508**		**4,242.7108**	**4,242.7108**	**0.1200**		**4,245.7108**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1531	5.4640	1.4511	0.0190	0.4942	6.1800e-003	0.5004	0.1423	5.9100e-003	0.1482		2,016.2255	2,016.2255	0.0793		2,018.2086
Worker	0.8282	0.4327	6.1227	0.0223	2.5959	0.0153	2.6112	0.6885	0.0141	0.7027		2,226.4853	2,226.4853	0.0407		2,227.5022
Total	**0.9813**	**5.8967**	**7.5738**	**0.0413**	**3.0901**	**0.0215**	**3.1116**	**0.8308**	**0.0200**	**0.8508**		**4,242.7108**	**4,242.7108**	**0.1200**		**4,245.7108**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**7.2088**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1885	0.1062	1.4259	4.8200e-003	0.5175	3.1800e-003	0.5207	0.1373	2.9300e-003	0.1402		480.6241	480.6241	0.0100		480.8745
Total	**0.1885**	**0.1062**	**1.4259**	**4.8200e-003**	**0.5175**	**3.1800e-003**	**0.5207**	**0.1373**	**2.9300e-003**	**0.1402**		**480.6241**	**480.6241**	**0.0100**		**480.8745**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**7.2088**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1885	0.1062	1.4259	4.8200e-003	0.5175	3.1800e-003	0.5207	0.1373	2.9300e-003	0.1402		480.6241	480.6241	0.0100		480.8745
Total	**0.1885**	**0.1062**	**1.4259**	**4.8200e-003**	**0.5175**	**3.1800e-003**	**0.5207**	**0.1373**	**2.9300e-003**	**0.1402**		**480.6241**	**480.6241**	**0.0100**		**480.8745**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**7.1959**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1760	0.0955	1.3151	4.6300e-003	0.5175	3.1200e-003	0.5207	0.1373	2.8700e-003	0.1401		462.1987	462.1987	8.9900e-003		462.4236
Total	**0.1760**	**0.0955**	**1.3151**	**4.6300e-003**	**0.5175**	**3.1200e-003**	**0.5207**	**0.1373**	**2.8700e-003**	**0.1401**		**462.1987**	**462.1987**	**8.9900e-003**		**462.4236**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**7.1959**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1760	0.0955	1.3151	4.6300e-003	0.5175	3.1200e-003	0.5207	0.1373	2.8700e-003	0.1401		462.1987	462.1987	8.9900e-003		462.4236
Total	**0.1760**	**0.0955**	**1.3151**	**4.6300e-003**	**0.5175**	**3.1200e-003**	**0.5207**	**0.1373**	**2.8700e-003**	**0.1401**		**462.1987**	**462.1987**	**8.9900e-003**		**462.4236**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**7.1850**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1651	0.0863	1.2207	4.4500e-003	0.5175	3.0600e-003	0.5206	0.1373	2.8100e-003	0.1401		443.8879	443.8879	8.1100e-003		444.0906
Total	**0.1651**	**0.0863**	**1.2207**	**4.4500e-003**	**0.5175**	**3.0600e-003**	**0.5206**	**0.1373**	**2.8100e-003**	**0.1401**		**443.8879**	**443.8879**	**8.1100e-003**		**444.0906**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**7.1850**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1651	0.0863	1.2207	4.4500e-003	0.5175	3.0600e-003	0.5206	0.1373	2.8100e-003	0.1401		443.8879	443.8879	8.1100e-003		444.0906
Total	**0.1651**	**0.0863**	**1.2207**	**4.4500e-003**	**0.5175**	**3.0600e-003**	**0.5206**	**0.1373**	**2.8100e-003**	**0.1401**		**443.8879**	**443.8879**	**8.1100e-003**		**444.0906**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3876	9.2350	22.7999	0.0903	8.3723	0.0700	8.4424	2.2394	0.0653	2.3047		9,160.9883	9,160.9883	0.2989		9,168.4597
Unmitigated	2.4811	9.7452	25.1734	0.1014	9.4924	0.0781	9.5705	2.5390	0.0728	2.6118		10,281.2975	10,281.2975	0.3280		10,289.4974

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,935.15	1,859.49	1705.26	4,368,622	3,853,125
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,935.15	1,859.49	1,705.26	4,368,622	3,853,125

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
NaturalGas Unmitigated	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6887.89	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0743**	**0.6348**	**0.2701**	**4.0500e-003**		**0.0513**	**0.0513**		**0.0513**	**0.0513**		**810.3400**	**810.3400**	**0.0155**	**0.0149**	**815.1555**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.58181	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0710**	**0.6066**	**0.2581**	**3.8700e-003**		**0.0490**	**0.0490**		**0.0490**	**0.0490**		**774.3309**	**774.3309**	**0.0148**	**0.0142**	**778.9324**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Unmitigated	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2407	0.4801	29.4307	0.0960		4.8011	4.8011		4.8011	4.8011	708.6406	0.0000	708.6406	3.3128	0.0000	791.4593
Landscaping	0.7261	0.2769	24.0496	1.2700e-003		0.1333	0.1333		0.1333	0.1333		43.3673	43.3673	0.0418		44.4112
Total	**11.4353**	**0.7570**	**53.4803**	**0.0973**		**4.9344**	**4.9344**		**4.9344**	**4.9344**	**708.6406**	**43.3673**	**752.0078**	**3.3545**	**0.0000**	**835.8705**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2407	0.4801	29.4307	0.0960		4.8011	4.8011		4.8011	4.8011	708.6406	0.0000	708.6406	3.3128	0.0000	791.4593
Landscaping	0.7261	0.2769	24.0496	1.2700e-003		0.1333	0.1333		0.1333	0.1333		43.3673	43.3673	0.0418		44.4112
Total	**11.4353**	**0.7570**	**53.4803**	**0.0973**		**4.9344**	**4.9344**		**4.9344**	**4.9344**	**708.6406**	**43.3673**	**752.0078**	**3.3545**	**0.0000**	**835.8705**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill - Parcel A and Parcel B

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	222.00	Space	0.00	88,800.00	0
Parking Lot	411.00	Space	4.53	164,400.00	0
Apartments Mid Rise	291.00	Dwelling Unit	7.18	291,000.00	832

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	234.06	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Oat Hill - Parcel A and Parcel B - Bay Area AQMD Air District, Winter

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E's RPS reductions

Land Use - Acreages adjusted per site plans.

Construction Phase - Phase timing left as defaults, except architectural coating shifted to occur during building cosntruction.

Grading - Total acres adjusted per site plan.

Vehicle Trips - Trip rates adjusted per ITE Trip Gen Rates 9th ed.

Woodstoves - Per AQ questionnaire, no fireplaces proposed.

Mobile Land Use Mitigation - inherent site location features applied

Area Mitigation -

Energy Mitigation - title 24 exceedance applied to reflect compliance with 2019 CBSC

Water Mitigation - water conservation strategy applied to reflect compliance with CALGreen Code and MWELO

Waste Mitigation - solid waste reduction applied to reflect compliance with AB 341

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	600.00
tblConstructionPhase	NumDays	300.00	600.00
tblConstructionPhase	NumDays	30.00	120.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblFireplaces	NumberGas	43.65	0.00
tblFireplaces	NumberNoFireplace	11.64	291.00
tblFireplaces	NumberWood	49.47	0.00
tblGrading	AcresOfGrading	300.00	20.80
tblLandUse	LotAcreage	2.00	0.00
tblLandUse	LotAcreage	3.70	4.53
tblLandUse	LotAcreage	7.66	7.18
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2593	46.4463	31.3381	0.0635	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	6,152.9508	6,152.9508	1.9461	0.0000	6,201.6033
2022	10.3436	38.8851	29.4633	0.0758	6.3702	1.6359	8.0061	3.3737	1.5050	4.8787	0.0000	7,534.8874	7,534.8874	1.9472	0.0000	7,554.6024
2023	10.0655	21.9491	27.1025	0.0743	3.6076	0.7959	4.4034	0.9681	0.7528	1.7208	0.0000	7,377.0182	7,377.0182	0.7617	0.0000	7,396.0600
2024	9.8822	20.7931	26.4113	0.0731	3.6076	0.6990	4.3066	0.9681	0.6609	1.6290	0.0000	7,263.0061	7,263.0061	0.7503	0.0000	7,281.7641
Maximum	**10.3436**	**46.4463**	**31.3381**	**0.0758**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**7,534.8874**	**7,534.8874**	**1.9472**	**0.0000**	**7,554.6024**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2593	46.4463	31.3381	0.0635	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	6,152.9508	6,152.9508	1.9461	0.0000	6,201.6033
2022	10.3436	38.8851	29.4633	0.0758	6.3702	1.6359	8.0061	3.3737	1.5050	4.8787	0.0000	7,534.8874	7,534.8874	1.9472	0.0000	7,554.6024
2023	10.0655	21.9491	27.1025	0.0743	3.6076	0.7959	4.4034	0.9681	0.7528	1.7208	0.0000	7,377.0182	7,377.0182	0.7617	0.0000	7,396.0600
2024	9.8822	20.7931	26.4113	0.0731	3.6076	0.6990	4.3066	0.9681	0.6609	1.6290	0.0000	7,263.0061	7,263.0061	0.7503	0.0000	7,281.7641
Maximum	**10.3436**	**46.4463**	**31.3381**	**0.0758**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**7,534.8874**	**7,534.8874**	**1.9472**	**0.0000**	**7,554.6024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Energy	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555
Mobile	2.1265	10.1848	25.2220	0.0950	9.4924	0.0784	9.5708	2.5390	0.0731	2.6121		9,638.0349	9,638.0349	0.3348		9,646.4035
Total	**13.6361**	**11.5765**	**78.9723**	**0.1964**	**9.4924**	**5.0641**	**14.5565**	**2.5390**	**5.0588**	**7.5978**	**708.6406**	**10,491.7421**	**11,200.3827**	**3.7048**	**0.0149**	**11,297.4295**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Energy	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
Mobile	2.0340	9.6179	23.1055	0.0847	8.3723	0.0704	8.4427	2.2394	0.0656	2.3050		8,585.2163	8,585.2163	0.3067		8,592.8834
Total	**13.5403**	**10.9814**	**76.8439**	**0.1858**	**8.3723**	**5.0538**	**13.4261**	**2.2394**	**5.0490**	**7.2885**	**708.6406**	**9,402.9144**	**10,111.5550**	**3.6760**	**0.0142**	**10,207.6863**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.70**	**5.14**	**2.70**	**5.38**	**11.80**	**0.20**	**7.77**	**11.80**	**0.19**	**4.07**	**0.00**	**10.38**	**9.72**	**0.78**	**4.44**	**9.65**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	1/21/2022	5	120	
3	Paving	Paving	1/22/2022	1/25/2022	5	2	
4	Building Construction	Building Construction	1/26/2022	5/14/2024	5	600	
5	Architectural Coating	Architectural Coating	2/9/2022	5/28/2024	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.8

Acres of Paving: 4.53

Residential Indoor: 589,275; Residential Outdoor: 196,425; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 15,192 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	316.00	73.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.2059**	**1.9853**	**8.1913**	**3.3301**	**1.8265**	**5.1566**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
Total	**0.0681**	**0.0464**	**0.4596**	**1.4600e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**145.9073**	**145.9073**	**3.3000e-003**		**145.9899**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.2059**	**1.9853**	**8.1913**	**3.3301**	**1.8265**	**5.1566**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
Total	**0.0681**	**0.0464**	**0.4596**	**1.4600e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**145.9073**	**145.9073**	**3.3000e-003**		**145.9899**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.2059**	**1.6349**	**7.8408**	**3.3301**	**1.5041**	**4.8342**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	**0.0636**	**0.0416**	**0.4218**	**1.4100e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**140.5584**	**140.5584**	**2.9600e-003**		**140.6323**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2059	0.0000	6.2059	3.3301	0.0000	3.3301			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.2059**	**1.6349**	**7.8408**	**3.3301**	**1.5041**	**4.8342**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	**0.0636**	**0.0416**	**0.4218**	**1.4100e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**140.5584**	**140.5584**	**2.9600e-003**		**140.6323**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	5.9343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**7.0371**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	5.9343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**7.0371**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	**0.0477**	**0.0312**	**0.3163**	**1.0600e-003**	**0.1232**	**7.6000e-004**	**0.1240**	**0.0327**	**7.0000e-004**	**0.0334**		**105.4188**	**105.4188**	**2.2200e-003**		**105.4742**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2236	7.2036	1.9221	0.0192	0.4942	0.0147	0.5088	0.1423	0.0140	0.1563		2,035.5240	2,035.5240	0.1023		2,038.0819
Worker	1.0046	0.6576	6.6640	0.0223	2.5959	0.0160	2.6118	0.6885	0.0147	0.7032		2,220.8228	2,220.8228	0.0467		2,221.9904
Total	**1.2283**	**7.8612**	**8.5861**	**0.0415**	**3.0900**	**0.0306**	**3.1207**	**0.8308**	**0.0287**	**0.8595**		**4,256.3468**	**4,256.3468**	**0.1490**		**4,260.0723**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2236	7.2036	1.9221	0.0192	0.4942	0.0147	0.5088	0.1423	0.0140	0.1563		2,035.5240	2,035.5240	0.1023		2,038.0819
Worker	1.0046	0.6576	6.6640	0.0223	2.5959	0.0160	2.6118	0.6885	0.0147	0.7032		2,220.8228	2,220.8228	0.0467		2,221.9904
Total	**1.2283**	**7.8612**	**8.5861**	**0.0415**	**3.0900**	**0.0306**	**3.1207**	**0.8308**	**0.0287**	**0.8595**		**4,256.3468**	**4,256.3468**	**0.1490**		**4,260.0723**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1681	5.5521	1.7068	0.0187	0.4942	6.5700e-003	0.5007	0.1423	6.2800e-003	0.1485		1,978.7821	1,978.7821	0.0869		1,980.9536
Worker	0.9411	0.5912	6.1204	0.0214	2.5959	0.0156	2.6115	0.6885	0.0144	0.7029		2,135.7750	2,135.7750	0.0418		2,136.8198
Total	**1.1092**	**6.1433**	**7.8272**	**0.0401**	**3.0901**	**0.0222**	**3.1122**	**0.8308**	**0.0207**	**0.8515**		**4,114.5570**	**4,114.5570**	**0.1287**		**4,117.7734**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1681	5.5521	1.7068	0.0187	0.4942	6.5700e-003	0.5007	0.1423	6.2800e-003	0.1485		1,978.7821	1,978.7821	0.0869		1,980.9536
Worker	0.9411	0.5912	6.1204	0.0214	2.5959	0.0156	2.6115	0.6885	0.0144	0.7029		2,135.7750	2,135.7750	0.0418		2,136.8198
Total	**1.1092**	**6.1433**	**7.8272**	**0.0401**	**3.0901**	**0.0222**	**3.1122**	**0.8308**	**0.0207**	**0.8515**		**4,114.5570**	**4,114.5570**	**0.1287**		**4,117.7734**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1625	5.4902	1.6426	0.0185	0.4942	6.4300e-003	0.5006	0.1423	6.1500e-003	0.1484		1,965.6559	1,965.6559	0.0851		1,967.7823
Worker	0.8864	0.5339	5.6628	0.0206	2.5959	0.0153	2.6112	0.6885	0.0141	0.7027		2,051.2512	2,051.2512	0.0376		2,052.1906
Total	**1.0489**	**6.0241**	**7.3054**	**0.0391**	**3.0901**	**0.0218**	**3.1118**	**0.8308**	**0.0203**	**0.8511**		**4,016.9071**	**4,016.9071**	**0.1226**		**4,019.9730**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1625	5.4902	1.6426	0.0185	0.4942	6.4300e-003	0.5006	0.1423	6.1500e-003	0.1484		1,965.6559	1,965.6559	0.0851		1,967.7823
Worker	0.8864	0.5339	5.6628	0.0206	2.5959	0.0153	2.6112	0.6885	0.0141	0.7027		2,051.2512	2,051.2512	0.0376		2,052.1906
Total	**1.0489**	**6.0241**	**7.3054**	**0.0391**	**3.0901**	**0.0218**	**3.1118**	**0.8308**	**0.0203**	**0.8511**		**4,016.9071**	**4,016.9071**	**0.1226**		**4,019.9730**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**7.2088**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2003	0.1311	1.3286	4.4400e-003	0.5175	3.1800e-003	0.5207	0.1373	2.9300e-003	0.1402		442.7590	442.7590	9.3100e-003		442.9918
Total	**0.2003**	**0.1311**	**1.3286**	**4.4400e-003**	**0.5175**	**3.1800e-003**	**0.5207**	**0.1373**	**2.9300e-003**	**0.1402**		**442.7590**	**442.7590**	**9.3100e-003**		**442.9918**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**7.2088**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2003	0.1311	1.3286	4.4400e-003	0.5175	3.1800e-003	0.5207	0.1373	2.9300e-003	0.1402		442.7590	442.7590	9.3100e-003		442.9918
Total	**0.2003**	**0.1311**	**1.3286**	**4.4400e-003**	**0.5175**	**3.1800e-003**	**0.5207**	**0.1373**	**2.9300e-003**	**0.1402**		**442.7590**	**442.7590**	**9.3100e-003**		**442.9918**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**7.1959**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1876	0.1179	1.2202	4.2700e-003	0.5175	3.1200e-003	0.5207	0.1373	2.8700e-003	0.1401		425.8032	425.8032	8.3300e-003		426.0115
Total	**0.1876**	**0.1179**	**1.2202**	**4.2700e-003**	**0.5175**	**3.1200e-003**	**0.5207**	**0.1373**	**2.8700e-003**	**0.1401**		**425.8032**	**425.8032**	**8.3300e-003**		**426.0115**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**7.1959**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1876	0.1179	1.2202	4.2700e-003	0.5175	3.1200e-003	0.5207	0.1373	2.8700e-003	0.1401		425.8032	425.8032	8.3300e-003		426.0115
Total	**0.1876**	**0.1179**	**1.2202**	**4.2700e-003**	**0.5175**	**3.1200e-003**	**0.5207**	**0.1373**	**2.8700e-003**	**0.1401**		**425.8032**	**425.8032**	**8.3300e-003**		**426.0115**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**7.1850**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1767	0.1064	1.1290	4.1000e-003	0.5175	3.0600e-003	0.5206	0.1373	2.8100e-003	0.1401		408.9520	408.9520	7.4900e-003		409.1393
Total	**0.1767**	**0.1064**	**1.1290**	**4.1000e-003**	**0.5175**	**3.0600e-003**	**0.5206**	**0.1373**	**2.8100e-003**	**0.1401**		**408.9520**	**408.9520**	**7.4900e-003**		**409.1393**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**7.1850**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1767	0.1064	1.1290	4.1000e-003	0.5175	3.0600e-003	0.5206	0.1373	2.8100e-003	0.1401		408.9520	408.9520	7.4900e-003		409.1393
Total	**0.1767**	**0.1064**	**1.1290**	**4.1000e-003**	**0.5175**	**3.0600e-003**	**0.5206**	**0.1373**	**2.8100e-003**	**0.1401**		**408.9520**	**408.9520**	**7.4900e-003**		**409.1393**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0340	9.6179	23.1055	0.0847	8.3723	0.0704	8.4427	2.2394	0.0656	2.3050		8,585.2163	8,585.2163	0.3067		8,592.8834
Unmitigated	2.1265	10.1848	25.2220	0.0950	9.4924	0.0784	9.5708	2.5390	0.0731	2.6121		9,638.0349	9,638.0349	0.3348		9,646.4035

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,935.15	1,859.49	1705.26	4,368,622	3,853,125
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,935.15	1,859.49	1,705.26	4,368,622	3,853,125

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking Structure	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
NaturalGas Unmitigated	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6887.89	0.0743	0.6348	0.2701	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.3400	810.3400	0.0155	0.0149	815.1555
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0743**	**0.6348**	**0.2701**	**4.0500e-003**		**0.0513**	**0.0513**		**0.0513**	**0.0513**		**810.3400**	**810.3400**	**0.0155**	**0.0149**	**815.1555**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.58181	0.0710	0.6066	0.2581	3.8700e-003		0.0490	0.0490		0.0490	0.0490		774.3309	774.3309	0.0148	0.0142	778.9324
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0710**	**0.6066**	**0.2581**	**3.8700e-003**		**0.0490**	**0.0490**		**0.0490**	**0.0490**		**774.3309**	**774.3309**	**0.0148**	**0.0142**	**778.9324**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705
Unmitigated	11.4353	0.7570	53.4803	0.0973		4.9344	4.9344		4.9344	4.9344	708.6406	43.3673	752.0078	3.3545	0.0000	835.8705

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2407	0.4801	29.4307	0.0960		4.8011	4.8011		4.8011	4.8011	708.6406	0.0000	708.6406	3.3128	0.0000	791.4593
Landscaping	0.7261	0.2769	24.0496	1.2700e-003		0.1333	0.1333		0.1333	0.1333		43.3673	43.3673	0.0418		44.4112
Total	**11.4353**	**0.7570**	**53.4803**	**0.0973**		**4.9344**	**4.9344**		**4.9344**	**4.9344**	**708.6406**	**43.3673**	**752.0078**	**3.3545**	**0.0000**	**835.8705**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2407	0.4801	29.4307	0.0960		4.8011	4.8011		4.8011	4.8011	708.6406	0.0000	708.6406	3.3128	0.0000	791.4593
Landscaping	0.7261	0.2769	24.0496	1.2700e-003		0.1333	0.1333		0.1333	0.1333		43.3673	43.3673	0.0418		44.4112
Total	**11.4353**	**0.7570**	**53.4803**	**0.0973**		**4.9344**	**4.9344**		**4.9344**	**4.9344**	**708.6406**	**43.3673**	**752.0078**	**3.3545**	**0.0000**	**835.8705**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Oat Hill - Parcel A and Parcel B

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65976E+001	7.65976E+001	4.69000E-003	0.00000E+000	7.67149E+001
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33076E+002	1.33076E+002	4.30400E-002	0.00000E+000	1.34152E+002
Excavators	2.71000E-002	2.52760E-001	3.92370E-001	6.20000E-004	1.22500E-002	1.12700E-002	0.00000E+000	5.44496E+001	5.44496E+001	1.76100E-002	0.00000E+000	5.48898E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	4.10000E-004	4.20000E-003	5.77000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	8.26010E-001	8.26010E-001	2.70000E-004	0.00000E+000	8.32680E-001
Paving Equipment	3.60000E-004	3.48000E-003	5.09000E-003	1.00000E-005	1.70000E-004	1.60000E-004	0.00000E+000	7.15710E-001	7.15710E-001	2.30000E-004	0.00000E+000	7.21500E-001
Rollers	3.30000E-004	3.45000E-003	3.72000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	4.61040E-001	4.61040E-001	1.50000E-004	0.00000E+000	4.64770E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10704E+001
Scrapers	1.09880E-001	1.25794E+000	8.31130E-001	1.82000E-003	4.89600E-002	4.50400E-002	0.00000E+000	1.59832E+002	1.59832E+002	5.16900E-002	0.00000E+000	1.61125E+002
Tractors/Loaders/ Backhoes	1.46510E-001	1.48601E+000	2.05332E+000	2.86000E-003	7.72800E-002	7.11000E-002	0.00000E+000	2.50864E+002	2.50864E+002	8.11300E-002	0.00000E+000	2.52892E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64662E+001	5.64662E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.84200E-002	3.98680E-001	5.43570E-001	8.90000E-004	2.19900E-002	2.19900E-002	0.00000E+000	7.65975E+001	7.65975E+001	4.69000E-003	0.00000E+000	7.67148E+001
Cranes	9.37000E-002	1.02757E+000	4.85160E-001	1.51000E-003	4.27800E-002	3.93600E-002	0.00000E+000	1.33075E+002	1.33075E+002	4.30400E-002	0.00000E+000	1.34151E+002
Excavators	2.71000E-002	2.52760E-001	3.92370E-001	6.20000E-004	1.22500E-002	1.12700E-002	0.00000E+000	5.44495E+001	5.44495E+001	1.76100E-002	0.00000E+000	5.48898E+001
Forklifts	9.51000E-002	8.87340E-001	1.03278E+000	1.38000E-003	5.60200E-002	5.15400E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	9.36800E-002	8.32220E-001	1.10134E+000	1.97000E-003	3.98900E-002	3.98900E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.60000E-003	0.00000E+000	1.69752E+002
Graders	2.68900E-002	3.50470E-001	1.05690E-001	4.00000E-004	1.11100E-002	1.02200E-002	0.00000E+000	3.49248E+001	3.49248E+001	1.13000E-002	0.00000E+000	3.52072E+001
Pavers	4.10000E-004	4.20000E-003	5.77000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	8.26010E-001	8.26010E-001	2.70000E-004	0.00000E+000	8.32680E-001
Paving Equipment	3.60000E-004	3.48000E-003	5.09000E-003	1.00000E-005	1.70000E-004	1.60000E-004	0.00000E+000	7.15710E-001	7.15710E-001	2.30000E-004	0.00000E+000	7.21500E-001
Rollers	3.30000E-004	3.45000E-003	3.72000E-003	1.00000E-005	2.00000E-004	1.80000E-004	0.00000E+000	4.61040E-001	4.61040E-001	1.50000E-004	0.00000E+000	4.64770E-001
Rubber Tired Dozers	6.90600E-002	7.24230E-001	2.69130E-001	5.80000E-004	3.50800E-002	3.22700E-002	0.00000E+000	5.06607E+001	5.06607E+001	1.63800E-002	0.00000E+000	5.10703E+001
Scrapers	1.09880E-001	1.25794E+000	8.31130E-001	1.82000E-003	4.89600E-002	4.50400E-002	0.00000E+000	1.59832E+002	1.59832E+002	5.16900E-002	0.00000E+000	1.61125E+002
Tractors/Loaders/Backhoes	1.46510E-001	1.48601E+000	2.05332E+000	2.86000E-003	7.72800E-002	7.11000E-002	0.00000E+000	2.50864E+002	2.50864E+002	8.11300E-002	0.00000E+000	2.52892E+002
Welders	7.81400E-002	4.29380E-001	5.04860E-001	7.70000E-004	1.72300E-002	1.72300E-002	0.00000E+000	5.64661E+001	5.64661E+001	6.34000E-003	0.00000E+000	5.66246E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17317E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20232E-006	1.20232E-006	0.00000E+000	0.00000E+000	1.19268E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.28559E-006	1.28559E-006	0.00000E+000	0.00000E+000	1.09310E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15834E-006	1.15834E-006	0.00000E+000	0.00000E+000	1.14905E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.23710E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.43165E-006	1.43165E-006	0.00000E+000	0.00000E+000	1.13613E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18435E-006	1.18435E-006	0.00000E+000	0.00000E+000	1.17485E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18874E-006	1.18874E-006	0.00000E+000	0.00000E+000	1.17921E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19587E-006	1.19587E-006	0.00000E+000	0.00000E+000	1.18628E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23621E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.15	0.04	0.15	0.04	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.89	0.24	0.89	0.24	0.00	0.00
Grading	Fugitive Dust	0.38	0.20	0.38	0.20	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.05	0.02	0.05	0.02	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	100.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.27	5.43	8.73	10.90	10.22	10.27	0.00	10.88	10.88	8.59	0.00	10.88
Natural Gas	4.50	4.44	4.44	4.05	4.48	4.48	0.00	4.44	4.44	4.28	4.47	4.44
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	20.03	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.10	0.32		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.18	0.20		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.10			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00			
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.12			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	7.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	0.00	100.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Napa Junction Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.87	6.45	9.52	7.00	0.40	6.60	1.73	0.36	1.37	0.01	1,431.01	0.42	0.02	1,445.95
Grading/Excavation	3.66	29.80	39.94	8.35	1.75	6.60	2.95	1.57	1.37	0.06	6,149.73	1.83	0.07	6,214.85
Drainage/Utilities/Sub-Grade	3.11	27.49	31.19	8.04	1.44	6.60	2.71	1.34	1.37	0.05	5,174.30	1.10	0.05	5,217.30
Paving	1.21	13.48	12.02	0.66	0.66	0.00	0.58	0.58	0.00	0.02	2,426.59	0.57	0.08	2,465.35
Maximum (pounds/day)	3.66	29.80	39.94	8.35	1.75	6.60	2.95	1.57	1.37	0.06	6,149.73	1.83	0.08	6,214.85
Total (tons/construction project)	0.03	0.27	0.33	0.08	0.01	0.06	0.03	0.01	0.01	0.00	53.09	0.01	0.00	53.64

Notes:

Project Start Year ->	2021
Project Length (months) ->	1
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	No

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	160	0
Grading/Excavation	0	0	0	0	680	0
Drainage/Utilities/Sub-Grade	0	0	0	0	560	0
Paving	0	48	0	90	400	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Napa Junction Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	1.57	0.00	0.00	1.44
Grading/Excavation	0.02	0.15	0.20	0.04	0.01	0.03	0.01	0.01	0.01	0.00	30.44	0.01	0.00	27.91
Drainage/Utilities/Sub-Grade	0.01	0.09	0.10	0.03	0.00	0.02	0.01	0.00	0.00	0.00	17.08	0.00	0.00	15.62
Paving	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	3.69
Maximum (tons/phase)	0.02	0.15	0.20	0.04	0.01	0.03	0.01	0.01	0.01	0.00	30.44	0.01	0.00	27.91
Total (tons/construction project)	0.03	0.27	0.33	0.08	0.01	0.06	0.03	0.01	0.01	0.00	53.09	0.01	0.00	48.66

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model
Data Entry Worksheet

Version 9.0.0

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	Napa Junction	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	1.00	month
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	2	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	0.06	miles
Total Project Area	0.33	acres
Maximum Area Disturbed/Day	0.33	acres
Water Trucks Used?	2	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	47.78	0.00

Mitigation Options

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	No Mitigation	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.10		1/1/2021
Grading/Excavation		0.45		1/5/2021
Drainage/Utilities/Sub-Grade		0.30		1/19/2021
Paving		0.15		1/29/2021
Totals (Months)	1			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		3	90.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.08	0.23	1.31	0.04	0.03	0.00	369.01	0.00	0.06	386.39
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.64
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.64

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions	User Override of Worker Commute Default Values	Default Values		
User Input				
Miles/ one-way trip		20	Calculated Daily Trips	Calculated Daily VMT
One-way trips/day		2		
No. of employees: Grubbing/Land Clearing		4	8	160.00
No. of employees: Grading/Excavation		17	34	680.00
No. of employees: Drainage/Utilities/Sub-Grade		14	28	560.00
No. of employees: Paving		10	20	400.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grading/Excavation (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Draining/Utilities/Sub-Grade (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Paving (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grubbing/Land Clearing (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Grading/Excavation (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Draining/Utilities/Sub-Grade (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Paving (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.03	0.44	0.04	0.02	0.01	0.00	121.14	0.00	0.00	122.24
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.13
Pounds per day - Grading/Excavation	0.12	1.87	0.17	0.07	0.03	0.01	514.86	0.01	0.01	519.53
Tons per const. Period - Grading/Excavation	0.00	0.01	0.00	0.00	0.00	0.00	2.55	0.00	0.00	2.57
Pounds per day - Drainage/Utilities/Sub-Grade	0.10	1.54	0.14	0.06	0.02	0.00	424.00	0.01	0.01	427.85
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.01	0.00	0.00	0.00	0.00	1.40	0.00	0.00	1.41
Pounds per day - Paving	0.07	1.10	0.10	0.04	0.02	0.00	302.86	0.01	0.01	305.60
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50
Total tons per construction project	0.00	0.02	0.00	0.00	0.00	0.00	4.58	0.00	0.00	4.62

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions	User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Round Trips/Vehicle/Day	Default Values Round Trips/Vehicle/Day	Calculated Trips/day	User Override of Miles/Round Trip	Default Values Miles/Round Trip	Calculated Daily VMT
User Input								
Grubbing/Land Clearing - Exhaust		0		5	0		8.00	0.00
Grading/Excavation - Exhaust		0		5	0		8.00	0.00
Drainage/Utilities/Subgrade		0		5	0		8.00	0.00
Paving		0		5	0		8.00	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing		0.33	6.60	0.01	1.37	0.00
Fugitive Dust - Grading/Excavation		0.33	6.60	0.03	1.37	0.01
Fugitive Dust - Drainage/Utilities/Subgrade		0.33	6.60	0.02	1.37	0.00

Off-Road Equipment Emissions

Grubbing/Land Clearing	Default Number of Vehicles	Override of	Mitigation Option Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Crawler Tractors	0.55	2.44	6.97	0.26	0.24	0.01	760.36	0.25
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Excavators	0.23	3.27	2.15	0.10	0.10	0.01	500.19	0.16
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Grubbing/Land Clearing	pounds per day	0.84	6.01	9.48	0.38	0.35	0.01	1,309.87	0.41
	Grubbing/Land Clearing	tons per phase	0.00	0.01	0.01	0.00	0.00	0.00	1.44	0.00

Grading/Excavation	Default Number of Vehicles	Override of Default Number of Vehicles	Mitigation Option Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
	Program-estimate					pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Model Default Tier	Crawler Tractors	0.55	2.44	6.97	0.26	0.24	0.01	760.36	0.25
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	3			Model Default Tier	Excavators	0.46	6.54	4.31	0.21	0.19	0.01	1,000.38	0.32
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Model Default Tier	Graders	0.45	1.77	5.92	0.19	0.17	0.01	641.68	0.21
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Model Default Tier	Rollers	0.38	3.76	3.85	0.24	0.22	0.01	508.18	0.16
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Model Default Tier	Rubber Tired Loaders	0.34	1.60	3.86	0.13	0.12	0.01	605.23	0.20
1.00	2			Model Default Tier	Scrapers	0.93	7.00	10.70	0.42	0.38	0.02	1,467.91	0.47
	1			Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Model Default Tier	Tractors/Loaders/Backhoes	0.37	4.52	3.79	0.22	0.21	0.01	601.80	0.19
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Grading/Excavation	pounds per day	3.55	27.93	39.77	1.68	1.54	0.06	5,634.86	1.81
	Grading/Excavation	tons per phase	0.02	0.14	0.20	0.01	0.01	0.00	27.89	0.01

Drainage/Utilities/Subgrade	Default Number of Vehicles	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Override of Default Number of Vehicles	*Program-estimate*		Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Air Compressors	0.29	2.42	2.04	0.13	0.13	0.00	375.26	0.03
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Generator Sets	0.36	3.68	3.17	0.17	0.17	0.01	623.04	0.03
	1		Model Default Tier	Graders	0.45	1.77	5.92	0.19	0.17	0.01	641.68	0.21
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Plate Compactors	0.04	0.21	0.25	0.01	0.01	0.00	34.48	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Pumps	0.38	3.74	3.21	0.18	0.18	0.01	623.04	0.03
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Rough Terrain Forklifts	0.12	2.29	1.61	0.06	0.06	0.00	333.77	0.11
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	2		Model Default Tier	Scrapers	0.93	7.00	10.70	0.42	0.38	0.02	1,467.91	0.47
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.37	4.52	3.79	0.22	0.21	0.01	601.80	0.19
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Drainage/Utilities/Sub-Grade	pounds per day		3.01	25.95	31.05	1.38	1.31	0.05	4,750.30	1.09
Drainage/Utilities/Sub-Grade	tons per phase		0.01	0.09	0.10	0.00	0.00	0.00	15.68	0.00

Paving	Default Number of Vehicles	Override of Default Number of Vehicles	Mitigation Option Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
	Program-estimate					pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Model Default Tier	Pavers	0.25	2.90	2.60	0.13	0.12	0.00	455.06	0.15
	1			Model Default Tier	Paving Equipment	0.19	2.54	1.94	0.10	0.09	0.00	394.46	0.13
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	3			Model Default Tier	Rollers	0.19	1.88	1.92	0.12	0.11	0.00	254.09	0.08
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Model Default Tier	Tractors/Loaders/Backhoes	0.37	4.52	3.79	0.22	0.21	0.01	601.80	0.19
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	pounds per day	1.06	12.15	10.61	0.58	0.53	0.02	1,754.72	0.56
Paving	tons per phase	0.00	0.02	0.02	0.00	0.00	0.00	2.90	0.00
Total Emissions all Phases (tons per construction period) =>		0.03	0.25	0.33	0.01	0.01	0.00	47.90	0.01

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	768.56
0.00	0.00
0.00	505.59
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	1,323.71
0.00	1.46

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	768.56
0.00	0.00
0.01	1,011.17
0.00	0.00
0.00	0.00
0.01	648.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	513.65
0.00	0.00
0.00	0.00
0.01	611.76
0.01	1,483.74
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

0.05	5,695.33
0.00	28.19

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	376.75
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	625.23
0.01	648.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	34.65
0.00	0.00
0.00	625.28
0.00	0.00
0.00	337.37
0.00	0.00
0.00	0.00
0.01	1,483.74
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

0.04	4,789.46
0.00	15.81

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	459.97
0.00	398.71
0.00	0.00
0.00	0.00
0.00	0.00
0.00	256.83
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.02	1,773.35
0.00	2.93
0.00	48.38

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Napa Junction														
Project Phases (Pounds)	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**Total PM10 (lbs/day)**	**Exhaust PM10 (lbs/day)**	**Fugitive Dust PM10 (lbs/day)**	**Total PM2.5 (lbs/day)**	**Exhaust PM2.5 (lbs/day)**	**Fugitive Dust PM2.5 (lbs/day)**	**SOx (lbs/day)**	**CO2 (lbs/day)**	**CH4 (lbs/day)**	**N2O (lbs/day)**	**CO2e (lbs/day)**
Grubbing/Land Clearing	0.45	9.06	1.30	6.68	0.08	6.60	1.44	0.07	1.37	0.01	1,431.01	0.42	0.02	1,445.95
Grading/Excavation	1.91	38.01	4.18	6.87	0.27	6.60	1.59	0.22	1.37	0.06	6,149.73	1.83	0.07	6,214.85
Drainage/Utilities/Sub-Grade	1.53	31.87	3.71	6.84	0.24	6.60	1.57	0.19	1.37	0.05	5,174.30	1.10	0.05	5,217.30
Paving	0.72	15.18	2.95	0.16	0.16	0.00	0.12	0.12	0.00	0.02	2,426.59	0.57	0.08	2,465.35
Maximum (pounds/day)	1.91	38.01	4.18	6.87	0.27	6.60	1.59	0.22	1.37	0.06	6,149.73	1.83	0.08	6,214.85
Total (tons/construction project)	0.02	0.33	0.04	0.06	0.00	0.06	0.01	0.00	0.01	0.00	53.09	0.01	0.00	53.64

Notes:

Project Start Year ->	2021
Project Length (months) ->	1
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	No

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	160	0
Grading/Excavation	0	0	0	0	680	0
Drainage/Utilities/Sub-Grade	0	0	0	0	560	0
Paving	0	48	0	90	400	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Napa Junction														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	**ROG (tons/phase)**	**CO (tons/phase)**	**NOx (tons/phase)**	**Total PM10 (tons/phase)**	**Exhaust PM10 (tons/phase)**	**Fugitive Dust PM10 (tons/phase)**	**Total PM2.5 (tons/phase)**	**Exhaust PM2.5 (tons/phase)**	**Fugitive Dust PM2.5 (tons/phase)**	**SOx (tons/phase)**	**CO2 (tons/phase)**	**CH4 (tons/phase)**	**N2O (tons/phase)**	**CO2e (MT/phase)**
Grubbing/Land Clearing	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	1.57	0.00	0.00	1.44
Grading/Excavation	0.01	0.19	0.02	0.03	0.00	0.03	0.01	0.00	0.01	0.00	30.44	0.01	0.00	27.91
Drainage/Utilities/Sub-Grade	0.01	0.11	0.01	0.02	0.00	0.02	0.01	0.00	0.00	0.00	17.08	0.00	0.00	15.62
Paving	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	3.69
Maximum (tons/phase)	0.01	0.19	0.02	0.03	0.00	0.03	0.01	0.00	0.01	0.00	30.44	0.01	0.00	27.91
Total (tons/construction project)	0.02	0.33	0.04	0.06	0.00	0.06	0.01	0.00	0.01	0.00	53.09	0.01	0.00	48.66

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model
Data Entry Worksheet

Version 9.0.0

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	Napa Junction	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	1.00	month
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	2	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	0.06	miles
Total Project Area	0.33	acres
Maximum Area Disturbed/Day	0.33	acres
Water Trucks Used?	2	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	47.78	0.00

Mitigation Options

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation).
Will all off-road equipment be tier 4?	All Tier 4 Equipment	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.10		1/1/2021
Grading/Excavation		0.45		1/5/2021
Drainage/Utilities/Sub-Grade		0.30		1/19/2021
Paving		0.15		1/29/2021
Totals (Months)	1			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		3	90.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.08	0.23	1.31	0.04	0.03	0.00	369.01	0.00	0.06	386.39
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.64
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.64

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions	User Override of Worker Commute Default Values	Default Values		
User Input				
Miles/ one-way trip		20	Calculated Daily Trips	Calculated Daily VMT
One-way trips/day		2		
No. of employees: Grubbing/Land Clearing		4	8	160.00
No. of employees: Grading/Excavation		17	34	680.00
No. of employees: Drainage/Utilities/Sub-Grade		14	28	560.00
No. of employees: Paving		10	20	400.00

Emission Rates	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Grubbing/Land Clearing (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grading/Excavation (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Draining/Utilities/Sub-Grade (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Paving (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grubbing/Land Clearing (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Grading/Excavation (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Draining/Utilities/Sub-Grade (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Paving (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.03	0.44	0.04	0.02	0.01	0.00	121.14	0.00	0.00	122.24
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.13
Pounds per day - Grading/Excavation	0.12	1.87	0.17	0.07	0.03	0.01	514.86	0.01	0.01	519.53
Tons per const. Period - Grading/Excavation	0.00	0.01	0.00	0.00	0.00	0.00	2.55	0.00	0.00	2.57
Pounds per day - Drainage/Utilities/Sub-Grade	0.10	1.54	0.14	0.06	0.02	0.00	424.00	0.01	0.01	427.85
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.01	0.00	0.00	0.00	0.00	1.40	0.00	0.00	1.41
Pounds per day - Paving	0.07	1.10	0.10	0.04	0.02	0.00	302.86	0.01	0.01	305.60
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50
Total tons per construction project	0.00	0.02	0.00	0.00	0.00	0.00	4.58	0.00	0.00	4.62

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions	User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Round Trips/Vehicle/Day	Default Values Round Trips/Vehicle/Day	Calculated Trips/day	User Override of Miles/Round Trip	Default Values Miles/Round Trip	Calculated Daily VMT
User Input								
Grubbing/Land Clearing - Exhaust		0		5	0		8.00	0.00
Grading/Excavation - Exhaust		0		5	0		8.00	0.00
Drainage/Utilities/Subgrade		0		5	0		8.00	0.00
Paving		0		5	0		8.00	0.00

Emission Rates	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing		0.33	6.60	0.01	1.37	0.00
Fugitive Dust - Grading/Excavation		0.33	6.60	0.03	1.37	0.01
Fugitive Dust - Drainage/Utilities/Subgrade		0.33	6.60	0.02	1.37	0.00

Off-Road Equipment Emissions

Grubbing/Land Clearing	Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Override of Default Number of Vehicles	*Program-estimate*		Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Crawler Tractors	0.24	4.18	0.48	0.02	0.02	0.01	760.36	0.25
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Excavators	0.16	3.92	0.32	0.02	0.01	0.01	500.19	0.16
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Signal Boards	0.03	0.52	0.46	0.03	0.02	0.00	49.31	0.01
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
	Grubbing/Land Clearing	pounds per day	0.43	8.62	1.26	0.07	0.06	0.01	1,309.87	0.41
	Grubbing/Land Clearing	tons per phase	0.00	0.01	0.00	0.00	0.00	0.00	1.44	0.00

Grading/Excavation	Default Number of Vehicles	Override of Default Number of Vehicles	Mitigation Option: Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
	Program-estimate					pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Tier 4	Crawler Tractors	0.24	4.18	0.48	0.02	0.02	0.01	760.36	0.25
				Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	3			Tier 4	Excavators	0.32	7.84	0.64	0.03	0.03	0.01	1,000.38	0.32
				Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Tier 4	Graders	0.20	3.52	0.41	0.02	0.02	0.01	641.68	0.21
				Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Tier 4	Rollers	0.16	3.97	0.32	0.02	0.01	0.01	508.18	0.16
				Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Tier 4	Rubber Tired Loaders	0.19	3.35	0.39	0.02	0.02	0.01	605.23	0.20
1.00	2			Tier 4	Scrapers	0.47	8.08	0.93	0.05	0.04	0.02	1,467.91	0.47
	1			Tier 4	Signal Boards	0.03	0.52	0.46	0.03	0.02	0.00	49.31	0.01
				Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Tier 4	Tractors/Loaders/Backhoes	0.19	4.68	0.38	0.02	0.02	0.01	601.80	0.19
				Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Grading/Excavation	pounds per day	1.80	36.13	4.01	0.20	0.19	0.06	5,634.86	1.81
	Grading/Excavation	tons per phase	0.01	0.18	0.02	0.00	0.00	0.00	27.89	0.01

Drainage/Utilities/Subgrade	Default Number of Vehicles	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Override of Default Number of Vehicles	*Program-estimate*		Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Air Compressors	0.10	2.44	0.20	0.01	0.01	0.00	375.26	0.03
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Generator Sets	0.16	4.06	0.33	0.02	0.02	0.01	623.04	0.03
	1		Tier 4	Graders	0.20	3.52	0.41	0.02	0.02	0.01	641.68	0.21
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Plate Compactors	0.02	0.36	0.32	0.02	0.02	0.00	34.48	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Pumps	0.16	4.06	0.33	0.02	0.02	0.01	623.04	0.03
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Tier 4	Rough Terrain Forklifts	0.11	2.61	0.21	0.01	0.01	0.00	333.77	0.11
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	2		Tier 4	Scrapers	0.47	8.08	0.93	0.05	0.04	0.02	1,467.91	0.47
	1		Tier 4	Signal Boards	0.03	0.52	0.46	0.03	0.02	0.00	49.31	0.01
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Tier 4	Tractors/Loaders/Backhoes	0.19	4.68	0.38	0.02	0.02	0.01	601.80	0.19
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drainage/Utilities/Sub-Grade	pounds per day	1.43	30.33	3.57	0.18	0.17	0.05	4,750.30	1.09
Drainage/Utilities/Sub-Grade	tons per phase	0.00	0.10	0.01	0.00	0.00	0.00	15.68	0.00

Paving	Default Number of Vehicles	Override of Default Number of Vehicles	Mitigation Option: Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
	Program-estimate					pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Tier 4	Pavers	0.14	3.56	0.29	0.01	0.01	0.00	455.06	0.15
	1			Tier 4	Paving Equipment	0.13	3.10	0.25	0.01	0.01	0.00	394.46	0.13
				Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	3			Tier 4	Rollers	0.08	1.98	0.16	0.01	0.01	0.00	254.09	0.08
				Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1			Tier 4	Signal Boards	0.03	0.52	0.46	0.03	0.02	0.00	49.31	0.01
				Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2			Tier 4	Tractors/Loaders/Backhoes	0.19	4.68	0.38	0.02	0.02	0.01	601.80	0.19
				Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	pounds per day	0.57	13.85	1.54	0.08	0.07	0.02	1,754.72	0.56
Paving	tons per phase	0.00	0.02	0.00	0.00	0.00	0.00	2.90	0.00
Total Emissions all Phases (tons per construction period) =>		0.02	0.31	0.04	0.00	0.00	0.00	47.90	0.01

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	768.56
0.00	0.00
0.00	505.59
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	1,323.71
0.00	1.46

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.01	768.56
0.00	0.00
0.01	1,011.17
0.00	0.00
0.00	0.00
0.01	648.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	513.65
0.00	0.00
0.00	0.00
0.01	611.76
0.01	1,483.74
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

0.05	5,695.33
0.00	28.19

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	376.75
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	625.23
0.01	648.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	34.65
0.00	0.00
0.00	625.28
0.00	0.00
0.00	337.37
0.00	0.00
0.00	0.00
0.01	1,483.74
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

0.04	4,789.46
0.00	15.81

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	459.97
0.00	398.71
0.00	0.00
0.00	0.00
0.00	0.00
0.00	256.83
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	49.56
0.00	0.00
0.00	0.00
0.00	0.00
0.01	608.28
0.00	0.00
0.00	0.00

N2O	CO2e
pounds/day	pounds/day
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.02	1,773.35
0.00	2.93
0.00	48.38

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

APPENDIX B

BIOLOGICAL RESOURCES TECHNICAL REPORT

Biological Resources Technical Report

Oat Hill Multi-Family Development

American Canyon, Napa County, California









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LIST OF PREPARERS

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Jeremie Schuster – GIS Analyst

DEFINITIONS

Project Site: The area throughout which the assessment was performed, including Parcels A and B, approximately 20.58 acres spanning across the parcel APNs 058-320-001-000 and 058-380-008-000.

LIST OF ACRONYMS

BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
County	County of Napa
Corps	U.S. Army Corps of Engineers
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
Magnusen-Stevens Act	Magnuson-Stevens Fishery Conservation & Management
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resource Conservation Service
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SSI	Special-status Invertebrates
SWRCB	State Water Resource Control Board
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

1.0 INTRODUCTION

This Biological Resources Technical Report evaluates existing biological resources, potential impacts, and mitigation measures for the Oat Hill Multi-Family Development Project located in American Canyon, California (Figures 1 and 2, Appendix A). The proposed project (Project) involves the construction of new apartments and recreational buildings, with associated infrastructure, access roads and parking spaces.

1.1 Overview and Purpose

This report provides an assessment of biological resources within the Project Site and immediate vicinity. The purpose of the assessment was to develop and gather information on sensitive biological communities and special-status plant and wildlife species to support an evaluation of the Project under the California Environmental Quality Act (CEQA). This report describes the results of the site visit, which assessed the Project Site for (1) the presence of sensitive biological communities, special status plant species, and special status wildlife species, (2) the potential for the site to support special-status plant and wildlife species. Based on the results of the site assessment, potential impacts to sensitive biological communities and special status species resulting from the proposed project were evaluated. If the project has the potential to result in significant impacts to these biological resources, measures to avoid, minimize, or mitigate for those significant impacts are described.

A biological resources assessment provides general information on the presence, or potential presence, of sensitive species and habitats. This assessment is based on information available at the time of the study and on site conditions that were observed on the dates the site was visited. Conclusions are based on currently available information used in combination with the professional judgement of the biologists completing this study.

1.2 Project Description

The Project involves the construction of new apartment complexes on two parcels, Parcel A and Parcel B, as illustrated in the Site Plan (Appendix B). Parcel A is 11.3 acres with an 8.1-acre development area that will include a total of 206 units, a recreation building, a pool building and pool, a community loop trail, 451 onsite and off-site parking spaces, 1.2 acres of common open space, and 3.2 acres of hillside slope area. Parcel B is 9.3 acres with a 3.2-acre development area that will include a total of 85 units, a recreation building, an outdoor lounge and viewing area, 183 onsite parking spaces, 0.6 acre of common open space, and 5.9 acres of hillside slope area. Access will be provided by new private roads off Napa Junction Road, and an EVA road that connects the two parcels, as illustrated in the Site Plan (Appendix B).

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts. Table 1 shows the correlation between these regulations and each Biological Resources question in the Environmental Checklist Form (Appendix G) of the CEQA guidelines.

Table 1. Summary of Biological Resources Evaluation

CEQA Assessment Category[1] IV. -Biological Resources	Biological Resources Considered	Relevant Laws and Regulations	Responsible Regulatory Agency	Summary of Findings & Report Section[2]
Question A. Special-status species	Special-status Plants Special-status Wildlife Designated Critical Habitat	Federal Endangered Species Act (ESA) California Endangered Species Act (CESA) California Native Plant Protection Act (CNPPA) Migratory Bird Treaty Act (MBTA) Bald and Golden Eagle Protection Act (BGEPA)	U.S. Fish and Wildlife Service (USFWS) California Department of Fish and Wildlife (CDFW)	Potentially significant impacts were identified and mitigation measures included that reduce those impacts to a level that is less than significant. **See Section 5.2 for more information**
Question B. Sensitive natural communities & riparian habitat	Sensitive Natural Communities Streams, Lakes, & Riparian Habitat	California Fish and Game Code (CFGC) Oak Woodland Conservation Act Porter-Cologne Act Clean Water Act (CWA)	California Department of Fish and Wildlife (CDFW) U.S. Army Corps of Engineers (Corps) U.S. Environmental Protection Agency (EPA) State Water Resources Control Board Regional Water Quality Control Board	No potentially significant impacts were identified (no mitigation is required)
Question C. State and federally protected wetlands	Wetlands Unvegetated surface waters	Clean Water Act (CWA) Sections 404/401 Rivers and Harbors Act Section 10 Porter Cologne Act	U.S. Army Corps of Engineers (Corps) U.S. Environmental Protection Agency (EPA) State Water Resources Control Board Regional Water Quality Control Board	No potentially significant impacts were identified (no mitigation is required)

[1] *CEQA Questions have been summarized here; see Section 6.2 for details.*
[2] *As given in this report; see Section 5.0 subheadings*

CEQA Assessment Category[1] IV. -Biological Resources	Biological Resources Considered	Relevant Laws and Regulations	Responsible Regulatory Agency	Summary of Findings & Report Section[2]
Question D. Fish & wildlife corridors	Essential Fish Habitat Wildlife Corridors	California Fish and Game Code Magnusen-Stevens Fishery Conservation & Management Act	California Department of Fish and Wildlife (CDFW) National Marine Fisheries Service (NMFS)	No potentially significant impacts were identified (no mitigation is required)
Question E. Local policies	Protected Trees Coastal zone resources Other biological protections	Local Tree Ordinance General Plan (e.g., Stream & Wetland Setbacks) Local ordinances	Local and regional agencies California Coastal Commission San Francisco Bay Conservation and Development Commission	Potentially significant impacts were identified and mitigation measures included that reduce those impacts to a level that is less than significant. **See Section 5.2 for more information**
Question F. Local, state, federal conservation plans	Habitat Conservation Plans Natural Community Conservation Plans	Federal Endangered Species Act (ESA) Natural Community Conservation Planning Act (NCCPA)	U.S. Fish and Wildlife Service (USFWS) California Department of Fish and Wildlife (CDFW)	No potentially significant impacts were identified (no mitigation is required)

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2.1 Federal and State Regulatory Setting

2.1.1 Vegetation and Aquatic Communities

CEQA provides protections for particular vegetation types defined as sensitive by the California Department of Fish and Game (CDFW), and aquatic communities protected by laws and regulations administered by the U.S Army Corps of Engineers (Corps), State Water Resources Control Board (SWRCB), and Regional Water Quality Control Boards (RWQCB). The laws and regulations that provide protection for these resources are summarized below.

Sensitive Natural Communities: Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (CDFG 2010, CDFW 2018) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2020). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act.

Waters of the United States, Including Wetlands: The United States Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Unvegetated waters including lakes, rivers, and streams may also be subject to Section 404 jurisdiction and are characterized by an ordinary high water mark (OHWM) identified based on field indicators such as the lack of vegetation, sorting of sediments, and other indicators of flowing or standing water. The placement of fill material into Waters of the United States generally requires a permit from the Corps under Section 404 of the CWA.

The Corps also regulates construction in navigable waterways of the U.S. through Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403). Section 10 of the RHA requires Corps approval and a permit for excavation or fill, or alteration or modification of the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor or refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States. Section 10 requirements apply only to navigable waters themselves, and are not applicable to tributaries, adjacent wetlands, and similar aquatic features not capable of supporting interstate commerce.

Waters of the State, Including Wetlands: The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards

(RWQCB) protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a CEQA Biological Resources evaluation include wetlands and other surface waters protected by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. The SWRCB and RWQCB issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Clean Water Act permit are also required to obtain a Water Quality Certification. If a project does not require a federal permit, but does involve discharge of dredge or fill material into surface waters of the State, the SWRCB and RWQCB may issue a permit in the form of Waste Discharge Requirements.

Sections 1600-1616 of California Fish and Game Code: Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). The term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

2.1.2 Special-status Species

Endangered and Threatened Plants, Fish and Wildlife. Specific species of plants, fish, and wildlife species may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of "endangered" and "threatened" plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing, and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to take of any listed species. Take under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance, and impacts to habitat for listed species. Actions that may result in "take" of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features "essential to the conservation of the species". Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal

agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (California Fish and Game Code 2050 et seq.) prohibits a "take" of any plant and animal species that the California Fish and Game Commission determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to "candidate species" which are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. CDFW may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), as long as the NCCP covers that activity.

Fully Protected Species and Designated Rare Plant Species. This category includes specific plant and wildlife species that are designated in California Fish and Game Code (CFGC) as protected even if not listed under CESA or the ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the California Fish and Game Code and the CESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a NCCP.

Special Protections for Nesting Birds and Bats. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald [*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*)] that in some regards are similar to those provided by the ESA. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA.

Species of Special Concern, Movement Corridors, and Other Special Status Species Under CEQA. To address additional species protections afforded under CEQA, CDFW has developed a list of special species as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive.

Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

2.2 Local Regulatory Setting

2.2.1 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

GOAL 8: Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.

OBJECTIVE 8.1 AND POLICIES 8.1.1 AND 8.1.4

• Objective 8.1: Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.

• Policy 8.1.1: Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.

• Policy 8.1.4: Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

OBJECTIVE 8.2 AND POLICY 8.2.1

• Objective 8.2: Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.

• Policy 8.2.1: Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

OBJECTIVE 8.3 AND POLICY 8.3.1

• Objective 8.3: Protect natural drainages and riparian corridors within the American Canyon Planning Area.

• Policy 8.3.1: Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:

a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

b. Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (see below).

e. Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

f. Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

g: Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

POLICIES 8.3.5 AND 8.3.6

• Policy 8.3.5: Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.

• Policy 8.3.6: Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

2.2.2 City of American Canyon – Tree Ordinance (Ord. 18.40.110)

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

3.0 ASSESSMENT METHODOLOGY

On June 24, 2020, WRA biologists visited the Project Site to map vegetation, aquatic communities, unvegetated land cover types, document plant and wildlife species present, and evaluate habitat on site for the potential to support special status species as defined by the California Environmental Quality Act (CEQA). Prior to the site visit, WRA biologists reviewed literature resources and performed database

searches to assess the potential for sensitive biological communities (e.g., wetlands) and special-status species (e.g., endangered plants), including:

- Soil Survey of Napa County, California (USDA 1978)
- Cuttings Wharf 7.5-minute quadrangle (USGS 2020)
- Contemporary aerial photographs (Google Earth 2020)
- Historical aerial photographs (Historical Aerials 2020)
- National Wetlands Inventory (USFWS 2020a)
- California Aquatic Resources Inventory (SFEI 2020)
- California Natural Diversity Database (CNDDB, CDFW 2020)
- California Native Plant Society Electronic Inventory (CNPS 2020a)
- Consortium of California Herbaria (CCH 2020)
- USFWS List of Federal Endangered and Threatened Species (USFWS 2020b)
- eBird Online Database (eBird 2020)
- CDFW Publication, California Bird Species of Special Concern in California (Shuford and Gardali 2008)
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- A Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009)
- A Manual of California Vegetation Online (CNPS 2020b)
- Preliminary Descriptions of the Terrestrial Natural Communities (Holland 1986)
- California Natural Community List (CDFW 2020)

Database searches (i.e., CNDDB, CNPS) focused on the Cuttings Wharf USGS 7.5-minute quadrangles for special-status plants and wildlife. Figures 3 and 4 in Appendix A contains observations of special-status species documented within a five-mile radius of the Project Site.

Following the remote assessment, WRA biologists completed a field review of the project site to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic natural communities (e.g., wetlands) are present, and (4) if special-status species are present.

3.1 Vegetation Communities and Other Land Cover Types

During the site visit, WRA evaluated the species composition and area occupied by distinct vegetation communities, aquatic communities (if any), and other land cover types. Mapping of these classifications utilized a combination of aerial imagery and ground surveys. In most instances, communities are characterized and mapped based on distinct shifts in plant assemblage (vegetation), and follow the California Natural Community List (CDFW 2018), Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), and A Manual of California Vegetation, Online Edition (CNPS 2020b). These vegetation manuals cannot anticipate every component of every potential vegetation assemblage in California, and so in some cases, it is necessary to identify other appropriate vegetative classifications based on best professional judgment of WRA biologists. When undescribed variants are used, it is noted in the description. Vegetation alliances (natural communities) with a CDFW Rank of 1

through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were evaluated as sensitive as part of this evaluation.

The site was reviewed for the presence of wetlands and other aquatic resources according to the methods described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* ("Arid West Supplement"; Corps 2008), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008). Areas meeting these indicators were mapped based on best professional judgement of biologists completing the field surveys.

3.2 Special-status Species

3.2.1 General Assessment

Potential occurrence of special-status species in the area of the Project Site was evaluated by first determining which special-status species occur in the vicinity of the Project Site through a literature and database review as described above. Presence of suitable habitat for special-status species was evaluated during the site visit based on physical and biological conditions of the site, as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Project Site was then determined according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site in the recent past.

If a more thorough assessment was deemed necessary, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2. If designated critical habitat is present for a species, the extent of critical habitat present and an evaluation of critical habitat elements is provided as part of the species discussions below.

3.3 Wildlife Corridors and Native Wildlife Nursery Sites

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CalTrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2020). Additionally, aerial imagery (Google 2018) for the local area was referenced to assess if local core habitat areas were present within, or connected to the Project Site. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The potential presence of native wildlife nursery sites is evaluated as part of the site visit and discussion of individual wildlife species below. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly).

4.0 ECOLOGICAL SETTING

The approximately 21-acre Project Site (Parcels A and B) is located on Oat Hill in American Canyon, California. The Project Site overlooks the City of American Canyon. The Project Site consists of two relatively flat terraces with a steep, east-facing hillside connecting the two terraces. The Project Site serves as pasture for livestock, with small corrals and low, grazed vegetation. Currently the site supports a caretaker's mobile home. The Project Site is also being used as a staging area for construction materials and contains miscellaneous piles of debris. A few native and non-native trees occur along the periphery of the Project Site.

4.1 Soils and Topography

The overall topography of the Project Site is two generally flat terraces connected by a steep hillside with elevations ranging from approximately 80 to 185 feet above sea level. According to the *Soil Survey of Napa County* (USDA 1978), the Project Site is underlain by two soil mapping units: Clear Lake clay and Fagan clay loam (Figure 5). The parent soil series of all the Project Site's mapping units are summarized below.

Fagan clay loam: This series consists of clayey loamy soils formed from residuum weathered from sandstone and shale, and is situated on backslope hills at elevations ranging from 200 to 1,500 feet (CSRL 2020, USDA 1978). These soils are not considered hydric, and are well drained with very high runoff (USDA 1978).

Clear Lake clay: This series consists of clayey soils formed from basin alluvium derived from igneous, metamorphic, and sedimentary rock. It is situated on basin floors at elevations ranging from 10 to 800 feet (CSRL 2020, USDA 1978). These soils are considered hydric, and are poorly drained with high runoff (USDA 1978).

4.2 Climate and Hydrology

The Project Site is located in the southern extreme of Napa County. The average monthly maximum temperature in the area is 64 degrees Fahrenheit, while the average monthly minimum temperature is 51

degrees Fahrenheit. Predominantly, precipitation falls as rainfall between November and March with an annual average precipitation of 25 inches.

The local watershed is American Canyon Creek – Frontal San Pablo Estuaries (HUC 12: 180500020401) and the regional watershed is San Pablo Bay (HUC 8: 18050002). The Project Site is located in the central portion of the American Creek watershed. Detailed descriptions of aquatic resources are provided in Section 5.1 below.

4.3 Land-use

The entire Project Site has been subject to high levels of disturbance from past construction, grading and other human activities over the past 20+ years (Historic Aerials), and is characterized by ruderal non-native annual grassland vegetation that is currently used for goat and sheep grazing. Detailed plant community descriptions are included in Section 5.1 below, and all observed plants are included in Appendix C. Surrounding land uses include low-density residential and commercial, and light industrial (Google Earth 2020).



Photo 1. Photograph of adjacent water tank.

A large water tank situated on city-owned land is located directly west of the Project Site on the upper slopes of Oat Hill. In addition, a remnant concrete-lined v-ditch was mapped on the eastern portion of the Project Site (Figure 6). The ditch was constructed in uplands and does not follow a natural stream course. The ditch is filled with debris and does not convey stormwater flows. The ditch connects to the existing storm drain system at the base of the slope.



Photo 2. Photograph of remnant concrete v-ditch.

5.0 ASSESSMENT RESULTS

5.1 Vegetation Communities and Other Land Cover

WRA observed two land cover types within the entire Project Site: ruderal non-native annual grassland and disturbed/developed. Land cover types within the Project Site are illustrated in Figure 6 (Appendix

A). The non-sensitive land cover types on the Project Site include ruderal and disturbed/developed. No sensitive communities were observed.

Table 2. Land Cover Types

COMMUNITY/LAND COVERS	SENSITIVE STATUS	RARITY RANKING	ACRES WITHIN PROJECT SITE
Terrestrial Community/Land Cover			
Ruderal	Non-sensitive	None	19.51
Disturbed/Developed	Non-sensitive	None	1.06

5.1.1 Terrestrial Land Cover

Ruderal Vegetation (*Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance). CDFW Rank: None. The majority of the Project Site consists of ruderal vegetation subject to continual livestock grazing. Ruderal vegetation covered 19.5 acres within the Project Site. The ruderal non-native annual grassland vegetation consisted of brome grasses (*Bromus* spp.), wild oats (*Avena fatua*), Italian ryegrass (*Festuca perennis*), and common weeds such as English plantain (*Plantago lanceolata*), bristly ox-tongue (*Helminthotheca echioides*), rose clover (*Trifolium hirtum*), Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), purple star thistle (*Centaurea calcitrapa*), sweet fennel (*Foeniculum vulgare*), and mustard (*Hirschfeldia incana*). Scattered native and non-native shrubs were also observed and included coyote brush (*Baccharis pilularis*) and Himalayan blackberry (*Rubus armeniacus*). This community is not considered sensitive by Napa County, CDFW, or any other regulatory entity.



Photo 3. Photograph of typical ruderal vegetation on-site.

Several trees were observed on the Project Site, mostly along the lower periphery of the Parcel B, including valley oak (*Quercus lobata*), almond (*Prunus dulcis*), and plum (*Prunus* sp.).



Photo 4. Photograph of plum tree on-site with livestock.

Disturbed/Developed. CDFW Rank: None.

The disturbed/developed areas of the Project Site include the gravel/dirt access road that bisects the site, the caretaker's mobile home, several piles of construction materials, and the alignment of the remnant concrete v-ditch along the northern edge of the parcel, as illustrated in Figure 6 (Appendix A).

5.2 Special-status Species

5.2.1 Special-status Plants

No special-status plants have been mapped on or adjacent to the Project Site. Based upon a review of the resource databases listed in Section 3.0, 11 special-status plant species have been documented in the vicinity of the Project Site (Figure 3). Most of the plant species documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., tidal, riverine) necessary to support the special-status plant species are not present in the Project Site;
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Project Site;
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Project Site;
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Project Site;
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Project Site;
- The Project Site is geographically isolated (e.g. below elevation, coastal environ) from the documented range of the special-status plant species;
- The historical landscape and/or habitat(s) of the Project Site were not suitable habitat prior to land/type conversion (e.g., reclaimed shoreline) to support the special-status plant species;
- Land use history and contemporary management (e.g., grading, intensive grazing) has degraded the localized habitat necessary to support the special-status plant species.

5.2.2 Special-status Wildlife

Of the 32 special-status wildlife species documented in the vicinity of the Project Site (Figure 4), most are excluded from the Project Site based on a lack of habitat features. Features not found within the Project Site that are required to support special-status wildlife species include:

- Vernal pools
- Perennial aquatic habitat (e.g. streams, rivers or ponds)
- Tidal Marsh areas
- Old growth redwood or fir forest
- Serpentine soils to support host plants
- Sandy beaches or alkaline flats
- Presence of specific host plants
- Caves, mine shafts, or abandoned buildings

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species found in the vicinity. For instance, California red-legged frog (*Rana draytonii*) is known to occur in the project vicinity. However, in the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 0.81 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond. State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. In addition, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog.

Given the Project Site's relative proximity to sensitive habitats on the San Francisco Bay, many species documented nearby are additionally obligates to marine or tidal marsh habitats which are not present on or in the immediate vicinity of the Project Site.

Three special status species have potential to occur in the immediate vicinity of or in portions of the Project Site: white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), and Swainson's hawk (*Buteo swainsoni*). These species are discussed in greater detail below.

Swainson's hawk (*Buteo swainsoni*). State Threatened. Moderate Potential. Swainson's hawk is a summer resident and migrant in California's Central Valley and scattered portions of the southern California interior. Nests are constructed of sticks and placed in trees located in otherwise largely open areas. Areas typically used for nesting include the edge of narrow bands of riparian vegetation, isolated patches of oak woodland, lone trees, and also planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including grasslands, open woodlands, and agricultural areas. While breeding, adults feed primarily on rodents (and other vertebrates); for the remainder of the year, large insects (e.g., grasshoppers, dragonflies) comprise most of the diet. In many areas, Swainson's hawks have adapted to foraging primarily in and around agricultural plots (particularly alfalfa, wheat and row crops), as prey is both numerous and conspicuous at harvest and/or during flooding or burning (Bechard et al. 2010). There are several CNDDB occurrences within 2.5 miles of the Project Site (CDFW 2020) and there are several recent eBird sightings of this species within one mile of the Project Site (eBird 2020). While the Project Site does not support any suitable nesting trees, large eucalyptus trees directly adjacent to the Project Site may provide suitable nesting habitat for Swainson's hawk.

Burrowing owl (*Athene cunicularia*). CDFW Species of Special Concern**.** Moderate Potential. The burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat is annual or perennial grassland, although human-modified areas such as agricultural lands and airports are also used (Poulin et al. 2011). This species is dependent on burrowing mammals to provide the burrows that are characteristically used for shelter and nesting, and in northern California is typically found in close association with California ground squirrels (*Otospermophilus beecheyi*). Manmade substrates such as pipes or debris piles may also be occupied in place of burrows. Prey consists of insects and small vertebrates. Breeding typically takes place from March to July. Several CNDDB occurrences have been

recorded within 2.5 miles of the Project Site (CDFW 2020). In addition, burrowing owls are known to winter in the nearby American Canyon Wetlands, approximately 0.5 mile west of the Project Site (eBird 2020). Several large debris piles and a few suitable California ground squirrel burrows were observed during the June 2020 site visit; however, there was no sign of active use by this species during the site assessment. Livestock grazing within the Project Site keeps the vegetation relatively low and several debris piles and various structures may provide perching locations.

Northern harrier (*Circus hudsonius* [*cyaneus*]). CDFW Species of Special Concern. Unlikely. The northern harrier occurs as a resident and winter visitor in open habitats throughout most of California, including freshwater and brackish marshes, grasslands and fields, agricultural areas, and deserts. Harriers typically nest in treeless areas within patches of dense, relatively tall, vegetation, the composition of which is highly variable; nests are placed on the ground and often located near water or within wetlands (Shuford and Gardali 2008). Harriers are birds of prey and subsist on a variety of small mammals and other vertebrates. Marginal nesting habitat within the ruderal vegetation is present within the Project Site. Nesting sites for northern harrier has been documented within 3 miles of the Project Site (CDFW 2020).

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. This species has been documented recently in the vicinity of the Project Site (eBird 2020, CDFW 2020). Small and medium trees and shrubs on the perimeter of the Project Site may provide suitable nesting habitat for white-tailed kite.

5.3 Wildlife Corridors and Native Wildlife Nursery Sites

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The terms “landscape linkage” and “wildlife corridor” are often used when referring to these areas. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier 1992, Soule and Terborgh 1999). It is useful to think of a “landscape linkage” as being valuable in a regional planning context, a broad scale mapping of natural habitat that functions to join two larger habitat blocks. The term “wildlife corridor” is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or may be restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2006).

The Project Site is not within a designated wildlife corridor (CalTrans 2010), however, large tracts of open space surround the Project Site. As such, common wildlife species presumably utilize the site to some degree for local movements. It is important to note that commercial developments and State Route-29, approximately 900 feet east of the Project Site, likely create a barrier for wildlife with limited crossing opportunities.

The Project Site is also within the Pacific Flyway, a major corridor for migratory birds, particularly given the extensive marsh habitats along the Napa River. However, the habitat within the Project Site is

marginal for migratory birds since the ruderal non-native annual vegetation on the Project Site is subject to continual livestock grazing. Higher quality habitat in the nearby Napa River corridor to the west and the open space that surrounds the site is more likely to support migrating birds.

6.0 ANALYTICAL METHODOLOGY AND SIGNIFICANCE THRESHOLD CRITERIA

Pursuant to Appendix G, Section IV of the State CEQA Guidelines, a project would have a significant impact on biological resources if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These thresholds were utilized in completing the analysis of potential project impacts for CEQA purposes. For the purposes of this analysis, a "substantial adverse effect" is generally interpreted to mean that a potential impact could directly or indirectly affect the resiliency or presence of a local biological community or species population. Potential impacts to natural processes that support biological communities and special-status species populations that can produce similar effects are also considered potentially significant. Impacts to individuals of a species or small areas of existing biological communities may be considered less than significant if those impacts are speculative, beneficial, de-minimis, and/or would not affect the resiliency of a local population.

7.0 IMPACTS AND MITIGATION EVALUATION

Using the CEQA analysis methodology outlined in Section 6.0 above, the following section describes potential significant impacts to sensitive resources within the area of the Project Site as well as suggested mitigation measures which are expected to reduce impacts to less than significant.

7.1 Special-status Species

This section analyzes the Project's potential impacts and mitigation for special-status species in reference to the significance threshold outlined in CEQA Appendix G, Part IV (a):

> *Does the project have the potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Potential impacts and mitigation for potentially significant impacts are discussed below

Swainson's Hawk

No temporary or permanent loss of Swainson's hawk nesting habitat is anticipated due to construction of the Project. Therefore, the Project will not result in direct impacts to Swainson's hawk. However, this species may nest in the large eucalyptus trees located adjacent to the Project Site.

> **Potential Impact BIO-1:** There is a possibility that noise and visual impacts associated with construction of the proposed project could result in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates).

To reduce potential impacts to Swainson's hawk to a less-than-significant level, the following measures will be implemented:

> **Mitigation Measure BIO-1:** Preconstruction surveys will be conducted within a quarter-mile radius around all Project activities and will be completed for at least two survey periods immediately prior to the Project's initiation. The survey period timing and methodology will be conducted in accordance with CDFW's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (CDFG 1994), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.
>
> **Mitigation Measure BIO-2**: If Swainson's hawks are found to be nesting on the Project Site or within a ¼-mile of the project site, consultation with CDFW will be required. The size of the nest protection buffer will be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of these mitigation measures will reduce potential impacts to Swainson's hawk to a level that is less than significant.

Burrowing Owl

Suitable burrows and burrow surrogates for burrowing owl were observed within the Project Site; however, there was no sign of active use by this species during the site assessment. In the absence of surveys, direct impacts to burrowing owls may occur due to the destruction of potentially occupied burrows or burrow surrogates during grading, vegetation removal, or other construction activities.

> **Potential Impact BIO-2:** There is a possibility that grading, vegetation removal, or other construction activities may result in the killing or injuring of burrowing owl adults, nestling, and/or eggs. In addition, noise and visual impacts associated with construction of the proposed project could result in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates).

To reduce potential impacts burrowing owl to a less-than-significant level, the following measures will be implemented:

> **Mitigation Measure BIO-3:** For the protection of burrowing owl, a pre-construction survey should be performed no more than 14 days prior to initiating ground disturbance. This survey will occur regardless of the time of year, as burrowing owls may use the Project Site during the non-nesting season. The survey will be performed according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012). If no owls are found during these surveys, no additional measures for burrowing owl would be necessary.
>
> **Mitigation Measure BIO-4:** If occupied burrows are encountered on site, they should not be disturbed during the nesting season (February 1 through August 31) until juveniles from the occupied burrows are foraging independently and capable of independent survival.
>
> If occupied burrows are encountered on site during the non-nesting season (1 September to 31 January), and owls must be moved away from the disturbance area, passive relocation techniques should be used rather than trapping, according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012). Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty. At least 1 week should be allowed to accomplish this and allow the owls to acclimate to alternate burrows. Burrowing owls should not be excluded from burrows unless a Burrowing Owl Exclusion Plan is developed and approved by the applicable local CDFW office.

White-tailed Kite, Norther Harrier and Common Nesting Birds

Several small and medium trees near the perimeter of the Project Site could support nesting by white-tailed kites. Northern harrier could nest in the marginal non-native annual grassland on the site, and common song birds (passerine birds) could also nest in the small trees and shrubs on the project site. All of these birds are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their eggs and young are protected under California Fish and Game Code Sections 3503, 3503.5. Impacts to these and other nesting bird species would be considered a potentially significant impact.

Potential Impact BIO-3: Potential impacts to nesting bird species from the proposed Project include disturbance to nesting birds and possibly death of adults and/or young. Impacts to nesting birds from the proposed Project would be potentially significant.

To reduce potential impacts these species to a less-than-significant level, the following measures will be implemented:

Mitigation Measure BIO-5: If Project activities must be conducted during the nesting season (March 1 and September 1), a pre-construction nesting bird survey will be conducted by a qualified biologist no more than 14 days prior to vegetation removal or initial ground disturbance. The survey will include the Project Site and surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by Project activities.

If active nests of native nesting bird species are located during the nesting bird survey, a work exclusion zone will be established around each nest by the qualified biologist. Established exclusion zones will remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes will be determined by a qualified biologist and will vary based on species, nest location, existing visual buffers, noise levels, and other factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. Exclusion zone size will be reduced from established levels by a qualified biologist if nest monitoring findings indicate that Project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.

Implementation of these mitigation measures will reduce potential impacts to nesting birds to a level that is less than significant.

7.2 Sensitive Land Cover Types

This section addresses the question:

b) Does the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

No sensitive natural communities were observed within the Project Site. The Project will have no impacts to sensitive natural communities.

7.3 Aquatic Resources

This section analyzes the Project's potential impacts and mitigation for wetlands and other areas presumed or determined to be within the jurisdiction of the Corps or BCDC in reference to the significance threshold outlined in CEQA Appendix G, Part IV (c):

c) Does the Project have the potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

No direct or indirect impacts to wetlands are anticipated from the Project. The Project will have no impacts to aquatic resources.

7.4 Wildlife Corridors and Native Wildlife Nursery Sites

This section analyzes the Project's potential impacts and mitigation for habitat corridors and linkages in reference to the significance threshold outlined in CEQA Appendix G, Part IV (d):

> *d) Does the Project have the potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

Large commercial developments and State Route-29, approximately 900 feet east of the Project Site, likely create a barrier for wildlife with limited crossing opportunities. While common wildlife species likely utilize the site to some degree for local movements, the Project Site is surrounded by large tracts of open space. As such, the loss of the project site as a migration corridor will result in a less than significant impact on a regional scale.

Migratory birds may use the habitat within the Project Site opportunistically, however, higher quality habitat exists along the San Francisco Bay and Napa River corridor. The marginal habitat within the Project Site offers only marginal habitat for species along the Pacific Flyway. Based on these factors, the construction of the Project will result in a less than significant impact to migratory corridors and habitat linkages.

7.5 Local Policies and Ordinances

This section analyzes the Project's potential impacts and mitigation based on conflicts with local policies and ordinances in reference to the significance threshold outlined in CEQA Appendix G, Part IV (e):

> *e) Does the Project have the potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;*

The General Plan policies related to biological resources examined in this analysis are detailed in Section 2.2. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the Project Site. Proposed development on the Project Site does not impact watercourses, riparian habitat, vernal pools or wetlands. The proposed Project will remain consistent with the policies (applicable to all Project components), and will therefore have no impact with regard to local plan and policy consistency.

The Project would require removal of approximately two valley oaks, one coast live oak (*Quercus agrifolia*), and four other non-native trees (almond and plum). In accordance with the City's Tree Ordinance, any tree removed will be replaced on the site, as approved by the City Council.

7.6 Habitat Conservation Plans

This section analyzes the Project's potential impacts and mitigation based on conflicts with any adopted local, regional, and state habitat conservation plans in reference to the significance threshold outlined in CEQA Appendix G, Part IV (f):

f) Does the Project have the potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No such plan exists applicable to the Project Site. No impact will occur.

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APPENDIX A – FIGURES

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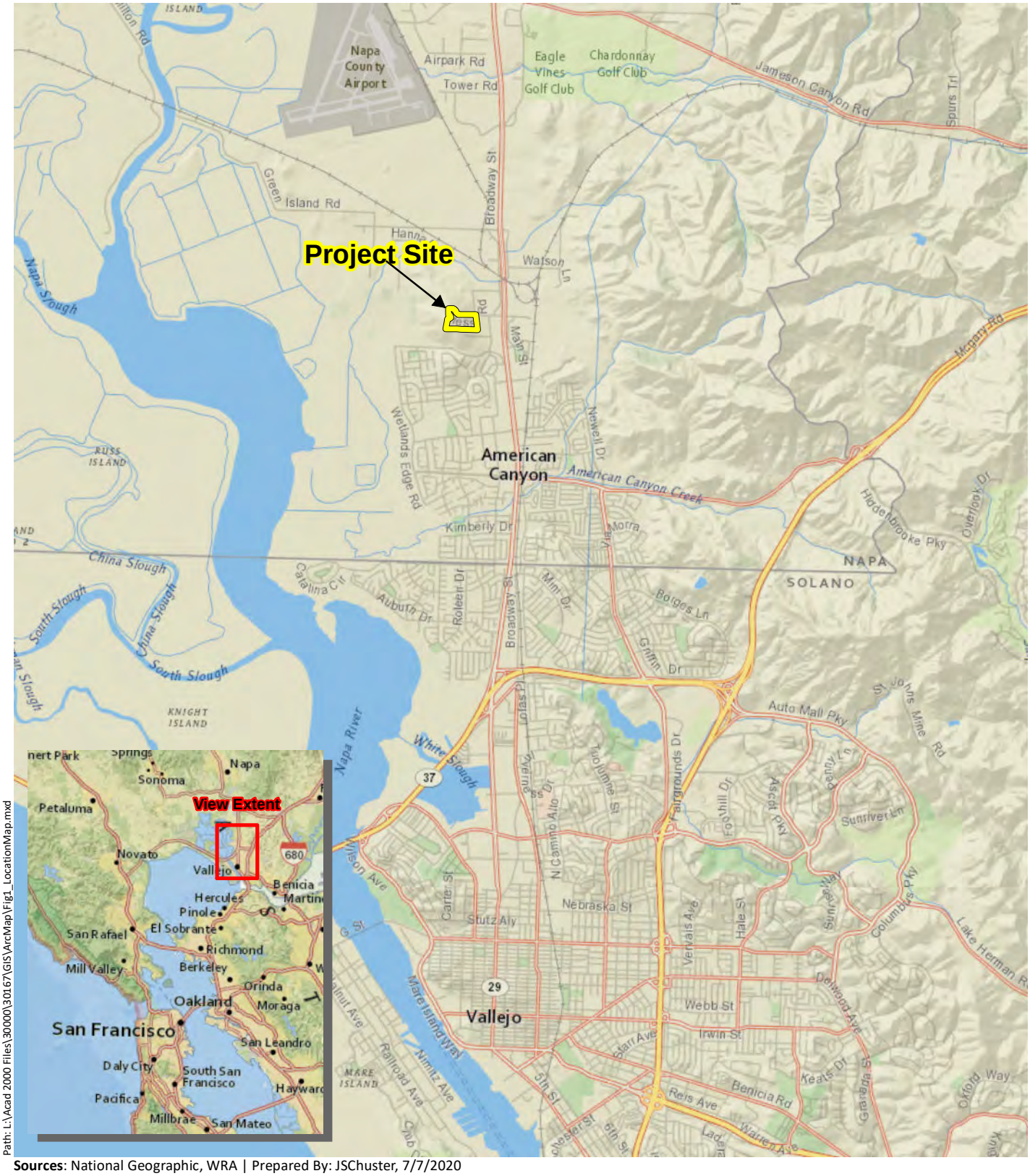

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Sources: National Geographic, WRA | Prepared By: JSChuster, 7/7/2020

Figure 1. Project Site Regional Location Map

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 1 2 Miles

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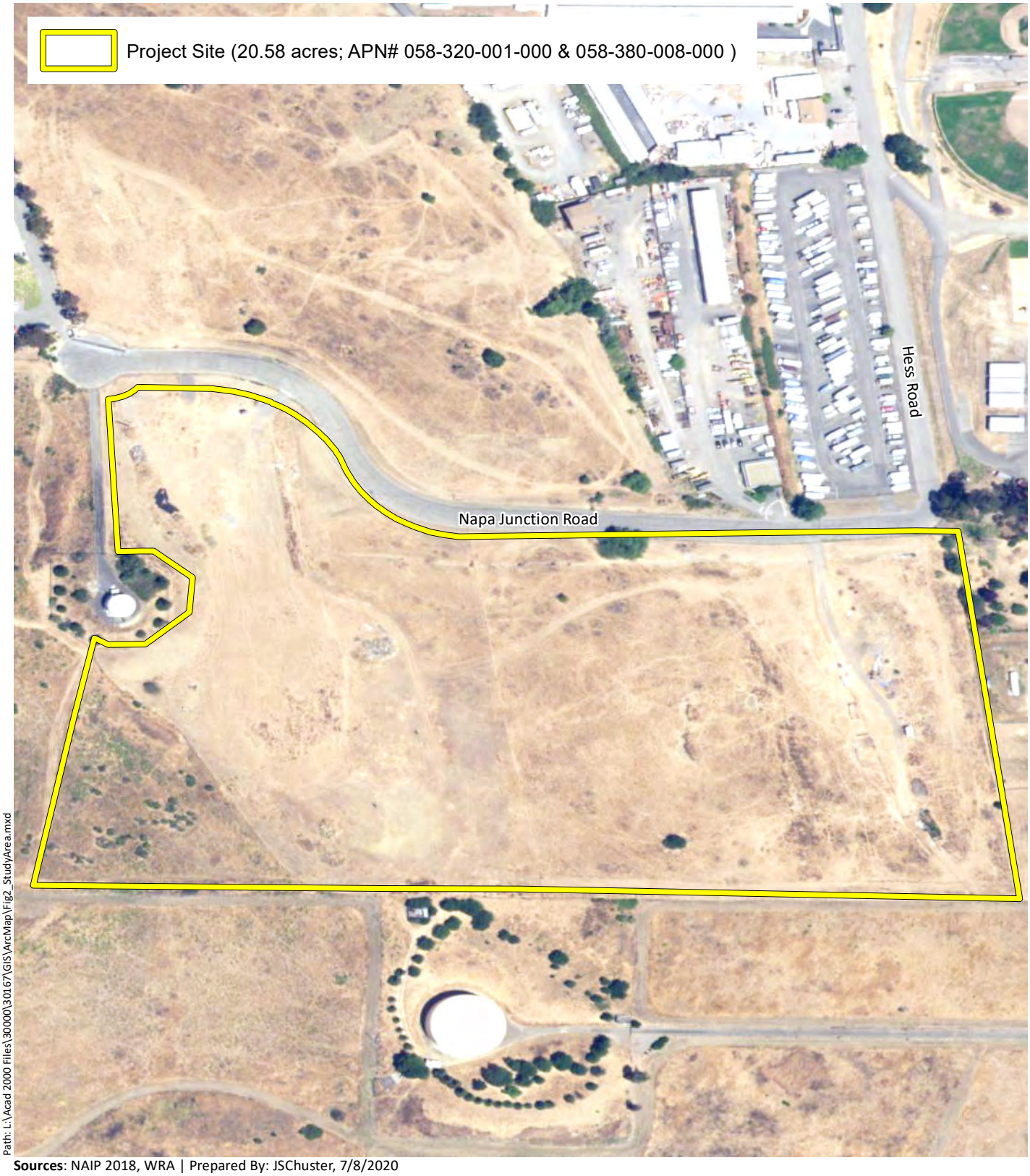

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Sources: NAIP 2018, WRA | Prepared By: JSChuster, 7/8/2020

Figure 2. Aerial Photograph of the Project Site

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 200 400 Feet

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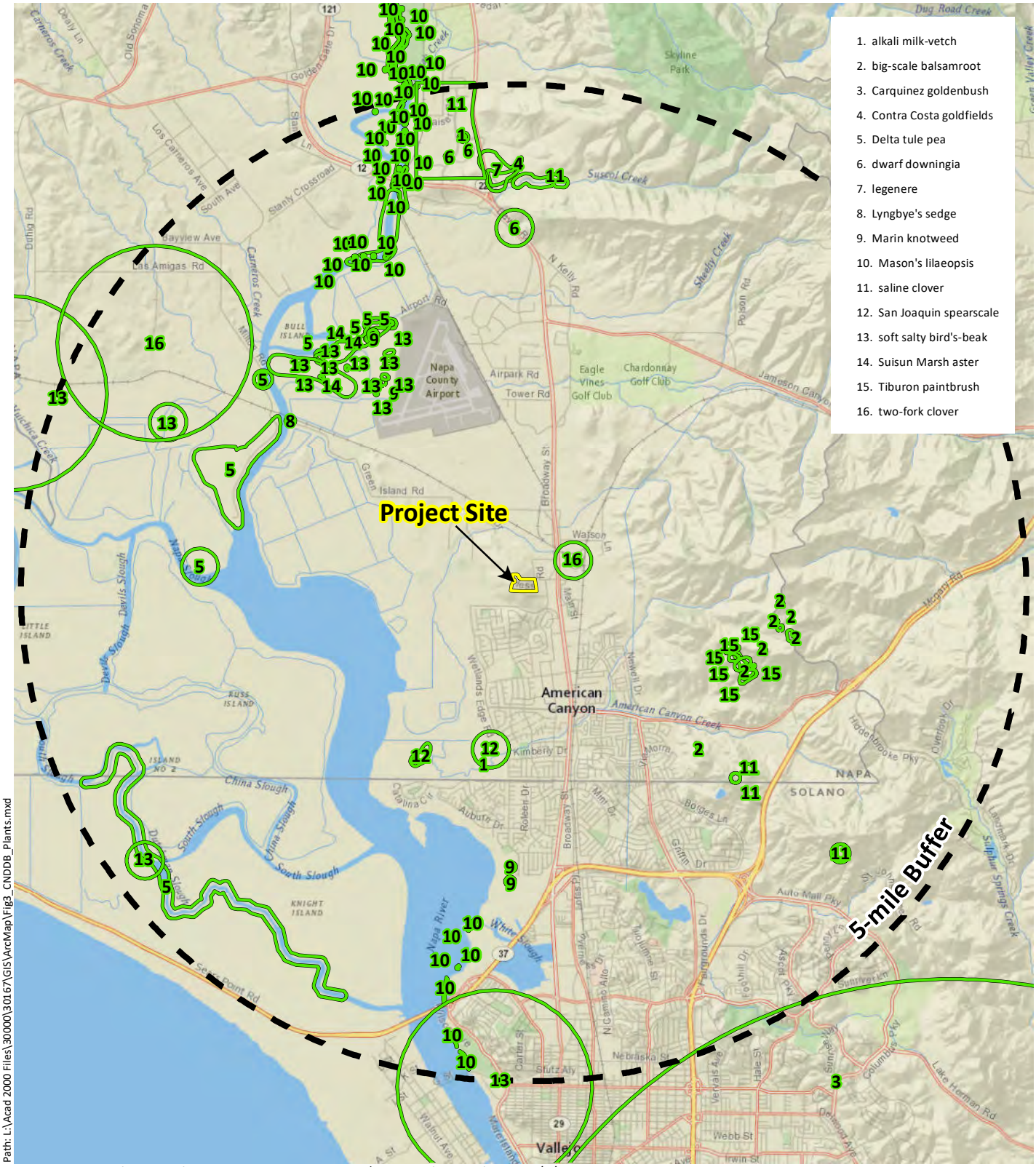

Sources: National Geographic, CNDDB June 2020, WRA | Prepared By: JSChuster, 7/7/2020

Figure 3. Special-Status Plant Species Documented within 5-miles of the Project Site

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 1 2 Miles

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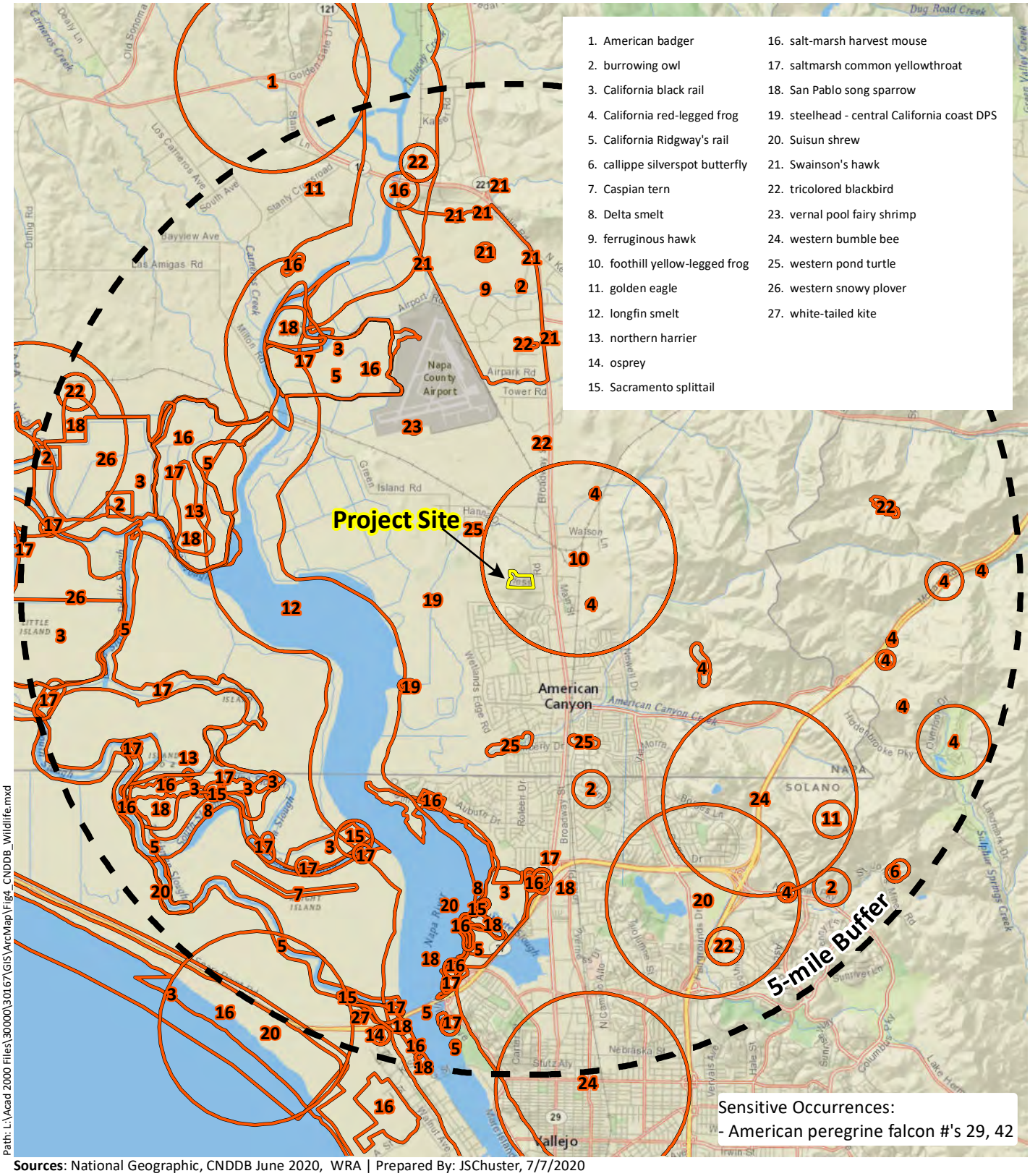

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Sources: National Geographic, CNDDB June 2020, WRA | Prepared By: JSChuster, 7/7/2020

Figure 4. Special-Status Wildlife Species Documented within 5-miles of the Project Site

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 1 2 Miles

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Sources: Esri World Imagery, WRA | Prepared By: JSChuster, 7/7/2020

Figure 5. Soils of the Project Site

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 250 500 Feet

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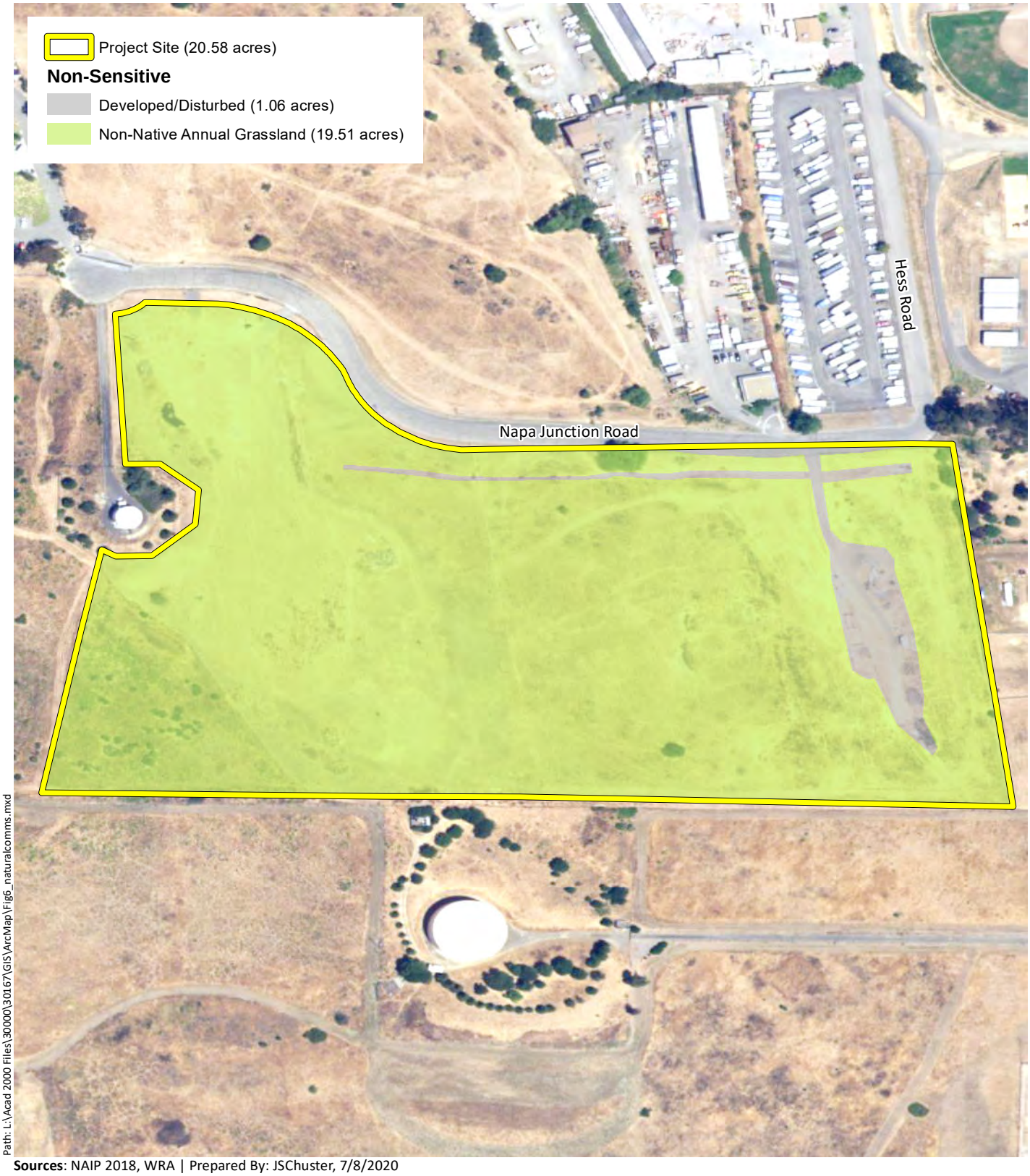

Sources: NAIP 2018, WRA | Prepared By: JSChuster, 7/8/2020

Figure 6. Natural Communities on the Project Site

Oat Hill Multi-Family Housing Project
Biological Resources Assessment
American Canyon, Napa County, California

0 250 500 Feet N

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APPENDIX B – PROJECT SITE PLANS

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Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP2

0 20 40 80

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ARCHITECTS . PLANNERS . DESIGNERS
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APPENDIX C – SPECIES OBSERVED IN AND AROUND THE PROJECT SITE

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Appendix C-1. Plant species observed on the Project Site.

Plant Species					
Scientific Name	**Common Name**	**Origin**	**Form**	**Cal-IPC Ranking***	**Wetland Status (Lichvar et al. 2016)+**
Acacia melanoxylon	Blackwood acacia	non-native (invasive)	tree	Limited	-
Avena barbata	Slim oat	non-native (invasive)	annual, perennial grass	Moderate	-
Baccharis pilularis subsp. *consanguinea*	Coyote brush	native	shrub	-	-
Bellardia trixago	Mediterranean lineseed	non-native (invasive)	annual herb	Limited	-
Bromus carinatus	California brome	native	perennial grass	-	-
Bromus diandrus	Ripgut brome	non-native (invasive)	annual grass	Moderate	-
Bromus hordeaceus	Soft chess	non-native (invasive)	annual grass	Limited	FACU
Carduus pycnocephalus subsp. *pycnocephalus*	Italian thistle	non-native	annual herb	-	-
Centaurea calcitrapa	Purple star thistle	non-native (invasive)	annual or perennial herb	Moderate	-
Centaurea solstitialis	Yellow star thistle	non-native (invasive)	annual herb	High	-
Cirsium vulgare	Bull thistle	non-native (invasive)	perennial herb	Moderate	FACU
Cynodon dactylon	Bermuda grass	non-native (invasive)	perennial grass	Moderate	FACU
Elymus caput-medusae	Medusa head	non-native	annual grass	High	-

Plant Species					
Scientific Name	**Common Name**	**Origin**	**Form**	**Cal-IPC Ranking***	**Wetland Status (Lichvar et al. 2016)+**
Erodium botrys	Broad-leaf filaree	non-native	annual herb	-	FACU
Festuca perennis	Italian ryegrass	non-native (invasive)	annual or perennial grass	Moderate	FAC
Foeniculum vulgare	Fennel	non-native (invasive)	perennial herb	High	-
Helminthotheca echioides	Bristly ox-tongue	non-native	annual or perennial herb	Limited	FAC
Hirschfeldia incana	Mustard	non-native (invasive)	perennial herb	Moderate	-
Hordeum marinum	Seaside barley	non-native	annual grass	-	FAC
Iris sp.	Iris	-	perennial herb	-	-
Lactuca serriola	Prickly lettuce	non-native	annual herb	-	FACU
Lotus corniculatus	Birdfoot trefoil	non-native	perennial herb	-	FAC
Medicago polymorpha	Bur clover	non-native (invasive)	annual herb	Limited	FACU
Plantago lanceolata	English plantain	non-native (invasive)	perennial herb	Limited	FAC
Prunus americana	American plum	non-native	tree	-	-
Prunus dulcis	Domestic almond	non-native	tree	-	-
Quercus agrifolia	Coast live oak	native	tree	-	-
Quercus lobata	Valley oak	native	tree	-	FACU

Plant Species					
Scientific Name	**Common Name**	**Origin**	**Form**	**Cal-IPC Ranking***	**Wetland Status (Lichvar et al. 2016)+**
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	shrub	High	FAC
Rumex crispus	Curly dock	non-native (invasive)	perennial herb	Limited	FAC
Trifolium hirtum	Rose clover	non-native (invasive)	annual herb	Limited	-

Appendix C-2. Wildlife species observed on the Project Site.

Wildlife Species	
Scientific Name	**Common Name**
Buteo jamaicensis	Red-tailed hawk
Cathartes aura	Turkey vulture
Euphagus cyanocephalus	Brewer's blackbird
Haemorhous mexicanus	House finch
Icterus cucullatus	Hooded oriole
Lepus californicus	Black-tailed jackrabbit
Melozone crissalis	California towhee
Mimus polyglottos	Northern mockingbird
Odocoileus hemionus	Mule deer
Otospermophilus beecheyi	California ground squirrel
Psaltriparus minimus	Bushtit
Sceloporus occidentalis	Western fence lizard
Stelgidopteryx serripennis	Northern rough-winged swallow
Sturnus vulgaris	European starling
Thomomys bottae	Botta's pocket gopher

* California Invasive Plant Council (Cal-IPC). 2020. California Invasive Plant Inventory Database. California Invasive Plant Council, Berkeley, CA. Online at: http://www.cal-ipc.org/paf/; most recently accessed: March 2020

+ National Plant List of Plant Species that Occur in Wetlands, California – Arid West (Lichvar et al. 2016)

APPENDIX D – SPECIAL-STATUS SPECIES POTENTIAL TABLE

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Species	Status	Habitat Requirements	Potential to Occur in the Project Site	Results and Recommendations
Plants				
alkali milk-vetch *Astragalus tener* var. *tener*	Rank 1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools. Elevation ranges from 0 to 195 feet (1 to 60 meters). Blooms Mar-Jun.	No Potential. No vernal pools are present within the Project Site.	No further recommendations.
big-scale balsamroot *Balsamorhiza macrolepis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 5100 feet (45 to 1555 meters). Blooms Mar-Jun.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
Lyngbye's sedge *Carex lyngbyei*	Rank 2B.2	Marshes and swamps (brackish or freshwater). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Apr-Aug.	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	FE, ST, Rank 1B.2	Valley and foothill grassland (serpentine). Elevation ranges from 195 to 1310 feet (60 to 400 meters). Blooms Apr-Jun.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
soft bird's-beak *Chloropyron molle* ssp. *molle*	FE, SR, Rank 1B.2	Marshes and swamps (coastal salt). Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms Jun-Nov.	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.
dwarf downingia *Downingia pusilla*	Rank 2B.2	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 0 to 1460 feet (1 to 445 meters). Blooms Mar-May.	No Potential. No vernal pools are present within the Project Site.	No further recommendations.

San Joaquin spearscale *Extriplex joaquinana*	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. Elevation ranges from 0 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
Carquinez goldenbush *Isocoma arguta*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 65 feet (1 to 20 meters). Blooms Aug-Dec.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
Contra Costa goldfields *Lasthenia conjugens*	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	No Potential. No vernal pools are present within the Project Site.	No further recommendations.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	Rank 1B.2	Marshes and swamps (freshwater and brackish). Elevation ranges from 0 to 15 feet (0 to 5 meters). Blooms May-Jul(Aug-Sep).	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.
legenere *Legenere limosa*	Rank 1B.1	Vernal pools. Elevation ranges from 0 to 2885 feet (1 to 880 meters). Blooms Apr-Jun.	No Potential. No vernal pools are present within the Project Site.	No further recommendations.
Mason's lilaeopsis *Lilaeopsis masonii*	SR, Rank 1B.1	Marshes and swamps (brackish or freshwater), riparian scrub. Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Apr-Nov.	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.

Marin knotweed *Polygonum marinense*	Rank 3.1	Marshes and swamps (coastal salt or brackish). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms (Apr)May-Aug(Oct).	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.
Suisun Marsh aster *Symphyotrichum lentum*	Rank 1B.2	Marshes and swamps (brackish and freshwater). Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms (Apr)May-Nov.	No Potential. No marshes or swamps are present within the Project Site.	No further recommendations.
two-fork clover *Trifolium amoenum*	FE, Rank 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine). Elevation ranges from 15 to 1360 feet (5 to 415 meters). Blooms Apr-Jun.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
saline clover *Trifolium hydrophilum*	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	No Potential. No suitable habitat is present within the Project Site.	No further recommendations.
MAMMALS				
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Endemic to salt marshes and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	No Potential. No marsh wetlands are present within the Project Site.	No further recommendations.
Suisun shrew *Sorex ornatus sinuosus*	SSC	Tidal marshes of the northern shores of San Pablo and Suisun Bays. Require dense low-lying cover and driftwood and other litter above the mean hightide	No Potential. No tidal marshes are present within the Project Site.	No further recommendations.

		line for nesting and foraging.		
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	Unlikely. No suitable burrows for this species were observed within the Project Site. The nearest occurrence is approximately 6 miles north of the Project Site and is from 1911 (CDFW 2020).	No further recommendations.
Birds				
tricolored blackbird Agelaius tricolor	SC (E), SSC	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	Unlikely. No suitable emergent vegetation or riparian thickets for nesting are present within the Project Site.	No further recommendations.
golden eagle *Aquila chrysaetos*	CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	Unlikely. No cliffs for nesting are present within the Project Site. Golden eagles may occasionally forage within the Project Site. The nearest documented occurrence is approximately 4 miles east of the Project Site (CDFW 2020). No golden eagles were observed during the 2020 site visit.	No further recommendations.
burrowing owl *Athene cunicularia*	SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows,	Moderate Potential. Debris piles and a few ground squirrel burrows may provide suitable nesting and wintering habitat for this species. In addition, livestock grazing within the Project Site has limited	Preconstruction surveys will be conducted prior to ground disturbance in the Project site. See Section 7.1.

		most commonly those of ground squirrels.	vegetation growth. Several documented occurrences for burrowing owl have been documented within 3 miles of the Project Site (CDFW 2020).	
Swainson's hawk *Buteo swainsoni*	ST	Summer resident in California's Central Valley and limited portions of the southern California interior. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as agricultural fields, especially alfalfa. Preys on arthropods year-round as well as smaller vertebrates during the breeding season.	Moderate Potential. No suitable nesting trees were observed within the Project Site. However, several large eucalyptus trees suitable for nesting are present within 100 feet of the Project Site. In addition, the Project Site may provide suitable foraging habitat for this species. The nearest documented nesting site is approximately 2 miles north of the Project Site, with multiple documented nesting sites within 5 miles of the Project Site (CDFW 2020).	Preconstruction surveys will be conducted within ¼ mile of the Project site. See Section 7.1.
western snowy plover *Charadrius nivosus (alexandrines) nivosus*	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	No Potential. No suitable sandy beaches or salt pond levees were observed within the Project Site.	No further recommendations.
northern harrier *Circus hudsonius (cyaneus)*	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and agricultural areas. Nests on the ground in dense vegetation, typically near water	Unlikely. Marginal suitable nesting habitat is present within the Project Site. Northern harrier may occasionally forage within the Project Site. The nearest	Preconstruction surveys will be conducted prior to ground disturbance in the Project site. See Section 7.1.

		or otherwise moist areas. Preys on small vertebrates.	documented occurrence is 3 miles west of the Project Site in wetlands associated with the Napa River (CDFW 2020).	
white-tailed kite *Elanus leucurus*	CFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	Moderate Potential. Small and medium trees and shrubs on the Project Site may provide suitable nesting habitat for this species. The Project Site may also provide foraging habitat for white-tailed kites.	Preconstruction surveys will be conducted prior to ground disturbance in the Project site. See Section 7.1.
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	Unlikely. No protected cliffs or suitable man-made structures for nesting are present within the Project Site. This species may occasionally forage within the Project Site.	No further recommendations.
San Francisco common yellowthroat *Geothlypis trichas sinuosa*	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	No Potential. No emergent or riparian vegetation is present within the Project Site.	No further recommendations.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major	No Potential. No marshes are present within the Project Site.	No further recommendations.

		water source. Extremely secretive and cryptic.		
Samuels (San Pablo) song sparrow *Melospiza melodia samuelis*	SSC	Year-round resident of tidal marshes along the north side of San Francisco and San Pablo Bays. Typical habitat is dominated by pickleweed, with gumplant and other shrubs present in the upper zone for nesting. May forage in areas adjacent to marshes.	No Potential. No suitable nesting habitat for this species is present within the Project Site.	No further recommendations.
California Ridgway's (clapper) rail *Rallus obsoletus obsoletus*	FE, SE, CFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on molluscs and crustaceans.	No Potential. No tidal sloughs or intertidal mudflats are present within the Project Site.	No further recommendations.
California least tern *Sternula antillarum browni*	FE, SE, CFP	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	No Potential. No beaches, islands, or gravel bars are present within the Project Site.	No further recommendations.
northern spotted owl *Strix occidentalis caurina*	FT, ST, SSC	Year-round resident in dense, structurally complex forests, primarily those with old-growth conifers. In Marin County, uses both coniferous and mixed	No Potential. No forests are present within the Project Site.	No further recommendations.

		(coniferous-hardwood) forests. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals.		
Reptiles and Amphibians				
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	No Potential. No coniferous or mixed forests or aquatic breeding habitat is present within the Project Site.	No further recommendations.
Pacific (western) pond turtle *Emys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	No Potential. No aquatic habitat is present within 1 mile of the Project Site.	No further recommendations.
foothill yellow-legged frog *Rana boylii*	SC, SSC	Found in or adjacent to rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
California red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or	Unlikely. No aquatic breeding or non-breeding habitat is present within the	No further recommendations.

		emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	Project Site. The nearest documented occurrence for this species is 0.7 mile east of the Project Site, however SR-29 and several large commercial developments separate the Project Site and this occurrence (CDFW 2020). Therefore, dispersal into the Project Site is unlikely.	
green sea turtle *Chelonia mydas*	FT (west coast populations)	Found in fairly shallow waters inside reefs, bays and inlets with marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. This species exhibits high site fidelity.	No Potential. No suitable aquatic habitat is present within the Project Site.	No further recommendations.

Fish				
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches. Requires fairly still but not stagnant water and high oxygen levels.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
Delta smelt *Hypomesus transpacificus*	FT, ST	Endemic to the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
steelhead - central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
Sacramento splittail *Pogonichthys macrolepidotus*	SSC	Formerly endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento Delta, Suisun Bay and associated marshes. Occurs in slow-moving river sections and dead-end sloughs. Requires flooded vegetation for spawning and foraging for young. A	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.

		freshwater species, but tolerant of moderate salinity (10-18 parts per thousand).		
longfin smelt *Spirinchus thaleichthys*	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
Invertebrates				
western bumble bee *Bombus occidentalis*	SC	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2015). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	No Potential. The Project Site is outside of the known range for this species.	No further recommendations.
vernal pool fairy shrimp *Branchinecta lynchi*	FT, SSI	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	No Potential. No vernal pools are present within the Project Site.	No further recommendations.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE, SSI	Two populations in San Bruno mountain and the Cordelia Hills are recognized. Hostplant is *Viola pedunculata*, which is found on serpentine soils. Most	No Potential. No *Viola pedunculata* are present within the Project Site.	No further recommendations.

		adults found on east-facing slopes; males congregate on hilltops in search of females.		
conservancy fairy shrimp *Branchinecta conservatio*	FE, SSI, RP	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	No Potential. No aquatic habitat is present within the Project Site.	No further recommendations.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE, SSI	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, Sedum spathulifolium.	No Potential. The Project Site is outside of the known range of this species.	No further recommendations.

APPENDIX C

SOIL INVESTIGATION

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Report
Soil Investigation
Oat Hill Residential Project
Napa Junction Road
American Canyon, California

Prepared for
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Job No. 2011.1.1
December 11, 2019

INTRODUCTION

This report presents the results of our soil investigation for the proposed new multi-family apartment buildings in American Canyon, California. The site is located near the southeast portion of Oat Hill, and includes the east-facing slope. The approximate site location is shown on Plate 1. Giblin Associates (GA) performed a geologic hazards and preliminary geotechnical investigation for the Oat Hill Subdivision and the results were presented in their report dated August 3, 2005. As part of their investigation, several exploratory test pits were excavated on the subject property. Our principal engineer and project geologist helped conduct those studies while employed by GA. We performed a soil investigation for the proposed residential project in the west portion of Plate 1. The results of our work were presented in our report dated January 10, 2012. However, at the time of that report, 12 multi-family apartment buildings were proposed.

The conceptual site plan provided by R. H. Hess Development Company, as shown on Plate 1 indicates the proposed development will consist of the construction of five apartment buildings and a recreation building/leasing office. We understand that the proposed apartments will be two- and possibly three-story structures and the recreation building will be a one-story structure. We also understand that all the buildings will be wood-frame structures with concrete slab-on-grade floors. The development will be served by asphalt-paved driveway and parking areas with underground utilities. As shown on the conceptual site plan, site retaining walls are indicated along the upslope (west) side of the project that may extend up to about 10 feet tall. A rough grading plan prepared by CBG Civil Engineers dated October 2019 indicates proposed site

grading to create a gently sloping 3-acre building and bio-retention area that will include cuts and fills varying up to about 20 feet. The deepest cuts are shown near the west margin of the bio-retention area and will include a series of two horizontal to one vertical (2:1) cuts provided with level benches about 8 to 10 feet wide spaced at vertical intervals of about 25 feet. The deepest fills are proposed near the southwest portion of the proposed building pad and northeast corner of the bio-retention area.

PURPOSE AND SCOPE

The purpose of this investigation is to provide soil engineering recommendations for planning and design of the project. In GA's report, several areas on the slopes in or within close proximity to the proposed development were identified to be unstable.

The scope of our work included the following tasks:

- Review selected published, geologic information in our files.
- Explore subsurface conditions to the extent of 11 test pits with excavator equipment.
- Obtain a few samples for visual classification and minor laboratory testing to determine physical properties of the soils sampled.

We summarized the soil and rock conditions observed and performed engineering analyses to develop conclusions and recommendations concerning:

1. Proximity of the site to active faults.
2. Site preparation and grading.
3. Foundation support and design criteria.

4. Support of concrete slab-on-grade floors.

5. Retaining wall design criteria.

6. Quality and compaction criteria for development of asphalt-paved driveways and parking.

7. Soil engineering drainage.

8. Supplemental soil engineering services.

WORK PERFORMED

We reviewed GA's previous report performed at Oat Hill, and on October 7 and 8, 2019, we were on-site to observe conditions exposed and explore subsurface conditions to the extent of eleven (11) supplemental test pits at the approximate locations indicated on Plate 2. We also performed a limited geologic reconnaissance to map general site surface geology, including existing landslides present on the northeast facing slope. The mapped slope instabilities are also shown on Plate 2.

The test pits were excavated with track-mounted excavator equipment to depths ranging from about 5 to 20 feet. Our project geologist located the pits, observed the excavations, logged the soil and rock conditions encountered and obtained samples for visual classification and minor laboratory testing. In-place strength indicator determinations were conducted in the pit walls with a pocket penetrometer. Logs of the pits are presented on Plates 3 and 4. The soils are classified in general accordance with the Unified Soil Classification System explained on Plate 5. Rock physical characteristics are described on Plate 6.

Selected samples were tested in our laboratory to determine classification (percent free swell and Atterberg Limits). The laboratory test results and field penetrometer data are summarized on Plates 7 and 8. Detailed results of the Atterberg Limits are shown on Plate 9.

The pit locations shown on Plate 2 were determined by visually estimating from existing surface features. The locations should be considered no more accurate than implied by the methods used to establish the data. All the test pits were backfilled at the completion of the exploration with the excavated soil and rock.

SITE CONDITIONS

General Site Description

The proposed project site is located near the southeast portion of Oat Hill, extending near the bottom of the slope. The site is bordered on the east by existing single-family residences and rural properties and on the north by an extension of Napa Junction Road. The areas to the west and south consist of moderately to steeply sloping, hillside terrain. A significant portion of the proposed building area has been previously graded. Based on our conversations, we understand that grading within this area was performed in the early 1980s. Past grading included cuts along the west portion of the building area and placement of fill within the east portion.

Subsurface Conditions

Soil deposits observed are comprised of existing fills, natural topsoils and sandy clays and residual soils. Detailed soil descriptions and depths are provided on the test pit logs, Plates 3 and 4.

A substantial accumulation of fill was encountered at the east portion of the site (refer to Plate 2). Based on the materials observed in test pits, the fills appear to be about 6 feet thick and consist of a heterogeneous mixture of medium stiff sandy clays and silts with occasional gravels. Laboratory tests performed on the fill materials indicate that the soils vary in consistency and exhibit a moderate expansion potential. That is, the soils would tend to undergo moderate strength and volume changes with seasonal changes in moisture content.

Below the existing fill deposits, and elsewhere at the ground surface, natural sandy clays and sandy silts were encountered. These natural soils exhibit a moderate to high expansion potential with shrinkage cracks extending about 1 foot deep below the existing ground surface.

Residual soil is produced by deep weathering of underlying rock and retains some of the texture and fabric of the parent rock. Where present, the residual soils occurred at the contact between the upper natural soils and the underlying bedrock. The residual soils consist of sandy clays with variable amounts of mudstone fragments, and generally exhibit a moderate expansion potential.

Test Pits 3 and 5 through 10 exposed well-developed landslide planes at depths that varied from about 8 to 19 feet deep.

Faulting and Seismicity

As concluded in GA's geologic hazards report, two active faults project through the project site and there is a potential for ground rupture on these faults. Building setbacks from fault zones were recommended in GA's previous report. The closest nearby identified fault

zone, as defined in GA's geologic hazards report that impacts this particular proposed building area is shown on the attached Plate 2. The area shown established the west boundary of the Fault Exclusion Zone.

Slope Instability

In the geologic hazards report, GA mapped extensive landsliding affecting the east-facing slopes of Oat Hill. These slope instabilities extend into the proposed building area. The approximate extent of landsliding is depicted on the attached Plate 2. Interpretation of the subsurface soil and rock conditions based on extrapolation of information from our site exploration was superimposed on the interpretative cross-sections A-A′, B-B′ and C-C′ on Plate 10. The approximate location of the cross-sections are shown on Plate 2. The cross-sections depict the planned rough grading as shown on CBG Civil Engineers plans and the conceptual "finish plan" provided by R.H. Hess Development Company.

SEISMIC DESIGN PARAMETERS

Because of the site proximity of the active Napa fault as well as the presence of several other large active faults in the region, we judge that the potential exists for the project site to be subjected to very strong to possibly violent earthquake ground shaking during the project life. The intensity of seismic ground shaking at the site would depend on a number of factors including the magnitude of the earthquake, the distance to the earthquake epicenter, the nature of the fault motion, and the depth and physical characteristics of the soil and rock underlying the site. Earthquakes can induce a number of geologic phenomena with a potential to damage

hillside developments by ground movements including landslides, rockfalls, ground cracking and strong ground motions. It will be necessary to design and construct the project in strict accordance with current standards for earthquake-resistant construction.

We have determined seismic ground motion values in accordance with procedures outlined in Section 1613 of the 2016 California Building Code (CBC). Mapped acceleration parameters, S_S and S_1, were obtained by inputting the approximate site location into seismic design mapping tools provided by the Structural Engineers Association of California/California's Office of Statewide Health Planning and Development (SEAOC/OSHPD). Based on our review of available geologic maps and knowledge of the subsurface conditions, we judge that the site can be classified as Site Class C, as described in Table 20.3-1 of the American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) Standard ASCE/SEI 7-10. Using corresponding values of site coefficients for Site Class C and procedures outlined in the CBC, the mapped acceleration parameters were adjusted to yield the design spectral response acceleration parameters, S_{DS} and S_{D1}. The following earthquake design data summarize the results of the procedures outlined above.

2016 CBC Ground Motion Parameters

Site Class	C

Mapped Spectral Response Accelerations:

S_S	2.037g
S_1	0.730g

Design Spectral Response Accelerations:

S_{DS}	1.358g
S_{D1}	0.633g

CONCLUSIONS

Based on our field exploration, laboratory tests, geotechnical engineering analyses and experience with similar subsurface conditions at nearby sites, we conclude that the site can be used for the proposed construction. The most significant geotechnical engineering factors that must be considered during design and construction are the presence of:

1. Landsliding within the project site.
2. Relatively deep existing fills and plastic clayey soils of moderate expansion potential overlying highly weathered rock materials on sloping terrain.
3. Potential differential supporting conditions based on proposed grading.

Landsliding within the project area, as indicated on Plate 2, would need to be stabilized by removing the unstable materials for their full depth and replacing the materials as properly placed and compacted earth fill buttresses with subdrainage, as subsequently recommended. Based on the

conditions encountered in our test pits, we anticipate the depth of the unstable materials will vary from about 8 to about 20 feet or more below the existing ground surface.

Based on our review of the rough grading plan prepared by CBG Engineers (Plate 2), the 3.0-acre pad will be positioned in areas transitioning from cut to fill, with planned cuts and fills on the order of about 20 and 9 feet, respectively. However, the conceptional plan provided by R.H. Hess Development (Plate 1) indicates "finish grades" with cuts and fills on the order of about 26 and 13 feet, respectively. Our experience indicates that differential settlements and resultant distress to structures can occur in areas that transition from cut to fill, and in areas underlain by significant variation in fill thickness.

Satisfactory foundation support for the proposed structures can be obtained from conventional spread footings bottomed at relatively shallow depth on properly compacted fill. However, with this alternative, to help provide more uniform support and satisfactorily reduce the potential for differential heave and/or settlements and resultant distress, grading would need to be performed so as to underlie the buildings with a pad of properly compacted fill. Fill thicknesses would need to be adjusted such that the variation in fill thickness beneath footings and slabs does not exceed 6 feet. When taking into account the amount of material removed and replaced as properly compacted as part of the slide removal process, potential fills under buildings could extend up to about 30 feet or more, resulting in potentially large overexcavations to reduce the variation in fill thickness.

As an alternative, to help reduce the extent of rough grading within the building areas, we judge that mat or post-tensioned slab foundations and greater differential fill thickness beneath

the structures would be a suitable alternative, provided the slabs are designed to tolerate anticipated differential settlements and the potential for some future minor tilting would be acceptable. For the purpose of this report, we conclude that Buildings C, D and E (see Plate 1 for building designation) could best be supported on either post-tensioned or mat slabs. Building A and B can be supported on either minimum depth footings and conventional concrete slab-on-grade floors, mat or post-tensioned slabs. The actual variation in fill thickness placed beneath the structures should be further evaluated by the soil engineer, in consultation with the structural engineer when actual building loads, location, size and configurations are known, or if changed from that shown on Plate 1.

We believe that concrete floor slabs can be used within buildings not underlain by large differential fill thicknesses, such as Buildings A and B. However, because of the presence of moderately expansive clays and deeply weathered rock materials, we judge the materials can shrink and swell with seasonal variation in moisture content and can heave and distress lightly loaded footings and slabs. Therefore, we judge that it will be necessary to provide space for a moisture confining and protecting blanket of approved on-site materials of low expansion potential or imported nonexpansive fill under conventional floor slabs.

The backhoe pits were backfilled with the excavated materials, but the soils were not compacted. Therefore, the pit backfills constitute local deep zones of material subject to significant settlement and/or erosion. Where encountered in planned improvement areas, compressible pit backfills should be removed for their entire depth and replaced as properly compacted soils or foundation elements deepened accordingly.

RECOMMENDATIONS

Site Grading

Areas to be developed should be cleared of dense growths of grass and vegetation and should be stripped of the upper soils containing root growth and organic matter. We anticipate that the depth of stripping needed will average about 3 inches. The strippings should be removed from the site or may be suitable for reuse in landscaping areas.

Wells, septic tanks, foundations or other underground obstructions encountered during grading should be removed or abandoned in place. The resultant voids should be backfilled with soil or granular material that is properly compacted, as subsequently discussed, or capped with concrete. The method of removal/abandonment and void backfilling should be determined by the appropriate governing agency and/or the soil engineer.

After clearing and stripping, excavation should be performed as necessary. Existing fills or stockpiles encountered within building and improvement areas should be removed for their full depth. We anticipate that, with the exception of organic matter and rocks or hard fragments larger than 6 inches in diameter, the excavated materials will be suitable for reuse as compacted fill, as discussed below. However, were conventional spread footings and concrete floor slabs are planned, expansive clayey soils should not be reused as fill within the upper portions of planned pad grade elevation, as discussed below.

The mapped landslide areas should be repaired by removing the unstable soils and replacing the excavated materials as compacted fill that is keyed and benched into firm

underlying bedrock with internal subdrainage, as subsequently discussed. We anticipate that the depth of the initial keyway will vary and will bottom about 13 to 20 feet (or more) below the existing ground surface. The contractor should recognize the potential for slope instability during the work. Measures to reduce potential instability could include temporary excavation slopes of 1:1 or flatter, backfilling temporary excavations in a timely manner, and performing the work during dry weather. Tentative locations of recommended keyways and subdrains are shown on the attached Plate 11.

Keyways and other areas to receive fill should be scarified at least 6 inches deep, moisture conditioned to slightly above optimum (at least 4 percentage points above optimum for expansive clayey soils) and compacted to at least 90 percent relative compaction[1].

Approved, excavated or other on-site soils then should be placed in layers, moisture conditioned to at least 2 percentage points above optimal moisture, and compacted to at least 90 percent relative compaction. The fill should be benched into firm rock materials below any upper weak, unstable soils, as outlined above. Also, granular subdrainage installed along the back edge of the lower keyway for the buttress fill should extend up the back edge of the excavation a minimum of 3 feet. Approximately 4 to 6 cubic feet of drainrock should be installed per foot of pipe. Clean-out risers should be installed at the uphill ends of subdrains.

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1 Relative compaction refers to the in-place dry density of fill expressed as a percentage of maximum dry density of the same material determined in accordance with the American Society for Testing and Materials (ASTM) Standard ASTM D1557 laboratory compaction test procedure. Optimum moisture content refers to the moisture content at maximum dry density.

The clean-out should be extended to the final ground surface and be capped with a suitable cover. A similar subdrain blanket should be installed at the uphill edge of the compacted fill buttress. Normally, such uphill subdrains must blanket the potential slide zone and, therefore, contain two or three times more drainrock than the lower subdrain. Our recommended cross-section of landslide corrective measures are shown as Cross-Sections A-A′, B-B′ and C-C′ on Plate 10. The actual location, depth and extent of the buttress keyway, benches, and subdrains will vary and must be determined in the field by the soil engineer when the actual conditions are exposed during the grading.

As fill placement continues upslope, a series of level benches should be excavated into firm soil or bedrock material to key the fill into the hillside.

Provided the site is graded in accordance with our previous recommendations, we anticipate the proposed building areas will be underlain by firm bedrock or properly compacted fill.

Where minimum depth footings and concrete slab-on-grade floors are desired at Buildings A and B, overexcavations in such areas should extend at least 5 feet beyond the building perimeter, 3 feet beyond the edge of building foundations, or 3 feet beyond adjacent exterior concrete slabs that abut the building, whichever is greater. Overexcavation depths then should be adjusted so as to provide space for at least 12 inches of approved compacted fill of low expansion potential below all footings and provide space for a minimum 30-inch-thick moisture confining and protecting blanket of approved, on-site material of low expansion potential or imported nonexpansive fill under slabs. The recommended overexcavation should also be

performed in planned cut areas so as to provide more uniform supporting capacity for the foundation and floor slab. Also, the variation in the thickness of fill, including overexcavation, should not exceed 6 feet for conventional footings and slabs. Where post-tensioned or mat slabs are used, to help provide uniform support, we recommend that those slabs be underlain by at least 12 inches of properly compacted fill. Also, the variation in thickness of fill, including overexcavation, should not exceed 15 feet for mat or post-tensioned slabs.

Proper moisture conditioning of the underlying expansive soils is critical to future slab performance. Because evaporation is inhibited by the overlying slabs, eventual saturation of the underlying soils can occur. Therefore, if the expansive soils are not brought to a fully swelled state prior to casting of slabs, eventual heave is likely. Therefore, we recommend that slab areas be probed by the soil engineer during the grading work to verify that expansive soils, if present, contain sufficient moisture such that the risk of future slab heave could be considered low.

Imported fills, if used, should be of low expansion potential and have a Plasticity Index of 15 or less. The imported fill material should be free of organic matter and rocks or hard fragments larger than 4 inches in diameter. The material proposed for use as nonexpansive fill should be tested and approved by the soil engineer before delivering to the site.

Slope Criteria

As indicated in GA's previous report, finished cut and fill slopes should be trimmed to expose dense materials and should be no steeper than 2½:1. Both the conceptual and rough grading plans indicates cut and fill slopes inclined at 2:1. The previous recommendation of fill

slope inclination anticipated that onsite expansive soils would be used to construct proposed fill slopes. Provided, the materials used to construct the proposed fill slope consist of more granular and/or less plastic soils such as those that would likely be generated by the proposed excavations, we judge cut and fill slopes can be inclined at 2:1. The face of finish fill slopes should be thoroughly compacted or constructed wider than planned and then trimmed to expose dense, well compacted material.

Foundations

Spread Footings – Provided the site is graded in accordance with the recommendations outlined above for conventional foundations and slabs, foundation support for the proposed Buildings A and/or B can be provided by spread footings bottomed on properly compacted fill.

Footings should be at least 12 inches wide. Footings should be underlain by at least 12 inches of properly compacted fill of low expansion and a minimum of 12 inches deep, as measured below lowest adjacent compacted pad elevation. On slopes, footings should be stepped, as necessary, to provide level (and up to 10 percent slope) bottoms.

Spread footings can be designed to impose dead plus code live load and total design load (including wind or seismic forces) bearing pressures of 2,000 and 3,000 pounds per square foot (psf), respectively.

Resistance to lateral loads can be obtained from passive earth pressures and soil friction. We recommend the following criteria for design:

Passive Earth Pressure	=	300 pounds per cubic foot (pcf) equivalent fluid, neglect the upper 1 foot, unless confined by pavement or slab, and within 8 horizontal feet from the face of the nearest slope
Soil Friction Factor	=	0.30

Mat-Slabs – The proposed new structures can also be supported on mat-slabs to help reduce potential distress from total and/or differential settlements. For planning purposes, we judge that mat slab foundation should be at least 12 inches thick with a thickened edge at the perimeter for stiffening and to act as a moisture cutoff barrier. The slab should be designed to span a distance of at least 6 feet in any direction, and a cantilever of at least 3 feet at the perimeter. An allowable bearing pressure of 1,000 psf can be used. Differential settlement across the slabs is dependent upon several factors, including the differential thickness of fill beneath the building. Where the differential fill thickness is 15 feet, about 1½ inches of differential settlement should be anticipated. We would anticipate that two courses of steel may be needed to help reinforce the slab. Actual design of mat slab foundations should be by the project structural engineer.

Mat-slabs should be underlain with a capillary moisture break and cushion layer consisting of at least 4 inches of free-draining gravel or crushed rock (slab rock). The slab rock should be at least 1/4-inch and no larger than 3/4-inch in size. Moisture vapor will condense on the underside of slabs. Where moisture migration through the slab would be detrimental, an impermeable moisture barrier (visqueen) should be provided between the drainrock and the slab. Two inches of clean, moist sand

could be placed over a plastic membrane, if used, to aid in curing and help provide puncture protection.

Post-Tensioned Slabs-on-Grade - We recommend that the post-tensioned slabs be designed in accordance with the Post-Tensioning Institute's Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundation on Expansive Soils, current edition, and the criteria in the CBC. Provided the site is graded as recommended above, post-tensioned slabs should be underlain by at least 12 inches of properly compacted fill. Based on our field and laboratory data, we recommend the following parameters be used for design.

E_M = 9.0 feet (center lift) Y_M = 2 inches (center lift)

E_M = 5.5 feet (edge lift) Y_M = 1 inch (edge lift)

For design, an allowable bearing value of 1,000 psf and a friction factor of 0.30 can be used, with an assumed differential settlement across the slab of about 1½ inches where underlain by a differential fill thickness of 15 feet. Uniform thickness post-tensioned slabs, if used, should be at least 12 inches thick with an additional 2-inch thickened edge for stiffening.

Moisture vapor will condense on the underside of slabs. In general, where moisture migration through the slab would be detrimental, an impermeable moisture vapor barrier should be provided. At least 2 inches of clean, moist sand could be placed over a plastic membrane, if used, to aid in slab curing and help provide puncture protection. However, the actual use of sand over the vapor barrier should be determined by the architect or design engineer. The use of a heavier/stronger membrane should be considered if sand is not to be placed for puncture, and

concrete design and curing specifications should recognize the potential adverse effects associated with placement of concrete directly on the membrane. Where sand is used, the thickened edge of uniform thickness post-tensioned slabs should penetrate through the sand and bottom in compacted pad soils to act as a moisture barrier. We believe that the risk of water seeping into the underslab sand could be significantly reduced by not allowing the vapor barrier and sand to extend beneath the perimeter thickened edges, and by separating the sand from surrounding soils. This could be accomplished by overlapping the vapor barrier at the planned edges of the sand.

To further reduce the risks of moisture migration up through floor slabs, the slabs could be underlain with a capillary moisture break and cushion layer consisting of at least 4 inches of free-draining, crushed rock or gravel. Underslab subdrains could also be provided that extend through or beneath perimeter foundations and discharge by gravity to planned or existing storm drain improvements. We could provide specific recommendations for the use of underslab rock and underslab subdrains, if requested.

Where the ground surface has an upslope within 25 feet of a structure, additional drainage measures, such as underslab subdrains or perimeter foundation subdrains, should be considered. We could be consulted to develop specific recommendations for additional drainage measures, during final design.

Conventional Slab-on-Grade

Provided the site is prepared as recommended above, floor slab areas should be underlain by at least 30 inches of properly compacted, approved on-site or imported fill materials of low expansion potential. Slab-on-grade subgrade should not be allowed to dry prior to concrete placement. In addition, slabs should be underlain by a capillary moisture break and cushion layer consisting of at least 4 inches of free-draining, crushed rock or gravel (drainrock) at least 1/4-inch and no larger than 3/4-inch in size. Crushed rock should be used where the slabs would be subjected to wheel loads such as forklifts or trucks.

Floor slabs should be at least 5 inches thick and be reinforced to reduce cracking. Where subjected to heavy wheel or storage loads, the slabs should be thickened and reinforced to accommodate the increased loading. Actual slab thickness and reinforcing used should be determined by the structural design engineer or architect based on anticipated use and performance. Design of conventional slabs should also recognize the potential for moisture vapor to condense on the underside of the slab, and provisions to reduce migration through the slab should be provided, as discussed above for post-tensioned slabs. Prior to placing the reinforcing or slab rock, the subgrade soils should be thoroughly moisture conditioned and be smooth, firm and uniform.

Retaining Walls

Retaining walls that are free to rotate slightly and support level backfill should be designed to resist an active equivalent fluid pressure of 45 pcf acting in a triangular pressure

distribution. Where the backfill slope is steeper than 3:1, the pressure should be increased to 60 pcf. If the wall is constrained at the top and cannot tilt, the design pressures for level and sloping backfill should be increased to 60 and 75 pcf, respectively. Where retaining wall backfill is subject to vehicular traffic, the walls should be designed to resist an added surcharge pressure equivalent to 1½ feet of additional backfill.

Retaining walls can be supported on spread footings designed in accordance with the recommendations above for building foundations. Site retaining walls can be underlain by properly compacted fill or bottomed into firm natural soil or bedrock materials. Footings should be at least 18 inches deep. However, where expansive soils are exposed, minimum footing depths should be 30 inches, as determined in the field by the soil engineer. Where foundations for retaining walls are located on or near slopes, footings should be deepened so as to provide at least 8 horizontal feet of confinement from the face of the footing to an adjacent downslope.

As outlined in the 2016 California Building Code (CBC), it may be necessary to design retaining walls to resist additional lateral soil loads imposed during seismic shaking. Accordingly, based on the Mononobe-Okabe Method, we have computed the following dynamic component of total thrust induced on the wall for varying backslope inclinations.

Backslope Inclination (β)	Dynamic Thrust* Component (lbs/ft)
$0 \leq \beta \leq 8{:}1$	$9H^2$
$8{:}1 < \beta \leq 4{:}1$	$13H^2$
$4{:}1 < \beta \leq 3{:}1$	$22H^2$

* The dynamic component of total thrust should be applied as a line load at a height of 0.6H above the base of the retaining wall; where H is height of the retaining wall.

Retaining walls should be fully backdrained. The backdrains should consist of 4-inch-diameter, perforated rigid plastic pipe sloped to drain to outlets by gravity and clean free-draining, crushed rock or gravel (drainrock). The drainrock should consist of Class 2 Permeable Material per current Caltrans standard specifications. As an alternative, any clean drainrock could be used if the rock is separated from the adjacent soil and covered by a nonwoven, geotextile fabric (such as Mirafi 140N or equivalent) weighing at least 4 ounces per square yard. The crushed rock or gravel should extend to within 1 foot of the surface. The upper 12 inches should be backfilled with compacted soil to inhibit surface water infiltration unless capped with a concrete slab.

Where migration of moisture through retaining walls would be detrimental, the walls should be waterproofed. The ground surface behind retaining walls should be sloped to drain.

Light compaction equipment should be used to avoid overstressing the walls. Retaining walls can yield slightly during backfilling. Therefore, backfill operations should be completed prior to building on or adjacent to the walls.

Geotechnical Drainage

Ponding water will cause softening of the site soils and could be detrimental to foundations. It is important that the building sites be sloped to drain away from foundations. The roofs should be provided with gutters, and the downspouts should be connected to nonperforated, rigid plastic pipelines with water-tight joints that discharge into planned drainage facilities.

We recommend that good, positive surface drainage away from and around the structure be provided. A gradient of at least 1/4-inch per foot extending at least 4 feet out should be provided. Careful attention to fine (finish) grading around the structures should be provided. Loose or poorly compacted materials should not be allowed adjacent to foundations.

All surface drainage should be diverted away from cut and fill slope faces by means of top-of-slope ditches, berms or approved equivalents. Pavement surfaces should be constructed to provide positive drainage and not allow ponding.

Where irrigated landscape areas abut the building, excess water can be introduced into soil layers along the edge of the building, tending to soften soils, and induce extra moisture into underfloor areas. We believe that the installation of the recommended compacted fill pad that extends to at least 5 feet beyond building perimeter should provide an effective barrier to the infiltration of excess waters from landscape areas. However, as an added precaution, such planter areas should be provided with a drain that outlets into planned site drainage systems (gutters, storm drains, etc.). Also, hot-mopping or other methods of waterproofing the exterior sides of below grade cold joints in perimeter foundations should be performed.

Roof downspouts and surface drains must be maintained entirely separate from retaining wall and underslab subdrains.

Supplemental Soil Engineering Services

The actual variation in fill thickness placed beneath the structures should be further evaluated by the soil engineer, in consultation with the structural engineer when actual building

loads, location, size and configuration are known, or if changed. We should review the final grading and foundation plans for conformance with the intent of our recommendations. During site grading operations, we should provide intermittent soil engineering observation and testing to determine the conditions encountered and modify our recommendations, if warranted. Field and laboratory tests should be performed to ascertain that the specified moisture content and degree of compaction are being attained.

We should observe footing excavations to verify that the conditions are as anticipated and to modify our recommendations, if warranted. Concrete placement and reinforcing should be checked as stipulated on the project plans or as required by the Building Department. It is our understanding that approval from the Building Department must be obtained prior to the placement of concrete in foundation elements.

LIMITATIONS

We have performed the investigation and prepared this report in accordance with generally accepted standards of the soil engineering profession. No warranty, either express or implied, is given. This scope of work is limited to evaluating the physical properties of earth materials considered typical of geotechnical engineering practice and does not include other concerns such as soil chemistry, corrosion potential, mold, and soil and/or groundwater contamination.

Subsurface conditions are complex and may differ from those indicated by surface features or encountered at test pit locations. Therefore, variations in subsurface conditions not indicated on the logs could be encountered.

If the project is revised or if conditions different from those described in this report are encountered during construction, we should be notified immediately so that we can take timely action to modify our recommendations, if warranted.

Supplemental services as recommended herein are performed on an as-requested basis. Such services are in addition to this soil investigation, and are charged for on an hourly basis in accordance with our Standard Schedule of Charges. We accept no responsibility for items we are not notified to check, or for use and/or interpretation by others of the information contained herein.

Site conditions and standards of practice change. Therefore, we should be notified to update this report if construction is not performed within 36 months.

LIST OF PLATES

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Plate 2	Interpretive Geologic Map and Test Pit Location Plan
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Plate 5	Soil Classification Chart and Key to Test Data
Plate 6	Physical Properties for Rock Descriptions
Plates 7 and 8	Laboratory Test Data
Plate 9	Plasticity Index Test Results
Plate 10	Interpretive Cross-Sections A-A′, B-B′ and C-C′
Plate 11	Geotechnical Planning Map

DISTRIBUTION

Copies submitted: 3

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P.O Box 3438
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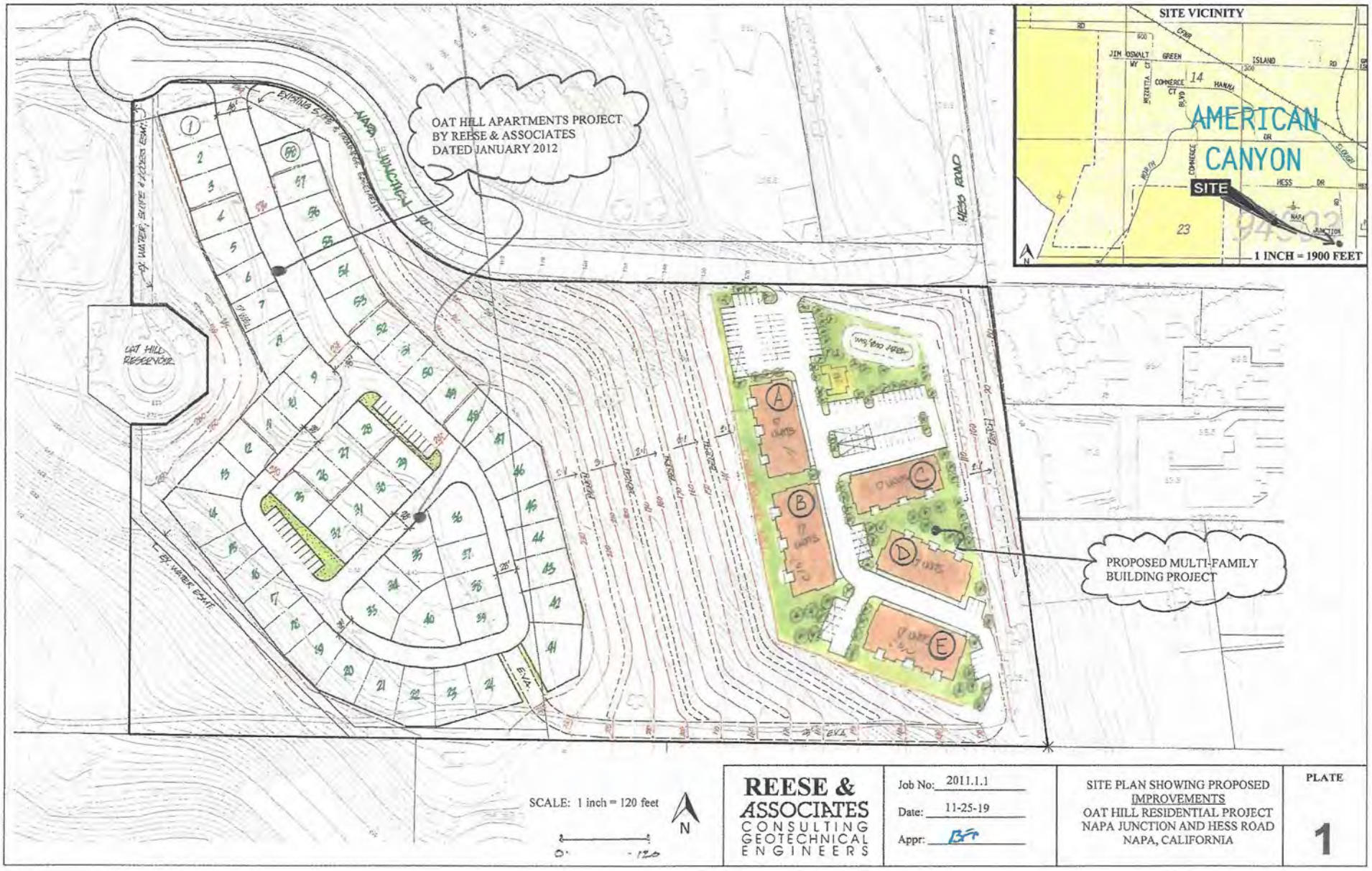
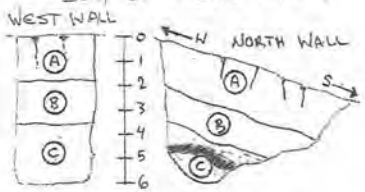
Attention: Richard H. Hess
rick@rhhess.com

BFP/JKR:nay/ra/ Job No. 2011.1.1

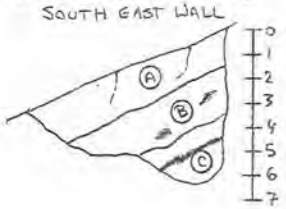

OAT HILL APARTMENTS PROJECT
BY REESE & ASSOCIATES
DATED JANUARY 2012
PROPOSED MULTI-FAMILY
BUILDING PROJECT
OAT HILL RESERVOIR
NAPA JUNCTION RD
HESS ROAD
SITE VICINITY
AMERICAN
CANYON
SITE
1 INCH = 1900 FEET
SCALE: 1 inch = 120 feet
N
REESE &
ASSOCIATES
CONSULTING
GEOTECHNICAL
ENGINEERS
Job No: 2011.1.1
Date: 11-25-19
Appr:
SITE PLAN SHOWING PROPOSED
IMPROVEMENTS
OAT HILL RESIDENTIAL PROJECT
NAPA JUNCTION AND HESS ROAD
NAPA, CALIFORNIA
PLATE
1


NAPA JUNCTION RD
HESS ROAD
NAPA
OAT HILL RESERVOIR
3.0 ACRES PAD
Qls
Af
EXPLANATION
Approximate Test Pit Location
Approximate Test Pit Location (Reese & Associates - 2012)
Approximate Test Boring Location (Giblin Associates - 2005)
Landslide Showing Headscarp and Approximate Direction of Movement
Approximate Location of Cross-Sections
Approximate Test Pit Location (Giblin Associates - 2005)
Fault Exclusion Zone (as established by Giblin Associates - 2005)
SOIL DESCRIPTION
Af - Artificial Fill
Qls - Landslide Deposits
SCALE: 1" = 60'
REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS
Job No.
Date
Appr.
PLATE
2

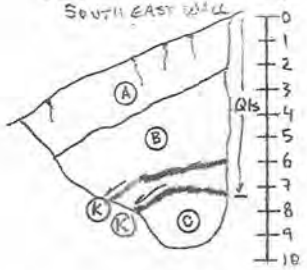
LOG OF TEST PIT 1



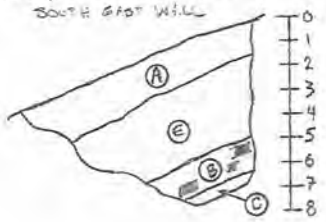
LOG OF TEST PIT 2
SOUTH EAST WALL



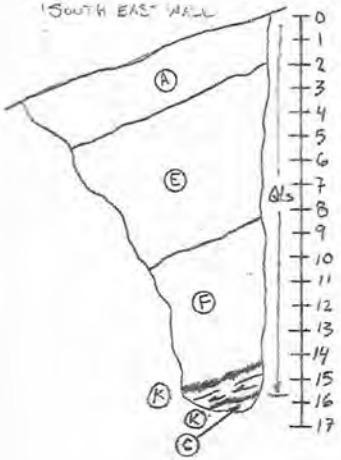
LOG OF TEST PIT 3
SOUTH EAST WALL



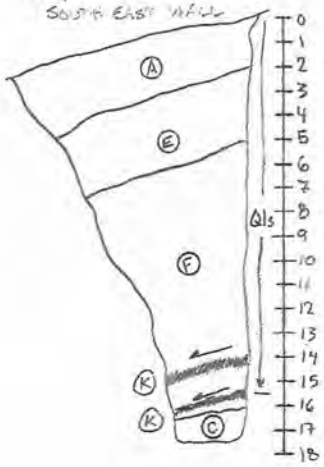
LOG OF TEST PIT 4
SOUTH EAST WALL



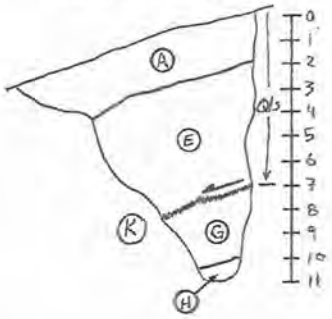
LOG OF TEST PIT 5
SOUTH EAST WALL



LOG OF TEST PIT 6
SOUTH EAST WALL



LOG OF TEST PIT 7
SOUTH EAST WALL



KEY

A: BROWN TO LIGHT BROWN, SILTY FINE SAND TO FINE SANDY SILT (SM-ML), soft, dry, slightly porous, slightly plastic, some shrinkage cracks

B: BROWN TO REDDISH BROWN, SANDY SILT (MH), medium stiff, moist, with mudstone rock fragments

C: BROWN, MUDSTONE, closely fractured, low hardness, friable, moderately weathered

D: REDDISH BROWN, SANDY CLAY (CL), medium stiff, wet

E: DARK BROWN, SANDY CLAY (CL), medium stiff, wet

F: REDDISH BROWN, SANDY CLAY (CL), soft, wet, with mudstone rock fragments

G: REDDISH BROWN, SANDY SILT (ML), medium stiff, moist

H: REDDISH BROWN, SILTSTONE, low hardness, friable, deeply weathered

I: DARK BROWN, SANDY SILT (ML), soft, dry, with gravels and rock fragments (fill)

I1: MOTTLED DARK BROWN AND BROWN, SANDY CLAY (CL), soft, dry (fill)

J: MOTTLED YELLOW AND RED BROWN, SANDY CLAY (QLS), medium stiff, wet, with mudstone rock fragments

K: LIGHT BROWN CLAY (CH), soft, wet, with slickensides

Scale
0 1"=5' 5'

REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

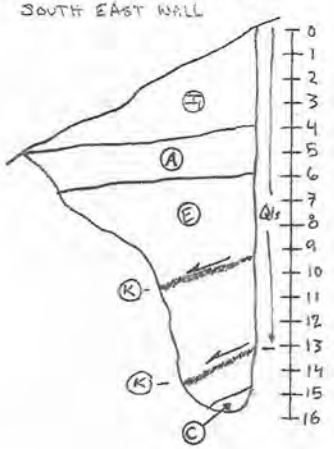
Job No: 2011.1.1
Date: 11-25-19
Appr: PAT

LOG OF TEST PITS
1 THROUGH 7
OAT HILL RESIDENTIAL PROJECT
NAPA JUNCTION AND HESS ROAD
NAPA, CALIFORNIA

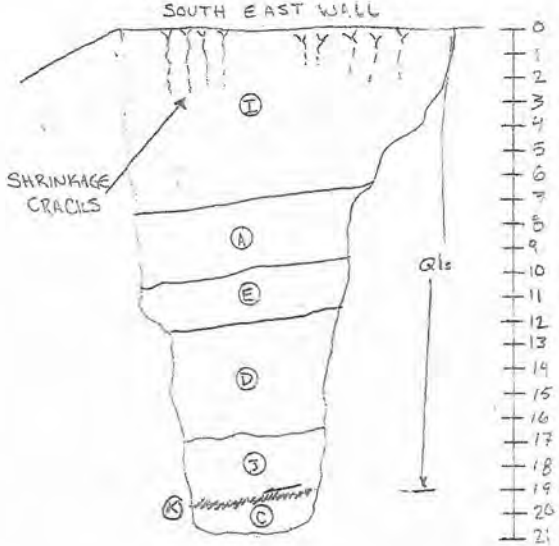
PLATE
3

5244

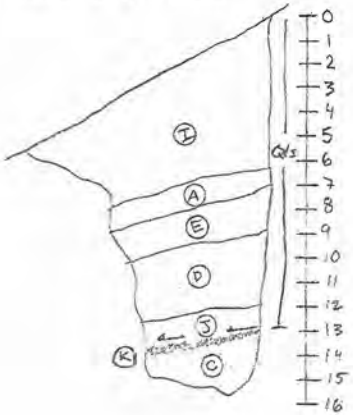
LOG OF TEST PIT 8
SOUTH EAST WALL



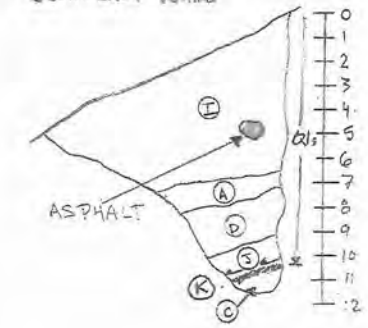
LOG OF TEST PIT 9
SOUTH EAST WALL



LOG OF TEST PIT 10
SOUTH EAST WALL



LOG OF TEST PIT 11
SOUTH EAST WALL



KEY

A: BROWN TO LIGHT BROWN, SILTY FINE SAND TO FINE SANDY SILT (SM-ML), soft, dry, slightly porous, slightly plastic, some shrinkage cracks

B: BROWN TO REDDISH BROWN, SANDY SILT (MH), medium stiff, moist, with mudstone rock fragments

C: BROWN, MUDSTONE, closely fractured, low hardness, friable, moderately weathered

D: REDDISH BROWN, SANDY CLAY (CL), medium stiff, wet

E: DARK BROWN, SANDY CLAY (CL), medium stiff, wet

F: REDDISH BROWN, SANDY CLAY (CL), soft, wet, with mudstone rock fragments

G: REDDISH BROWN, SANDY SILT (ML), medium stiff, moist

H: REDDISH BROWN, SILTSTONE, low hardness, friable, deeply weathered

I: DARK BROWN, SANDY SILT (ML), soft, dry, with gravels and rock fragments (fill)

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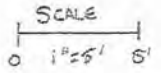
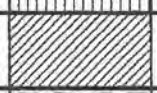
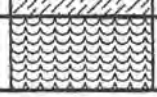
K: LIGHT BROWN CLAY (CH), soft, wet, with slickensides



REESE & ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 2011.1.1 Date: 11-25-19 Appr: BFP	LOG OF TEST PITS 8 THROUGH 11 OAT HILL RESIDENTIAL PROJECT NAPA JUNCTION AND HESS ROAD NAPA, CALIFORNIA	PLATE 4

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS					TYPICAL NAMES
COARSE GRAINED SOILS (MORE THAN HALF IS LARGER THAN No. 200 SIEVE)	GRAVEL (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE)	CLEAN GRAVEL WITH LESS THAN 5% FINES	GW		WELL GRADED GRAVEL, GRAVEL-SAND MIXTURE
			GP		POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURE
		GRAVEL WITH OVER 12% FINES	GM		SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURE
			GC		CLAYEY GRAVEL, GRAVEL-SAND-CLAY MIXTURE
	SAND (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE)	CLEAN SAND WITH LESS THAN 5% FINES	SW		WELL GRADED SAND, GRAVELLY SAND
			SP		POORLY GRADED SAND, GRAVELLY SAND
		SAND WITH OVER 12% FINES	SM		SILTY SAND, GRAVEL-SAND-SILT MIXTURE
			SC		CLAYEY SAND, GRAVEL-SAND-CLAY MIXTURE
FINE GRAINED SOILS (MORE THAN HALF IS SMALLER THAN No. 200 SIEVE)	SILT AND CLAY (LIQUID LIMIT LESS THAN 50)		ML		INORGANIC SILT, ROCK FLOUR, SANDY OR CLAYEY SILT WITH LOW PLASTICITY
			CL		INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY, SANDY, OR SILTY CLAY (LEAN)
			OL		ORGANIC CLAY AND ORGANIC SILTY CLAY OF LOW PLASTICITY
	SILT AND CLAY (LIQUID LIMIT GREATER THAN 50)		MH		INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOIL, ELASTIC SILT
			CH		INORGANIC CLAY OF HIGH PLASTICITY, GRAVELLY, SANDY OR SILTY CLAY (FAT)
			OH		ORGANIC CLAY OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILT
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

KEY TO TEST DATA

						Shear Strength, psf	Confining Pressure, psf
EI	–	Expansion Index	TxUU	–	Unconsolidated Undrained Triaxial	320	(2600)
Consol	–	Consolidation	TxCU	–	Consolidated Undrained Triaxial	320	(2600)
LL	–	Liquid Limit (in %)	DSCD	–	Consolidated Drained Direct Shear	2750	(2000)
PL	–	Plastic Limit (in %)	FVS	–	Field Vane Shear	470	
PI	–	Plasticity Index	LVS	–	Laboratory Vane Shear	700	
SA	–	Sieve Analysis	UC	–	Unconfined Compression	2000	*
G_S	–	Specific Gravity	UC(P)	–	Laboratory Penetrometer	700	*
■		"Undisturbed" Sample					
□		Bulk Sample					

Notes: (1) All strength tests on 2.8" or 2.4" diameter samples unless otherwise indicated. * Compressive Strength

REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 2011.1.1
Date: 11-22-19
Appr: BFP

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA
OAT HILL RESIDENTIAL PROJECT
NAPA, CALIFORNIA

PLATE 5

A: CONSOLIDATION OF SEDIMENTARY ROCKS; usually determined from unweathered samples.
Largely dependent on cementation

1. U = unconsolidated
2. P = poorly consolidated
3. M = moderately consolidated
4. W = well consolidated

B: BEDDING OF SEDIMENTARY ROCKS

	Splitting Property	Thickness (in feet)	Stratification
1.	Massive	Greater than 4.0 ft	very thick bedded
2.	Blocky	2.0 to 4.0 ft	thick bedded
3.	Slabby	0.2 to 2.0 ft	thin bedded
4.	Flaggy	0.05 to 0.2 ft	very thin bedded
5.	Shaly or platy	0.01 to 0.05 ft	laminated
6.	Papery	Less than 0.01 ft	thinly laminated

C: FRACTURING

	Intensity	Size of Pieces (in feet)
1.	Very little fractured	Greater than 4.0 ft
2.	Occasionally fractured	1.0 to 4.0 ft
3.	Moderately fractured	0.5 to 1.0 ft
4.	Closely fractured	0.1 to 0.5 ft
5.	Intensely fractured	0.05 to 0.1 ft
6.	Crushed	Less than 0.05 ft

D: HARDNESS

1. **Soft** - Reserved for plastic material alone.
2. **Low hardness** - can be gouged deeply or carved easily with a knife blade.
3. **Moderately hard** - can be readily scratched by a knife blade; scratch leaves a heavy trace of dust and is readily visible after the powder has been blow away.
4. **Hard** - can be scratched with difficulty; scratch produces little powder and is often faintly visible
5. **Very hard** - cannot be scratched with knife blade; leaves a metallic streak

E: STRENGTH

1. **Plastic** - of very low strength.
2. **Friable** - Crumbles easily by rubbing with fingers.
3. **Weak** - An unfractured specimen of such material will crumble under light hammer blows.
4. **Moderately strong** - Specimen will withstand a few heavy hammer blows before breaking.
5. **Strong** - Specimen will withstand a few heavy ringing hammer blows and will yield with difficulty only dust and small flying fragments.
6. **Very strong** - Specimen will resist heavy ringing hammer blows and will yield with difficulty only dust and small flying fragments.

F: WEATHERING - The physical and chemical disintegration and decomposition of rocks and minerals by natural processes such as oxidation, reduction, hydration, solution, carbonation, and freezing and thawing

1. **Deep** - Moderate to complete mineral decomposition; extensive disintegration; deep and thorough discoloration; many fractures, all extensively coated or filled with oxides, carbonates and/or clay or silt.
2. **Moderate** - Slight change or partial decomposition of minerals; little disintegration; cementation little to unaffected. Moderate to occasional intense discoloration. Moderately coated fractures.
3. **Little** - No megascopic decomposition of minerals; little or no effect on normal cementation. Slight and intermittent, or localized discoloration. Few stains on fracture surfaces.
4. **Fresh** - Unaffected by weathering agents. No disintegration or discoloration.

REESE & ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 2011.1.1 Date: 11-25-19 Appr: BP	**PHYSICAL PROPERTIES FOR ROCK DESCRIPTIONS** **OAT HILL RESIDENTIAL PROJECT** **NAPA JUNCTION AND HESS ROAD** **NAPA, CALIFORNIA**	**PLATE** **6**

PIT NUMBER	DEPTH	TEST TYPE*	TEST RESULTS
1	0.5	FS	40
	1.0	UC(P)	1500
	2.5	UC(P)	3000
	3.0	FS	60
	5.0	UC(P)	4500+
2	1.0	UC(P)	2000
	1.0	FS	40
	2.0	UC(P)	3000
	3.5	FS	65
	4.0	UC(P)	3000
	5.0	UC(P)	4500+
	6.0	FS	70
3	1.5	M	14.2
	2.0	UC(P)	3000
	3.0	UC(P)	2750
	3.5	M	26.5
	4.5	M	23.5
	4.5	FS	60
	7.0	UC(P)	2250
	7.0	M	19.5
	7.0	FS	60
	9.0	UC(P)	4500+
4	1.0	FS	50
	1.5	UC(P)	2250
	3.0	UC(P)	2500
	3.5	FS	60
	4.0	UC(P)	2500
	4.5	FS	70
	6.0	FS	70
	7.0	UC(P)	4500+

*Test Type

M	Moisture Content (percent of dry weight)
MD	Moisture Content (percent of dry weight)/dry density (pounds per cubic foot)
UC(P)	Penetrometer - strength indicator (pounds per square foot)
UC	Unconfined Compression (pounds per square foot)
-200	Percent Passing No. 200 sieve by weight
FS	Percent Free Swell

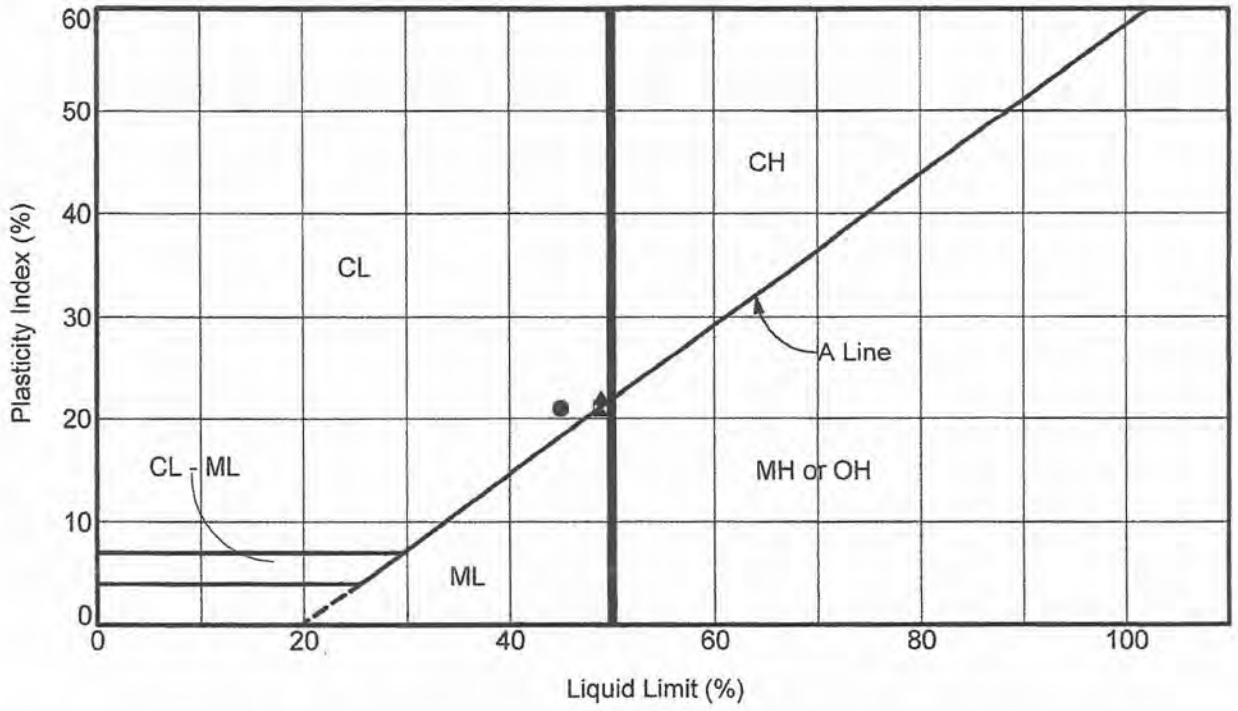
REESE & ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 2011.1.1 Date: 11-25-19 Appr: BFP	**LABORATORY TEST DATA** **OAT HILL RESIDENTIAL PROJECT** **NAPA JUNCTION AND HESS ROAD** **NAPA, CALIFORNIA**	**PLATE** **7**

PIT NUMBER	DEPTH	TEST TYPE*	TEST RESULTS
5	5.0	M	22.2
	5.0	FS	70
	8.5	M	23.3
	8.5	FS	70
	11.0	M	23.3
	13.0	M	40.0
	13.8	M	31.2
6	4.5	M	21.3
	4.5	FS	65
	7.0	M	21.5
	7.0	FS	50
	10.0	M	27.6
	13.8	M	22.4
	14.0	M	33.5
	15.0	M	24.5
	16.0	M	16.5
8	2 to 3	FS	60
9	1.0	FS	60
	1.0	-200	87.7
	5.0	FS	65
	5.0	M	15.9
	10.0	FS	40
	10.0	M	21.4
	11.5	FS	65
	11.5	M	24.3
	15.0	M	21.7
	19.0	M	23.7
	19.5	M	23.8

*Test Type

M	Moisture Content (percent of dry weight)
MD	Moisture Content (percent of dry weight)/dry density (pounds per cubic foot)
UC(P)	Penetrometer - strength indicator (pounds per square foot)
UC	Unconfined Compression (pounds per square foot)
-200	Percent Passing No. 200 sieve by weight
FS	Percent Free Swell

REESE & ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 2011.1.1 Date: 11-25-19 Appr: BFP	**LABORATORY TEST DATA** **OAT HILL RESIDENTIAL PROJECT** **NAPA JUNCTION AND HESS ROAD** **NAPA, CALIFORNIA**	PLATE **8**



ASTM D 4318-98

Symbol	Classification and Source	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Free Swell (%)
●	**DARK BROWN SANDY CLAY (CL)** **Test Pit 6 at 4.5 feet**	**45**	**24**	**21**	**65**
⊠	**DARK BROWN SANDY SILT (ML)** **Test Pit 8 at 2.5 feet**	**49**	**28**	**21**	**60**
▲	**DARK BROWN SANDY CLAY (CL)** **Test Pit 9 at 1.0 feet**	**49**	**27**	**22**	**60**

REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

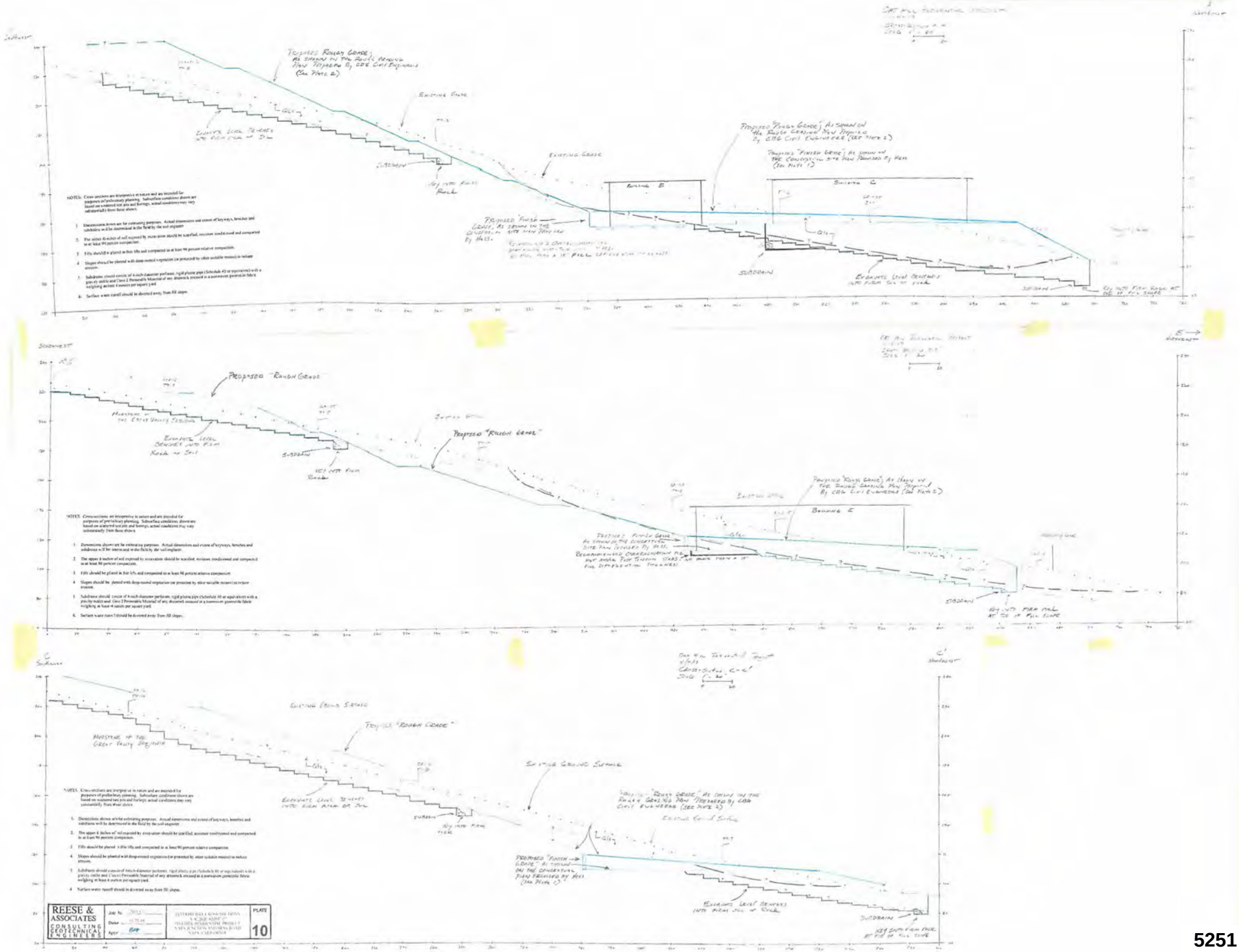
Job No: 2011.1.1
Date: 11-22-19
Appr: BFD

ATTERBERG LIMITS TEST RESULTS

OAT HILL RESIDENTIAL PROJECT
NAPA, CALIFORNIA

PLATE
9

5250



Proposed Rough Grade; As shown on the Rough Grading Plan Prepared By CBG Civil Engineers (See Plate 2)
Existing Grade
Subdrain
Key into Firm Rock
Proposed "Rough Grade"
Building B
Building C
Proposed "Finish Grade"
Proposed "Rough Grade"
Building E
Existing Ground Surface
Proposed "Finish Grade"
Subdrain
Key into Firm Rock at Toe of Fill Slope
REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS
PLATE
10



CONCEPTUAL SITE PLAN

OAT HILL

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 60' DATE: OCTOBER, 2019

cbg

REESE & ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 2011.1.1 Date: 11-25-19 Appr:

GEOTECHNICAL PLANNING MAP

OAT HILL RESIDENTIAL PROJECT
NAPA JUNCTION AND HESS ROAD
NAPA, CALIFORNIA

PLATE 11

5252

5253

REESE CONSULTING GEOTECHNICAL
& ASSOCIATES ENGINEERS

134 LYSTRA COURT SANTA ROSA, CA 95403
TELEPHONE (707) 528-3078 FACSIMILE (707) 528-2837

August 11, 2020

Job No. 2011.1.3

R.H. Hess Development Company
Attention: Rick Hess
rick@rhhess.com

Report
Soil Engineering Consultation
Oat Hill Residential Project
American Canyon, California

This report presents the results of our soil engineering consultation for the planned Oat Hill Residential project in American Canyon, California. The site is located near the center of and at the top of Oat Hill. The approximate site location is shown on the attached Plate 1. We performed a soil investigation for previously proposed apartment buildings on the property, and the results were submitted in our report dated January 10, 2012. In general, recommendations for foundation support consisted of either spread footings bottomed at relatively shallow depths on properly compacted fill or post-tensioned slab foundations. As shown on the attached Plate 1, we also performed a soil investigation for the proposed multi-family buildings at the east portion of Oat Hill. The results were submitted in our report dated December 11, 2019.

We understand that development of the subject site has changed. A site plan dated July 2020 prepared by CBG, Civil Engineers indicates that the new residential project will include thirteen, three-story multi-family buildings and a recreation center/leasing office. The buildings will be served by asphalt-paved driveway and parking areas with underground utilities.

Based on our knowledge of the subsurface conditions, we judge that the general conclusions and recommendations contained in our previous geotechnical investigation report would be applicable to the currently proposed project.

We trust this provides the information needed at this time. If you have questions or wish to discuss this in more detail, please do not hesitate to contact us. The following plate is attached and completes this report.

Plate 1 Site Plan dated July 2020

Yours very truly,

REESE & ASSOCIATES

Brian F. Piazza
Project Geologist

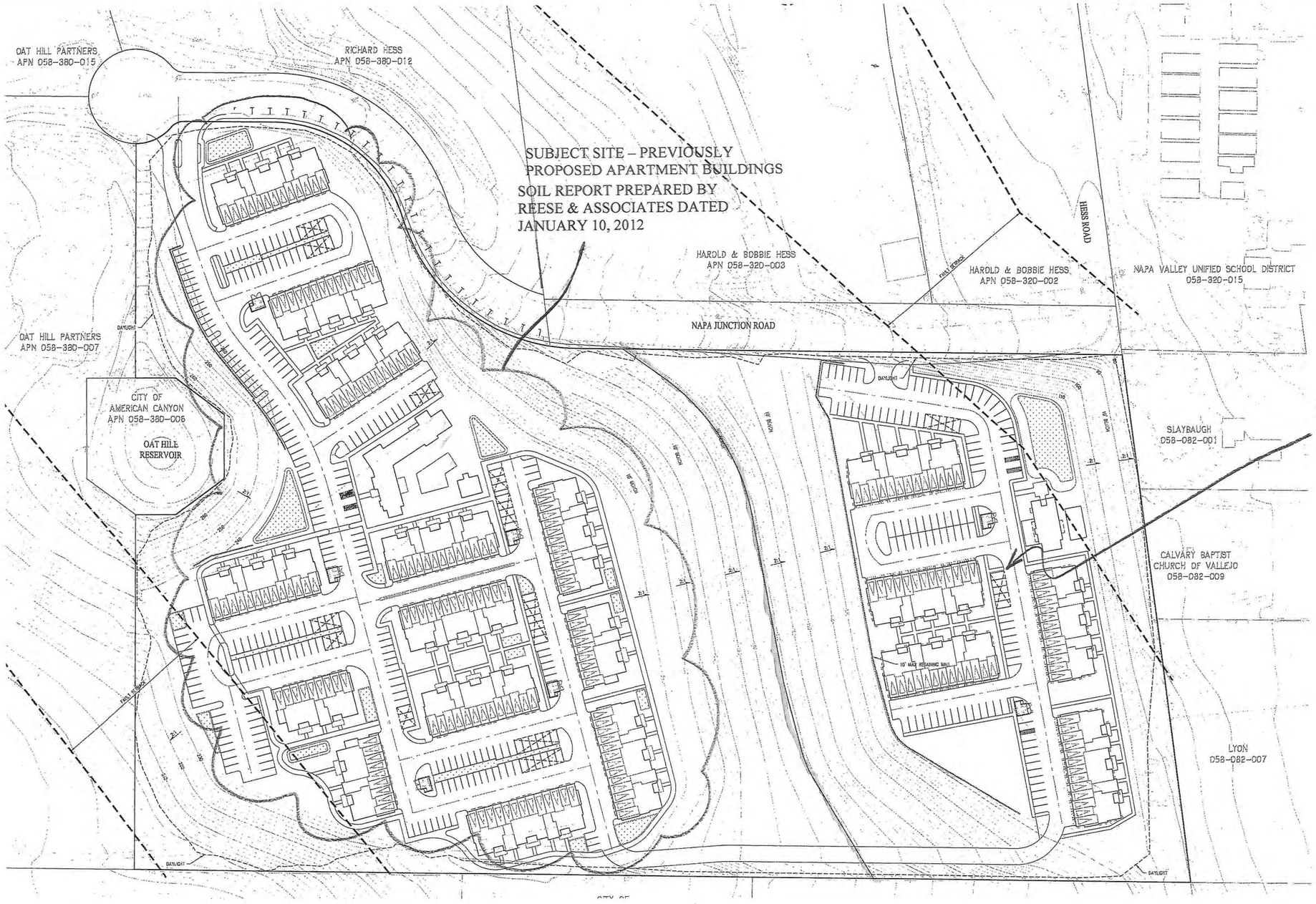
Jonathan D. Morris
Geotechnical Engineer No. 2911

REGISTERED PROFESSIONAL ENGINEER
JONATHAN DANIEL MORRIS
No. GE 2911
Exp. 9-30-21
STATE OF CALIFORNIA

Jeffrey K. Reese
Civil Engineer No. 47753

REGISTERED PROFESSIONAL ENGINEER
JEFFERY KENT REESE
No. C 47753
Exp. 12-31-21
STATE OF CALIFORNIA

BFP/JKR:nay/ra/Job No. 2011.1.3
Copies Submitted: 3



OAT HILL RESIDENTIAL PROJECT SOIL REPORT DATED DECEMBER 11, 2019 PREPARED BY REESE & ASSOCIATES

SITE PLAN

OAT HILL

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

0' 40' 120' 160'

SCALE: 1" = 40' DATE: JULY 2020

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS

SAN RAMON • (925) 866-0322
SACRAMENTO • (916) 375-1877
WWW.CBGLAND.COM

REESE & ASSOCIATES
CONSULTING
GEOTECHNICAL
ENGINEERS

Job No: 2011.1.3
Date: 08-10-20
Appr: JDM

SITE PLAN DATED JULY 2020

OAT HILL
RESIDENTIAL PROJECT
AMERICAN CANYON, CALIFORNIA

PLATE
1

5256

REESE CONSULTING GEOTECHNICAL & ASSOCIATES ENGINEERS

134 LYSTRA COURT
TELEPHONE (707) 528-3078

SANTA ROSA, CA 95403
FACSIMILE (707) 528-2837

LETTER OF TRANSMITTAL

To: RH Hess Development
Attention: Rick Hess
rick@rhhess.com

Date: August 13, 2020

Subject: Oat Hill Residential Project

Our Job No: 2011.1.3

Attached is the revised building locations for the proposed Oat Hill Residential Project. We performed a soil investigation and the results are recorded in our report dated December 11, 2019.

We judge that the general conclusions and recommendations contained in our report would still be applicable for the proposed project. However, because of variations of fill thickness beneath structures, we should be consulted to provide specific foundation recommendations in consultation with your structural engineering when building loads are known.

We trust this provides the information needed at this time. If you have questions or wish to discuss this in more detail, please do not hesitate to contact us.

Thank you,

REESE & ASSOCIATES

By: _____
Brian F. Piazza, Project Geologist

BFP:nay/ra/Job No. 2011.1.3
Copies Submitted: 1

OAT HILL PARTNERS
APN 058-380-015

RICHARD HESS
APN 058-380-012

HAROLD & BOBBIE HESS
APN 058-320-003

HAROLD & BOBBIE HESS
APN 058-320-002

NAPA VALLEY UNIFIED SCHOOL DISTRICT
058-320-015

HESS ROAD

NAPA JUNCTION ROAD

OAT HILL PARTNERS
APN 058-380-007

CITY OF
AMERICAN CANYON
APN 058-380-006

OAT HILL
RESERVOIR

SLAYBAUGH
058-082-001

CALVARY BAPTIST
CHURCH OF VALLEJO
058-082-009

LYON
058-082-007

CITY OF
AMERICAN CANYON
APN 058-270-001

PACHECO & MEDEIROS
APN 058-270-013

MEDEIROS
058-270-012

EXPLANATION

- Approximate Test Pit Location
- Approximate Test Pit Location (Reese & Associates - 2012)
- Approximate Test Boring Location (Giblin Associates - 2005)
- Landslide Showing Headscarp and Approximate Direction of Movement
- Approximate Location of Cross-Sections
- Approximate Test Pit Location (Giblin Associates - 2005)
- Fault Exclusion Zone (as established by Giblin Associates – 2005)

SOIL DESCRIPTION

AF – Artificial Fill

Qls – Landslide Deposits

SITE PLAN

OAT HILL

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: JULY 2020

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS
SAN RAMON • (925) 866-0322
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WWW.CBAENG.COM

REESE & ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 2011.1.3
Date: 08-13-20
Appr: TSP

TEST PIT LOCATION PLAN

OAT HILL RESIDENTIAL PROJECT
NAPA, CALIFORNIA

PLATE 1

APPENDIX D

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR PARCEL A

AEI Consultants

August 11, 2020

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Property Information:
Napa Junction Road at Oat Hill
Assessor's Parcel Number: 058-380-008
American Canyon, Napa County, California 94503

Project Information:
AEI Project No. 424780
Client Reference Name: Oat Hill Multi-Family

Prepared For:
R.H. Hess Dev Co.
3423 Broadway, Suite D5
American Canyon, California 94503

Prepared By:
AEI Consultants
2500 Camino Diablo, Suite 100
Walnut Creek, California 94597-3940

Environmental Due Diligence

Building Assessments

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

Construction Risk Management

Zoning Analysis Reports & ALTA Surveys

AEI Consultants

August 11, 2020

Rick Hess
R.H. Hess Dev Co.
3423 Broadway, Suite D5
American Canyon, California 94503

Subject: Phase I Environmental Site Assessment
Napa Junction Road at Oat Hill
American Canyon, California 94503
AEI Project No. 424780
Client Reference Name: Oat Hill Multi-Family

Dear Rick Hess:

AEI Consultants is pleased to provide the *Phase I Environmental Site Assessment* of the above referenced property. This assessment was authorized and performed in accordance with the scope of services engaged.

We appreciate the opportunity to provide services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (925) 746-6000 or pmcintyre@aeiconsultants.com.

Sincerely,

Peter McIntyre, PG
Executive Vice President
AEI Consultants

PROJECT SUMMARY

Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
AEI Project No. 424780

Report Section		REC	CREC	HREC	OEC	Recommended Action
1.0	Introduction					None
2.0	Site and Vicinity Description					None
3.0	Historical Review of Site and Vicinity					None
4.0	Regulatory Agency Records Review					None
5.0	Regulatory Database Records Review					None
6.0	Interviews and User Provided Information					None
7.0	Site Reconnaissance					None
8.1	Asbestos-Containing Building Materials					None
8.2	Lead-Based Paint					None
8.3	Radon					None
8.4	Mold					None

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EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by R.H. Hess Dev Co. to conduct a Phase I ESA in conformance with AEI's contract and the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill, American Canyon, Napa County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

Pertinent subject property information is noted below:

PROPERTY INFORMATION	
Site Address(es)	Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
Property ID (APN or Block/Lot)	058-380-008
Location	Southeast of the terminus of Napa Junction Road
Property Type	Vacant Land
SITE AND BUILDING INFORMATION	
Approximate Site Acreage/Source	10.17/Assessor
Number of Buildings	None
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Basement or Subgrade Area(s)	None identified
Number of Units	N/A
Additional Improvements	None
On-site Occupant(s)	None
Current On-site Operations/Use	Vacant land (no current use)
Current Use of Hazardous Substances	None identified
REGULATORY INFORMATION	
Regulatory Database Listing(s)	None identified

A chronological summary of historical subject property information is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1937	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs
1937	Agricultural/hay farming land	Aerial photograph
1948-present	Vacant pasture land	Aerial photographs, city directories, agency records, prior Phase I ESA report, interview, onsite observations

The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Napa Junction Road, followed by: Vacant land (no address) Hess Construction (4501 Hess Road)	None identified
East	Undeveloped land with goat grazing (no address)	None identified
South	Vacant land, followed by a large water tower/tank (no address)	None identified
West	A small water tower/tank and undeveloped land (no address)	None identified
Northwest	A wine barrel manufacturing facility (100 Napa Junction Road)	RCRA NonGen/NLR

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

FINDINGS

Recognized Environmental Condition (REC) is defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

- AEI did not identify evidence of RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations (OEC) warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-13. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

- AEI did not identify evidence of Other Environmental Considerations during the course of this assessment.

Conclusions, Opinions, and Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) of Napa Junction Road at Oat Hill, American Canyon, Napa County, California, the *subject property*. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

AEI did not identify evidence of RECs or CRECs in connection with the subject property during the course of this assessment. AEI recommends no further investigation for the subject property at this time.

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment performed in conformance with AEI's contract and scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill, American Canyon, Napa County, California (Appendix A: Figures and Appendix B: Property Photographs).

1.1 Scope of Work

The purpose of the Phase I ESA is to assist the client in identifying potential RECs, in accordance with ASTM E1527-13, associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal, and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

1.2 Additional Services

Other Environmental Considerations such as ACMs, LBP, lead in drinking water, radon, mold, and wetlands can result in business environmental risks for property owners which may disrupt current or planned operations or cash flow and are generally beyond the scope of a Phase I assessment as defined by ASTM E1527-13. Based upon the agreed-on scope of services this ESA did not include subsurface or other invasive assessments, business environmental risks, or other services not specifically identified and discussed herein.

1.3 Significant Assumptions

The following assumptions are made by AEI in this report. AEI relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow, unless otherwise specified by on-site well data or well data from the subject property or nearby sites, is inferred from contour information depicted on the USGS topographic maps. AEI assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.4 LIMITATIONS

Property conditions, as well as local, state, tribal, and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this assessment apply strictly to the environmental regulations and property conditions existing at the time the assessment was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the assessment.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: ACMs, radon, LBP, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-13.

If requested by the client, these non-scope issues are discussed herein. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under CERCLA. ASTM Standard Practice E1527-13 and the United States EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1. 42 U.S.C. § 9601(35)(B), referenced in the ASTM Standard Practice E1527-13.
2. Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).
3. 42 U.S.C. § 9601(40) and 42 U.S.C. § 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, current subject property use, and observations and conditions that existed on the date and time of the property reconnaissance.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

AEI's limited radon screening, if included, is intended to provide a preliminary screening to evaluate the potential presence of elevated radon concentrations at the site. The proposed scope is not intended to define the full extent of the presence of radon at the subject property. As such, the results should be used for lending purposes only. The recommendations and conclusions presented as a result of the limited preliminary radon screening apply strictly to the property conditions existing at the time the sampling was performed. The sample analytical results are only valid for the time, place, and condition of the site at the time of collection and AEI does not warrant that the results will be repeatable or are representative of past or future conditions.

1.5 Limiting Conditions/Deviations

The performance of this assessment was limited by the following:

- While additional assessments may have been conducted on the subject property, these documents must be provided for AEI's review in order for the information to be summarized/included in this report. Please refer to Section 6.3 for a summary of previous reports and other documentation provided to AEI during this assessment.
- A search of historical city directories was conducted for the subject property utilizing EDR. Since there is no known address for the subject property, no listings were present. Based on the nature of historical occupancy as established from other sources, the lack of historical city directory information is not expected to alter the findings of this assessment.
- Due to the size of the subject property, AEI performed a reconnaissance of the property utilizing a field technique of traversing the site in an attempt to provide an overlapping field of view. Due to the size of the property and the vegetation present on site, isolated areas of the site may have not been accessible for direct observation during AEI's field reconnaissance. Based on the quality of information obtained from historical sources and interviews, this limitation is not expected to significantly alter the findings of this assessment.

1.6 Data Failure and Data Gaps

According to ASTM E1527-13, data gaps occur when the Environmental Professional is unable to obtain information required by the Standard, despite good faith efforts to gather such information. Pursuant to ASTM E1527-13, only significant data gaps, defined as those that affect the ability of the Environmental Professional to identify RECs, need to be documented.

Data failure is one type of data gap. According to ASTM E1527-13, data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Pursuant to ASTM E1527-13, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier, or periods of five years or greater.

1.6.1 Data Failure

The following data failure was identified during the course of this assessment:

Data Failure	Historical sources were not obtained at five-year intervals dating back to 1940 or first developed use. AEI was not able to track the history of the subject property between the years 1938 and 1947 as none of the historical sources utilized as part of this assessment covered this time period. In the 1937 aerial photograph, the subject property appears to be used for agricultural purposes (hay harvesting). In the 1948 aerial photograph, the subject property appears as vacant pasture land. Thus, it is assumed that during this time period the subject property would have been used for similar purposes. Therefore, this data failure is not expected to significantly alter the findings of this assessment.
Information/Sources Consulted	Aerial photographs, agency records, previous report, interviews

1.6.2 Significant Data Gaps

AEI did not identify significant data gaps which affected our ability to identify RECs.

1.7 Reliance

All reports, both verbal and written, are for the benefit of R.H. Hess Dev Co. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's contract and Terms and Conditions executed by R.H. Hess Dev Co. on June 15, 2020. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

PROPERTY INFORMATION	
Site Address(es)	Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
Property ID (APN or Block/Lot)	058-380-008
Location	Southeast of the terminus of Napa Junction Road
Property Type	Vacant Land
SITE AND BUILDING INFORMATION	
Approximate Site Acreage/Source	10.17/Assessor
Number of Buildings	None
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Basement or Subgrade Area(s)	None identified
Number of Units	N/A
Additional Improvements	None
On-site Occupant(s)	None
Current On-site Operations/Use	Vacant land (no current use)
Current Use of Hazardous Substances	None identified
REGULATORY INFORMATION	
Regulatory Database Listing(s)	None identified

2.2 ON-SITE UTILITIES

Utility	Source/System Information
Heating System	N/A
Cooling System	N/A
Potable Water	N/A
Sewage Disposal/Treatment	N/A

Utility source/system information listed in the table above is provided by Mr. Rick Hess, unless otherwise noted above.

2.3 SITE AND VICINITY CHARACTERISTICS

The subject property is located in a rural and commercial area of American Canyon, California. The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Napa Junction Road, followed by: Vacant land (no address) Hess Construction (4501 Hess Road)	None identified

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
East	Undeveloped land with goat grazing (no address)	None identified
South	Vacant land, followed by a large water tower/tank (no address)	None identified
West	A small water tower/tank and undeveloped land (no address)	None identified
Northwest	A wine barrel manufacturing facility (100 Napa Junction Road)	RCRA NonGen/NLR

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

2.4 PHYSICAL SETTING

Geologic Unit: Description/Source	Alluvial deposits of the Cenozoic Era/USGS and United States Department of the Interior
Soil Series: Description/Source	Fagan: Clay loam with slow infiltration rates and well drained. Depth to bedrock is estimated at 46-50 inches./USDA Soil Survey
Groundwater Flow Direction/Source	East/Topographic map interpretation
Estimated Depth to Groundwater/ Source	1.52-7.67 feet bgs/SWRCB groundwater monitoring data for a nearby site (4391 Highway 29), approximately 0.70 mile to the south-southeast Note: The closest readily available data was 1.52-7.67 feet deep at at distance of 0.70 mile away. However given the topography of the subject property relative to this depth to groundwater source, depth to groundwater at the subject property is likely deeper.
Surface waters on the subject property or adjoining sites	None
Additional notes	None

Note: Groundwater flow direction can be influenced locally and regionally by the presence of local wetland features, surface topography, recharge and discharge areas, horizontal and vertical inconsistencies in the types and location of subsurface soils, and proximity to water pumping wells. Depth and gradient of the water table can change seasonally in response to variation in precipitation and recharge, and over time, in response to urban development such as storm water controls, impervious surfaces, pumping wells, cleanup activities, dewatering, seawater intrusion barrier projects near the coast, and other factors.

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-13 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historical city directories, Sanborn fire insurance maps, and agency records, is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1937	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs
1937	Agricultural/hay farming land	Aerial photograph
1948-present	Vacant pasture land	Aerial photographs, city directories, agency records, prior Phase I ESA report, interview, onsite observations

Historical Use Summary

Based on a review of an aerial photograph from 1937, it appears that the subject property was historically used for hay harvesting. The subject property appeared as vacant range land in the next available historical resource, a 1948 aerial photograph. Additionally, the subject property owner representative, Mr. Rick Hess, indicated that the land was always for grazing only to the best of his knowledge and that no pesticides have been applied.

Based on review of the California Department of Toxic Substances Control's (DTSC) August 7, 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*, organochlorine pesticides (OCPs) were introduced to California in 1944 and reached their peak in the 1960s. The document continues to state that properties which ended their agricultural use prior to 1950 need not be sampled for OCPs.

Hay cultivation does not typically involve the application of agricultural chemicals, such as pesticides, herbicides and fertilizers. Therefore, the historical use of the property is not expected to represent a significant environmental concern.

If available, copies of historical sources are provided in Appendix D.

3.1 AERIAL PHOTOGRAPHS

AEI reviewed aerial photographs of the subject property and surrounding area. A search was made of the EDR collection of aerial photographs. Aerial photographs were reviewed for the following years:

Year(s)	Subject Property Description	Adjoining Site Descriptions
1937	Appears as agricultural/hay farming land	Agricultural/hay farming land

Year(s)	Subject Property Description	Adjoining Site Descriptions
1948 1957 1965 1970	Appears as unimproved pasture land.	Pasture land
1982	Vacant land with various dirt paths/roads on the lot	NORTH: Pasture land EAST: Pasture land SOUTH: Pasture land and a large water tower/tank WEST: A small water tower/tank and pasture land NORTHWEST: Pasture land
1993 1998 2005 2006	No significant changes noted from the 1982 aerial photograph. The subject property generally appears as it does today.	NORTH: Pasture land EAST: Pasture land SOUTH: Pasture land and a large water tower/tank WEST: A small water tower/tank and pasture land NORTHWEST: The current commercial office/ warehouse facility improvements

Based on a review of aerial photographs, the subject property appears to have been developed with agricultural/hay farming land in at least 1937, please refer to Section 3.0 for additional information.

3.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of the EDR collection of Sanborn Fire Insurance maps.

Sanborn map coverage was not available for the subject property.

3.3 City Directories

A search of historical city directories was conducted for the subject property utilizing EDR. Since there is no known address for the subject property, no listings were present. Refer to Section 1.5 for discussion of this limiting condition.

3.4 Historical Topographic Maps

Based on the quality of information obtained from other sources, historical topographic maps were not reviewed as a part of this assessment.

3.5 Chain of Title

Based on the quality of information obtained from other sources, a chain of title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous substance use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to AULs, defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1 LOCAL ENVIRONMENTAL HEALTH DEPARTMENT AND/OR STATE ENVIRONMENTAL AGENCY

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Napa County Environmental Health Department (NCEHD)	July 30, 2020	Website	Records Manager	No hazardous materials records on file

4.2 FIRE DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Fire Department (ACFD)	July 30, 2020	Telephone	Records Manager	No records on file

4.3 BUILDING DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Building Department (ACBD)	July 30, 2020	Telephone	Records Clerk	No records on file

4.4 PLANNING DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Planning Department (ACPD)	July 30, 2020	Telephone	Associate Planner	No evidence indicating the existence of AULs on file for the subject property

4.5 ASSESSOR'S OFFICE

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Napa County Assessor's Office	July 30, 2020	Website	N/A	Information obtained is discussed below

Records Summary

APN	058-380-008
Acreage	10.17 acres

Construction Date	N/A
Building Square Footage	N/A
Current Owner	Not provided

4.6 Other Agencies Searched

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
CA State Water Resources Control Board (SWRCB) GeoTracker	July 30, 2020	Website	N/A	No records on file
CA Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System (HWTS)	July 30, 2020	Website	N/A	No records on file
CA DTSC EnviroStor	July 30, 2020	Website	N/A	No records on file
Bay Area Air Quality Management District (AQMD)	July 30, 2020	Website	N/A	No records on file

4.7 Oil and Gas Wells

Agency	Date Referenced	Resource	Oil or gas wells located within 500 feet of the subject property
California Geologic Energy Management Division (CalGEM)	July 30, 2020	CalGEM Map	No

4.8 Oil and Gas Pipelines

Agency	Date Referenced	Resource	Pipelines located within 500 feet of the subject property
National Pipeline Mapping System (NPMS)	July 30, 2020	NPMS Public Map Viewer	No

4.9 State Environmental Superliens

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state environmental superliens.

4.10 State Property Transfer Laws

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state property transfer laws.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted EDR to conduct a search of publicly available information from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination and sites of potential environmental significance. Data gathered during the current regulatory database search is compiled by EDR into one regulatory database report. Location information for listed sites is designated using geocoded information provided by federal, state, or local agencies and commonly used mapping databases with the exception of "Orphan" sites. Due to poor or inadequate address information, Orphan sites are identified but not geocoded/mapped by EDR, rather, information is provided based upon vicinity zip codes, city name, and state. The number of listed sites identified within the approximate minimum search distance from the federal and state environmental records database listings specified in ASTM Standard E1527-13 is summarized in Section 5.1, along with the total number of Orphan sites. A copy of the regulatory database report, which includes detailed descriptions of the databases noted below, is included in Appendix C of this report.

In determining if a listed site is a potential environmental concern to the subject property, AEI generally applies the following criteria to classify the site as lower potential environmental concern: 1) the site only holds an operating permit (which does not imply a release), 2) the site's distance from, and/or topographic position relative to, the subject property, and/or 3) the site has recently been granted "No Further Action" by the appropriate regulatory agency.

Regulatory database listings associated with the subject property, adjoining site(s) and/or nearby sites of concern that were determined to warrant additional discussion are identified and further discussed in Section 5.1.

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Listings Within Search Distance	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
NPL	1.0	0			
DELISTED NPL	0.5	0			
SEMS/CERCLIS	0.5	0			
SEMS-ARCHIVE/CERCLIS NFRAP	0.5	0			
RCRA CORRACTS	1.0	0			
RCRA-TSDF	0.5	0			
RCRA LQG, SQG, CESQGs, NLR	SP/ADJ	1		✔	
US ENG CONTROLS	SP	0			
US INST CONTROLS	SP	0			
ERNS	SP	0			
STATE/TRIBAL HWS	1.0	3			
STATE/TRIBAL SWLF	0.5	1			
STATE/TRIBAL REGISTERED STORAGE TANKS	SP/ADJ	1			
STATE/TRIBAL LUST	0.5	5			

Database	Search Distance (Miles)	Listings Within Search Distance	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
STATE/TRIBAL EC and IC	SP	0			
STATE/TRIBAL VCP	0.5	1			
STATE/TRIBAL BROWNFIELD	0.5	0			
ORPHAN	N/A	2			
ADDITIONAL ENVIRONMENTAL RECORD SOURCES	SP/ADJ	0			

Facility Name	Miocene Wine LLC
Address	100 Napa Junction Road
Distance & Direction	Adjoining to northwest, beyond road
Hydrologic Position	Cross-gradient
Databases Listed	RCRA NON GEN/NLR
Comments	The site is listed as a permitted hazardous waste generator. No violations were noted on the listing. Based on the non-release nature of the listing and gradient, the review of regulatory files was not deemed necessary and therefore this listing is not expected to represent a significant environmental concern.

5.2 Vapor Migration

AEI reviewed reasonably ascertainable information for the subject and nearby properties, including a regulatory database, files for nearby release sites, and/or historical documentation, to determine if potential vapor-phase migration concerns may be present which could impact the subject property.

Based on a review of available resources as documented in this report, AEI did not identify significant on-site concerns and/or regulated listings from nearby sites which suggest that a vapor-phase migration concern currently exists at the subject property.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-13, the following interviews were performed during this assessment in order to obtain information indicating RECs in connection with the subject property.

6.1.1 OWNER AND KEY SITE MANAGER

Relation to Property	Name	Date Interviewed	Method of Contact	Year First Associated w/ Property	Notes
Owner/Owner Representative and Key Site Manager	Mr. Rick hess	August 5, 2020	In Person	1977	Interviewed; see Interview Summary table below

Interview Summary

Question	Owner (Representative) Response/ Comment	Key Site Manager Response/ Comment
Do you have any knowledge of USTs, clarifiers or oil/water separators, sumps, or other subsurface features?	No	No
Do you have any knowledge of previous environmental investigations conducted on site?	Yes	Yes
Do you have any knowledge of current or past industrial operations and/or other operations which would involve the use of hazardous substances and/or petroleum products?	No	No
Are you aware of any known plans for site redevelopment or change in site use?	No	No
Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	No	No
Are you aware of any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	No	No
Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	No	No
Are you aware of any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality?	No	No

6.1.2 PAST OWNERS, OPERATORS, AND OCCUPANTS

AEI did not attempt to interview past owners, operators, and occupants of the subject property because information from these sources would likely be duplicative of information already obtained from other sources.

6.1.3 Interview with Others

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this report.

6.2 User Provided Information

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the Environmental Professional. The responsibility for qualifying for LLPs by conducting the inquiries ultimately rests with the User, and providing the information to the Environmental Professional would be prudent if such information is available.

The User Questionnaire was completed by Mr. Rick Hess, Property Owner. The following table represents information contained therein.

Question	Response / Comment
1. Environmental liens that are filed or recorded against the property (40 CFR 312.25) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?	No
2. Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)). Did a search of recorded land title records (or judicial records where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?	No
3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Yes: Property in family since 1978
4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	N/A
5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:	A) Yes, B-D) No

Question	Response / Comment
(a) Do you know the past uses of the property? (b) Do you know of specific chemicals that are present or once were present at the property? (c) Do you know of spills or other chemical releases that have taken place at the property? (d) Do you know of any environmental cleanups that have taken place at the property?	
6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	No

6.3 Previous Reports and Other Provided Documentation

Documentation was provided to AEI by the Client during this assessment. A summary of this information follows:

Phase I Environmental Site Assessment (Napa Junction Road/Oat Hill), prepared by AEI Consultants (December 7, 2011)

This report describes the subject property generally consistent with current conditions.

The December 2011 Phase I ESA did not reveal any RECs, HRECs, De Minimis Conditions, or BERs during the course of the assessment.

This assessment revealed no evidence of RECs in connection with the property. AEI recommended no further investigations for the subject property at that time.

A copy of the report is included in the appendices.

6.4 Environmental Lien Search

In accordance with our approved scope of services, an environmental lien search was not performed as part of this assessment.

7.0 SITE RECONNAISSANCE

Site Reconnaissance Date	August 5, 2020
AEI Site Assessor(s)	Michael Audibert
Property Escort(s)/ Relationship(s) to Property	Mr. Rick Hess/Property Owner
Units/Areas Observed	No buildings onsite Exterior areas: All property grounds
Area(s) not accessed and reason(s)	None
Other Physical Constraints	Large parcel, refer to Section 1.5

Reconnaissance Findings Summary

Feature	Observed on Subject Property (see Section 7.1)	Observed on Adjoining Property (see Section 7.2)
Regulated Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use		
Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)		
Hazardous Substance and Petroleum Product Containers Not in Connection with Property Use		
Unidentified Substance Containers		
Electrical or Mechanical Equipment Likely to Contain Fluids		✔
Interior Stains or Corrosion		
Strong, Pungent, or Noxious Odors		
Pools of Liquid		
Drains, Sumps, and Clarifiers		
Pits, Ponds, and Lagoons		
Stained Soil or Pavement		
Stressed Vegetation		
Solid Waste Disposal or Evidence of Fill Materials		
Waste Water Discharges		
Wells		
Septic Systems		
Biomedical Wastes		
Other	✔	

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.1.1 Other

Various debris, including concrete, wood, metal, empty water drums/containers for goats (all non-hazardous). Based on the nature of the items, their presence is not expected to represent a significant environmental concern.

7.2 Adjoining Property Reconnaissance Findings

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.2.1 Electrical or Mechanical Equipment Likely to Contain Fluids

Toxic PCBs were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing." Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

Various pole-mounted and pad-mounted transformers were observed on the adjoining sites during the site reconnaissance. No spills, staining, or leaks were observed on or around the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

8.0 NON-ASTM SERVICES

8.1 Asbestos-Containing Building Materials

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect asbestos containing materials were identified during the site inspection.

8.2 Lead-Based Paint

The subject property is currently vacant land and lacks structures. Consequently, AEI did not observe building components likely to contain suspect LBP during the site reconnaissance.

8.3 Radon

Radon is a naturally-occurring, odorless, and invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

Radon sampling was not requested as part of this assessment. According to the California Department of Health Services Radon Database, 18 tests were conducted for radon levels in the subject property zip code (94503) in 2016. All of these tests indicated that radon levels were below the action level of 4.0 pCi/L set forth by the US EPA. Therefore, radon is not expected to represent a significant environmental concern.

8.4 Mold

The subject property is currently vacant land and lacks structures. Consequently, mold was not addressed as part of this assessment.

9.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Michael Audibert
Associate Consultant

Reviewed By:



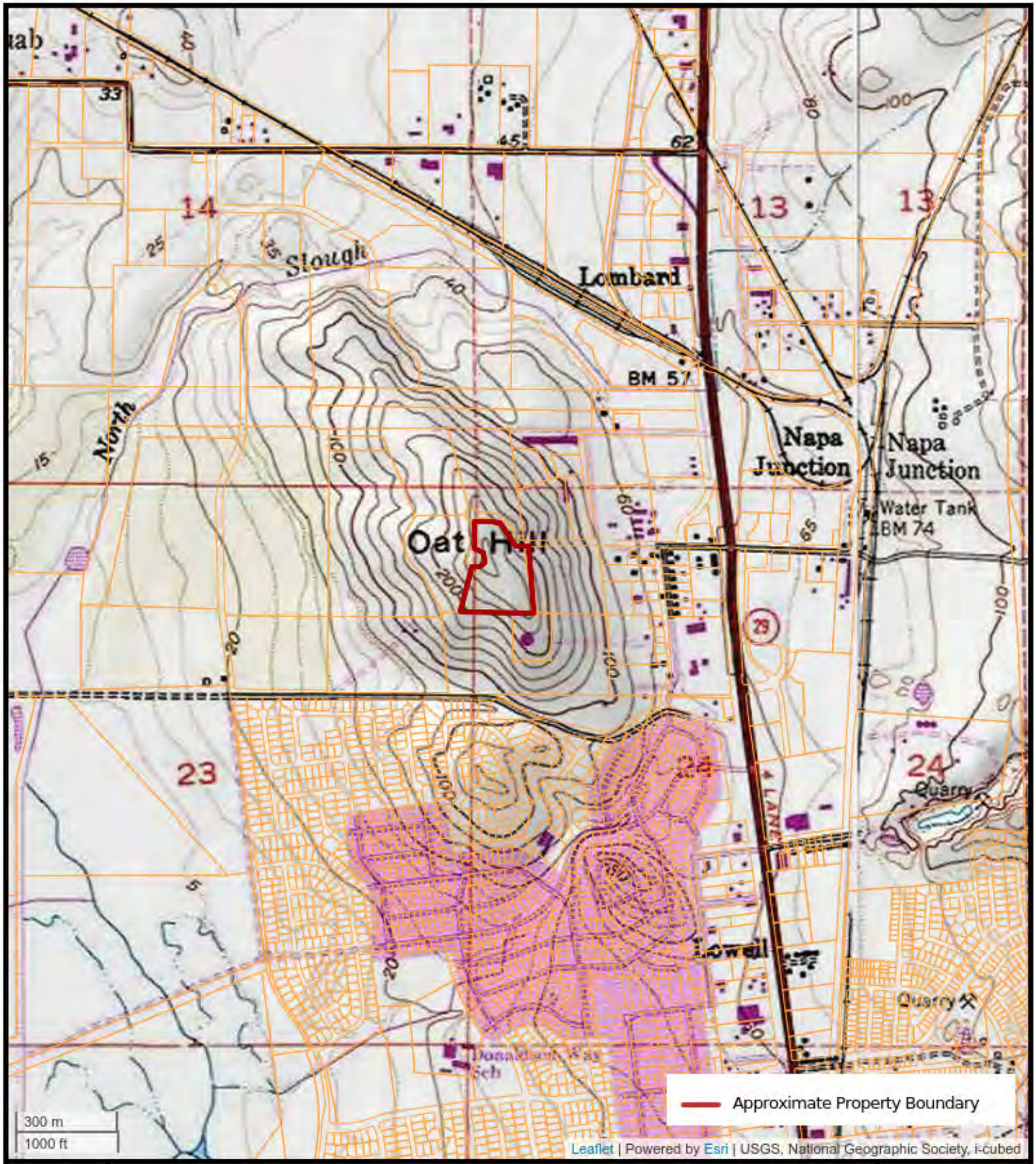
Katie Hindt, REPA
Senior Author

10.0 REFERENCES

Item	Date(s)	Source
Soils Information	Accessed August 2020	USDA Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Topographic Map	2015	USGS, Cuttings Wharf
Depth to Groundwater Information	August 2020	SWRCB GeoTracker Database
Aerial Photographs	1937-2006 (non-inclusive)	EDR
Sanborn Map Report/Search	No Coverage Letter, July 2020	EDR
City Directories	No Coverage Letter, July 2020	EDR
Environmental Health Department	July 30, 2020	Napa County Environmental Health Department
Fire Department	July 30, 2020	American Canyon Fire Department
Building Department	July 30, 2020	American Canyon Building Department
Planning Department	July 30, 2020	American Canyon Planning Department
Assessor's Information and Parcel Map	July 30, 2020	Napa County Assessor's Office
Other Agencies Searched	July 30, 2020	SWRCB GeoTracker, DTSC HWTS, DTSC EnviroStor, Bay Area AQMD
Oil and Gas Wells	July 30, 2020	CalGEM
Oil and Gas Pipelines	July 30, 2020	NPMS Public Map Viewer https://www.npms.phmsa.dot.gov/PublicViewer/composite.jsf
Regulatory Database Report	July 23, 2020	EDR
Interview with Owner/Key Site Manager	August 5, 2020	Mr. Rick hess
Previous Report(s)	December 7, 2011	*Phase I Environmental Site Assessment (Napa Junction Road at Oat Hill)*, prepared by AEI Consultants
Radon Zone Information	2016	CA DHS
Other Sources	Accessed July 2020	Department of Toxic Substances Control's (DTSC) August 7, 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*

APPENDIX A

FIGURES



N

FIGURE 1: TOPOGRAPHIC MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503

AEI Project Number: 424780

AEI Consultants



N

FIGURE 2: SITE MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503
AEI Project Number: 424780

AEI Consultants

APPENDIX B

PROPERTY PHOTOGRAPHS



1. Entrance to subject property from Napa Junction Road



2. Main middle area of the subject property



3. Main subject property area facing north



4. North side of subject property along Napa Junction Road



5. Plastic water drums for goats



6. Debris - piping



7. Adjacent water tower on Oat Hill



8. Adjacent pole-mounted transformer



9. Adjacent north - vacant land



10. Adjacent east - vacant land



11. Adjacent south - vacant land with cell tower



12. Adjacent northwest - wine barrel manufacturing facility

APPENDIX C

REGULATORY DATABASE

424780
Napa Junction Road
American Canyon, CA 94503

Inquiry Number: 6131122.2s
July 23, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBD-ASH

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.1841190 - 38° 11' 2.82''
Longitude (West):	122.2616670 - 122° 15' 42.00''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564663.3
UTM Y (Meters):	4226295.0
Elevation:	208 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012
East Map:	5602186 CORDELIA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	GOLDEN STATE LUMBER	150 NAPA JUNCTION RD	LUST, Cortese, HIST CORTESE, CERS	Lower	46, 0.009, NNW
A2	HESS CONSTRUCTION CO	4484 HESS DR	UST, HIST UST	Lower	383, 0.073, NNE
A3	HESS CONCRETE CONSTR	4484 HESS DR	CERS HAZ WASTE, CERS	Lower	474, 0.090, NE
B4	MEDEIROS PROPERTY	289 NAPA JUNCTION	LUST, HIST CORTESE, CERS	Lower	531, 0.101, ENE
B5	MEDEIROS PROPERTY	289 NAPA JUNCTION RD	LUST, UST, Cortese	Lower	531, 0.101, ENE
6	MIOCENE WINE LLC	100 NAPA JUNCTION RD	RCRA NonGen / NLR	Lower	601, 0.114, NW
C7	WARD MAHER CONSTRUCT	4545 HESS DRIVE	UST	Lower	755, 0.143, NNE
8	MAHERS MOBILE STORAG	125 LOMBARD RD	RCRA NonGen / NLR	Lower	931, 0.176, ENE
C9	R E MAHER INC	4545 HESS DR	RCRA NonGen / NLR	Lower	981, 0.186, NNE
C10	R.E. MAHER INC.	4545 HESS DR	CERS HAZ WASTE, CERS	Lower	981, 0.186, NNE
D11	INDEPENDENT STAVE CO	4391 NAPA VALLEJO HW	UST	Lower	1030, 0.195, East
D12	EVAN-ATHAN ENTERPRIS	4381 NAPA VALLEJO HW	LUST, UST	Lower	1161, 0.220, East
13	AMERICAN CANYON SANI	WESTERN TERMINUS OF	SWF/LF, Financial Assurance, CERS	Lower	2098, 0.397, WSW
14	HAYES MOBILE REPAIR	4711 PAOLI LOOP RD	LUST, HAZNET, HWTS	Lower	2207, 0.418, NNE
15	CANYON CROSSINGS	NAPA JUNCTION ROAD	ENVIROSTOR, VCP	Lower	2317, 0.439, ENE
16	AMERICAN CANYON REDE	3915 BROADWAY ST	SWRCY	Lower	2561, 0.485, SE
17	NAPA JUNCTION ELEMEN	2 EUCALYPTUS DRIVE	ENVIROSTOR, LUST, SCH, CIWQS	Lower	3262, 0.618, WSW
18	POLYVINYL CHEMICAL I	501 GREEN ISLAND ROA	ENVIROSTOR	Lower	3290, 0.623, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ..... Underground Storage Tank Listing
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register
PFAS ..... PFAS Contamination Site Location Listing

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CA FID UST	Facility Inventory Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines

FINDS ---- Facility Index System/Facility Registry System
ECHO ---- Enforcement & Compliance History Information
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
UXO ---- Unexploded Ordnance Sites
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
CUPA Listings ---- CUPA Resources List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
CERS ---- CERS
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
HWTS ---- Hazardous Waste Tracking System
MINES MRDS ---- Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---- Recovered Government Archive Leaking Underground Storage Tank

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/27/2020 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANYON CROSSINGS Facility Id: 60002585 Status: Active	***NAPA JUNCTION ROAD***	***ENE 1/4 - 1/2 (0.439 mi.)***	***15***	***34***
NAPA JUNCTION ELEMEN Facility Id: 60002662 Status: No Further Action	***2 EUCALYPTUS DRIVE***	***WSW 1/2 - 1 (0.618 mi.)***	***17***	***37***
POLYVINYL CHEMICAL I Facility Id: 28510002 Status: No Action Required	501 GREEN ISLAND ROA	NNW 1/2 - 1 (0.623 mi.)	18	41

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within

approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANI	***WESTERN TERMINUS OF***	***WSW 1/4 - 1/2 (0.397 mi.)***	***13***	***30***
Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020 Facility ID: 28-AA-0001 Operational Status: Closed Regulation Status: Permitted				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500191 Global Id: T0605591147 date9: 7/2/2001 date9: 5/7/2001 Status: Completed - Case Closed Facility Id: 28-0248 Facility Id: 28-0212 Facility Status: Case Closed				
MEDEIROS PROPERTY	***289 NAPA JUNCTION***	***ENE 0 - 1/8 (0.101 mi.)***	***B4***	***18***
Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500249 Status: Completed - Case Closed				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Database: LUST REG 2, Date of Government Version: 09/30/2004 date9: 8/20/1998 Facility Id: 28-0292 Facility Status: Case Closed				
EVAN-ATHAN ENTERPRIS	***4381 NAPA VALLEJO HW***	***E 1/8 - 1/4 (0.220 mi.)***	***D12***	***29***
Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500209 Status: Completed - Case Closed				
HAYES MOBILE REPAIR	***4711 PAOLI LOOP RD***	***NNE 1/4 - 1/2 (0.418 mi.)***	***14***	***32***
Database: NAPA CO. LUST, Date of Government Version: 01/09/2017 Status: Closed Permit ID: 248359				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONSTRUCTION CO	***4484 HESS DR***	***NNE 0 - 1/8 (0.073 mi.)***	***A2***	***13***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0280				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0670				
WARD MAHER CONSTRUCT	4545 HESS DRIVE	NNE 1/8 - 1/4 (0.143 mi.)	C7	22
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0619				
INDEPENDENT STAVE CO	4391 NAPA VALLEJO HW	E 1/8 - 1/4 (0.195 mi.)	D11	28
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0374				
EVAN-ATHAN ENTERPRIS	***4381 NAPA VALLEJO HW***	***E 1/8 - 1/4 (0.220 mi.)***	***D12***	***29***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0609				

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 04/27/2020 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANYON CROSSINGS	***NAPA JUNCTION ROAD***	***ENE 1/4 - 1/2 (0.439 mi.)***	***15***	***34***
Status: Active Facility Id: 60002585				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 03/09/2020 has revealed that there is 1

SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON REDE Cert Id: RC216208.001	3915 BROADWAY ST	SE 1/4 - 1/2 (0.485 mi.)	16	36

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/20/2020 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONCRETE CONSTR	***4484 HESS DR***	***NE 0 - 1/8 (0.090 mi.)***	***A3***	***14***
R.E. MAHER INC.	***4545 HESS DR***	***NNE 1/8 - 1/4 (0.186 mi.)***	***C10***	***24***

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONSTRUCTION CO Facility Id: 00000010261	***4484 HESS DR***	***NNE 0 - 1/8 (0.073 mi.)***	***A2***	***13***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/23/2020 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MIOCENE WINE LLC EPA ID:: CAL000446673	100 NAPA JUNCTION RD	NW 0 - 1/8 (0.114 mi.)	6	20
MAHERS MOBILE STORAG EPA ID:: CAP000200134	125 LOMBARD RD	ENE 1/8 - 1/4 (0.176 mi.)	8	22
R E MAHER INC	4545 HESS DR	NNE 1/8 - 1/4 (0.186 mi.)	C9	23

EPA ID:: CAL000253415

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/23/2020 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Cleanup Status: COMPLETED - CASE CLOSED				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Cleanup Status: COMPLETED - CASE CLOSED				

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

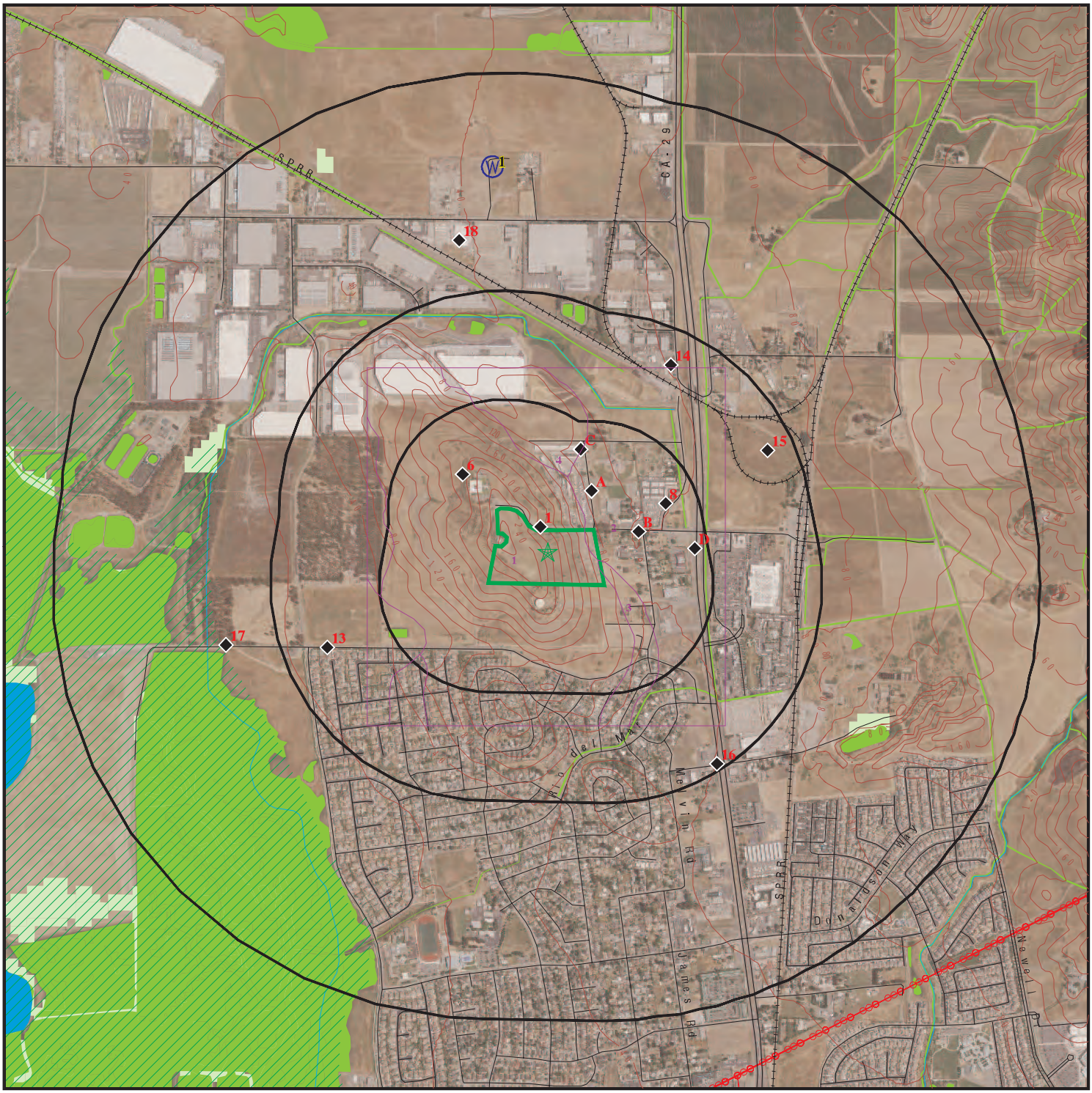
Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Reg Id: 48-0248				
Reg Id: 28-0212				
MEDEIROS PROPERTY	***289 NAPA JUNCTION***	***ENE 0 - 1/8 (0.101 mi.)***	***B4***	***18***
Reg Id: 28-0292				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
NAPA PIPE CORP	SEMS-ARCHIVE, RCRA-SQG
AMERICAN CANYON POND SITE	LUST

OVERVIEW MAP - 6131122.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
		INQUIRY #:	6131122.2s
LAT/LONG:	38.184119 / 122.261667	DATE:	July 23, 2020 1:28 pm

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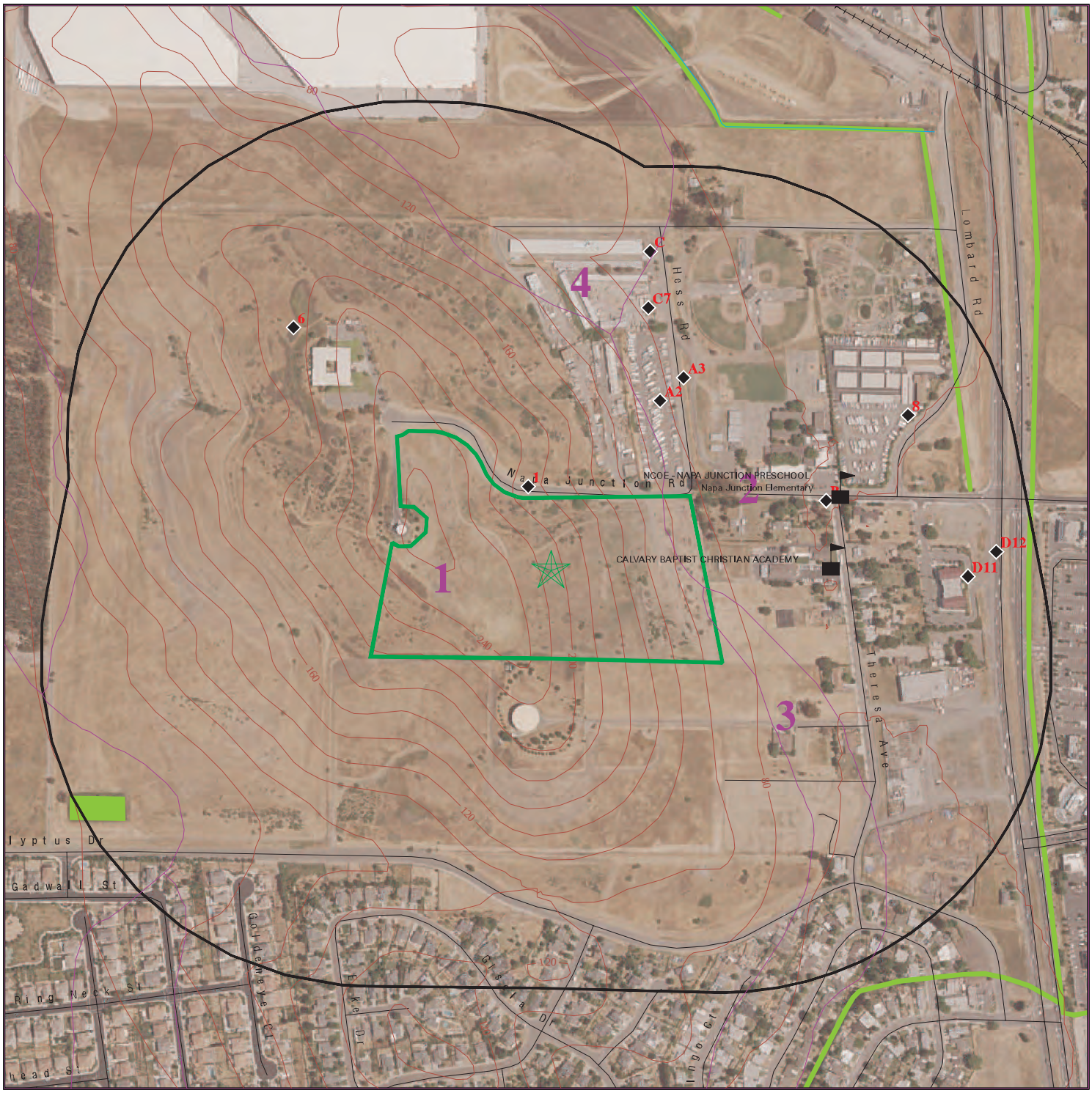
DETAIL MAP - 6131122.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA
100-year flood zone
500-year flood zone
National Wetland Inventory
State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
		INQUIRY #:	6131122.2s
LAT/LONG:	38.184119 / 122.261667	DATE:	July 23, 2020 1:30 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		3	1	1	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	3	NR	NR	NR	5
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	1	NR	NR	1
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		1	1	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	2	NR	NR	NR	3
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		2	0	0	NR	NR	2
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		2	0	0	NR	NR	2
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	12	7	5	2	0	26

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NNW
< 1/8
0.009 mi.
46 ft.

GOLDEN STATE LUMBER INC
150 NAPA JUNCTION RD
AMERICAN CANYON, CA 94589

LUST
Cortese
HIST CORTESE
CERS

1001610888
N/A

Relative:
Lower

Actual:
190 ft.

LUST REG 2:

Region:	2
Facility Id:	28-0212
Facility Status:	Case Closed
Case Number:	0340
How Discovered:	Tank Closure
Leak Cause:	Structure Failure
Leak Source:	Tank
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	11/6/1990
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

Region:	2
Facility Id:	28-0248
Facility Status:	Case Closed
Case Number:	28-0248
How Discovered:	OM
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	2/15/1996
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST:

Name:	GOLDEN STATE LUMBER INC
Address:	150 NAPA JUNCTION RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500191
Global Id:	T0605500191
Latitude:	38.178389
Longitude:	-122.252889
Status:	Completed - Case Closed
Status Date:	05/07/2001
Case Worker:	ZZZ
RB Case Number:	28-0212
Local Agency:	NAPA COUNTY
File Location:	Not reported
Local Case Number:	0340
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

GOLDEN STATE LUMBER INC (Continued) **1001610888**

LUST:
Global Id: T0605500191
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: NAPA COUNTY
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

LUST:
Global Id: T0605500191
Action Type: Other
Date: 07/30/1990
Action: Leak Discovery

Global Id: T0605500191
Action Type: Other
Date: 07/30/1990
Action: Leak Stopped

Global Id: T0605500191
Action Type: Other
Date: 07/26/1990
Action: Leak Reported

Global Id: T0605500191
Action Type: ENFORCEMENT
Date: 05/26/1992
Action: * Historical Enforcement

LUST:
Global Id: T0605500191
Status: Open - Case Begin Date
Status Date: 07/26/1990

Global Id: T0605500191
Status: Open - Site Assessment
Status Date: 11/06/1990

Global Id: T0605500191
Status: Completed - Case Closed
Status Date: 05/07/2001

Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD S
City,State,Zip: AMERICAN CANYON, CA 94503-1200
Lead Agency: NAPA COUNTY
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605591147
Global Id: T0605591147
Latitude: 38.1773
Longitude: -122.252
Status: Completed - Case Closed
Status Date: 07/02/2001

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Case Worker: Not reported
RB Case Number: 28-0248
Local Agency: NAPA COUNTY
File Location: Not reported
Local Case Number: 28-0248
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0605591147
Contact Type: Local Agency Caseworker
Contact Name: Napa LOP
Organization Name: NAPA COUNTY
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

LUST:
Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Discovery

Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Stopped

Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Reported

LUST:
Global Id: T0605591147
Status: Open - Case Begin Date
Status Date: 01/01/1994

Global Id: T0605591147
Status: Open - Site Assessment
Status Date: 02/15/1996

Global Id: T0605591147
Status: Completed - Case Closed
Status Date: 07/02/2001

CORTESE:
Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0605500191

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

Name:	GOLDEN STATE LUMBER INC
Address:	150 NAPA JUNCTION RD S
City,State,Zip:	AMERICAN CANYON, CA
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0605591147
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	GOLDEN STATE LUMBER INC
edr_fadd1:	150 NAPA JUNCTION
City,State,Zip:	VALLEJO, CA 94590
Region:	CORTESE
Facility County Code:	48
Reg By:	LTNKA
Reg Id:	48-0248

edr_fname:	GOLDEN STATE LUMBER INC
edr_fadd1:	150 NAPA JUNCTION
City,State,Zip:	VALLEJO, CA 94590
Region:	CORTESE

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0212

CERS:
Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD S
City,State,Zip: AMERICAN CANYON, CA 94503-1200
Site ID: 197060
CERS ID: T0605591147
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: Napa LOP - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Site ID: 231089
CERS ID: T0605500191
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

A2 **HESS CONSTRUCTION COMPANY** **UST** **U001598759**
NNE **4484 HESS DR** **HIST UST** **N/A**
< 1/8 **VALLEJO (A C), CA**
0.073 mi.
383 ft. **Site 1 of 2 in cluster A**

Relative:
Lower

Actual:
82 ft.

NAPA CO. UST:
Name: HESS CONSTRUCTION COMPANY
Address: 4484 HESS DR
City,State,Zip: VALLEJO (A C)
Facility ID: NAPA0280
Permit ID: Not reported
Facility Status: Not reported
Permit Type: Not reported
District: Not reported

HESS CONSTRUCTION COMPANY (Continued) **U001598759**

Num of Tanks: 0

HIST UST:

Name:	HESS CONCRETE CONST CO INC
Address:	4484 HESS DRIVE
City,State,Zip:	VALLEJO, CA 94589
File Number:	000212B5
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000212B5.pdf
Region:	STATE
Facility ID:	00000010261
Facility Type:	Other
Other Type:	CONSTRUCTION
Contact Name:	HAROLD HESS PRESIDENT
Telephone:	7075527931
Owner Name:	HESS CONCRETE CONST. CO., INC
Owner Address:	4484 HESS DRIVE
Owner City,St,Zip:	VALLEJO, CA 94589
Total Tanks:	0002
Tank Num:	001
Container Num:	490
Year Installed:	1977
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	002
Container Num:	491
Year Installed:	1977
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

A3 **HESS CONCRETE CONSTRUCTION CO.** **CERS HAZ WASTE** **S121741080**
NE **4484 HESS DR** **CERS** **N/A**
< 1/8 **AMERICAN CANYON, CA 94503**
0.090 mi.
474 ft. **Site 2 of 2 in cluster A**

Relative:
Lower

Actual:
76 ft.

CERS HAZ WASTE:

Name:	HESS CONCRETE CONSTRUCTION CO.
Address:	4484 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	122396
CERS ID:	10171237
CERS Description:	Hazardous Waste Generator

CERS:

Name:	HESS CONCRETE CONSTRUCTION CO.
Address:	4484 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Site ID: 122396
CERS ID: 10171237
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to properly close hazardous waste containers when not in active use.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Eval Date: 09-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Napa County Env Mgmt
Entity Title: Not reported
Affiliation Address: 1195 Third Street, Suite 210
Affiliation City: Napa
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94559
Affiliation Phone: (707) 253-4417

Affiliation Type Desc: Environmental Contact
Entity Name: Larry Hess
Entity Title: Not reported
Affiliation Address: 4484 Hess Rd.
Affiliation City: American Canyon
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94503
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Larry Hess
Entity Title: President
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: HESS CONCRETE CONSTRUCTION CO.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Affiliation Type Desc:	Legal Owner
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	4484 Hess DR
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 552-7931

Affiliation Type Desc:	Document Preparer
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	4484 Hess Rd.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94503
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(707) 552-7931

Affiliation Type Desc:	Property Owner
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	4484 Hess Rd.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 310-3780

B4 **MEDEIROS PROPERTY** **LUST** **S103649731**
ENE **289 NAPA JUNCTION** **HIST CORTESE** **N/A**
< 1/8 **AMERICAN CANYON, CA 94589** **CERS**
0.101 mi.
531 ft. **Site 1 of 2 in cluster B**

Relative:
Lower

Actual:
59 ft.

LUST:

Name:	MEDEIROS PROPERTY
Address:	289 NAPA JUNCTION RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500249
Global Id:	T0605500249
Latitude:	38.1849014
Longitude:	-122.2582196
Status:	Completed - Case Closed
Status Date:	08/20/1998
Case Worker:	ZZZ
RB Case Number:	28-0292
Local Agency:	NAPA COUNTY
File Location:	Local Agency
Local Case Number:	0670
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0605500249
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

LUST:

Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Discovery
Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Stopped
Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Reported

LUST:

Global Id:	T0605500249
Status:	Open - Case Begin Date
Status Date:	02/24/1998
Global Id:	T0605500249

MEDEIROS PROPERTY (Continued) **S103649731**

Status: Completed - Case Closed
Status Date: 08/20/1998

HIST CORTESE:
edr_fname: MEDEIROS PROPERTY
edr_fadd1: 289 NAPA JUNCTION
City,State,Zip: AMERICAN CANYON, CA 94589
Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0292

CERS:
Name: MEDEIROS PROPERTY
Address: 289 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Site ID: 255880
CERS ID: T0605500249
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

B5 **MEDEIROS PROPERTY** **LUST** **U003659767**
ENE **289 NAPA JUNCTION RD** **UST** **N/A**
< 1/8 **AMERICAN CANYON, CA** **Cortese**
0.101 mi.
531 ft. **Site 2 of 2 in cluster B**

Relative:
Lower

Actual:
59 ft.

LUST REG 2:
Region: 2
Facility Id: 28-0292
Facility Status: Case Closed
Case Number: 0670
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

MEDEIROS PROPERTY (Continued) **U003659767**

NAPA CO. UST:
- Name: MEDEIROS PROPERTY
- Address: 289 NAPA JUNCTION RD
- City,State,Zip: AMERICAN CANYON
- Facility ID: NAPA0670
- Permit ID: Not reported
- Facility Status: Not reported
- Permit Type: Not reported
- District: Not reported
- Num of Tanks: 0

CORTESE:
- Name: MEDEIROS PROPERTY
- Address: 289 NAPA JUNCTION RD
- City,State,Zip: AMERICAN CANYON, CA 94589
- Region: CORTESE
- Envirostor Id: Not reported
- Global ID: T0605500249
- Site/Facility Type: LUST CLEANUP SITE
- Cleanup Status: COMPLETED - CASE CLOSED
- Status Date: Not reported
- Site Code: Not reported
- Latitude: Not reported
- Longitude: Not reported
- Owner: Not reported
- Enf Type: Not reported
- Swat R: Not reported
- Flag: active
- Order No: Not reported
- Waste Discharge System No: Not reported
- Effective Date: Not reported
- Region 2: Not reported
- WID Id: Not reported
- Solid Waste Id No: Not reported
- Waste Management Uit Name: Not reported
- File Name: Active Open

6
NW
< 1/8
0.114 mi.
601 ft.

MIOCENE WINE LLC
100 NAPA JUNCTION RD
AMERICAN CANYON, CA 94503

RCRA NonGen / NLR **1025873547**
CAL000446673

Relative:
Lower

Actual:
195 ft.

RCRA NonGen / NLR:
- Date form received by agency: 2019-06-17 00:00:00.0
- Facility name: MIOCENE WINE LLC
- Facility address: 100 NAPA JUNCTION RD
  AMERICAN CANYON, CA 94503
- EPA ID: CAL000446673
- Contact: ADAM BRAUNSTEIN
- Contact address: 100 NAPA JUNCTION RD
  AMERICAN CANYON, CA 94503
- Contact country: Not reported
- Contact telephone: 707-666-1938
- Contact email: ADAM@MIOCENWINES.COM
- EPA Region: 09
- Classification: Non-Generator

MIOCENE WINE LLC (Continued) **1025873547**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	HOFACKET WARD FAMILY TRUST
Owner/operator address:	PO BOX 3796
	CAREFREE, AZ 85377
Owner/operator country:	Not reported
Owner/operator telephone:	707-481-7021
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ADAM BRAUNSTEIN
Owner/operator address:	100 NAPA JUNCTION RD
	AMERICAN CANYON, CA 94503
Owner/operator country:	Not reported
Owner/operator telephone:	707-666-1938
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	Yes
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	Yes
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C7
NNE
1/8-1/4
0.143 mi.
755 ft.

WARD MAHER CONSTRUCTION
4545 HESS DRIVE
VALLEJO(AM CYN), CA

Site 1 of 3 in cluster C

UST **U003114710**
N/A

Relative:
Lower

Actual:
78 ft.

NAPA CO. UST:

Name:	WARD MAHER CONSTRUCTION
Address:	4545 HESS DRIVE
City,State,Zip:	VALLEJO(AM CYN)
Facility ID:	NAPA0619
Permit ID:	Not reported
Facility Status:	Not reported
Permit Type:	Not reported
District:	Not reported
Num of Tanks:	0

8
ENE
1/8-1/4
0.176 mi.
931 ft.

MAHERS MOBILE STORAGE
125 LOMBARD RD
AMERICAN CANYON, CA 94503

RCRA NonGen / NLR **1025880786**
CAP000200134

Relative:
Lower

Actual:
59 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-01-19 00:00:00.0
Facility name:	MAHERS MOBILE STORAGE
Facility address:	125 LOMBARD RD AMERICAN CANYON, CA 94503
EPA ID:	CAP000200134
Contact:	JOSEPH BROM
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	707-758-3188
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	2013-10-22 00:00:00.0
Site name:	MAHERS MOBILE STORAGE

MAHERS MOBILE STORAGE (Continued) **1025880786**

Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

C9 **R E MAHER INC** **RCRA NonGen / NLR** **1026054183**
NNE **4545 HESS DR** **CAL000253415**
1/8-1/4 **AMERICAN CANYON, CA 94503**
0.186 mi.
981 ft. **Site 2 of 3 in cluster C**

Relative:
Lower

Actual:
74 ft.

RCRA NonGen / NLR:

Date form received by agency:	2020-01-08 00:00:00.0
Facility name:	R E MAHER INC
Facility address:	4545 HESS DR AMERICAN CANYON, CA 94503
EPA ID:	CAL000253415
Mailing address:	HESS DR AMERICAN CANYON, CA 94503
Contact:	LINDA GREEN
Contact address:	HESS DR AMERICAN CANYON, CA 94503
Contact country:	US
Contact telephone:	707-642-3907
Contact email:	LINDA@REMAHERINC.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	R E MAHER INC
Owner/operator address:	HESS DR AMERICAN CANYON, CA 94503
Owner/operator country:	US
Owner/operator telephone:	707-642-3907
Owner/operator email:	Not reported
Owner/operator fax:	707-642-4014
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	R E MAHER INC
Owner/operator address:	HESS DR AMERICAN CANYON, CA 94503
Owner/operator country:	US
Owner/operator telephone:	707-642-3907
Owner/operator email:	Not reported
Owner/operator fax:	707-642-4014
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	Not reported

R E MAHER INC (Continued) **1026054183**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C10 **R.E. MAHER INC.** **CERS HAZ WASTE S121788844**
NNE **4545 HESS DR** **CERS N/A**
1/8-1/4 **AMERICAN CANYON, CA 94503**
0.186 mi.
981 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
74 ft.

CERS HAZ WASTE:

Name:	R.E. MAHER INC.
Address:	4545 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	59860
CERS ID:	10171991
CERS Description:	Hazardous Waste Generator

CERS:

Name:	R.E. MAHER INC.
Address:	4545 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	59860
CERS ID:	10171991
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	59860
Site Name:	R.E. MAHER INC.
Violation Date:	01-08-2020
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 01/08/2020. The business failed to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material including familiarity with the emergency response plan or failure to document and maintain training records for a minimum of three years. Did not have training for the last 3 years but had the current training. Give training yearly and keep records for 3 years. Establish and electronically submit an employee training program containing provisions to ensure initial and annual training for all employees in safety procedures in the event of a release or threatened release of a hazardous material and document and maintain training records for a

R.E. MAHER INC. (Continued) **S121788844**

minimum of three years.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 07-31-2013
Citation: HSC 6.5 25250.19(c) - California Health and Safety Code, Chapter 6.5, Section(s) 25250.19(c)
Violation Description: Failure to retain paperwork documenting disposal of used oil for three years.
Violation Notes: Returned to compliance on 11/06/2013.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 01-08-2020
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes: Returned to compliance on 01/10/2020. The generator has not obtained an active EPA ID number to manage hazardous waste. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. EPA ID number was inactive. The re-activation papers were sent to DTSC during inspection. Submit documentation to the CUPA demonstrating that you have obtained an EPA ID number.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 07-31-2013
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 11/06/2013.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 01-08-2020
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a

R.E. MAHER INC. (Continued) **S121788844**

previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: Returned to compliance on 01/08/2020. The business failed to update business plan within 30 days when one of the following occurs: a 100 percent or more increase in the quantity of a previously disclosed material; any handling of a previously undisclosed hazardous material; a change of business address, business ownership, or business name; or a substantial change in the handler's operations that requires modification to any portion of the business plan. The material "Cure" was reported at having 155 gallons onsite. There were several 55 gallon drums, 5 gallon drums and a 200 gallon tank. The inventory amount was corrected onsite in CERS at the time of inspection. Update all submittal elements effected by the change(s) and electronically submit the update within 30 days.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-31-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Based on today's Hazardous Waste inspection and the information reviewed, no violations were observed. Waste Oil is hauled by AES.
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-08-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

R.E. MAHER INC. (Continued) **S121788844**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-08-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-31-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Operator
Entity Name: R. E. Maher Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (707) 642-3907

Affiliation Type Desc: Identification Signer
Entity Name: Linda Green
Entity Title: Controller
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4545 Hess Dr
Affiliation City: American Canyon
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94503
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: R.E. MAHER INC.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

R.E. MAHER INC. (Continued) **S121788844**

Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Napa County Env Mgmt
Entity Title:	Not reported
Affiliation Address:	1195 Third Street, Suite 210
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	(707) 253-4417
Affiliation Type Desc:	Document Preparer
Entity Name:	Linda Green
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Linda Green
Entity Title:	Not reported
Affiliation Address:	4545 Hess Dr.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94503
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Rod Maher
Entity Title:	Not reported
Affiliation Address:	4545 Hess Dr
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 642-3907

D11 **INDEPENDENT STAVE COMPANY** **UST** **U003659758**
East **4391 NAPA VALLEJO HWY** **N/A**
1/8-1/4 **AMERICAN CANYON, CA**
0.195 mi.
1030 ft. **Site 1 of 2 in cluster D**

Relative: **Lower**
Actual: **62 ft.**

NAPA CO. UST:

Name:	INDEPENDENT STAVE COMPANY
Address:	4391 NAPA VALLEJO HWY
City,State,Zip:	AMERICAN CANYON
Facility ID:	NAPA0374
Permit ID:	Not reported
Facility Status:	Not reported
Permit Type:	Not reported
District:	Not reported

INDEPENDENT STAVE COMPANY (Continued) **U003659758**

Num of Tanks: 0

D12 **EVAN-ATHAN ENTERPRISES** **LUST** **U003659757**
East **4381 NAPA VALLEJO HWY** **UST** **N/A**
1/8-1/4 **AMERICAN CANYON, CA**
0.220 mi.
1161 ft. **Site 2 of 2 in cluster D**

Relative: **Lower**
Actual: **63 ft.**

LUST:

Name:	EVAN ATHAN ENTERPRISES
Address:	4381 HWY 29
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500209
Global Id:	T0605500209
Latitude:	38.181784
Longitude:	-122.254271
Status:	Completed - Case Closed
Status Date:	05/10/1995
Case Worker:	ZZZ
RB Case Number:	28-0235
Local Agency:	NAPA COUNTY
File Location:	Not reported
Local Case Number:	0609
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0605500209
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

LUST:

Global Id:	T0605500209
Action Type:	Other
Date:	11/17/1992
Action:	Leak Discovery

Global Id:	T0605500209
Action Type:	Other
Date:	11/17/1992
Action:	Leak Stopped

Global Id:	T0605500209
Action Type:	Other
Date:	10/26/1992
Action:	Leak Reported

LUST:

Global Id:	T0605500209

EVAN-ATHAN ENTERPRISES (Continued) **U003659757**

Status: Open - Case Begin Date
Status Date: 10/26/1992

Global Id: T0605500209
Status: Open - Site Assessment
Status Date: 10/07/1993

Global Id: T0605500209
Status: Completed - Case Closed
Status Date: 05/10/1995

NAPA CO. UST:
Name: EVAN-ATHAN ENTERPRISES
Address: 4381 NAPA VALLEJO HWY
City,State,Zip: AMERICAN CANYON
Facility ID: NAPA0609
Permit ID: Not reported
Facility Status: Not reported
Permit Type: Not reported
District: Not reported
Num of Tanks: 0

13
WSW
1/4-1/2
0.397 mi.
2098 ft.

AMERICAN CANYON SANITARY LANDFILL **SWF/LF** **S102361374**
WESTERN TERMINUS OF EUCALYPTUS DRIVE **Financial Assurance** **N/A**
NAPA, CA **CERS**

Relative:
Lower

Actual:
26 ft.

SWF/LF (SWIS):
Name: AMERICAN CANYON SANITARY LANDFILL
Address: WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip: NAPA, CA
Facility ID: 28-AA-0001
Lat/Long: 38.18056 / -122.27556
Owner Name: Napa-Vallejo Waste Management Authority
Owner Telephone: 7072534545
Owner Address: Not reported
Owner Address2: 1195 Third Street, Room 101
Owner City,St,Zip: Napa, CA 94559
Operational Status: Closed
Operator: Napa-Vallejo Waste Management Authority
Operator Phone: 7072534545
Operator Address: Not reported
Operator Address2: 1195 Third Street, Room 101
Operator City,St,Zip: Napa, CA 94559
Permit Date: 12/17/2013
Permit Status: Permitted
Permitted Acreage: $122.00
Activity: Solid Waste Disposal Site
Regulation Status: Permitted
Landuse Name: Agricultural
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Mixed municipal

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Closure Date:	12/01/1995
Closure Type:	Actual
Disposal Acreage:	$97.00
SWIS Num:	28-AA-0001
Waste Discharge Requirement Num:	III
Program Type:	Financial Assurance Responsibilities
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	4900000
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Cubic Yards
Lat/Long:	38.18056 / -122.27556

CA Financial Assurance 2:

Name:	AMERICAN CANYON SANITARY LANDFILL
Address:	WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip:	NAPA, CA
Region:	2
SWIS_NO:	28-AA-0001
Closure Approved:	Yes
Closure Inf Coverage Date:	Not reported
Closure Plan Coverage:	0
Closure Plan Date:	03/01/2019
PostClose Approved:	Yes
PostClose Adequacy Date:	03/01/2019
PostClose Inf Coverage:	10631933
PostClose Inf Coverage Date:	06/01/2019
CorActCoverage:	1030170
CorActApproved:	Yes
CorAct Mec Adequacy Date:	Not reported
CorAct Inf Coverage:	1030170
CorActPlanCoverage:	640630
CorAct Plan Date:	03/01/2019
Lia Coverage:	0
Lia Approved:	No
Review:	07/17/2019
Closure Mechanism A:	Not reported
Closure Mechanism B:	Not reported
Closure Coverage:	0
Closure Adequacy:	Not reported
Closure Inflation Estimate:	0
Post Closure Mechanism A:	PLEDGE OF REVENUE
Post Closure Established A:	05/13/1994
Post Closure Mechanism B:	Not reported
Post Closure Coverate:	625408
Post Closure Adequacy:	Not reported
Corrective Action Extablished A:	Not reported
Corrective Actiont Coverage:	1030170
Corrective Action Approved:	Yes
Corrective Action Inflation Estimate:	1030170
Corrective Action Inflationdate:	06/01/2019
Corrective Action Plan Estimate:	640630
Liability Mechanism A:	Not reported
Liability Established A:	Not reported
Liability Mechanism B:	Not reported
CostAnniversary:	02/10/2008
ClosureEstablishedA:	Not reported

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

ClosureEstablishedB:	Not reported
ClosureDisbursement:	0
PostClosureEstablishedB:	Not reported
PostClosureDisbursement:	0
CorrectiveActionMechanismA:	PLEDGE OF REVENUE
CorrectiveActionMechanismB:	Not reported
CorrectiveActionExtablishedB:	Not reported
CorrectiveActiontDisbursement:	0
LiabilityEstabllishedB:	Not reported
LiabilityAdequacy:	Not reported
Responsible Party:	U.S. Bank Corporate Trust Services
Provider:	Napa-Vallejo Waste Management Authority
Contact:	Not reported

CERS:

Name:	AMERICAN CANYON SANITARY LANDFILL
Address:	WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip:	NAPA, CA
Site ID:	506663
CERS ID:	28-AA-0001
CERS Description:	Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc:	Legal Operator
Entity Name:	Napa-Vallejo Waste Management Authority
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	7072534545

Affiliation Type Desc:	Legal Owner
Entity Name:	Napa-Vallejo Waste Management Authority
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	7072534545

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14 **HAYES MOBILE REPAIR SERVICE** **LUST** **S113085458**
NNE **4711 PAOLI LOOP RD** **HAZNET** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94589** **HWTS**
0.418 mi.
2207 ft.

Relative:
Lower

Actual:
62 ft.

NAPA CO. LUST:

Name:	HEIDE AND WILLIAMS, INC.
Address:	4711 PAOLI LOOP RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Permit ID:	248359
Status:	Closed
Permit Type:	Non-LOP
District:	0

HAYES MOBILE REPAIR SERVICE (Continued) **S113085458**

HAZNET:

Name:	HAYES MOBILE REPAIR SERVICE
Address:	4711 PAOLI LOOP RD
Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000
Contact:	JACK HAYES
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	166 WATSON LN
Year:	1997
Gepaid:	CAL000160245
TSD EPA ID:	CAD059494310
CA Waste Code:	352 - Other organic solids
Disposal Method:	H01 - Transfer Station
Tons:	0.2

Additional Info:

Year:	1997
Gen EPA ID:	CAL000160245
Shipment Date:	19970828
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19970828
Manifest ID:	96803292
Trans EPA ID:	CAD000083121
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	F003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	HAYES MOBILE REPAIR SERVICE
Address:	4711 PAOLI LOOP RD
Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000
EPA ID:	CAL000160245
Inactive Date:	06/30/2000
Create Date:	03/26/1996
Last Act Date:	01/22/2001
Mailing Name:	Not reported

HAYES MOBILE REPAIR SERVICE (Continued) **S113085458**

Mailing Address:	166 WATSON LN
Mailing Address 2:	Not reported
Mailing City,State,Zip:	AMERICAN CANYON, CA 945890000
Owner Name:	JACK HAYES
Owner Address:	4711 PAOLI LOOP RD
Owner Address 2:	Not reported
Owner City,State,Zip:	AMERICAN CANYON, CA --
Contact Name:	JACK HAYES
Contact Address:	INACTIVE PER VQ00 - BMI
Contact Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000

15
ENE
1/4-1/2
0.439 mi.
2317 ft.

CANYON CROSSINGS **ENVIROSTOR S121475155**
NAPA JUNCTION ROAD **VCP N/A**
AMERICAN CANYON, CA 94503

Relative: Lower

Actual: 69 ft.

ENVIROSTOR:

Name:	CANYON CROSSINGS
Address:	NAPA JUNCTION ROAD
City,State,Zip:	AMERICAN CANYON, CA 94503
Facility ID:	60002585
Status:	Active
Status Date:	12/05/2017
Site Code:	202168
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	15.2
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Karen Steen
Supervisor:	Kimberly Walsh
Division Branch:	Cleanup Berkeley
Assembly:	, 04
Senate:	, 03
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	38.18756
Longitude:	-122.2524
APN:	NONE SPECIFIED
Past Use:	RAILROAD RIGHT OF WAY
Potential COC:	Arsenic Lead Polynuclear aromatic hydrocarbons (PAHs Cobalt
Confirmed COC:	Arsenic Lead Polynuclear aromatic hydrocarbons (PAHs Cobalt
Potential Description:	SOIL
Alias Name:	202168
Alias Type:	Project Code (Site Code)
Alias Name:	60002585
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	03/20/2018

CANYON CROSSINGS (Continued) **S121475155**

Comments: No final submission necessary under scope of work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/17/2018
Comments: Phase I and II for information only; not for DTSC comment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 02/28/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/17/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: CANYON CROSSINGS
Address: NAPA JUNCTION ROAD
City,State,Zip: AMERICAN CANYON, CA 94503
Facility ID: 60002585
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 15.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Karen Steen
Supervisor: Kimberly Walsh
Division Branch: Cleanup Berkeley
Site Code: 202168
Assembly: , 04
Senate: , 03
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 12/05/2017
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 38.18756 / -122.2524
APN: NONE SPECIFIED
Past Use: RAILROAD RIGHT OF WAY

CANYON CROSSINGS (Continued) **S121475155**

Potential COC: 30001, 30013, 30019, 30154
Confirmed COC: 30001,30013,30019,30154
Potential Description: SOIL
Alias Name: 202168
Alias Type: Project Code (Site Code)
Alias Name: 60002585
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/20/2018
Comments: No final submission necessary under scope of work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/17/2018
Comments: Phase I and II for information only; not for DTSC comment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 02/28/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/17/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

16
SE
1/4-1/2
0.485 mi.
2561 ft.

AMERICAN CANYON REDEMPTION CENTER **SWRCY** **S117654797**
3915 BROADWAY ST **N/A**
AMERICAN CANYON, CA 94503

Relative:
Lower

Actual:
60 ft.

SWRCY:
Name: AMERICAN CANYON REDEMPTION CENTER
Address: 3915 BROADWAY ST
City,State,Zip: AMERICAN CANYON, CA 94503
Reg Id: 216208
Cert Id: RC216208.001
Mailing Address: PO Box 331
Mailing City: Vallejo
Mailing State: CA

AMERICAN CANYON REDEMPTION CENTER (Continued) **S117654797**

Mailing Zip Code:	94590
Website:	Not reported
Email:	Not reported
Phone Number:	(707) 853-4373
Rural:	N
Operation Begin Date:	02/02/2015
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Hours of Operation:	Mon - Sat 9:00 am - 2:30 pm; Sun Closed
Organization ID:	216208
Organization Name:	American Canyon Redemption Center

17
WSW
1/2-1
0.618 mi.
3262 ft.

NAPA JUNCTION ELEMENTARY SCHOOL
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CA 94503

ENVIROSTOR **S111291382**
LUST **N/A**
SCH
CIWQS

Relative:
Lower

Actual:
9 ft.

ENVIROSTOR:

Name:	NAPA JUNCTION ELEMENTARY SCHOOL
Address:	2 EUCALYPTUS DRIVE
City,State,Zip:	AMERICAN CANYON, CA 94503
Facility ID:	60002662
Status:	No Further Action
Status Date:	03/27/2019
Site Code:	204302
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	15.11
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Elizabeth Tisdale
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	, 04
Senate:	, 03
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	38.18207
Longitude:	-122.2704
APN:	058-030-067
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	058-030-067
Alias Type:	APN
Alias Name:	204302
Alias Type:	Project Code (Site Code)
Alias Name:	60002662
Alias Type:	Envirostor ID Number

Completed Info:

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/07/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 07/19/2018
Comments: Consultant, Chris Heiny, submitted EOP Application (via email) on behalf of District on 7/19/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2018
Comments: DTSC approved the PEA Workplan in a letter dated 31 October 2018 which was emailed on 1 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/07/2018
Comments: DTSC conducted oversight of PEA sampling on 7 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/27/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/23/2018
Comments: PEA scoping meeting held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/20/2018
Comments: Fully executed EOA mailed to District.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

NAPA CO. LUST:
Name: COUCH PROPERTY
Address: 2 EUCALYPTUS DR
City,State,Zip: AMERICAN CANYON, CA 94589
Permit ID: 248266
Status: Closed
Permit Type: Non-LOP
District: 0

SCH:

Name: NAPA JUNCTION ELEMENTARY SCHOOL
Address: 2 EUCALYPTUS DRIVE
City,State,Zip: AMERICAN CANYON, CA 94503
Facility ID: 60002662
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 15.11
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Elizabeth Tisdale
Supervisor: Jose Salcedo
Division Branch: Northern California Schools & Santa Susana
Site Code: 204302
Assembly: , 04
Senate: , 03
Special Program Status: Not reported
Status: No Further Action
Status Date: 03/27/2019
Restricted Use: NO
Funding: School District
Latitude: 38.18207
Longitude: -122.2704
APN: 058-030-067
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 058-030-067
Alias Type: APN
Alias Name: 204302
Alias Type: Project Code (Site Code)
Alias Name: 60002662
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/07/2018
Comments: Not reported

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 07/19/2018
Comments: Consultant, Chris Heiny, submitted EOP Application (via email) on behalf of District on 7/19/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2018
Comments: DTSC approved the PEA Workplan in a letter dated 31 October 2018 which was emailed on 1 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/07/2018
Comments: DTSC conducted oversight of PEA sampling on 7 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/27/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/23/2018
Comments: PEA scoping meeting held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/20/2018
Comments: Fully executed EOA mailed to District.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CIWQS:
Name: COUCH PROPERTY
Address: 2 EUCALYPTUS DRIVE

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

City,State,Zip:	AMERICAN CANYON, CA 94503
Agency:	AMERICAN CANYON FLAT LAND COMPANY INC
Agency Address:	111 East Seventh Street, Hanford, CA 93230
Place/Project Type:	Construction - Other: Eucalyptus grove removal.
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 28C362311
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	10/28/2011
Termination Date:	11/28/2012
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	38.18306
Longitude:	-122.27222

18
NNW
1/2-1
0.623 mi.
3290 ft.

POLYVINYL CHEMICAL INDUSTRIES, INC **ENVIROSTOR** **S118756649**
501 GREEN ISLAND ROAD **N/A**
VALLEJO, CA 94589

Relative:
Lower

Actual:
38 ft.

ENVIROSTOR:

Name:	POLYVINYL CHEMICAL INDUSTRIES, INC
Address:	501 GREEN ISLAND ROAD
City,State,Zip:	VALLEJO, CA 94589
Facility ID:	28510002
Status:	No Action Required
Status Date:	06/05/2008
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	04
Senate:	03
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	38.19456
Longitude:	-122.2654
APN:	057160002000
Past Use:	UNKNOWN

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Potential COC: * HYDROCARBON SOLVENTS * UNSPECIFIED ALKALINE SOLUTIONS * LATEX WASTE
Not reported
Confirmed COC: NONE SPECIFIED
Potential Description: UE
Alias Name: CALIFORNIA RESINS (NAME CHANGE 11/17/82)
Alias Type: Alternate Name
Alias Name: PCI
Alias Type: Alternate Name
Alias Name: 057160002000
Alias Type: APN
Alias Name: CAD061163325
Alias Type: EPA Identification Number
Alias Name: SL0605547879
Alias Type: GeoTracker Global ID
Alias Name: 28510002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/05/1988
Comments: FACILITY IDENTIFIED DHS DRIVE-BY. PHOTOS TAKEN SITE SCREENING DONE PAH REQ BASED ON NAPA CO ENVR HLTH FILE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/12/1988
Comments: FACILITY IDENTIFIED ENVR HLTH NAPA KNOWN CONTAMINATED SITE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/29/1990
Comments: PRELIM ASSESS DONE ECOLOGY AND ENVIRONMENT PRELIMINARY ASSESSMENT 2/12/90. SITE POSES A HIGH POTENTIAL OF RELEASE TO SURFACE WATER. EPA RECOMMENDATION-MEDIUM PRIORITY SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/05/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/16/1987
Comments: SITE SCREENING DONE MANUFACTURER OF ACRYLIC EMULSIONS CHEMS. ORGANIC CHEMICALS FOUND IN SOIL AND GROUNDWATER AROUND PIT. PCI WAS PART OF BEATRICE CHEMICAL DIVISION OF BEATRICE FOODS. THE DIVISION WAS SOLD TO IMPERIAL CHEMICAL INDUSTRIES 03/01/85.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/28/2008

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Comments:	The Triage recommended No Further Action. A Sensitive Receptor Survey and Risk Based Corrective Action Assessment submitted to the SF Water Board indicate that the contaminant residuals present at the site do not pose a significant health risk to current or future occupants of the site. Based on this Report, a No Further Action Letter was issued by the SF Board dated November 20, 2000.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	05/01/2014
Comments:	DTSC conducted a reassessment of sites in EPA's CERCLIS database on EPA's behalf. The regional waterboard had reviewed past soil and groundwater investigations and determined that no further action was required. Based on this information and available sampling data, DTSC recommended no further federal assessment under CERCLA.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	S119102654	AMERICAN CANYON POND SITE	EUCALYPTUS DR	94503	LUST
NAPA	1000143048	NAPA PIPE CORP	NAPA VALLEJO HWY	94558	SEMS-ARCHIVE, RCRA-SQG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 71
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/26/2020
Number of Days to Update: 76
Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/15/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/06/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/01/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/19/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/03/2020
Date Data Arrived at EDR: 03/05/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 1

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/28/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 03/01/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/15/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/05/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 149

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/15/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/05/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/21/2020
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/11/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 86

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 50

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/22/2020
Number of Days to Update: 84

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/05/2020
Date Data Arrived at EDR: 03/06/2020
Date Made Active in Reports: 05/29/2020
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 80
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/19/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 69

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/04/2019
Date Data Arrived at EDR: 01/29/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 71

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/16/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 8

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/19/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/12/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 72

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 72

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2020
Date Data Arrived at EDR: 03/13/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/08/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 07/01/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/27/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/06/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/01/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 77

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 04/16/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/08/2020
Number of Days to Update: 79

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/10/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/19/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 26

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/14/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 70

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/14/2020
Number of Days to Update: 77

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/31/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 69

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/13/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 44

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/06/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2020
Date Data Arrived at EDR: 03/05/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 69

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/05/2020
Date Data Arrived at EDR: 02/06/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 69

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/05/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 04/24/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 71

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/12/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/14/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/24/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 13
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/26/2020
Next Scheduled EDR Contact: 09/13/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/04/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 71
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 03/11/2020
Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/04/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 01/23/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/08/2020
Number of Days to Update: 66

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 03/16/2020
Date Data Arrived at EDR: 03/17/2020
Date Made Active in Reports: 05/26/2020
Number of Days to Update: 70

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 01/27/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 71
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 77
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 79
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/04/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

424780
NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

TARGET PROPERTY COORDINATES

Latitude (North):	38.184119 - 38° 11' 2.83''
Longitude (West):	122.261667 - 122° 15' 42.00''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564663.3
UTM Y (Meters):	4226295.0
Elevation:	208 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012
East Map:	5602186 CORDELIA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

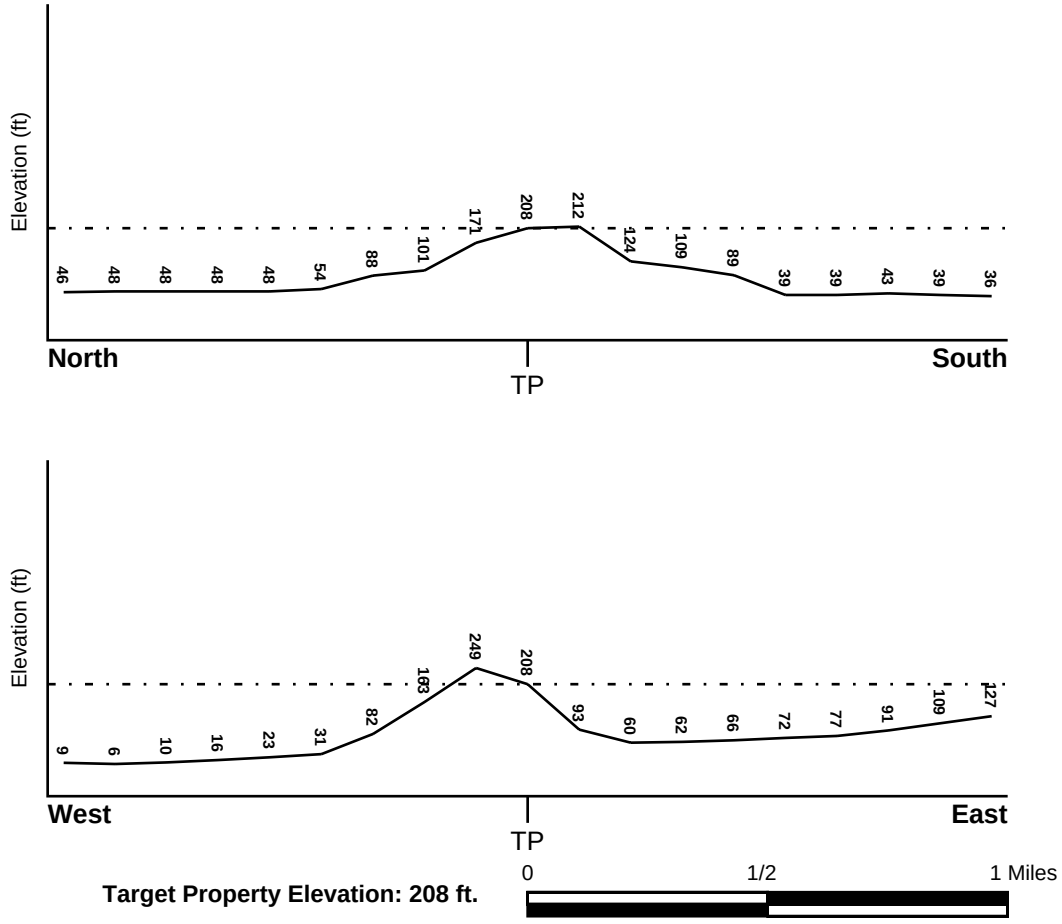
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06055C0625E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06055C0610E	FEMA FIRM Flood data
06055C0650E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CUTTINGS WHARF	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

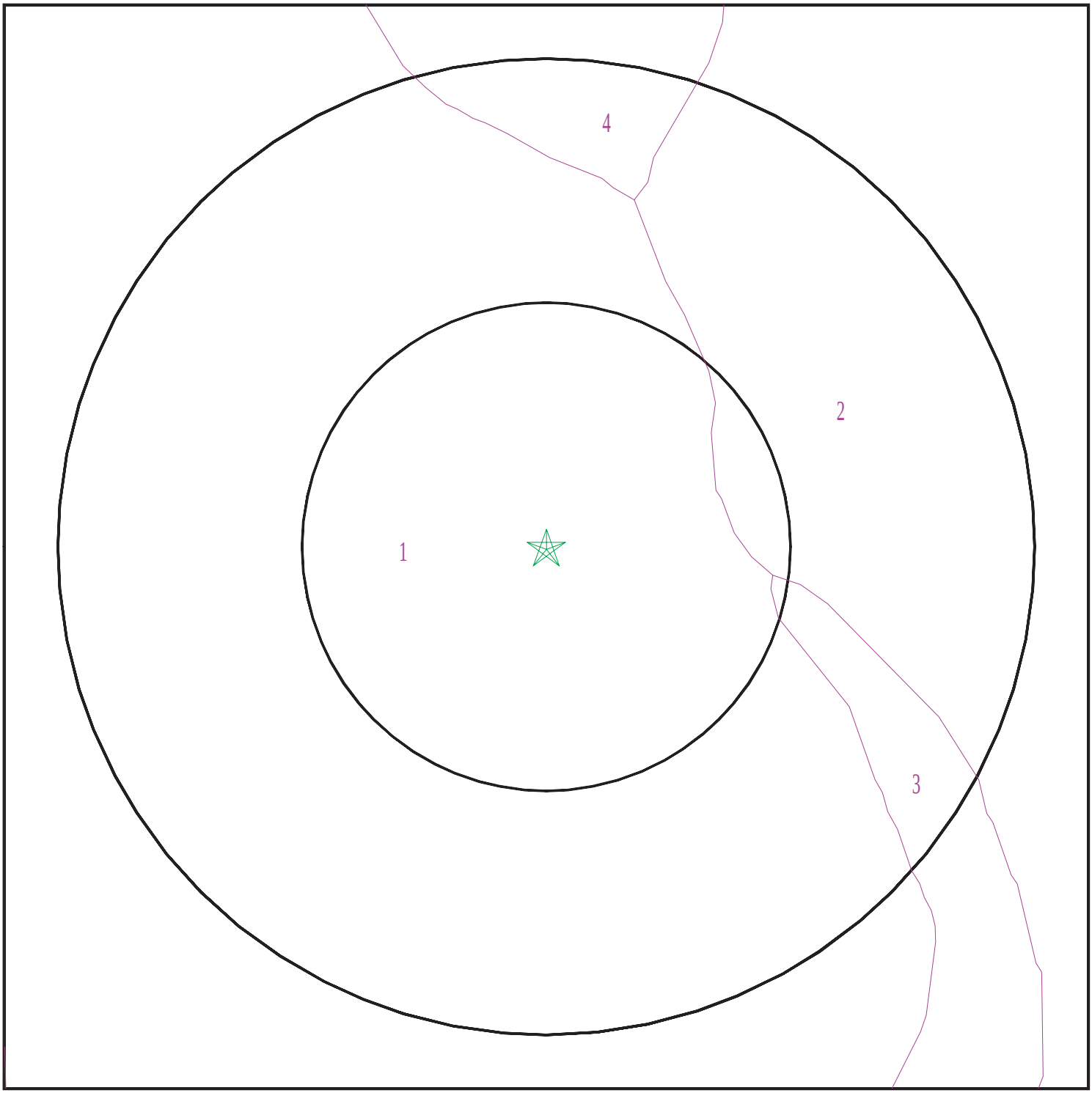
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tp *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6131122.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
LAT/LONG:	38.184119 / 122.261667	INQUIRY #:	6131122.2s
		DATE:	July 23, 2020 1:30 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
4	46 inches	50 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:

Soil Map ID: 2

Soil Component Name: CLEAR LAKE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	31 inches	68 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: HAIRE

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 4

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
4	46 inches	50 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

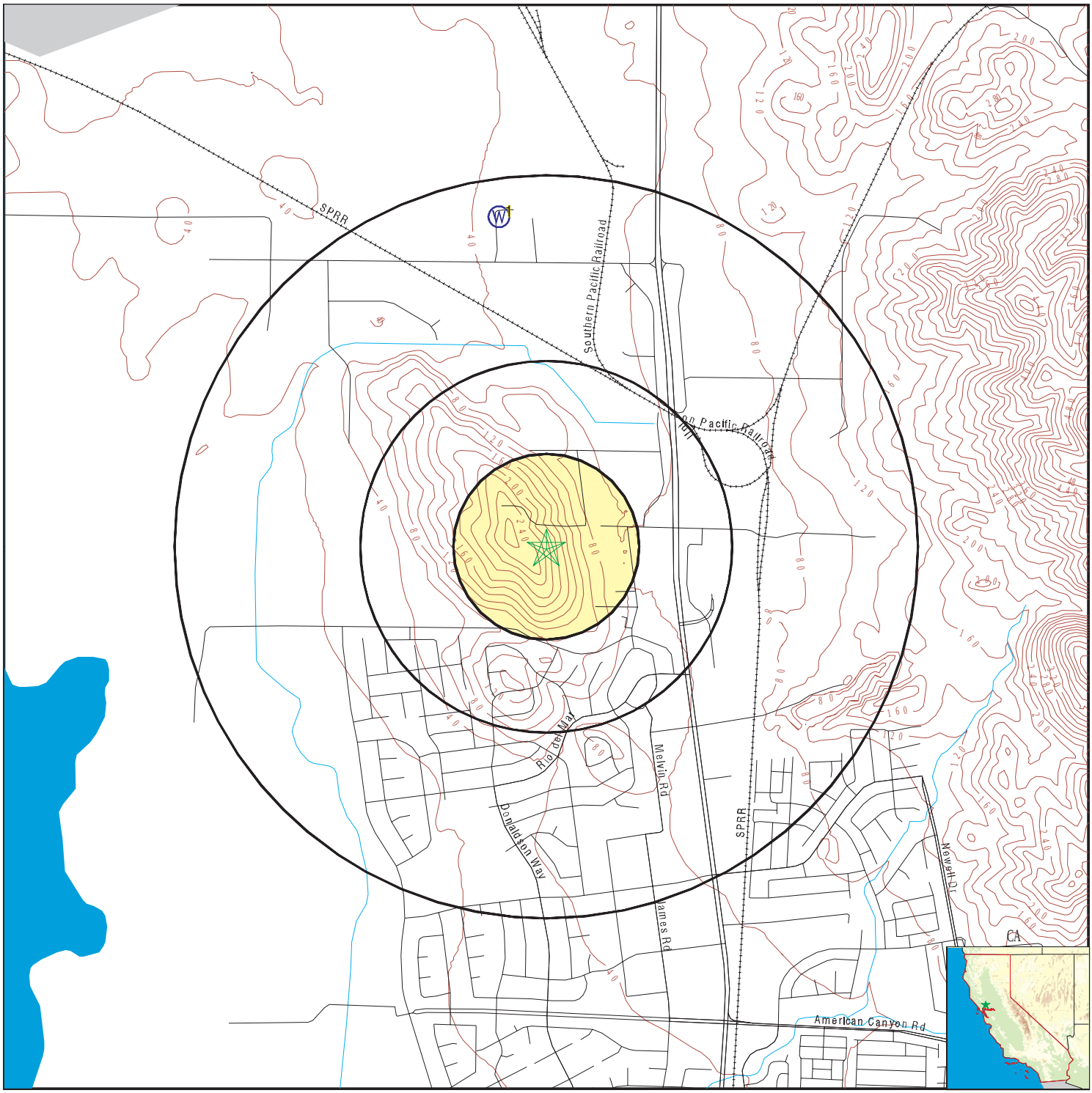
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADWR8000037293	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 6131122.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
		INQUIRY #:	6131122.2s
LAT/LONG:	38.184119 / 122.261667	DATE:	July 23, 2020 1:30 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
1 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR8000037293**

State Well #:	04N04W13E001M	Station ID:	23191
Well Name:	Not Reported	Well Use:	Stockwatering
Well Type:	Unknown	Well Depth:	98
Basin Name:	Napa-Sonoma Lowlands	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94503	11	0

Federal EPA Radon Zone for NAPA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NAPA COUNTY, CA

Number of sites tested: 27

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.937 pCi/L	93%	7%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.800 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D

HISTORICAL SOURCES

424780

Napa Junction Road

American Canyon, CA 94503

Inquiry Number: 6131122.3

July 23, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/23/20

Site Name:

424780
Napa Junction Road
American Canyon, CA 94503
EDR Inquiry # 6131122.3

Client Name:

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597
Contact: Christian Cagonot

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by AEI Consultants were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 34B5-4377-BE7B

PO # 229931

Project 424780

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 34B5-4377-BE7B

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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424780
Napa Junction Road
American Canyon, CA 94503

Inquiry Number: 6131122.5
July 27, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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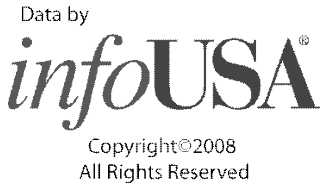

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☑	EDR Digital Archive
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1986	☑	☑	Haines Criss-Cross Directory
1981	☑	☐	Haines Criss-Cross Directory
1977	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Napa Junction Road
American Canyon, CA 94503

Year	*CD Image*	*Source*

NAPA JUNCTION RD

2017	pg A2	EDR Digital Archive
2014	pg A4	EDR Digital Archive
2010	pg A6	EDR Digital Archive
2005	pg A8	EDR Digital Archive
2000	pg A10	EDR Digital Archive
1995	pg A13	EDR Digital Archive
1986	pg A18	Haines Criss-Cross Directory
1981	pg A19	Haines Criss-Cross Directory
1977	pg A20	Haines Criss-Cross Directory
1977	pg A21	Haines Criss-Cross Directory

S NAPA JUNCTION RD

2000	pg A11	EDR Digital Archive
1995	pg A14	EDR Digital Archive
1992	pg A16	EDR Digital Archive

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
HESS DR			
2000	pg. A9	EDR Digital Archive	
1995	pg. A12	EDR Digital Archive	
1992	pg. A15	EDR Digital Archive	
1986	pg. A17	Haines Criss-Cross Directory	
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
HESS RD			
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	pg. A7	EDR Digital Archive	

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2017

4484 HESS CONSTRUCTION
OAT HILL RV PARKING
4507 COMMISSION LANDSCAPING
ODEN & DOUCETTE
4545 R E MAHER INC
4551 JOHNNY ON THE SPOT
4561 MIDWAY STORAGE
UHAUL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2017

100	LASER EXHIBITOR SERVICE
280	AMERICAN CANYON WEST VALLEJO LITTLE
285	SLAYBAUGH, DELBERT E
300	NAPA JUNCTION ELEMENTARY SCHOOL
	NAPA VALLEY UNIFIED SCHOOL DISTRICT
305	NELSON, CHARLES
421	JUM, SONG
	MCDONALDS
425	RICE, TABITHA N
451	ELDORADO PLASTICS
659	STEEL MILL RECYCLING

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2014

4484	HESS CONSTRUCTION
	OAT HILL RV PARKING
4503	MARTINEZ LANDSCAPING INC
4545	R E MAHER INC
4551	JOHNNY ON THE SPOT
4561	MIDWAY STORAGE
	MIDWAY STORAGE INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2014

100	CROSSFIT SKYBOX
280	AMERICAN CANYON WEST VALLEJO LITTLE
285	SLAYBAUGH, EARL
300	NAPA JUNCTION ELEMENTARY SCHOOL
	NAPA VALLEY UNIFIED SCHOOL DISTRICT
305	NELSON, CHARLES
401	CHEVRON STATION EXTRA MILE AMERICAN
421	MCDONALDS
	OCCUPANT UNKNOWN,
451	ELDORADO PLASTICS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2010

4484 HESS CONSTRUCTION CO
OAT HILL RV PARKING
4545 R E MAHER INC
4551 DESERT VIEW AUTO AUCTIONS INC
4561 MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2010

280	AMERICAN CANYON WEST VALLEJO
285	SLAYBAUGH, DELBERT
300	NAPA JUNCTION ELEMENTARY SCHL
305	OCCUPANT UNKNOWN,
425	PANGELINA, JOHN M
451	EL DORADO PLASTICS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2005

4484 OAT HILL RV PARKING
4561 MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2005

300	NAPA VALLEY COMMUNITY COLLEGE DST
305	OCCUPANT UNKNOWN,
360	OCCUPANT UNKNOWN,
425	NEGRI, ALMA T
435	OCCUPANT UNKNOWN,
451	EL DORADO PLASTICS
455	MONTGOMERY DESIGNS
659	LENAS TAVERN
	LENAS TAVERN AND GRILL

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 2000

4484	HESS CONSTRUCTION COMPANY
	OAT HILL RV PARKING
4501	DELANCEY DESIGN
4507	ZECO ELECTRIC COMPANY
4551	SUPERIOR EQUIPMENT COMPANY
4561	MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2000

289 OHLEMACHER, MARTIN
300 NAPA VALLEY UNIFIED SCHOOL DISTRICT SCHOOLS
658 CRAWFORD, KEVIN S
659 EL DOR PLASTICS
EL DORADO PLASTICS
LENA'S TAVERN
NAPA STEEL MILL SUPPLY
STEEL MILL SUPPLY OF NAPA
STEEL MILL SUPPLY OF NAPA I

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 2000

100	TRIBOTECH
150	GOLDEN STATE LUMBER
570	OCCUPANT UNKNOWN,
658	CRAWFORD, KEVIN S

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 1995

4484 HESS CONSTRUCTION CO
OAT HILL RV PARKING
4501 DE LANCEY DESIGN
4503 ROYS PROFESSIONAL PAINTING
4505 BASTIAN, ROBERT
4545 JOE BRANCH ELECTRIC
MIDWAY STORAGE
WARD MAHER & SON INC
4551 DEL MAS INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 1995

659 LENAS TAVERN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 1995

150 GOLDEN STATE LUMBER INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 1992

4484 HESS CONCRETE CONST
OAT HILL RV PARKING
4501 DELANCEY DESIGN
4507 G&M PRODUCE
WIEBE, JERRY
ZECO ELECTRIC CO
4545 BRANCH JOE ELECTRIC
MAHER WARD&SON
4551 DELMAS&MAROF INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 1992

100	MICROMINIATURE TECH
	TRIBOTECH
	WESTSCOPE INC
150	GOLDEN ST LMBR INC

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HESS DR 1986

HESS DR 94590 VALLEJO

4484	HESS CONCRETE CONST	552-7931	3
	HESS CONSTRUCTION	255-8686	+6
	OAT HILL RY PARKING	652-7932	3
4503	MADISON JOHN W	554-3176	+6
4507	BAKER ROOFING CO	557-3626	5
4545	TRIBOTECH	643-2146	+6
4551	DELMASSMAROF INC	552-0862	3
★	6 BUS 1 RES	3 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1986

NAPA JCTN RD 94590
VALLEJO

150	WICKES LUMBER	552-3225	5
289	RUTTER MARILYN J	642-3355	3
300	NAPA JCT ELEM SC	252-5461	
	NAPA JNCTN ELEM SCH	644-0050	
425	PAOLI J	643-6785	+6
570	NEWELL JACK H	552-1824	4
658	CABRERRA JOSE	643-3938	
	HANSEN TOPSOIL	226-2763	5
	HANSENS R F TOPSOIL	842-2026	5
	R F HANSONS TOPSOIL	842-2026	5
	RAYBURN ALESIA	644-2163	+6
659D	CERVENY TOMMY L	552-4268	5
D	LENAS PLACE	553-1004	5
NO #	AITKEN CHAS H	644-7098	
NO #	BETZ PAUL H	554-0268	5
NO #	CABRERA C	644-1654	
NO #	CRANDALL ELEANOR	557-5310	+6
NO #	CRANDALL ELEANOR	644-5778	7
NO #	GYPSUM DRYWALL SPLY	552-4216	5
NO #	GYPSUM DRYWALL SPLY	255-4450	5
NO #	HALL GENE	557-2680	5
NO #	ISLAND AQUARIUM	552-7360	5
NO #	LEMOS C C	642-6361	0
NO #	LEMOS PETER E	644-0062	
NO #	MCCLENIC JAS	642-2825	
NO #	NAPA STEEL MILL SPL	226-3950	
NO #	NAPA STEEL MILL SPL	842-2635	8
NO #	NEGRI LENO	642-9644	
NO #	NORTH BAY BLDG MTRL	552-4216	9
NO #	NORTH BAY BLOG MTRL	255-4450	8
NO #	REID JAS W	554-6358	+6
NO #	STEEL MILL SPL NAPA	842-2935	9
NO #	STEEL MILL SUPPLY	226-3980	
NO #	WAGON TRN TRDNG PST	842-6763	3
NO #	WEST VALLEJO LTL LG	644-5430	
NO #	YOUNG JOHN L	642-9831	
★	18 BUS 18 RES	4 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1981

NAPA JCTN RD 94590
VALLEJO

150	**WICKES LUMBER**	**425-1212**	**+1**
300	**NAPA JCT ELEM SC**	**252-5461**	**6**
	NAPA JNCTN ELEM SCH	**644-0050**	
658	CABRERRA JOSE	643-3938	
NO #	AITKEN CHAS H	644-7098	3
NO #	BETZ PAUL	643-0271	0
NO #	CABRERA C	644-1654	
NO #	CONRADO FLORENCE	642-2854	
NO #	CRANDALL ELEANOR	644-5778	7
NO #	GLADSTONE JAS	643-8981	6
NO #	HAMMER V	643-8798	6
NO #	HORSTKAMP W F MRS	643-7942	
NO #	LARSEN HANK	552-3986	+1
NO #	LEBECK STEVEN	643-5361	0
NO #	LEMOS C C	642-6361	0
NO #	LEMOS PETER E	644-0062	
NO #	**LENAS PLACE**	**552-9149**	**0**
NO #	MCCLENIC JAS	642-2825	
NO #	**NAPA STEEL MILL SPL**	**226-3950**	**5**
NO #	**NAPA STEEL MILL SPL**	**642-2835**	**8**
NO #	NEGRI LENO	642-9644	
NO #	**NORTH BAY BLDG MTRL**	**552-4216**	**9**
NO #	**NORTH BAY BLDG MTRL**	**255-4450**	**8**
NO #	**PLASTERMAN THE**	**643-0256**	**7**
NO #	SLAYBAUGH EARL D	644-1203	
NO #	SMYTH ROBERT W	552-3603	+1
NO #	**SOUTHERN PAC TRNSPT**	**644-7781**	
NO #	**SOUTHERN PAC TRNSPT**	**226-2522**	**5**
NO #	**STEEL MILL SPL NAPA**	**642-2835**	**9**
NO #	**STEEL MILL SUPPLY**	**226-3950**	**5**
NO #	**WEST VALLEJO LTL LG**	**644-5430**	**6**
NO #	YOUNG JOHN L	642-9831	

★ 14 BUS 18 RES 3 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1977

NAPA JUNCTION RD 94590 VALLEJO

150*WICKES LUMBER 425-1212+7
300*NAPA JCT ELEM SC 252-5461 6
*NAPA JNCTN ELEM SCH644-0050

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1977

..NAPA JUNCTION RD 94590 CONT..

	658	CABRERRA JOSE	643-3938
NO	#	AITKEN CHAS H	644-7098 3
NO	#*	BASALT ROCK CO INC	642-3510
NO	#	BRUMMETT HELEN E	644-1751
NO	#	BRUMMETT MAX O	644-1751
NO	#	CABRERA C	644-1654
NO	#	CONRADO FLORENCE	642-2854
NO	#	CRANDALL ELEANOR	644-5778+7
NO	#	GLADSTONE JAS	643-8981 6
NO	#	HAMMER V	643-8798 6
NO	#	HORSTKAMP W F MRS	643-7942
NO	#	HOYE CHARLES C	642-5942+7
NO	#	KAGELE FRANK L	644-0372 5
NO	#	LEMOS C C	642-6361
NO	#	LEMOS PETER E	644-0062
NO	#	LEMOS REBECCA	644-8532 6
NO	#*	LENAS PLACE	642-2891 5
NO	#	MCBRIDE ROBT G	644-9730+7
NO	#	MCCLENIC JAS	642-2825
NO	#*	NAPA STEEL MILL SPL	226-3950 5
NO	#	NEGRI LENO	642-9644
NO	#*	PLASTERMAN THE	643-0256+7
NO	#	SINGH SARJIT	648-2234 4
NO	#	SLAYBAUGH EARL D	644-1203
NO	#*	SOUTHERN PAC TRNSP	644-7781
NO	#*	SOUTHERN PAC TRNSPT	226-2522 5
NO	#*	STEEL MILL SPL NAPA	226-3950 5
NO	#*	STEEL MILL SUPPLY	642-2835
NO	#*	WEST VLLJO LTL LGE	644-5430 6
NO	#	YOUNG JOHN L	642-9831

* 12 BUS 21 RES 5 NEW

Napa Junction Road At Oat Hill

Napa Junction Road At Oat Hill

American Canyon, CA 94503

Inquiry Number: 3212571.4

November 30, 2011

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography November 30, 2011

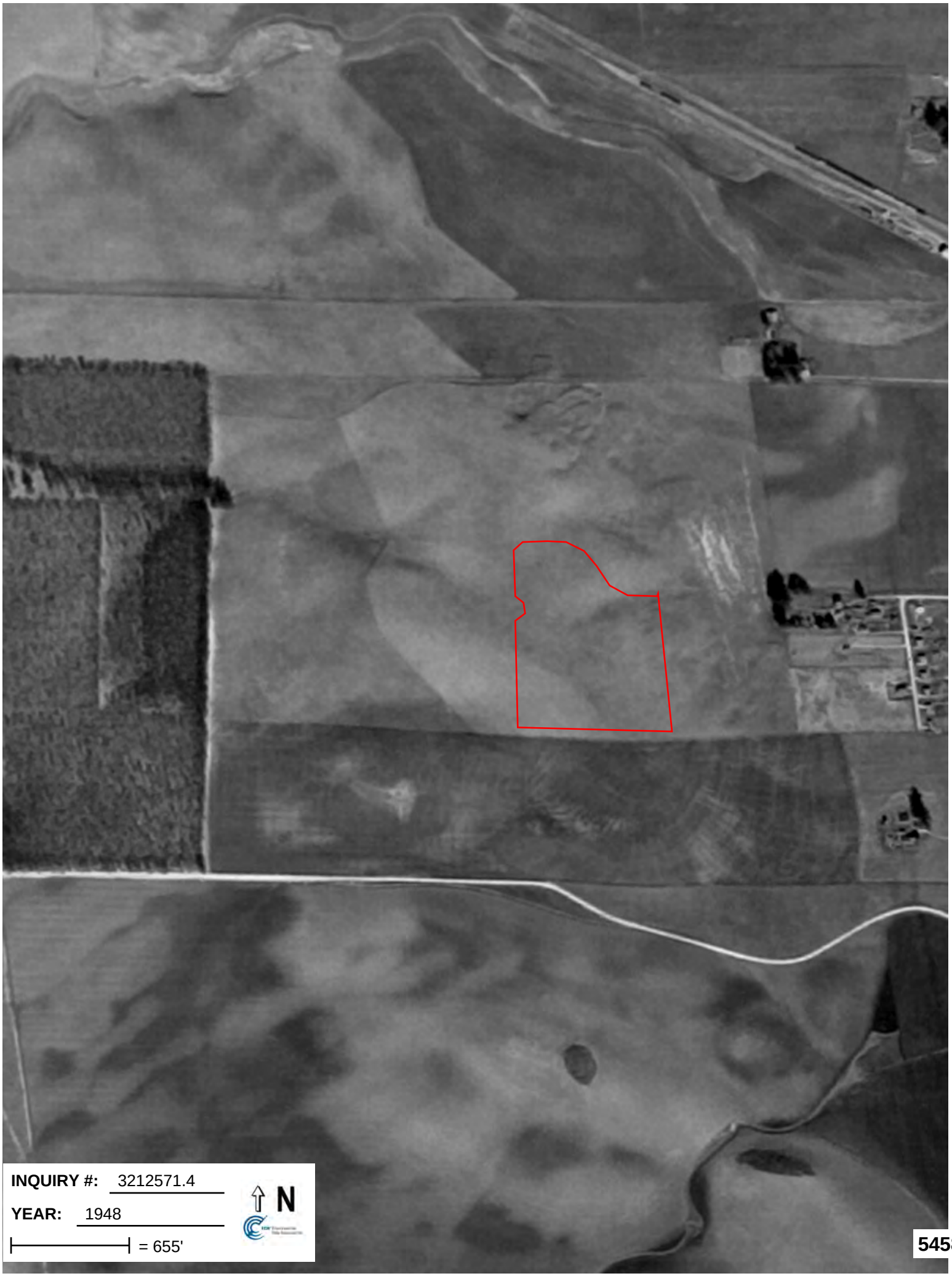
Target Property:

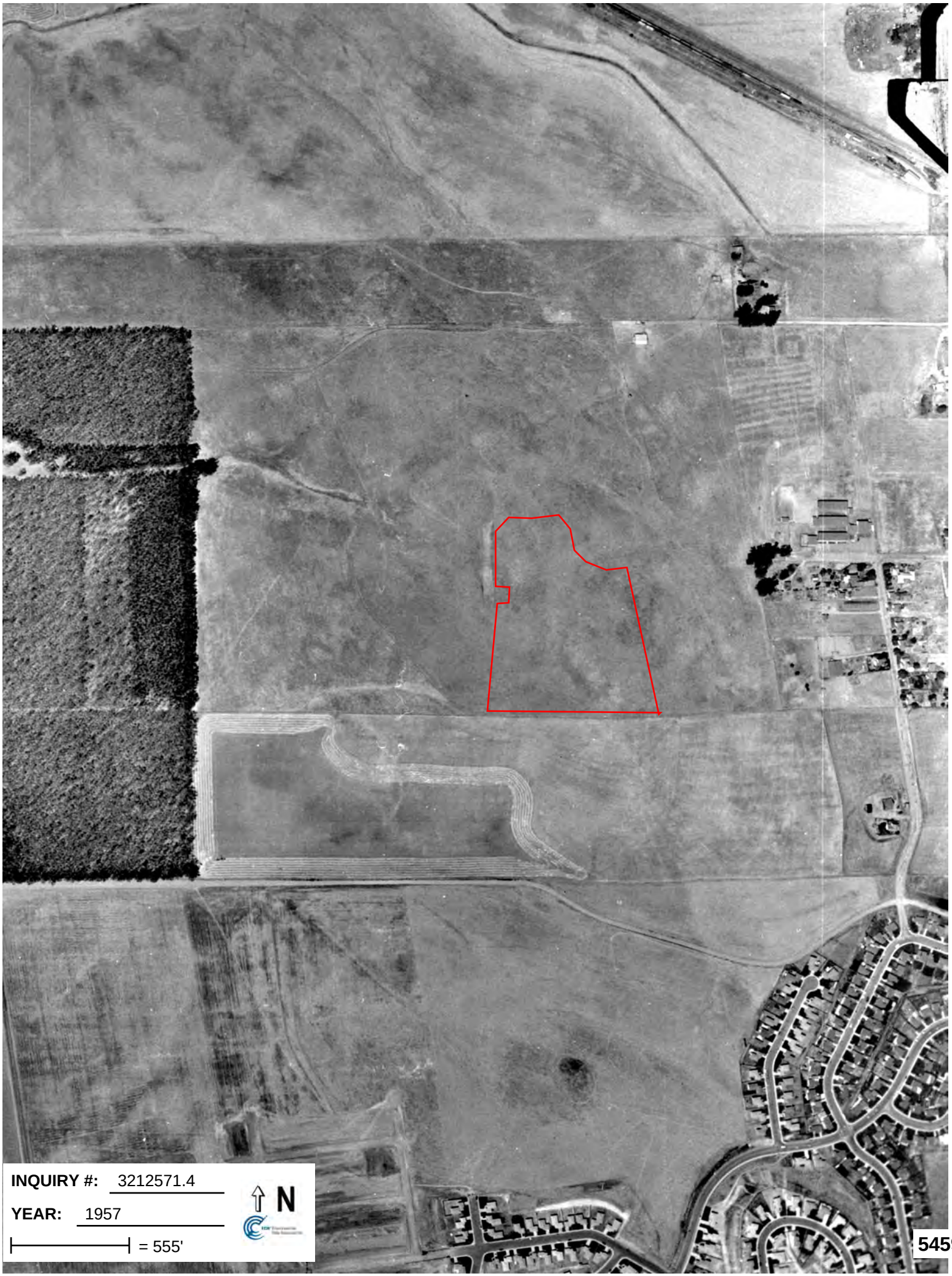
Napa Junction Road At Oat Hill

American Canyon, CA 94503

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=555'	Flight Year: 1937	Laval
1948	Aerial Photograph. Scale: 1"=655'	Flight Year: 1948	USGS
1957	Aerial Photograph. Scale: 1"=555'	Flight Year: 1957	Laval
1965	Aerial Photograph. Scale: 1"=333'	Flight Year: 1965	Cartwright
1970	Aerial Photograph. Scale: 1"=555'	Flight Year: 1970	Cartwright
1982	Aerial Photograph. Scale: 1"=690'	Flight Year: 1982	USGS
1993	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1993	EDR
1998	Aerial Photograph. Scale: 1"=666'	Flight Year: 1998	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR


INQUIRY #: 3212571.4
YEAR: 1937
= 555'
N
5457


INQUIRY #: 3212571.4
YEAR: 1948
= 655'
N


INQUIRY #: 3212571.4
YEAR: 1957
= 555'
N
5459


INQUIRY #: 3212571.4
YEAR: 1965
= 333'
N


INQUIRY #: 3212571.4
YEAR: 1970
= 555'
N
5461


INQUIRY #: 3212571.4
YEAR: 1982
= 690'
N


INQUIRY #: 3212571.4
YEAR: 1993
= 500'
N
5463


INQUIRY #: 3212571.4
YEAR: 1998
= 666'
N
5464


INQUIRY #: 3212571.4
YEAR: 2005
= 500'
N
5465

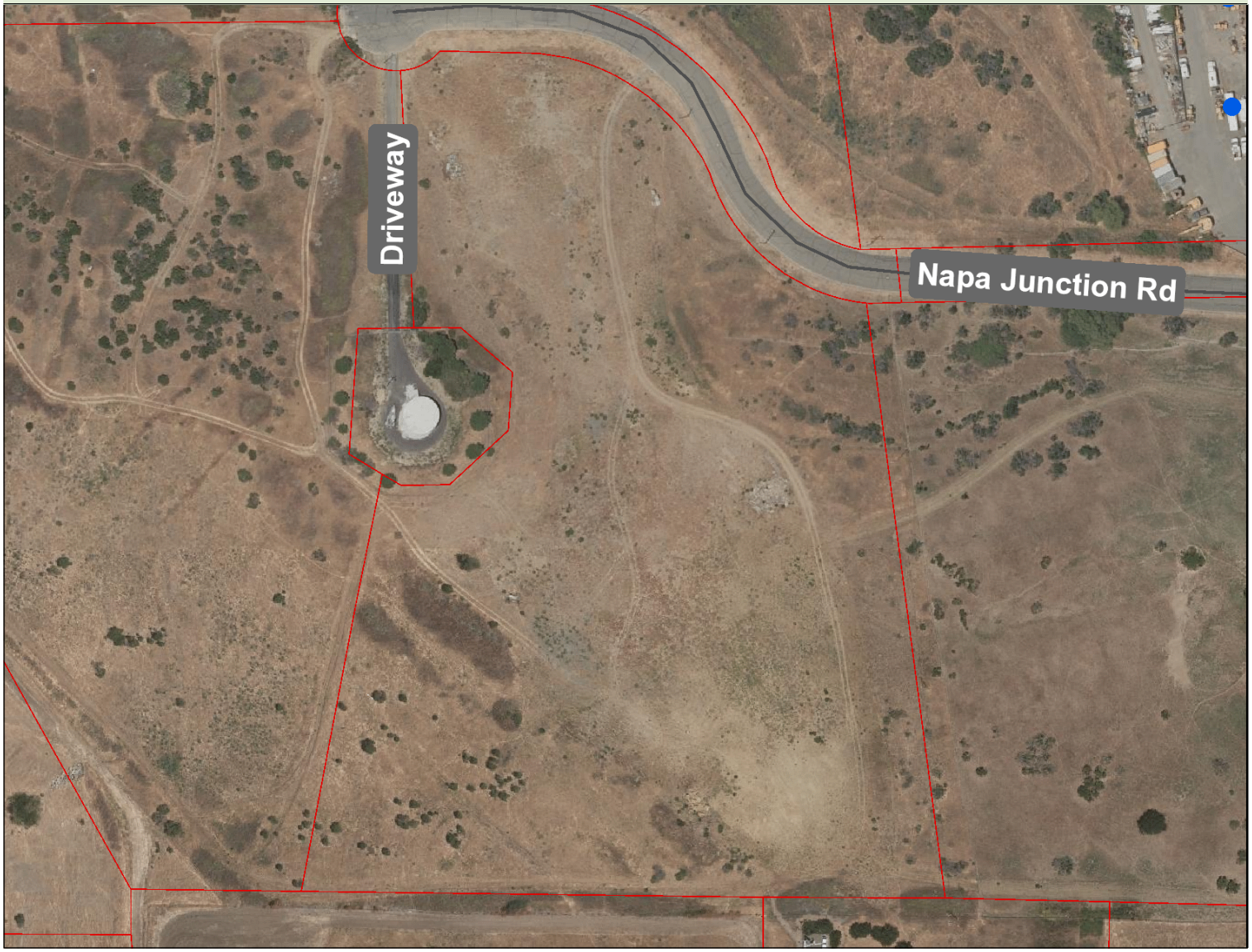

INQUIRY #: 3212571.4
YEAR: 2006
= 500'
N
5466

APPENDIX E

REGULATORY AGENCY RECORDS

Parcel Report for { 058380008000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org



Environmental Data

Alquist Priolo Faults:	Alquist Priolo faults found
Archaeology:	No Archaeological sites found
California Planar Coordinate:	DF267 DF268 Multiple results found. For more information, see report footnote**
CalVeg:	No CalVeg data found
CalWater Watershed: Hydrologic Region (HR) Hydrologic Unit (HU) Hydrologic Area (HA) Hydrologic Sub Area (HSA) Super Planning Watershed (SPW) Planning Watershed (PW)	HR: San Francisco Bay HU: San Pablo HA: Napa River HSA: Napa River SPW: Lower Napa River PW: Mouth of Napa River
Faults:	No Faults found
FEMA Flood Zone:	Parcel not in FEMA Flood Zone
Fire Hazard Severity:	High Fire Hazard Severity (SRA). Compliance with Chapter 7 A of the California Building Code is required for new construction.

Parcel Report for { 058380008000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

GW Ordinance:	Parcel not in a designated Groundwater Deficient Area (actual groundwater conditions may vary)
Landslides:	Landslides found
Local Drainage:	Rancho del Mar Creek North Slough Multiple results found. For more information, see report footnote**
Soil Type:	Fagan clay loam, 30 to 50 percent slopes, slipped
Special Species:	Potential Special Species may occur in this general area, please contact the Planning, Building, & Environmental Services Dept. for details*
Spotted Owls:	No Spotted Owls found

HazMat Releases - Local Oversight Program (LOP) (within 1500 ft):
MEDEIROS PROPERTY

HazMat Releases - Non-Local Oversight Program (Non-LOP) (within 1500 ft):
No Non-LOP hazardous materials releases found

Agricultural Use USTs (within 1500 ft):
No Agricultureal Use USTs found

Location of archaeological sites, spotted owls, and other sensitive resources are generalized to protect their exact locations. For this reason, there is no guarantee they are located within or outside of the subject parcel. Please contact PBES to learn more.

Boundary Data

Basemap Grid:	1 - C 2 - C Multiple results found. For more information, see report footnote**
Census Data:	Tract: 201005 Block Group: 1
County Zoning:	American Canyon - Refer to city. Zoning is only available for the unincorporated area.
Fire Jurisdiction:	American Canyon Fire
Garbage Zone 1:	Parcel not in Garbage Zone 1
Projected Township, Range & Section:	M04N04W24
School District:	Napa Valley Unified
Supervisor District:	District 5 - Belia Ramos
Township & Range:	T04N-R04W23 T04N-R04W24 Multiple results found. For more information, see report footnote**
USGS Topo Quad Name:	Cuttings Wharf
Voting Precinct:	561341

Imagery	
Description	**File**
2002 DTM & Imagery:	U - 10 Download U - 10 Image File Download U - 10 DTM CAD File Download U - 10 DTM Shapefile
2005 Imagery:	6482_1828 - *File(s) are not downloadable.*

Parcel Report for { 058380008000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

2007 Imagery:	L17-37NW Download L17-37NW Image File
2011 1 Foot Imagery:	481826 - *File(s) are not downloadable.*
2011 6 Inch Imagery:	484828 - *File(s) are not downloadable.*
Digital Ortho Quarter Quad (DOQQ) Imagery:	/data/aerials/doqq/cd6/cuttings_wharf_se.lan - *File(s) are not downloadable.*
Digital Terrain Model (DTM):	u10_topo.zip - *File(s) are not downloadable.*
USGS Topo Quad (DRG):	o38122b3.tif - *File(s) are not downloadable.*

Filed Maps:
058-38 - Assessor Map Page
14PM63 - Parcel Map
26RM27 - Record Map
12RM54 - Record Map
6RS47 - Record of Survey
14RM5 - Record Map
1AM89 - Assessment Districts
1AM70 - Assessment Districts
1AM71 - Assessment Districts
18RS62 - Record of Survey

Cultural Data

Schools (within 0.25 mi):
Napa Junction Elementary
Calvary Baptist Christian Academy

Parcel Report for { 058380008000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

Permit History

P12-00198 - { Planning / Miscellaneous Services / Pre-Application Meeting / NA }

Applied Date:	5/31/2012
Permit Status:	Appointment Made as of 5/31/2012
Assigned Staff:	

Permit Activity	E-Mail Contact
-Submittal was Active on 06/07/2012	Sean.Trippi@countyofnapa.org

Permit Inspections

No Inspection Data Available

For more information regarding inspections, email ***planning@countyofnapa.org***

**Note: Multiple results were found.
In some cases, multiple results could be valid; for example, Zoning.
In other cases, a parcel may cross over the boundary of more than one data area; for example, multiple Precincts.

To review any possible data issues, use the interactive map and turn on the relevant layers.

Disclaimer: *This report was prepared for informational purposes only. No liability is assumed for the accuracy of the data delineated hereon.*

Information as of Lien Date	**January 1st 2020**

View/Print Value Notice

Navigation	
New Search	Print
Property Information	
Assessor ID Number	058-380-008-000
Tax Rate Area (TRA)	005000
Last Recording Date	6/10/2004
Current Doc No.	2004R0024353
Property Type	VACANT LAND INDUSTRIAL
Acres	10.17
Lot Size(SqFt)	
Asmt Description	
Asmt Status	ACTIVE
Roll Values	
Land	476,708
Structural Imprv	
Fixtures Real Property	
Growing Imprv	
Total Land and Improvements	476,708
Fixtures Personal Property	
Personal Property	
Manufactured Homes	
Homeowners Exemption	
Other Exemption	
Net Assessed Value	476,708
Building Description(s)	
Building Seq. Number	
Unit Seq. Number	0
Building Code	
Number Of Units	
Building Square Footage	
Garage Square Footage	0.00
Unfinished Square Footage	
Year Built	
Bedrooms	
Full Baths	
Half Baths	
Fireplaces	
Pools	
Navigation	
New Search	

APPENDIX F

ASTM USER QUESTIONNAIRE

AEI Consultants

ASTM E 1527-13 USER QUESTIONNAIRE

To qualify for the protection offered under the EPA All Appropriate Inquiry (AAI) Standard, the User (entities seeking to use the ASTM E1527-13 Practice to complete an environmental site assessment of the property; i.e. Lenders and/or Borrowers) must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that AAI is not complete. This information should be the collective knowledge of the entities relying on the Phase I. **Please note that you are not being asked to evaluate the property, but rather to provide your knowledge of information on the property.**

Site Name/Address: OAT HILL PROJECT
APN# 058-380-008

Property Owner (Name/Title/Company): OAT HILL PROPERTIES II, LLC

Phone/Email: rick@thhcss.com

Key Site Personnel (Name/Title/Company): RICK HESS

Phone/Email: 925-487-1052

Past Owner (Name/Title/Company)

Phone/Email:

1. Environmental cleanup liens that are filed or recorded against the property (40 CFR 312.25).
Did a search of recorded land title records (or judicial records where appropriate, see NOTE 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

NOTE 1: In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

2. Activity and land use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi).
Did a search of recorded land title records (or judicial records where appropriate, see NOTE 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

Engineering Controls are defined as physical modifications to a site or facility to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property). Institutional Controls are defined as a legal or administrative restriction on the use of, or access to, a site or facility to 1) reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property, or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).
Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

☒ Yes ☐ No If yes, please include an explanation in the space provided below:

OUR FAMILY HAS OWNED PROPERTY SINCE 1978

NA

4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this property reasonably reflect the fair market value of the property?

☐ Yes ☐ No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

☐ Yes ☐ No

Comments:

5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

a. Do you know the past uses of the property?
☒ Yes ☐ No

b. Do you know of specific chemicals that are present or once were present at the property?
☐ Yes ☒ No

c. Do you know of spills or other chemical releases that have taken place at the property?
☐ Yes ☒ No

d. Do you know of any environmental cleanups that have taken place at the property?
☐ Yes ☒ No

If yes for questions above, please include an explanation in the space provided below:

6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

Person Interviewed:

Name: RICHARD H. HESS

Title/Company/ Affiliation with Property: OWNER

Signature: Richard H Hess

Date: 7-21-20

Phone/Email: rick@rhhess.com 925-487-1052

APPENDIX G

PREVIOUS REPORTS

December 7, 2011

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Property Identification:
Napa Junction Road at Oat Hill
Napa Junction Road at Oat Hill (APN 058-380-008
American Canyon, Napa County, California 94503

AEI Project No. 302503
Client Reference No. 29829

Prepared for:
DeNova Homes
1500 Willow Pass Court
Concord, California 94520

Prepared by:
AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
(925) 746-6000

San Francisco HQ
Atlanta
Chicago
Dallas
Denver
Irvine
Los Angeles
Miami
New York
Phoenix
Portland
San Jose

Napa Junction Road at Oat Hill
Napa Junction Road at Oat Hill, American Canyon, Napa County, California

Report Section		No Further Action	REC	HREC	BER	Recommended Action
2.1	Current use of subject property	X				
2.2	Adjoining property information	X				
3.1	Historical Summary	X				
4.0	Regulatory Agency Records Review	X				
5.0	Regulatory Database Records Review	X				
6.3	Previous Reports	X				
7.0	Site Inspection and Reconnaissance	X				
7.2.1	Asbestos-Containing Materials	X				
7.2.2	Lead-Based Paint	X				
7.2.3	Radon	X				
7.2.4	Lead in Drinking Water	X				
7.2.5	Mold	X				

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by DeNova Homes to conduct a Phase I Environmental Site Assessment (ESA), in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

PROPERTY DESCRIPTION

The subject property, which consists of vacant land, is located on the south side of Napa Junction Road in a mixed commercial and residential area of American Canyon, California. The property totals approximately 10.17 acres and is currently unimproved and unoccupied.

The property has consisted of unimproved pasture and/or undeveloped land from as early as 1937.

The subject property was not identified in the regulatory database.

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Napa Junction Road, followed by undeveloped land
South	Undeveloped land and a water tower
East	Undeveloped land
West	A water tower and undeveloped land
Northwest	A vacant commercial/industrial building (100 Napa Junction Road)

None of the adjacent sites were identified in the regulatory database.

Based upon topographic map interpretation and groundwater monitoring data for a nearby site, the direction of groundwater flow beneath the subject property is inferred to be to the east. Based on a *Quarterly Monitoring Report – First Quarter 2011* for a nearby site (3462 Broadway) prepared by Cook Environmental Services and dated September 29, 2011, groundwater is presumed to be present at an estimated depth of 5-10 feet below ground surface (bgs).

FINDINGS

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. AEI's assessment has revealed the following RECs associated with the subject property or nearby properties:

- No on-site RECs were identified during the course of this assessment.

Historical Recognized Environmental Conditions (HRECs) are defined by the ASTM Standard Practice E1527-05 as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized

environmental condition currently. AEI's assessment has revealed the following HRECs associated with the subject property or nearby properties:

- No on-site HRECs were identified during the course of this assessment.

De Minimis Environmental Conditions include environmental concerns identified by AEI that warrant discussion but do not qualify as RECs, as defined by the ASTM Standard Practice E1527-05. AEI's assessment has revealed the following de minimis environmental conditions associated with the subject property or nearby properties:

- No on-site de minimis environmental conditions were identified during the course of this assessment.

Business Environmental Risks (BERs) include risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the subject property, not necessarily limited to those environmental issues required to be investigated in the standard ASTM scope. BERs may affect the liabilities and financial obligations of the client, the health & safety of site occupants, and the value and marketability of the subject property. AEI's assessment has revealed the following BERs associated with the subject property or nearby properties:

- No BERs were identified during the course of this assessment.

CONCLUSIONS, OPINIONS AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California, in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report. This assessment has revealed no evidence of RECs in connection with the property. AEI recommends no further investigations for the subject property at this time.

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1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment (ESA) performed in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California (Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs).

1.1 SCOPE OF WORK

The purpose of the Phase I Environmental Site Assessment is to assist the client in identifying potential environmental liabilities associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property, as well as regulatory non-compliance that may have occurred at the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

The goal of AEI Consultants in conducting the Phase I Environmental Site Assessment was to identify the presence or likely presence of any hazardous substances or petroleum products on the property that may indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into the soil, groundwater, or surface water of the property.

1.2 SIGNIFICANT ASSUMPTIONS

The following assumptions are made by AEI Consultants in this report. AEI Consultants relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI Consultants has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow and depth to groundwater, unless otherwise specified by on-site well data, or well data from adjacent sites are assumed based on contours depicted on the United States Geological Survey topographic maps. AEI Consultants assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.3 LIMITATIONS

Property conditions, as well as local, state, tribal and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this study apply strictly to the environmental regulations and property conditions existing at the time the study was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI Consultants makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the study.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, vapor intrusion, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-05.

If requested by the client, these non-scope issues are discussed in Section 7.2. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). ASTM Standard Practice E1527-05 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1) 42 U.S.C § 9601(35)(B), referenced in the ASTM Standard Practice E1527-05.

2) Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

3) 42 U.S.C. 9601(40) and 42 U.S.C. 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, and observations and conditions that existed on the date and time of the property visit.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted

procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

1.4 LIMITING CONDITIONS

AEI was granted full and complete access to the subject property.

1.5 DATA GAPS AND DATA FAILURE

According to ASTM E1527-05, data gaps occur when the Environmental Professional is unable to obtain information required, despite good faith efforts to gather such information.

Data failure is one type of data gap. According to ASTM E1527-05 "data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met". Pursuant to ASTM Standards, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier.

No data gaps were identified during the course of this assessment.

1.6 RELIANCE

All reports, both verbal and written, are for the benefit of DeNova Homes. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by DeNova Homes on November 15, 2011. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The subject property, which consists of vacant land, is located on the south side of Napa Junction Road in a mixed commercial and residential area of American Canyon, California. The property totals approximately 10.17 acres and is currently unimproved and unoccupied.

The subject property was not identified in the regulatory database.

The Assessor's Parcel Number (APN) for the subject property is 058-380-008. Based on the undeveloped nature of the subject property, it is not current serviced by any utilities. According to the American Canyon Building Department (ACBD), properties in the vicinity of the subject property are serviced by Pacific Gas and Electric (PG&E) for natural gas and electricity, and municipal services (City of American Canyon) for potable water and sewage disposal.

Refer to Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs for site location.

2.2 SITE AND VICINITY CHARACTERISTICS

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Napa Junction Road, followed by undeveloped land
South	Undeveloped land and a water tower
East	Undeveloped land
West	A water tower and undeveloped land
Northwest	A vacant commercial/industrial building (100 Napa Junction Road)

None of the adjacent sites were identified in the regulatory database.

2.3 PHYSICAL SETTING

Geology: According to information obtained from the United States Geological Survey (USGS), the area surrounding the subject property is underlain by alluvial deposits of the Cenozoic-era. Based on a review of the United States Department of Agriculture (USDA) Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as the Fagan Series. Soils from this series are characterized as a clay loam.	
USGS Topographic Map:	*Cuttings Wharf, California* Quadrangle
Nearest surface water to subject property:	Napa River/Approximately 1.4 miles to the west
Gradient Direction/Source:	East/Topographic map interpretation and groundwater monitoring data for a nearby site
Estimated Depth to Groundwater/Source:	5-10 feet bgs/*Quarterly Monitoring Report – First Quarter 2011* for a nearby site (3462 Broadway) prepared by Cook Environmental Services and dated September 29, 2011

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

3.1 HISTORICAL SUMMARY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-05 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historic city directories, Sanborn fire insurance maps and agency records is as follows:

Date Range	Subject Property Description/Use	Source(s)
Circa 1937 - present	Unimproved pasture and/or undeveloped land	Aerial photographs, interview

The property has consisted of unimproved pasture and/or undeveloped land from as early as 1937.

No potential environmental concerns were identified in association with the current or historical use of the subject property.

If available, copies of historical sources are provided in the report appendices.

3.2 AERIAL PHOTOGRAPH REVIEW

AEI Consultants reviewed aerial photographs of the subject property and surrounding area. Aerial photographs were reviewed for the following years:

Date(s)	Scale	Subject Property Description	Surrounding Area Descriptions
1937 1948 1957 1965 1970	1" = 555' 1" = 655' 1" = 555 1" = 333' 1" = 555'	Appears as unimproved pasture land.	North: Unimproved pasture land South: Unimproved pasture land East: Unimproved pasture land West: Unimproved pasture land
1982	1" = 690'	Appears as undeveloped land with various dirt paths/roads on the lot.	North: Undeveloped land South: Undeveloped land East: Undeveloped land West: Undeveloped land
1993 2006	1" = 500' 1" = 500'	No significant changes noted from the 1982 aerial photograph. The subject property generally appears as it does today.	North: Napa Junction Road, followed by undeveloped land South: Undeveloped land and a water tower East: Undeveloped land West: A water tower and undeveloped land Northwest: A square-shaped commercial building (as it appears today)

3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of Environmental Data Resources, Inc. (EDR) collection of Sanborn Fire Insurance maps.

Sanborn map coverage was not available for the subject property.

3.4 CITY DIRECTORIES

Based on the historical undeveloped nature of the subject property and lack of a physical address, a search of historic city directories was not conducted for the subject property.

3.5 HISTORICAL TOPOGRAPHIC MAPS

In accordance with our approved scope of services, historical topographic maps were not reviewed as a part of this assessment.

3.6 CHAIN OF TITLE

In accordance with our approved scope of services, a Chain of Title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

4.1 REGULATORY AGENCIES

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous materials use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to Activity and Use Limitations (AULs), defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1.1 HEALTH DEPARTMENT

On November 25, 2011, AEI contacted the Napa County Environmental Health Department (NCEHD) for information on the subject property and nearby sites of concern. Files at this agency may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the NCEHD.

4.1.2 FIRE DEPARTMENT

On November 25, 2011, AEI contacted the American Canyon Fire District (ACFD) for information on the subject property to identify any evidence of previous or current hazardous material usage.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the ACFD.

4.1.3 BUILDING DEPARTMENT

On December 2, 2011, AEI contacted the American Canyon Building Department (ACBD) for information on the subject property in order to identify historical tenants and property use.

According to the ACBD, the subject property site has never been developed.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the ACBD.

4.1.4 PLANNING DEPARTMENT

On December 2, 2011, AEI contacted the American Canyon Planning Department (ACPD) for information on the subject property in order to identify AULs associated with the subject property.

No information indicating the existence of AULs was on file for the subject property with the ACPD.

4.1.5 COUNTY ASSESSOR OFFICE

On December 2, 2011, AEI contacted the Napa County assessor's office for information on the subject property in order to determine the earliest recorded date of development and use.

According to the Napa County assessor's office, the subject property has never been developed.

4.1.6 DEPARTMENT OF OIL AND GAS

Department of Oil and Gas (DOG) maps concerning the subject property and nearby properties were reviewed. DOG maps contain information regarding oil and gas development.

According to the DOG map, there are no oil or gas wells within 500 feet of the subject property. No environmental concerns were noted during the DOG map review.

4.1.7 OTHER AGENCIES SEARCHED

On December 2, 2011, AEI accessed the State Water Resources Control Board (SWRCB) GeoTracker Database for information on the subject property and nearby sites of concern. Files on this agency database may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property on the SWRCB GeoTracker Database.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted EDR to conduct a search of federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-05 are summarized in the following table. A copy of the regulatory database report is included in Appendix B of this report.

The subject property was not identified in the databases reviewed.

In determining if a site is a potential environmental concern to the subject property in the records summary table below, AEI has applied the following criteria to classify the site(s) as low concern: 1) the site(s) only hold an operating permit (which does not imply a release), 2) the site(s) have been granted "No Further Action" by the appropriate regulatory agency, and/or 3) based upon AEI's review, the distance and/or topographic position relative to the subject property reduce the level of risk associated with the site(s).

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
NPL	1	No	0	
DELISTED NPL	0.5	No	0	
CERCLIS	0.5	No	0	
CERCLIS NFRAP	0.5	No	0	
RCRA CORRACTS	1	No	0	
RCRA-TSD	0.5	No	0	
RCRA LG-GEN, SM-GEN, CESQGs, VGN, NLR	TP/ADJ		0	
US ENG CONTROLS	TP	No	0	
US INST CONTROLS	TP	No	0	
ERNS	TP	No	0	
STATE/TRIBAL HWS	1	No	0	
STATE/TRIBAL SWLF	0.5	No	1	No; the site is located over ¼-mile from the subject property.
STATE/TRIBAL REGISTERED STORAGE TANKS	TP/ADJ	No	0	

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
STATE/TRIBAL LUST	0.5	No	5	No; all five sites have been issued a Case Closed status by the local oversight program (LOP).
STATE/TRIBAL ENG-INST CONTROLS	TP	No	0	
STATE/TRIBAL VCP	0.5	No	0	
STATE/TRIBAL BROWNFIELD	0.5	No	0	
ORPHAN	N/A	No	37	None of the identified orphan sites are located in the immediate vicinity (500-feet) of the subject property, and therefore, these sites are not expected to represent a significant environmental concern.
NON-ASTM DATABASES	TP/ADJ	No	0	

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-05, the following interviews were performed during this investigation in order to obtain information indicating RECs in connection with the subject property.

6.1.1 INTERVIEW WITH OWNER

The subject property owner representative, Mr. Derek Pampe, was contacted by email on November 22, 2011 and December 2, 2011. Mr. Pampe has been associated with the subject property for five months. Mr. Pampe was asked if he was aware of any of the following:

Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	X	No
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	X	No
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	X	No
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	X	No

6.1.2 INTERVIEW WITH KEY SITE MANAGER

AEI was not accompanied during the site reconnaissance; therefore, an interview with a key site manager was not conducted.

6.1.3 PAST OWNERS, OPERATORS AND OCCUPANTS

Interviews with past owners and occupants regarding historical onsite operations were not reasonably ascertainable. However, based on information obtained from other sources including aerial photographs, building records, assessor records, and an interview, it is likely that the information provided by past owners and operators would have been duplicative.

6.1.4 INTERVIEW WITH OTHERS

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this section.

6.2 USER PROVIDED INFORMATION

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-05 and EPA's AAI Rule, certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the environmental professional. The responsibility for qualifying for Landowner Liability Protections (LLPs) by conducting the inquiries ultimately rests with the User, and providing the information to the environmental professional would be prudent if such information is available.

6.2.1 ENVIRONMENTAL LIENS

AEI was not informed by the User, DeNova Homes, of any environmental cleanup liens encumbering the subject property that are filed or recorded under federal, tribal, state or local law.

6.2.2 Activity and Land Use Limitations

AEI was not informed by the User of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state or local law.

6.2.3 Specialized Knowledge

AEI was not informed by the User of any specialized knowledge or experience related to the subject property or nearby properties.

6.2.4 Valuation Reduction for Environmental Issues

The User did not indicate to AEI any information to suggest that the valuation of the subject property is significantly less than the valuation for comparable properties due to environmental factors.

6.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not inform AEI of any commonly known or reasonably ascertainable information about the subject property which aided AEI in identifying conditions indicative of a release or threatened release.

6.2.6 Knowledge of Presence or Likely Presence of Contamination

The User did not inform AEI of any obvious indicators that pointed to the presence or likely presence of contamination at the subject property.

6.3 Previous Reports and Other Provided Documentation

No prior reports or relevant documentation in association with the subject property were made available to AEI during the course of this assessment.

7.0 SITE INSPECTION AND RECONNAISSANCE

On December 2, 2011, a site reconnaissance of the subject property and adjacent properties was conducted by Michael Audibert, REA of AEI in order to obtain information indicating the likelihood of RECs at the subject property and adjacent properties as specified in ASTM Standard Practice E1527-05 §8.4.2, 8.4.3 and 8.4.4. During the onsite reconnaissance, AEI was was not accompanied. During the onsite reconnaissance, AEI inspected the entire subject property site (the site is unimproved).

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
	X	Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
	X	Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Interior Stains or Corrosion
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
X		Other

The subject property currently consists of unimproved vacant land.

The above identified observed item is further discussed below.

OTHER

AEI observed scattered debris in various locations on the subject property lot. The debris consisted of various construction materials, including metal and plastic piping, concrete, and wood; as well as some scattered household trash items, including glass, plastic containers, paper, and other miscellaneous trash. None of these materials appeared to be hazardous. Based on their non-hazardous nature, the presence of these materials is not expected to represent a significant environmental concern.

7.2 NON-ASTM SERVICES

7.2.1 ASBESTOS-CONTAINING BUILDING MATERIALS

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect asbestos containing materials were identified during the site inspection.

7.2.2 LEAD-BASED PAINT

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect lead-based paint were identified during the site inspection.

7.2.3 RADON

Radon is a naturally-occurring, odorless, invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

Radon sampling was not requested as part of this investigation. According to the Department of Health Services (DHS) Radon Database for California for 2002, for one (1) total radon test conducted for the subject property zip code (94503), the one (1) test indicated an average indoor screening level below the action level of 4.0 pCi/L set forth by the EPA. Based on these results, radon does not appear to be a concern. However, testing would be required to determine site-specific radon levels.

7.2.4 DRINKING WATER SOURCES AND LEAD IN DRINKING WATER

The City of American Canyon supplies potable water to the subject property. The most recent water quality report states that lead levels in the areas water supply were well within standards established by the USEPA.

7.2.5 MOLD / INDOOR AIR QUALITY ISSUES

The subject property is currently vacant land or lacks structures. Consequently, mold was not addressed as part of this assessment.

7.3 ADJACENT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
	X	Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
X		Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
	X	Other

The above identified observed item is further discussed below.

ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Toxic polychlorinated biphenyls (PCBs) were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing". Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

One pad-mounted transformer was observed on the adjacent site to the northwest during the site inspection. No spills, staining or leaks were observed on or around the transformer. Based on the good condition of the equipment, the transformer is not expected to represent a significant environmental concern.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

By signing this report, the senior author declares that, to the best of his or her professional knowledge and belief, he or she meets the definition of *Environmental Professional* as defined in §312.10 of 40 CFR Part 312.

The senior author has the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. The senior author has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Michael Audibert, REA
Project Manager

Reviewed By:

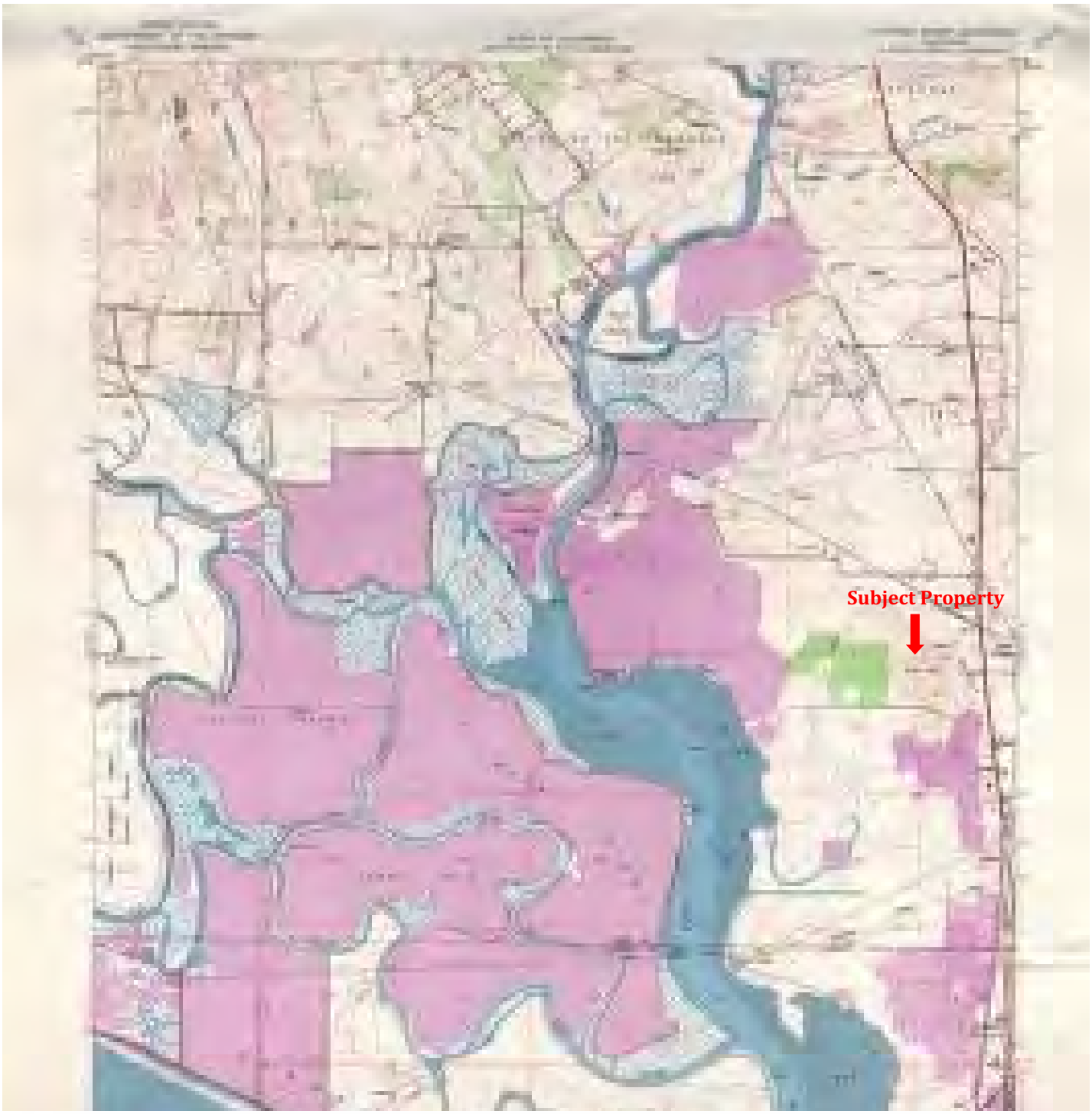


Steve Kovach, Environmental Professional
Senior Author

9.0 REFERENCES

Item	Date(s)	Source
Topographic Map	1994	United States Geological Survey (USGS)
Regulatory Database	November 23, 2011	Environmental Data Resources, Inc. (EDR)
Sanborn Maps (No Coverage)	November 23, 2011	EDR
Aerial Photographs	1937, 1948, 1957, 1965, 1970, 1982, 1993, 2006	EDR
Building Records Search	December 2011	American Canyon Building Department
Assessor Records	December 2011	Napa County Assessor
Environmental Records Search	December 2011	Napa County Environmental Health Department, American Canyon Fire District, State Water Resources Control Board GeoTracker Database
Soil Data	November 2011	U.S. Department of Agriculture – Natural Resources Conservation Service
Radon Data	October 2002	California Department of Health Services (DHS)
Interview/User Questionnaire	December 2, 2011	Mr. Derek Pampe, DeNova Homes

FIGURES



SITE LOCATION MAP

Napa Junction road at Oat Hill, American Canyon, California 94503

N

FIGURE 1

Source: USGS (1981)

Project Number: 302503

AEI Consultants



Inferred Direction of Groundwater Flow

SITE MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Legend

Approximate Property Boundary

FIGURE 2

Project Number: 302503

AEI Consultants

APPENDIX A

PROPERTY PHOTOGRAPHS



1. View of the north boundary of the subject property.



2. View of the east boundary of the subject property.



3. View of the south boundary of the subject property.



4. View of the west boundary of the subject property.



5. View of an adjacent property north (undeveloped land) beyond Napa Junction Road.



6. View of the adjacent property east (undeveloped land).



7. View of the adjacent property south (undeveloped land).



8. View of the adjacent property west (undeveloped land).



9. View of the adjacent northwest (vacant commercial/industrial building).



10. View from the center of the subject property facing north.



11. View from the center of the subject property facing east.



12. View from the center of the subject property facing south.



13. View from the center of the subject property facing west.



14. View of the adjacent Napa Junction Road to the north.



15. View of concrete debris on-site.



16. View of random construction debris on-site.



17. View of metal/iron piping debris on-site.



18. View of plastic piping debris on-site.



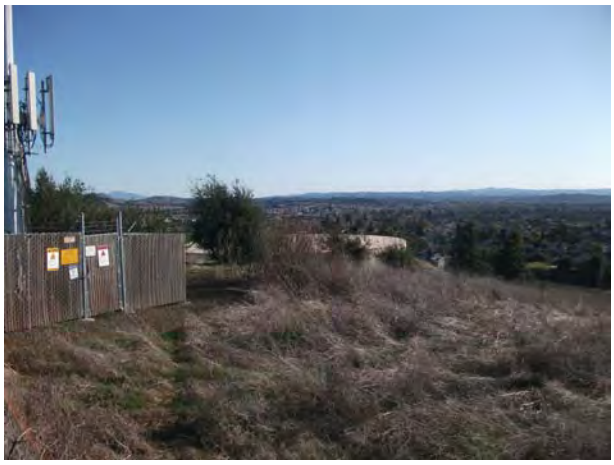
19. View of household trash debris on-site.



20. View of wood debris on-site.



21. View of the adjacent west reservoir (water) tank.



22. View of the adjacent south reservoir (water) tank.



23. View of the adjacent south cell tower.



24. View of adjacent (north, within Napa Junction Road) public utility access points.

APPENDIX B

REGULATORY DATABASE

Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Inquiry Number: 3212571.2s
November 23, 2011

The EDR Radius Map™ Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAPA JUNCTION ROAD AT OAT HILL
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.184400 - 38° 11' 3.8''
Longitude (West):	122.263100 - 122° 15' 47.2''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564537.6
UTM Y (Meters):	4226325.5
Elevation:	260 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	38122-B3 CUTTINGS WHARF, CA
Most Recent Revision:	1981
East Map:	38122-B2 CORDELIA, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2009, 2010
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

Proposed NPL ---- Proposed National Priority List Sites
NPL LIENS ---- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---- RCRA - Large Quantity Generators
RCRA-SQG ---- RCRA - Small Quantity Generators
RCRA-CESQG ---- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---- Engineering Controls Sites List
US INST CONTROL ---- Sites with Institutional Controls

Federal ERNS list

ERNS ---- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---- State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ---- EnviroStor Database

State and tribal leaking storage tank lists

SLIC ---- Statewide SLIC Cases
INDIAN LUST ---- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---- Aboveground Petroleum Storage Tank Facilities

INDIAN UST ---- Underground Storage Tanks on Indian Land
FEMA UST ---- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
WMUDS/SWAT ---- Waste Management Unit Database
SWRCY ---- Recycler Database
HAULERS ---- Registered Waste Tire Haulers Listing
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---- Clandestine Drug Labs
HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
Toxic Pits ---- Toxic Pits Cleanup Act Sites
CDL ---- Clandestine Drug Labs
US HIST CDL ---- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ---- Facility Inventory Database
HIST UST ---- Hazardous Substance Storage Container Database
SWEEPS UST ---- SWEEPS UST Listing

Local Land Records

LIENS 2 ---- CERCLA Lien Information
LUCIS ---- Land Use Control Information System
LIENS ---- Environmental Liens Listing
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen ---- RCRA - Non Generators

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
WDS	Waste Discharge System
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
Notify 65	Proposition 65 Records
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
ENF	Enforcement Action Listing
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PROC	Certified Processors Database
FINANCIAL ASSURANCE	Financial Assurance Information Listing
HWP	EnviroStor Permitted Facilities Listing
PCB TRANSFORMER	PCB Transformer Registration Database
MWMP	Medical Waste Management Program Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
HWT	Registered Hazardous Waste Transporter Database

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 08/22/2011 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANITARY LANDF	*WESTERN TERMINUS OF EUC*	*WSW 1/4 - 1/2 (0.406 mi.)*	*6*	*14*

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 09/19/2011 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER INC Status: Completed - Case Closed Status: Completed - Case Closed	*150 NAPA JUNCTION*	*NE 0 - 1/8 (0.003 mi.)*	*1*	*8*
MEDEIROS PROPERTY Status: Completed - Case Closed	*289 NAPA JUNCTION RD*	*E 1/8 - 1/4 (0.189 mi.)*	*2*	*11*
INDEPENDENT STAVE COMPANY	*4391 NAPA VALLEJO HWY*	*E 1/4 - 1/2 (0.338 mi.)*	*A3*	*12*
EVAN-ATHAN ENTERPRISES	*4381 NAPA VALLEJO HWY*	*E 1/4 - 1/2 (0.363 mi.)*	*A4*	*12*
EVAN ATHAN ENTERPRISES Status: Completed - Case Closed	*4381 BROADWAY*	*E 1/4 - 1/2 (0.364 mi.)*	*A5*	*13*

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 09/19/2011 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MEDEIROS PROPERTY	*289 NAPA JUNCTION RD*	*E 1/8 - 1/4 (0.189 mi.)*	*2*	*11*

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

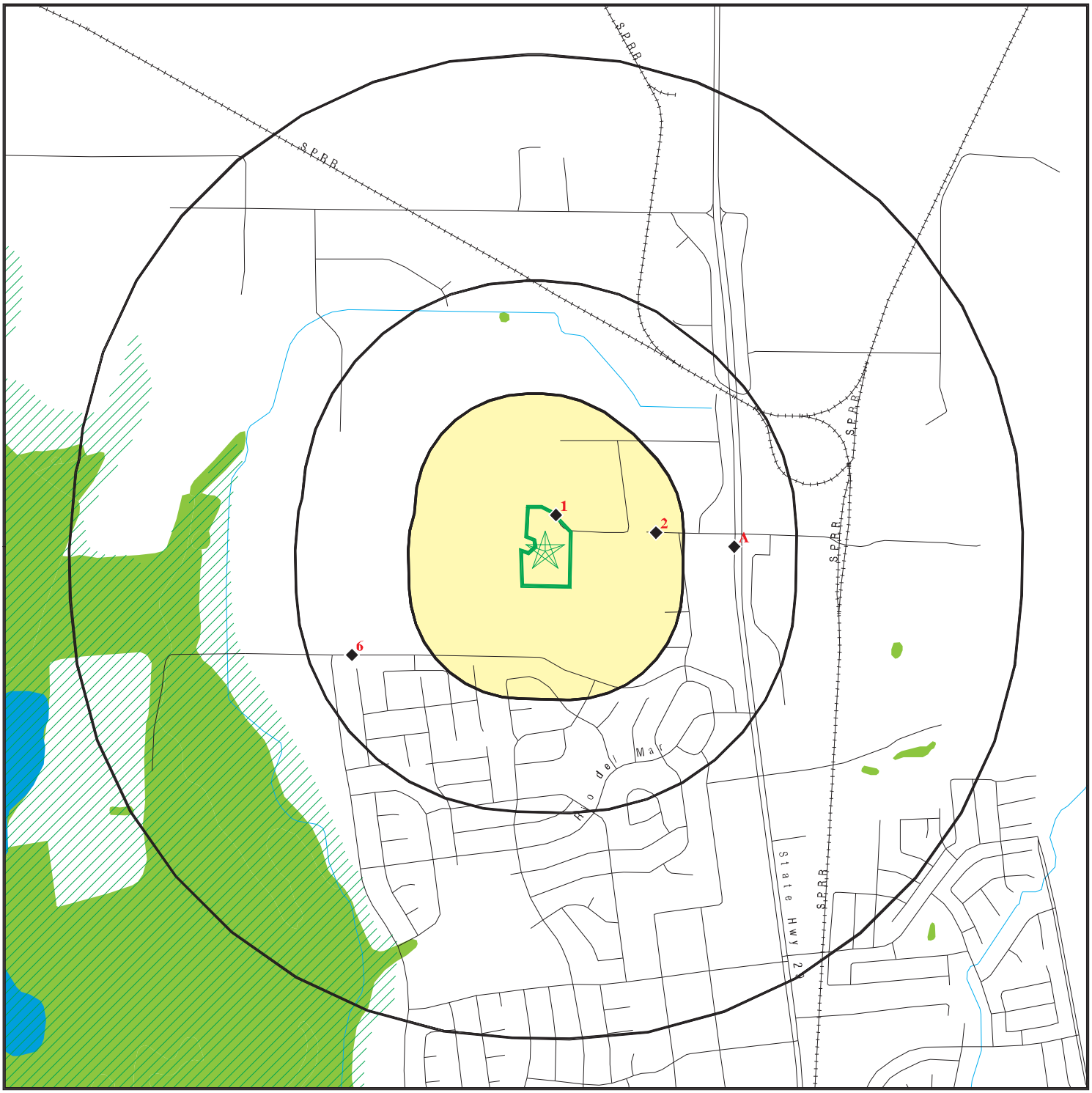
Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER INC	*150 NAPA JUNCTION*	*NE 0 - 1/8 (0.003 mi.)*	*1*	*8*
EVAN ATHAN ENTERPRISES	*4381 BROADWAY*	*E 1/4 - 1/2 (0.364 mi.)*	*A5*	*13*

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 37 records.

Site Name	Database(s)
NAPA CFCD-E. SIDE OF MAIN	ENF
ARCO	LUST SAN MATEO,HIST CORTESE
INDEPENDENT STAVE COMPANY	LUST SAN MATEO,HIST CORTESE
WEST NAPA PUMP STATION	HIST CORTESE
BARITELLE WINERY	LUST SAN MATEO,HIST CORTESE
NAPA AMERICAN CANYON JOIN	HIST CORTESE
NAPA CHARTER LINES	FID,SWEEPS UST
NAPA VALLEY COLLEGE	SWEEPS UST
TULUCAY SUBSTATION	FID,SWEEPS UST
NAPA SHOP	FID,SWEEPS UST
NSD WEST NAPA PUMP STATION	LUST SAN MATEO
PACIFIC AUTO SALVAGE, INC.	LUST SAN MATEO,UST ALAMEDA
MARKLEY COVE RESORT	LUST SAN MATEO
NAPA AMERICAN CANYON JOINT WASTE	LUST SAN MATEO
WEST NAPA PUMP STATION	LUST SAN MATEO
CENTRAL STATES CONCRETE PRODUC	HIST UST
TULUCAY SUBSTATION	HIST UST
MARKLEY COVE RESORT	AST
NAPA WYE	HAZNET
JAMESON CANYON WATER TREATMENT PLA	HAZNET
NAPA RECYCLING & WASTE SERVICE	HAZNET
NAPA ARMORY CA ARNG	HAZNET
NAPA COUNTY/DEPT OF ENVIRON MGMT	HAZNET
NAPA COUNTY ENVIRONMENTAL MANAGEME	HAZNET
NAPA COUNTY/EMERG RESPONSE ONLY	HAZNET
NAPA RIVER AT CUTTING WHARF NORTH	ERNS
NAPA RIVER ADJACENT TO JFK PARK	ERNS
NORTH OF HORSEBEND ON NAPA RIVER,	ERNS
NAPA FACILITY 2983 GREEN ISLAND RO	ERNS
NAPA FACILITY 2983 GREEN ISLAND RO	ERNS
DI ROSA PRESERVE	SLIC REGION 2
NAPA VALLEY WASTE MGMT AUTHORI	WDS
2577-2595 LAUREL ST. NAPA	WDS
NAPA COUNTY STORM WATER	WDS
SYAR INDUSTRIES	MINES
NAPA STATE HOSPITAL	EMI
NOVA GROUP, INC.	ENVIROSTOR

OVERVIEW MAP - 3212571.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Napa Junction Road At Oat Hill	CLIENT: AEI Consultants
ADDRESS: Napa Junction Road At Oat Hill American Canyon CA 94503	CONTACT: Karina Garcia
LAT/LONG: 38.1844 / 122.2631	INQUIRY #: 3212571.2s DATE: November 23, 2011 9:47 am

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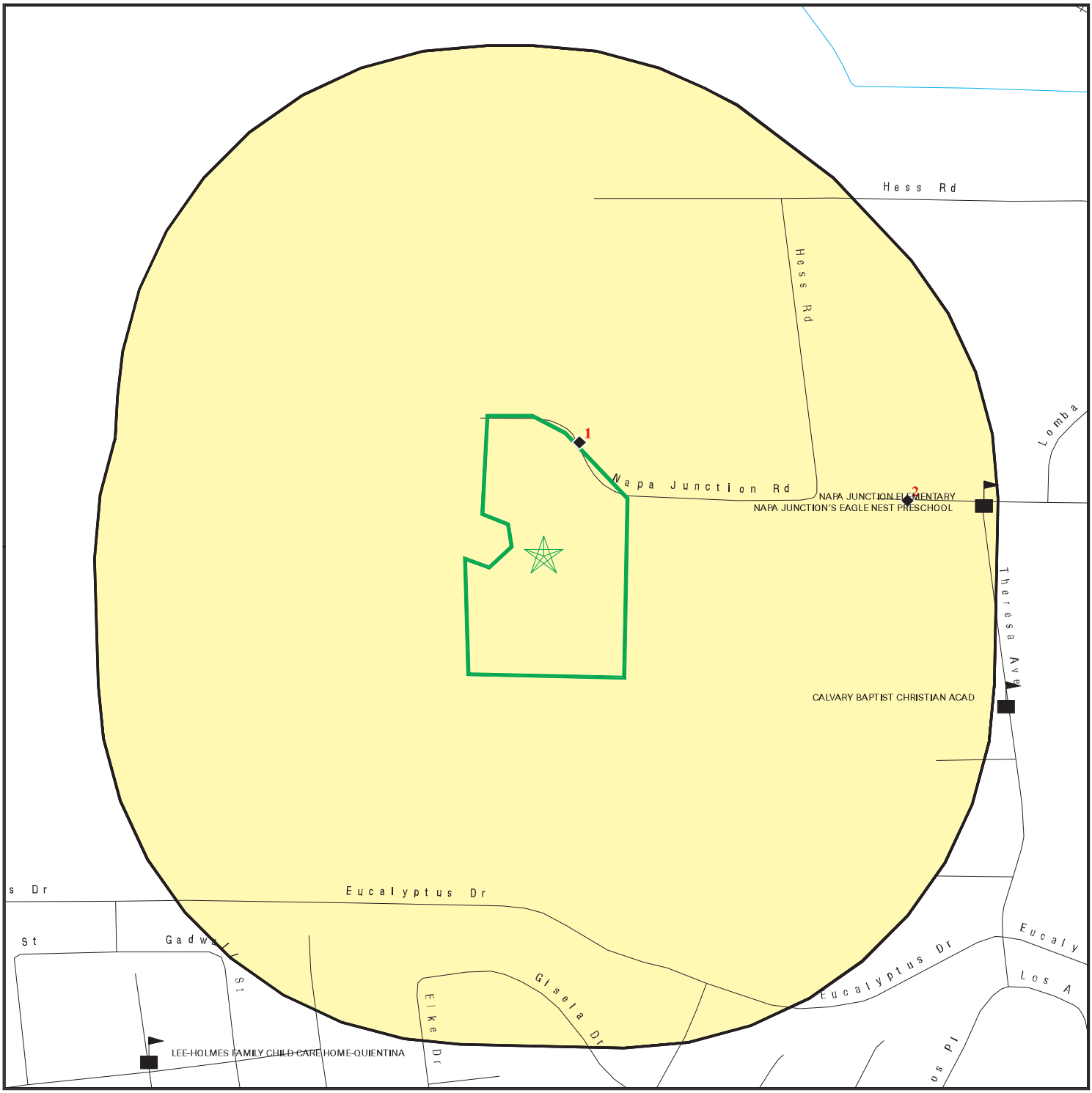
DETAIL MAP - 3212571.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

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SITE NAME: Napa Junction Road At Oat Hill	CLIENT: AEI Consultants
ADDRESS: Napa Junction Road At Oat Hill American Canyon CA 94503	CONTACT: Karina Garcia
LAT/LONG: 38.1844 / 122.2631	INQUIRY #: 3212571.2s DATE: November 23, 2011 9:48 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
LUST		0.500	1	1	3	NR	NR	5
SLIC		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	1	NR	NR	NR	1
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP		0.500	0	0	0	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.250	0	0	NR	NR	NR	0
HIST UST		0.250	0	0	NR	NR	NR	0
SWEEPS UST		0.250	0	0	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
CHMIRS		TP	NR	NR	NR	NR	NR	0
LDS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0
HIST CORTESE		0.500	1	0	1	NR	NR	2
Notify 65		1.000	0	0	0	0	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
ENF		TP	NR	NR	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
HWT		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NE
< 1/8
0.003 mi.
14 ft.

GOLDEN STATE LUMBER INC
150 NAPA JUNCTION
VALLEJO, CA 94590

HIST CORTESE
LUST

1001610888
N/A

Relative:
Lower

Actual:
228 ft.

CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0248

Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0212

LUST:
Region: STATE
Global Id: T0605591147
Latitude: 38.1773
Longitude: -122.252
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/02/2001
Lead Agency: NAPA COUNTY LOP
Case Worker: Not reported
Local Agency: NAPA COUNTY LOP
RB Case Number: 28-0248
LOC Case Number: 28-0248
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0605591147
Contact Type: Local Agency Caseworker
Contact Name: Napa LOP
Organization Name: NAPA COUNTY LOP
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

Global Id: T0605591147
Contact Type: Regional Board Caseworker
Contact Name: MARY ROSE CASSA
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: mcassa@waterboards.ca.gov
Phone Number: 5106222447

LUST:
Global Id: T0605591147
Action Type: Other

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Date: 1950-01-01 00:00:00
Action: Leak Reported

Global Id: T0605591147
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0605591147
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Stopped

Region: STATE
Global Id: T0605500191
Latitude: 38.178389
Longitude: -122.252889
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/07/2001
Lead Agency: NAPA COUNTY LOP
Case Worker: ZZZ
Local Agency: NAPA COUNTY LOP
RB Case Number: 28-0212
LOC Case Number: 0340
File Location: Not reported
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0605500191
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: NAPA COUNTY LOP
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

Global Id: T0605500191
Contact Type: Regional Board Caseworker
Contact Name: MARY ROSE CASSA
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: mcassa@waterboards.ca.gov
Phone Number: 5106222447

LUST:
Global Id: T0605500191
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Global Id: T0605500191
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0605500191
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Stopped

Global Id: T0605500191
Action Type: ENFORCEMENT
Date: 1992-05-26 00:00:00
Action: * Historical Enforcement

LUST REG 2:
Region: 2
Facility Id: 28-0212
Facility Status: Case Closed
Case Number: 0340
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 11/6/1990
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Region: 2
Facility Id: 28-0248
Facility Status: Case Closed
Case Number: 28-0248
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 2/15/1996
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

2
East
1/8-1/4
0.189 mi.
998 ft.

MEDEIROS PROPERTY
289 NAPA JUNCTION RD
AMERICAN CANYON, CA 94503

LUST U003659767
UST N/A

Relative:
Lower

Actual:
64 ft.

LUST:

Region:	STATE
Global Id:	T0605500249
Latitude:	38.1849014
Longitude:	-122.2582196
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/20/1998
Lead Agency:	NAPA COUNTY LOP
Case Worker:	ZZZ
Local Agency:	NAPA COUNTY LOP
RB Case Number:	28-0292
LOC Case Number:	0670
File Location:	Local Agency
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0605500249
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY LOP
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

Global Id:	T0605500249
Contact Type:	Regional Board Caseworker
Contact Name:	MARY ROSE CASSA
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET
City:	OAKLAND
Email:	mcassa@waterboards.ca.gov
Phone Number:	5106222447

LUST:

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Reported

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Discovery

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00

MEDEIROS PROPERTY (Continued) **U003659767**

Action: Leak Stopped

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0670
Date Closed: 8/20/1998

LUST REG 2:
Region: 2
Facility Id: 28-0292
Facility Status: Case Closed
Case Number: 0670
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

NAPA CO. UST:
Facility ID: NAPA0670
Num of Tanks: 0

A3 **INDEPENDENT STAVE COMPANY** **LUST U003659758**
East **4391 NAPA VALLEJO HWY** **UST N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503**
0.338 mi.
1787 ft. **Site 1 of 3 in cluster A**

Relative:
Lower

Actual:
62 ft.

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0374
Date Closed: 9/19/2007

NAPA CO. UST:
Facility ID: NAPA0374
Num of Tanks: 0

A4 **EVAN-ATHAN ENTERPRISES** **LUST U003659757**
East **4381 NAPA VALLEJO HWY** **UST N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503**
0.363 mi.
1914 ft. **Site 2 of 3 in cluster A**

Relative:
Lower

Actual:
63 ft.

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0609
Date Closed: 5/10/1995

EVAN-ATHAN ENTERPRISES (Continued) **U003659757**

NAPA CO. UST:
Facility ID: NAPA0609
Num of Tanks: 0

A5 **EVAN ATHAN ENTERPRISES** **HIST CORTESE** **S105022491**
East **4381 BROADWAY** **LUST** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94589**
0.364 mi.
1922 ft. **Site 3 of 3 in cluster A**

Relative:
Lower

Actual:
63 ft.

CORTESE:
Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0235

LUST:
Region: STATE
Global Id: T0605500209
Latitude: 38.181784
Longitude: -122.254271
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/10/1995
Lead Agency: NAPA COUNTY LOP
Case Worker: ZZZ
Local Agency: NAPA COUNTY LOP
RB Case Number: 28-0235
LOC Case Number: 0609
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0605500209
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: NAPA COUNTY LOP
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

Global Id: T0605500209
Contact Type: Regional Board Caseworker
Contact Name: MARY ROSE CASSA
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: mcassa@waterboards.ca.gov
Phone Number: 5106222447

LUST:
Global Id: T0605500209

EVAN ATHAN ENTERPRISES (Continued) **S105022491**

Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

Global Id: T0605500209
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0605500209
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Stopped

LUST REG 2:
Region: 2
Facility Id: 28-0235
Facility Status: Case Closed
Case Number: 0609
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 10/7/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

---

6 **AMERICAN CANYON SANITARY LANDFILL** **SWF/LF** **S102361374**
WSW **WESTERN TERMINUS OF EUCALYPTUS DRIVE** **FINANCIAL ASSURANCE** **N/A**
1/4-1/2 **NAPA, CA**
0.406 mi.
2146 ft.

Relative:
Lower

Actual:
26 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 28-AA-0001
Lat/Long: 38.18056 / -122.27556
Owner Name: Napa-Vallejo Waste Management Authority
Owner Telephone: 7072534545
Owner Address: Not reported
Owner Address2: 1195 Third Street, Room 101
Owner City,St,Zip: Napa, CA 94559
Operator: Napa-Vallejo Waste Management Authority
Operator Phone: 7072534545
Operator Address: Not reported
Operator Address2: 1195 Third Street, Room 101
Operator City,St,Zip: Napa, CA 94559
Operator's Status: Closed
Permit Date: 10/09/1996
Permit Status: Permitted
Permitted Acreage: 122
Activity: Solid Waste Landfill

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Regulation Status: Permitted
Landuse Name: Agricultural
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Mixed municipal
Closure Date: 12/01/1994
Closure Type: Actual
Disposal Acreage: 97
SWIS Num: 28-AA-0001
Waste Discharge Requirement Num: III
Program Type: Financial Assurance Responsibilities
Permitted Throughput with Units: 1350
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 4900000
Remaining Capacity: Not reported
Remaining Capacity with Units: Cubic Yards

FINANCIAL ASSURANCE 2:
Region: 2
Id Number: 28-AA-0001
SWIS_NO: 28-AA-0001
Closure Approved: Yes
Closure Inf Coverage Date: Not reported
Closure Plan Coverage: 3301570
Closure Plan Date: 04/15/2005
PostClose Approved: Yes
PostClose Adequacy Date: 07/25/2005
PostClose Inf Coverage: 25388985
PostClose Inf Coverage Date: 06/01/2007
CorActCoverage: 842462
CorActApproved: Yes
CorAct Mec Adequacy Date: Not reported
CorAct Inf Coverage: 842462
CorActPlanCoverage: 767000
CorAct Plan Date: 09/25/2003
Lia Coverage: 1000000
Lia Approved: Yes
Review: 02/21/2008
Cost Anniversary: 02/10/2008
Closure Mechanism A: Not reported
Closure Extablished A: Not reported
Closure Mechanism B: Not reported
Closure Established B: Not reported
Closure Coverage: 0
Closure Adequacy: Not reported
Closure Approved: Yes
Closure Disbursement: 0
Closure Inflation Estimate: 0
Closure Inflation Date: Not reported
Closure Plan Coverage: 3301570
Closure Plan Date: 04/15/2005
Post Closure Mechanism A: PLEDGE OF REVENUE
Post Closure Established A: 05/13/1994
Post Closure Mechanism B: Not reported
Post Closure Established B: Not reported

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Post Closure Coverate:	25388985
Post Closure Adequacy:	Not reported
Post Closure Approved:	Yes
Post Closure Disbursement:	0
Post Close Inflation Estimate:	25388985
Post Closure Inflation Date:	06/01/2007
Post Closure Plan Estimate:	483500
Post Closure Plan Date:	07/25/2005
Corrective Action Mechanism A:	PLEDGE OF REVENUE
Corrective Action Extablished A:	Not reported
Corrective Action Mechanism B:	Not reported
Corrective Action Extablished B:	Not reported
Corrective Actiont Coverage:	842462
Corrective Action Adequacy:	Not reported
Corrective Action Approved:	Yes
Corrective Action Disbursement:	0
Corrective Action Inflation Estimate:	842462
Corrective Action Inflationdate:	06/01/2007
Corrective Action Plan Estimate:	767000
Corrective Action Plan Date:	09/25/2003
Liability Mechanism A:	INS & ENVIRONMENTAL FUND
Liability Established A:	06/29/1992
Liability Mechanism B:	Not reported
Liability Established B:	Not reported
Liability Coverage:	1000000
Liability Adequacy:	Not reported
Liability Approved:	Yes
Contacts:	Not reported

Count: 37 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
VALLEJO	92268182	NAPA FACILITY 2983 GREEN ISLAND RO	NAPA FACILITY 2983 GREEN ISLAN	94590	ERNS
VALLEJO	92467813	NAPA FACILITY 2983 GREEN ISLAND RO	NAPA FACILITY 2983 GREEN ISLAN	94590	ERNS
NAPA	93306890	NORTH OF HORSEBEND ON NAPA RIVER,	NORTH OF HORSEBEND ON NAPA RIV	94558	ERNS
NAPA	93306891	NAPA RIVER ADJACENT TO JFK PARK	NAPA RIVER ADJACENT TO JFK PAR	94558	ERNS
NAPA	94393088	NAPA RIVER AT CUTTING WHARF NORTH	NAPA RIVER AT CUTTING WHARF NO	94558	ERNS
NAPA	A100324331	MARKLEY COVE RESORT	7521 HWY 128	94558	AST
	M300006783	SYAR INDUSTRIES	NAPA QUARRY		MINES
	S100633572	NAPA COUNTY/EMERG RESPONSE ONLY	NAPA COUNTY	00000	HAZNET
NAPA	S100940558	NAPA ARMORY CA ARNG	13606 MENLO AVE	94558	HAZNET
NAPA	S100940560	NAPA COUNTY/DEPT OF ENVIRON MGMT	NAPA VALLEY COLLGE/SO PARK LOT	94558	HAZNET
NAPA	S101623948	NAPA CHARTER LINES	N BAY WAY & WALL ST	94558	FID,SWEEPS UST
NAPA	S101623953	NAPA SHOP	TOWER RD & HWY 29	94558	FID,SWEEPS UST
NAPA	S101623998	TULUCAY SUBSTATION	2760 NAPA-VALLEJO HWY	94558	FID,SWEEPS UST
NAPA	S103978849	NAPA COUNTY ENVIRONMENTAL MANAGEME	NAPA VALLEY COLLEGE	94558	HAZNET
NAPA	S104914963	WEST NAPA PUMP STATION	COOMBS ST	94558	HIST CORTESE
AMERICAN CANYON	S105022493	ARCO	3462 29	94589	LUST SAN MATEO,HIST CORTESE
AMERICAN CANYON	S105022494	INDEPENDENT STAVE COMPANY	4391 29	94589	LUST SAN MATEO,HIST CORTESE
NAPA	S105025137	BARITELLE WINERY	1546 HELENA HWY		LUST SAN MATEO,HIST CORTESE
NAPA	S105025143	NAPA AMERICAN CANYON JOIN	SOSCOL RD	94558	HIST CORTESE
NAPA	S105256202	2577-2595 LAUREL ST. NAPA	2577 2577-2595 LAUREL ST	94559	WDS
NAPA	S105773234	NSD WEST NAPA PUMP STATION	COOMBS ST	94558	LUST SAN MATEO
NAPA	S106094279	NAPA WYE	1200 FT S O HWY 12	94558	HAZNET
AMERICAN CANYON	S106101896	NAPA VALLEY WASTE MGMT AUTHORI	WEST END OF EUCALYPTUS RD	94503	WDS
NAPA	S106162514	NAPA AMERICAN CANYON JOINT WASTE	UNKNOWN SOSCOL FERRY RD	94558	LUST SAN MATEO
NAPA	S106163014	WEST NAPA PUMP STATION	UNKNOWN COOMBS ST	94558	LUST SAN MATEO
	S106800345	NAPA COUNTY STORM WATER	STORMWATER MANAGEMENT SYSTEMS	0	WDS
NAPA	S106836112	NAPA STATE HOSPITAL	IMOLA AVE, EAST OF HIGHWAY 12	94558	EMI
NAPA	S106929780	NAPA VALLEY COLLEGE	NAPA VALLEJO HWY	94558	SWEEPS UST
NAPA	S108749003	JAMESON CANYON WATER TREATMENT PLA	LAT 381319N LONG 1221327W	94558	HAZNET
NAPA	S108751575	NAPA RECYCLING & WASTE SERVICE	820 LEVITIAN WAY	94558	HAZNET
NAPA	S109117953	DI ROSA PRESERVE	5200 CARNEROS HIGHWAY 121		SLIC REGION 2
LAKE BERRYESSA	S109849936	MARKLEY COVE RESORT	7521 HWY 128	94558	LUST SAN MATEO
NAPA	S110494113	NOVA GROUP, INC.	7411 NAPA-VALLEJO HIGHWAY	94558	ENVIROSTOR
NAPA	S111212954	NAPA CFCD-E. SIDE OF MAIN	MAIN ST, BETWEEN 3RD AND 4TH	94558	ENF
NAPA	U001597512	CENTRAL STATES CONCRETE PRODUC	HWY 29 & TOWER RD	94558	HIST UST
NAPA	U001597672	TULUCAY SUBSTATION	2760 NAPA-VALLEJO HIGHWAY	94558	HIST UST
NAPA	U003763636	PACIFIC AUTO SALVAGE, INC.	5759 NAPA VALLEJO HWY	94558	LUST SAN MATEO,UST ALAMEDA

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010
Date Data Arrived at EDR: 01/11/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/14/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/09/2011
Date Data Arrived at EDR: 03/15/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 91

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/22/2011
Date Data Arrived at EDR: 08/24/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 40

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/01/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/16/2011
Date Data Arrived at EDR: 06/02/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 103
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 39

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 06/01/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 13

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 18

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/28/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/08/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/07/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 08/11/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8
Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31
Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/13/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 94

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/01/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 41

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/31/2011
Date Data Arrived at EDR: 09/14/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 15

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/14/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/08/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/27/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/19/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/13/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/13/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 08/23/2011
Date Data Arrived at EDR: 08/24/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 40
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 21
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 07/21/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/19/2011
Date Made Active in Reports: 08/16/2011
Number of Days to Update: 28

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/30/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 10/18/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/16/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/21/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 38
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339
Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/09/2011
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 03/29/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 12/01/2010
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/30/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Semi-Annually

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 24

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/18/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/08/2011
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/27/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 20

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/09/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 29

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/28/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/24/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/22/2011
Number of Days to Update: 28
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/25/2011
Next Scheduled EDR Contact: 11/07/2011
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 26
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/04/2011
Number of Days to Update: 21

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 20

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 09/23/2011
Date Data Arrived at EDR: 09/23/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 31

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/22/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 27

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/18/2011
Number of Days to Update: 35

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/26/2012
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/12/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 27

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/14/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 25

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/26/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/16/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 11/16/2010
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 70

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/27/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/13/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 27

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/12/2012
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/22/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 32

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 09/06/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 32

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 08/31/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 9

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/31/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/06/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 36

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/26/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 24

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 07/26/2011
Date Data Arrived at EDR: 08/08/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 32

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/30/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/23/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 24

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/18/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 38

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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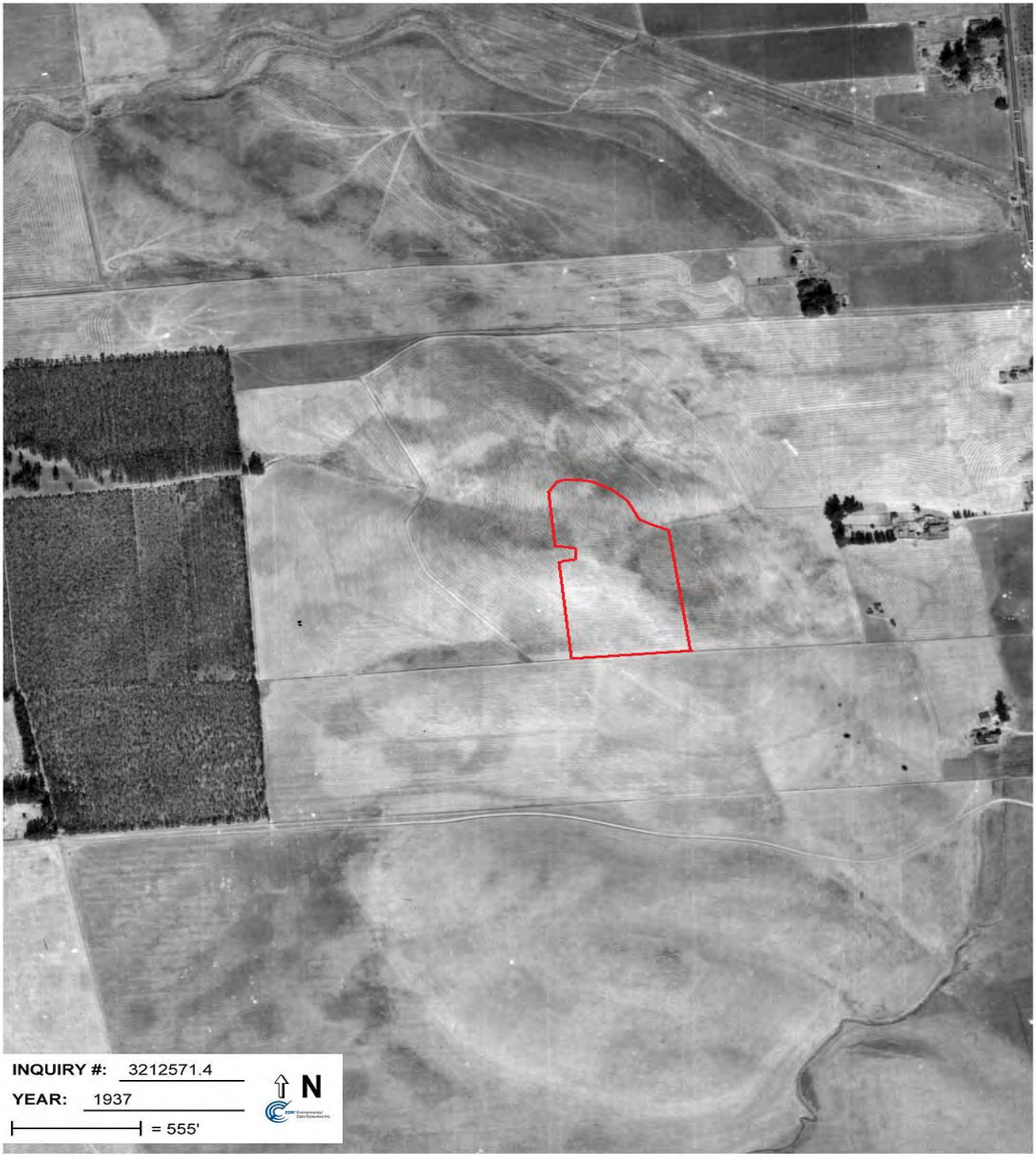
APPENDIX C

HISTORICAL SOURCES



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1937

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

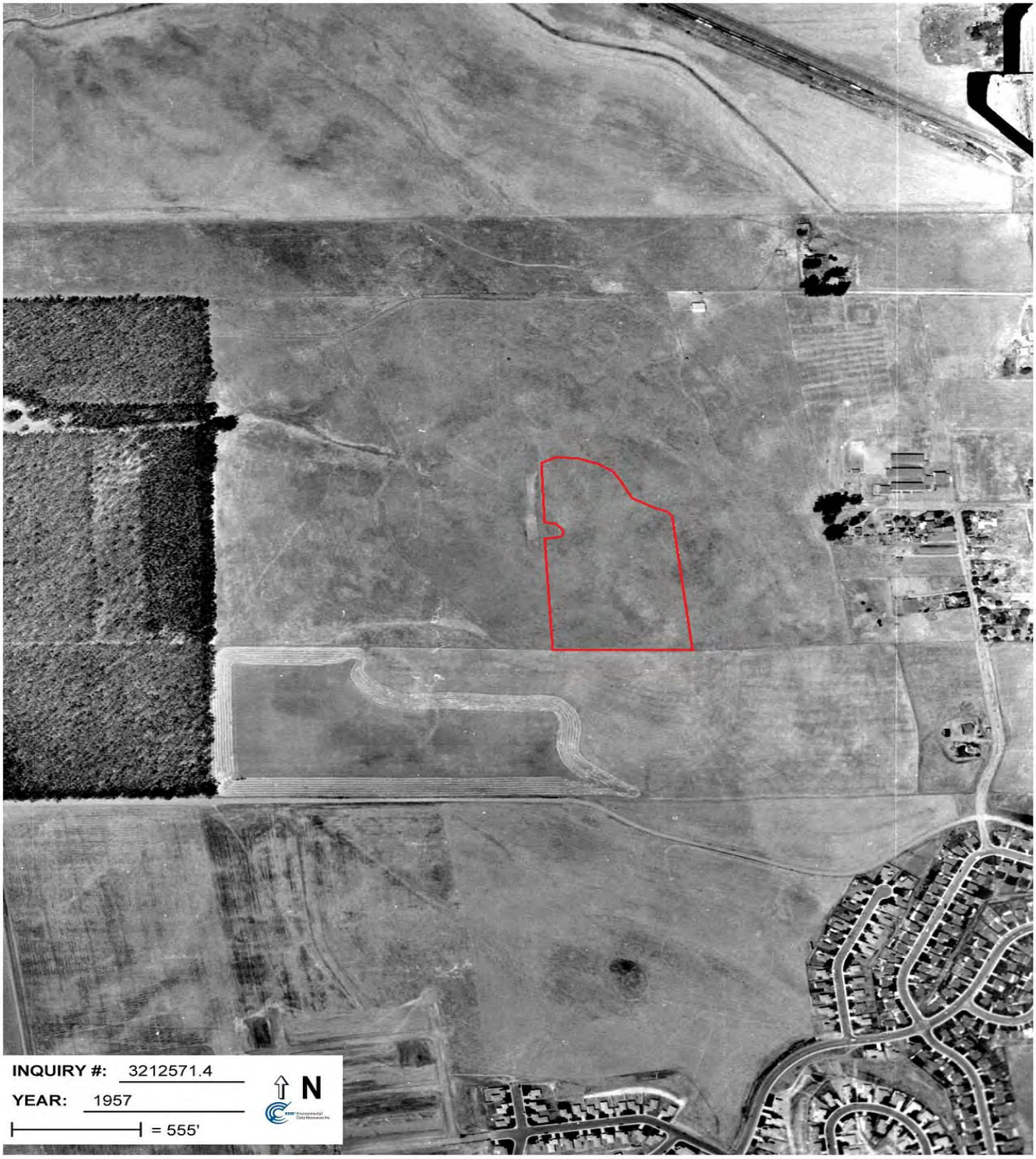
N

Approximate Property Boundary

Year: 1948

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

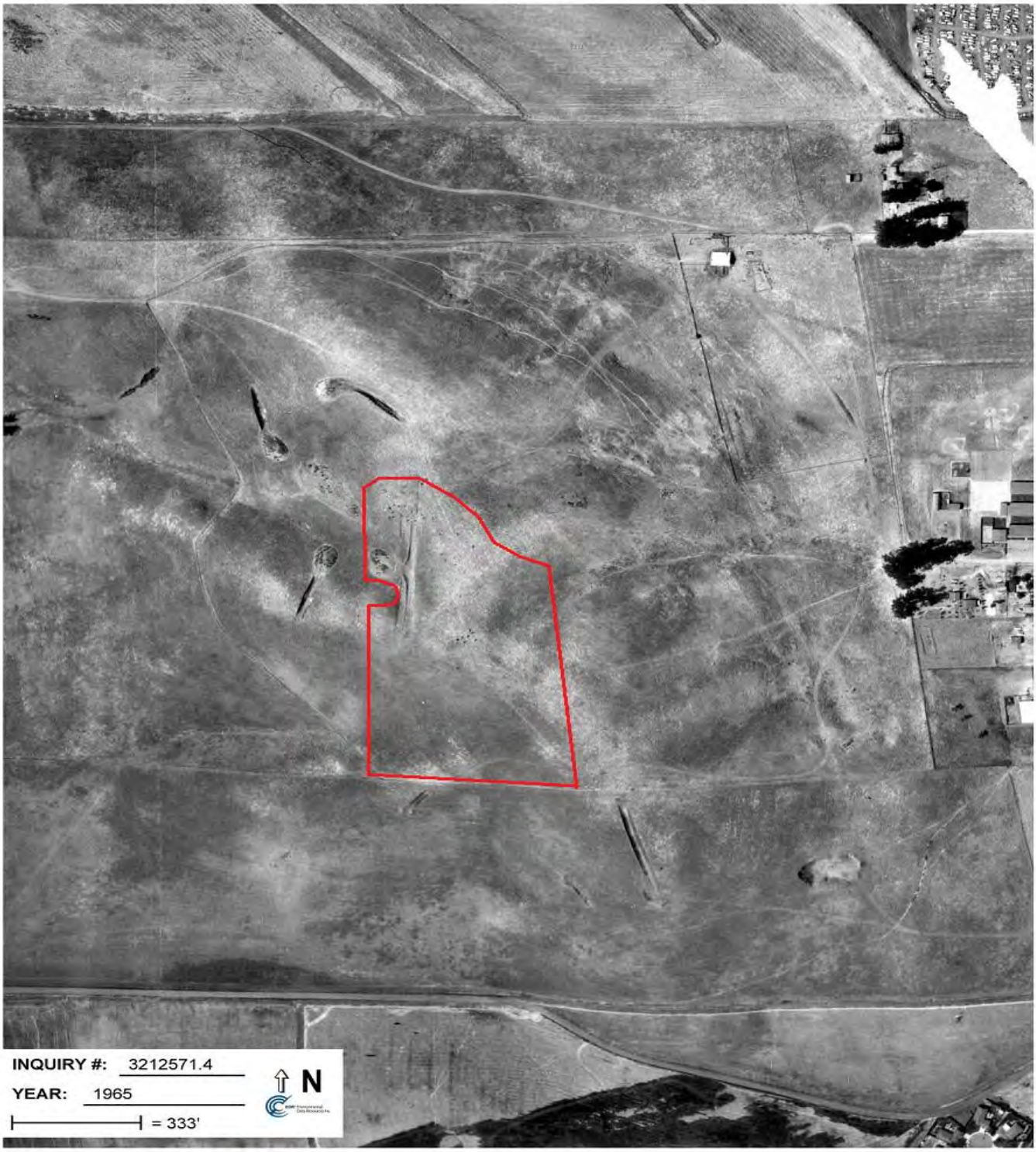
N

Approximate Property Boundary

Year: 1957

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1965

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1970

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1982

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1993

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 2006

Project Number: 302503

AEI Consultants

Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Inquiry Number: 3212571.3
November 23, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/23/11

Site Name:
Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Client Name:
AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597

EDR Inquiry # 3212571.3

Contact: Karina Garcia

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by AEI Consultants were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Napa Junction Road At Oat Hill
Address: Napa Junction Road At Oat Hill
City, State, Zip: American Canyon, CA 94503
Cross Street:
P.O. # 12189
Project: 302503
Certification # B550-48F1-AE3F

Sanborn® Library search results
Certification # B550-48F1-AE3F

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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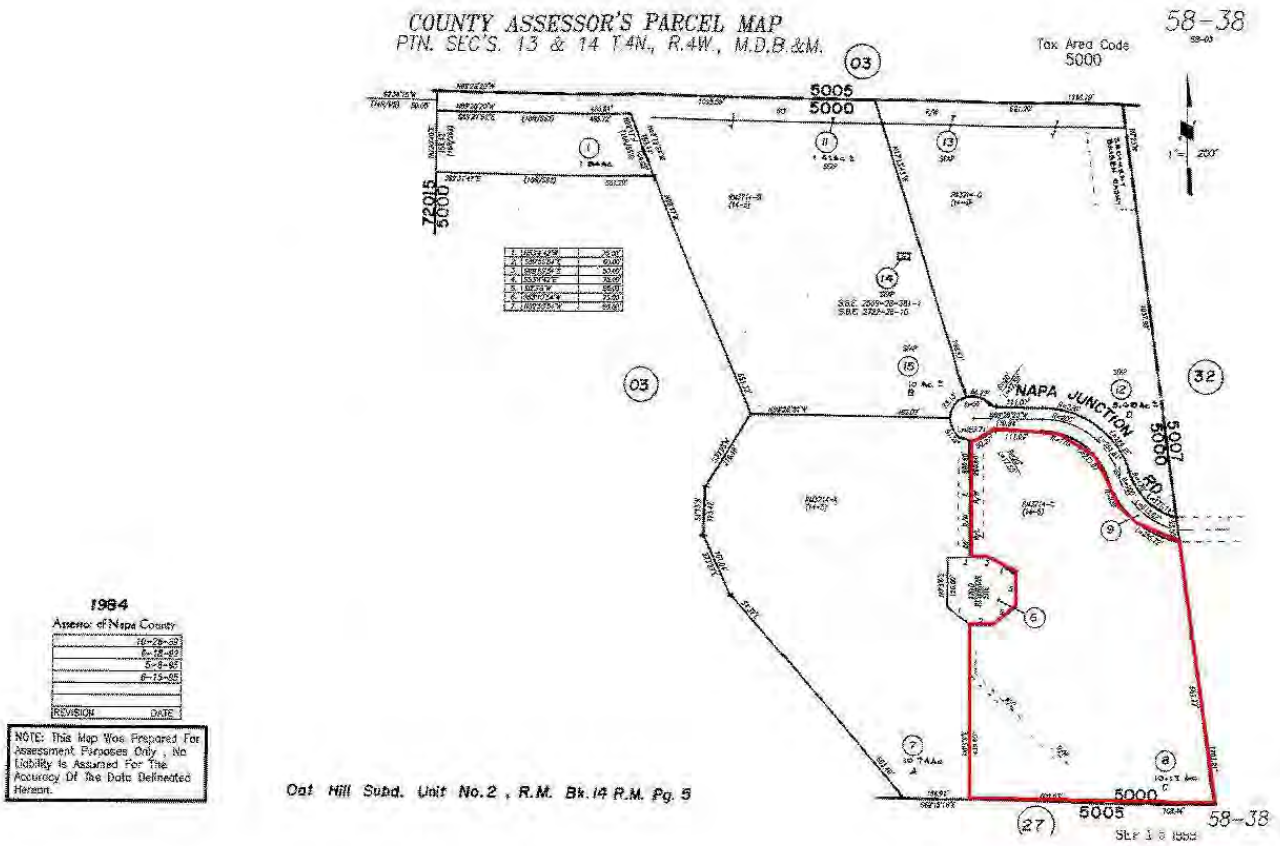
APPENDIX D

REGULATORY AGENCY RECORDS


COUNTY ASSESSOR'S PARCEL MAP
PTN. SEC'S. 13 & 14 T.4N., R.4W., M.D.B.&M.
58-38
Tax Area Code
5000
5005
5000
7201S
5000
NAPA JUNCTION RD.
5007
5000
5000
5005
58-38
1984
Assessor of Napa County
REVISION
DATE
NOTE: This Map Was Prepared For Assessment Purposes Only, No Liability Is Assumed For The Accuracy Of The Data Delineated Hereon.
Oat Hill Subd. Unit No.2, R.M. Bk.14 R.M. Pg. 5

APPENDIX E

ASTM USER QUESTIONNAIRE

AEI Consultants
Environmental & Engineering Services

ASTM E 1527-05 User Questionnaire

In order to qualify for the protection offered under the EPA All Appropriate Inquiry (AAI) Standard, the **User** (entities seeking to use the ASTM E1527-05 Practice to complete an environmental site assessment of the property; i.e. Lenders and/or Borrowers) must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that AAI is not complete. This information should be the collective knowledge of the entities relying on the Phase I. **Please note that you are not being asked to evaluate the property, but rather to provide your knowledge of information on the property.**

Site Name/Address: Napa Junction Road

Person Interviewed/Title: Derek Pampe - Director of Forward Planning Date: 12/2/11

If known, when was the property initially developed? undeveloped

If different, when were the current building(s) on the property constructed? n/a

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? (**Note:** If unknown, a review of title records or an environmental lien search is recommended)

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

2. Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Engineering Controls are defined as physical modifications to a site or facility to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property). *Institutional Controls* are defined as a legal or administrative restriction on the use of, or access to, a site or facility to 1) reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property, or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *User* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes☐ No☑ If you answer yes, please include an explanation in the space provided below:

4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

a) Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*?

Yes☑ No☐ If you answer no, please include an explanation in the space provided below, including whether the lower purchase price is because contamination is known or believed to be present at the *property*?

5. Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *User*:

a. Do you know the past uses of the *property*?

Yes☐ No☑

b. Do you know of specific chemicals that are present or once were present at the *property*?

Yes☐ No☑

c. Do you know of spills or other chemical releases that have taken place at the *property*?

Yes☐ No☑

d. Do you know of any environmental cleanups that have taken place at the *property*?

Yes☐ No☑

If you answered yes to any of the questions above, please include an explanation in the space provided below:

6. The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *User* of this *ESA*, based on your knowledge and experience related to the *property,* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

_____

_____

_____

_____

Please provide the following property contact information:

Property Owner: Rick Hess Phone Number: 925-487-1052

Key Site Personnel: Derek Pampe Phone Number: 925-852-0553

Past Owner: _____ Phone Number: _____

Signature: _____ Date: 12/2/11

APPENDIX F

QUALIFICATIONS

Michael Audibert, REA – Senior Project Manager

MPA - Public Administration, San Francisco State University, 2000
BS - Business Administration, University of Vermont, 1992

California Registered Environmental Assessor (REA) #30090
Certified Mold Inspector (CMI) (Environmental Solutions Association), 2005

Mr. Audibert has over 8 years of experience in the environmental service industry. As Senior Project Manager, Mr. Audibert is responsible for conducting Phase I Environmental Site Assessments (ESAs), Real Estate Transaction Screens, radon screening projects, asbestos inspections, lead-based paint inspections, and reviewing/evaluating Phase II reports. His experience includes management of portfolio projects involving numerous properties throughout the US. Mr. Audibert also provides senior review expertise to ensure compliance and satisfaction of client requirements for Phase I Environmental Site Assessments and Transaction Screens.

His project management experience has included:

- Phase I Environmental Site Assessments and Real Estate Transaction Screens in conformance with ASTM.

- Various other environmental due diligence assessments, including regulatory compliance evaluations and industrial hygiene inspections, including asbestos, radon, lead-in-paint, lead-in-water, and mold surveys.

- The oversight of several Phase II soil and groundwater investigations for a variety of suspected contaminants for due diligence and liability purposes.

Mr. Audibert performed a Phase I Environmental Site Assessment (ESA) for a former steel and brass foundry to be converted into live/work loft apartments. The City of Oakland required that a comprehensive Phase I ESA be conducted for this property for foundry closure purposes. This project involved extensive agency and historical research, as well as determining what areas of the former foundry would be considered "at risk zones" for subsurface contamination.

Mr. Audibert has performed Phase I Environmental Site Assessments (ESAs) for existing gas stations developed on the site of former gas stations, as well as several historical and current leaking underground storage tank (LUST) sites, which involve an extensive historical use investigation and agency records review to determine the status of current and past underground storage tanks (USTs).

Steve G. Kovach - **Environmental Professional**

B.A. - Botany, Miami University (Ohio)
Minor – Conservation and the Environment

Mr. Kovach has spent over nine years working in a broad range of environmental and engineering disciplines including: engineering and environmental due diligence services, industrial air, water, and wastewater permit compliance and monitoring, hazardous waste management and disposal, electrical utilities projects, environmental engineering projects, and wetland ecology research. Mr. Kovach has worked closely with regulatory agencies including the US Environmental Protection Agency, Department of Toxic Substance Control, California Water Resources Control Board, California Integrated Waste Management Board, Bay Area Air Quality Management District, East Bay Municipal Utilities District, and the US Department of Energy.

Currently, Mr. Kovach is the Due Diligence Manager, Northern California Region for AEI, specializing in environmental due diligence services. As a senior member of AEI, Mr. Kovach provides staff supervision and senior review expertise to ensure ASTM compliance and satisfaction of client requirements for environmental assessments. AEI's review process provides for customization of reports to client needs, as well as strict conformance to ASTM standards. Additionally, Mr. Kovach provides senior project management to ensure ASTM compliance and satisfaction of client requirements for Phase I Environmental Site Assessments, Transaction Screens, and other related environmental assessments performed throughout California, Arizona, Nevada, Oregon, and Washington.

APPENDIX H

OTHER SUPPORTING DOCUMENTATION

Napa County Public Browser

Rate us/Comments

058-380-008

Home | Tools

Home | Pan | Zoom In | Zoom Out | Full Extent — Navigation

Identify by Point | Identify by Rectangle | Plot Coordinates — Location Info

Export | Print — Printing

Layers

- FEMA Flood Zone Info
- Parcel Summary Layers
- Napa County
  - Addresses
  - Schools
  - Major Roads
  - Parcels
  - Filed Maps
  - Corner Records

I want to...

058-320-016 058-320-014 058-320-008 059-020-037 058-380-016 058-380-017 058-320-003 058-320-015 058-320-012 059-020-050 059-430-010 058-030-016 058-380-007 058-380-008 AREA OF MINIMAL FLOOD HAZARD Zone X 058-320-001 058-082-009 059-430-014 059-351-010 058-270-014 058-030-057 058-030-018 058-270-008 059-430-017 058-270-013 058-650-001 059-351-012

Napa Co...

0 300 600ft

1:500

5596

Napa Coun... | Layers | Search Res...


058-380-008
CATHILL PROPERTIES II
HAROLD & BOBBIE
HESS
058-320-001
THERESA AVE
NAPA JUNCTION ROAD (COUNTY)
LOMBARD RD.

Department of Toxic Substances Control

Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

Interim Guidance for Sampling Agricultural Properties (Third Revision)

California Department of Toxic Substances Control
California Environmental Protection Agency

August 7, 2008

Preface

In June 2000, DTSC issued "Interim Guidance for Sampling Agricultural Soils" to provide a uniform approach for evaluating former agricultural properties where pesticides have been applied, and DTSC issued the revised Version 2 in August 2002. Over the last seven years, DTSC has reviewed several hundred former agricultural properties across California. DTSC has been committed to revising and updating the approach to these properties as new information and issues emerge. This revised guidance, Version 3, incorporates and refines the sampling and risk assessment approach to former agricultural properties.

This guidance is intended to supplement the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual, CalEPA 1994 (Second Printing, June 1999). Data obtained from the investigations should be evaluated for potential health risks according the PEA Manual. This guidance is not intended to diminish the need to take focused, authoritative samples at site locations commonly associated with hazardous substances releases nor replace guidance provided by the PEA Guidance Manual. This guidance is not applicable to areas where pesticides were mixed, stored, disposed, or areas where pesticides may have accumulated, such as ponds and drainage ditches.

The scope of this document is limited to evaluating only agricultural properties during a PEA or other initial sampling investigation. This applies to proposed new and/or expanded school sites or other project where new land use could result in increased human exposure, especially residential use. Agricultural properties are lands where pesticides were uniformly applied for agricultural purposes consistent with normal application practices, and where other non-agriculturally related activities have been absent. Data obtained from the sampling analyses will be incorporated into the PEA Report, including performing a risk analysis in accordance with the guidance in the PEA Manual.

This guidance does not apply to disturbed land, such as, land that has been graded in preparation for construction, areas where imported soil has been brought in, or any other activity

that would redistribute or impact the soil, other than normal agricultural practices, such as disking and plowing.

This guidance is an on-going effort to streamline the characterization of agricultural properties. As additional knowledge and experience is obtained, DTSC may modify this guidance, as appropriate.

1.0 PURPOSE

This guidance was initially prepared for use in evaluating soil at proposed new school sites and existing schools undergoing expansion projects where the property was currently or previously used for agricultural activities. This guidance is now expanded to include any project with DTSC oversight and is intended to supplement the DTSC PEA, and provide a uniform and streamlined approach for evaluating agricultural properties. This guidance can be used to assist environmental assessors in designing initial investigations or developing PEA Workplans for properties with agricultural uses. The analytical data obtained are to be incorporated into a risk analysis and PEA Report performed in accordance with the guidance in the PEA Manual.

2.0 AGRICULTURAL PROPERTIES

2.1 Eligible Agricultural Properties

This guidance is specific to agricultural properties where pesticides and/or fertilizers were presumably applied uniformly, for agricultural purposes consistent with normal application practices. It is applicable to agricultural properties that are currently under cultivation with row, fiber or food crops, orchards, or pasture. It is also applicable to fallow and former agricultural properties that are no longer in production and have not been disturbed beyond normal disking and plowing practices. Each field of the same crop is assumed to have been watered, fertilized and treated with agricultural chemicals to the same degree across the field. Because of this homogeneous application, contaminant levels are expected to be similar at any given location within the field. This is the underlying premise of the guidance, and one that must be verified at the scoping stage of the PEA process.

2.2 Properties not covered by this Guidance

This guidance does not apply to former agricultural property that has been graded for construction or other purposes, that has received fill, or has had parking lots or structures placed on it following active use as an agricultural field. An urban residential area that was agricultural property in the past does not qualify for this guidance since the construction of the residences would have resulted in the disturbance and redistribution of potential agricultural contaminants in the soil. These areas may require biased, discrete sampling as opposed to the sampling for agricultural properties discussed in this document.

2.3 Grazing Land and Dry-Land Farmed Agricultural Properties

2.3.1 Grazing Land and Pasture

Agricultural sampling is not required for property used exclusively as grazing lands or pasture, where the topography is not conducive to pesticide application, or the application of pesticides is not economically feasible. Aerial photographs, topographic maps, and a site visit should be used to evaluate the topography of the proposed school site and past land use. Sites that are suitable for animal grazing will often have irregular topography and often a cover of native trees,

brush and range grasses. In keeping with the definition of agricultural soils, the site must not have contained any structures, or been used for any commercial or manufacturing activities.

2.3.2 Dry-Land Farmed Agricultural Soils

Dry-land farming is the practice of growing a crop without irrigation. Many dry-land farming fields are not treated with pesticides or infrequently treated, since the lack of water does not provide a desirable habitat for most agricultural pests. Properties that clearly qualify as dry-land farming do not need further investigation for pesticides or metals. For properties where there is uncertainty regarding dry-land farming, limited sampling may be conducted at a rate of four discrete samples per site, with one sample collected in each quadrant.

Some production crops such as winter wheat and barley can be grown under dry-land farming conditions. If the site has been planted in a dry-land farming production crop, every assurance should be made to determine that the crop was not irrigated and pesticides were not applied. This information may be obtained from interviews with farmers in the area, records that the County Agricultural Commissioner may have, and information the Commissioner may have about the irrigation practices for that crop in the specific county. If it cannot be clearly shown that irrigation did not take place and pesticides were not applied, limited sampling for organochlorine pesticides (OCPs) and arsenic may be necessary. At a minimum, this should include four samples per site, one sample per quadrant.

2.4 Agricultural Properties Prior to 1950

A review of 35 proposed school sites along with the historical background of OCP use in California indicates that sites with agricultural usage ending prior to 1950 do not need to be evaluated for OCPs. Organochlorine pesticides were first introduced into California agriculture in 1944 and reached peak usage in the 1960's. In 1974 the use of the DDT was banned for agricultural purposes, and the elimination of remaining OCPs in California agriculture quickly followed. Data from 35 proposed school sites where agricultural use ended prior to 1950 indicates that OCPs were not identified as chemicals of potential concern. In those cases where OCPs were identified, the source appears to have been the application to structures on the property, and not the agricultural crops grown prior to 1950. It is recommended that former agricultural properties that terminated operation prior to 1950 not be evaluated for agriculturally related OCPs. Arsenic should still be evaluated as a chemical of potential concern (COPC) since its use as arsenical pesticides and herbicides predates 1950.

2.5 Continued Agricultural Use After PEA Sampling

Chemicals associated with agricultural activities may result in potential risks to human health or the environment. If agricultural activities continue on the subject site after DTSC issues a no further action determination on the PEA, DTSC cannot ensure the no further action determination will remain in effect.

This may have impacts for school projects where the school districts elect to postpone school construction and allow continued agricultural use of the property. The most recent chemical use documentation (e.g., local Agricultural Commissioner Pesticide Application Permits) regarding the quantity and types of agricultural chemicals used on the property should be provided in the PEA report. If the type of agricultural chemicals applied to the site change after DTSC's no further action determination, DTSC recommends submittal of the chemical use documentation to DTSC at least three months prior to commencement of grading or other construction activities at the school site. DTSC will review the information, and if necessary, may recommend additional sample collection and analyses to assess potential impacts and ensure school site safety.

2.6 Other Areas of Concern on Agricultural Properties

In many cases, agricultural properties may include other areas of concern such as operations yards, storage areas, fuel tanks, residences, irrigation systems, and animal facilities. Examples of areas of concern may include:

- Structures such as homes, garages, equipment sheds, barns, and other out-buildings
- Pesticide storage, mixing/loading, and wash-down areas
- Ecological habitats, or rare, threatened, or endangered species
- Irrigation ditches/canals, containment berms, and low-lying swales or drainage areas
- Irrigation water containment ponds and collection/recirculation sumps
- Production wells and pumps
- Pole- or pad-mounted transformers
- Waste oil areas
- Animal pens, barns, and manure and disposal piles
- Burn piles
- Underground and above ground storage tanks
- Properties in dibromochloropropane (DBCP) study areas

Although agricultural-related, these targeted areas should be considered during the PEA scoping meeting and investigated using standard PEA protocols. The following DTSC guidance documents may be considered in these investigations:

- Interim Guidance: Evaluating Total Petroleum Hydrocarbons (TPH) (DTSC 2008) (The draft TPH guidance document is being revised at this time and will not be available to the public until DTSC finalizes the document.)
- Interim Guidance: Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers (DTSC, June 9, 2006)
- Arsenic Strategies for Determination of Arsenic Remediation: Development of Arsenic Cleanup Goals for Proposed and Existing School Sites (DTSC 2007)
- Advisory: Methane Assessment and Common Remedies at School Sites (DTSC, June 2005)
- Advisory: Active Soil Gas Investigations (DTSC, January 2003)
- Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion into Indoor Air (DTSC 2004)
- Fact Sheet: Information Advisory, Clean Imported Fill Material (DTSC, October 2001)
- Guidance Manual: Preliminary Endangerment Assessment (DTSC, January 1999)
- Data Validation Memorandum , Summary of Level II Data Validation (DTSC, May 2006)
- Guidance: Ecological Risk Assessment at Hazardous Waste Sites and Permitted Facilities (DTSC, July 4, 1996)

3.0 SAMPLING STRATEGIES

3.1 Chemicals of Concern

3.1.1 Pesticides

When the property is under active agricultural production, the operator should be interviewed to determine the types and amounts of pesticides historically used on the property. The County Agricultural Commissioner should also be consulted to verify pesticide usage on the property. The Agricultural Commissioner is required to maintain this information for three years, but often will have extensive knowledge of the farming practices over many years. A local or specialized farm advisor such as the University of California Cooperative Extension Agent is another source of information for farming practices in the area. These consultations should occur during the scoping phase of the investigation. For those properties that have not been actively farmed in the past three years, obtaining accurate information is more difficult. Information from surrounding or neighboring agricultural operations on the types of crops grown in the area during the time of active farming can provide clues on what chemicals may have been applied.

Based on data from former agricultural properties over the past seven years, the only pesticide class requiring analyses at agricultural properties are OCPs, such as DDT, toxaphene, dieldrin, etc. OCPs are biopersistent and bioaccumulate in the environment. Most other classes of pesticides have relatively short half-lives and have not been found in the agricultural fields. While paraquat does have a longer half-life in soil, it has either not been detected or detected rarely at trace levels at sites which DTSC has had oversight, therefore routine analyses for paraquat is not required for field areas. Analyses for paraquat may be required in storage and mixing/loading areas.

3.1.2 Metals

Based on data from former agricultural properties, the only heavy metal required for routine analyses for these properties is arsenic. Arsenic in the form of arsenical herbicides has been applied to many agricultural properties and elevated levels of arsenic have been reported in the evaluation of these properties.

Other heavy metals may be required on a case by case basis depending on history of the property and the surrounding environment. Certain counties, such as Kern and Merced in the Central Valley, allow the application of municipal sludge on agricultural properties with or without a permit. Municipal sludge has been often shown to have elevated levels of heavy metals. These metals concentrations can impact vadose soils and often may migrate to groundwater. If there is a history of sludge application, or if sludge application is suspected on an agricultural property, Title 22 metals (former CAM 17 metals) should be evaluated.

Copper compounds were generally applied directly to select crops (e.g. vineyards) to prevent or reduce mildew. Vineyards and grain storage areas may have elevated copper due to the use of copper compounds as fungicides. To date, DTSC has not found elevated copper in any agricultural property. However, analyzing soil or sediment samples for copper may be appropriate at agricultural properties with the potential to impact aquatic ecological habitats (e.g. a creek or stream which runs through site).

3.1.3 Additional Chemicals of Concern

3.1.3.1 Mixing/Loading/Storage Areas

Focused sampling in mixing/loading/storage areas, drainage ditches, farm houses, or outbuilding areas may require analyses for a number of other constituents besides OCPs and arsenic, including other classes of pesticides/herbicides, paraquat, metals, and petroleum related compounds (see Section 2.6).

3.1.3.2 Smudge Pots

If smudge pots have been routinely used on agricultural properties, for example in citrus groves, additional sampling for PAHs and TPH may be required.

3.2 Sampling Frequency

Sampling frequency may vary depending on the size of the site and conditions found. When the site has been used for agricultural crop, the presumption is that agricultural chemicals were applied uniformly across the site in any given year and that the variation across the site will be relatively small. An analysis of several hundred former agricultural properties by DTSC has supported the general use of the assumption of uniform application.

The assumption of uniform application may not apply to areas cultivated in different crops, adjoining or adjacent properties with different owners or operators. The uniform application assumption does not apply for non-cultivated areas (e.g. drainage ditches, farm houses and other structures, mixing/loading areas, storage sheds, etc.)

In general, the sampling pattern should be sufficient to characterize the site. Recommended numbers of borings or sampling locations and composite analyses are provided in Table 1 for both OCPs and arsenic analyses for sites up to 50 acres. DTSC should be consulted for sites greater than 50 acres. For these sites, the sampling frequency may be reduced based on documentation that verifies consistent owner, operator, and use. If different parcels of the property have different owners, operators or crops, the number of samples shown in Table 1 should be applied for each different parcel.

Table 1: Recommended Number of Sampling Locations

Site Acres	Number of Borings	OCP Analyses (Composites)	Arsenic Analyses (Discrete only)
1	4	4 (Discrete analyses)	4
2	4	4 (Discrete analyses)	4
3	4	4 (Discrete analyses)	4
4	8	4	4
5	10	4	4
6	12	4	4
7	14	4	4
8	16	4	4
9	18	5	5
10	20	5	5
11	21	6	6
12	22	6	6
13	23	6	6
14	24	6	6
15	25	7	7
16	26	7	7
17	27	7	7
18	28	7	7
19	29	8	8
20	30	8	8
21	31	8	8
22	32	8	8
23	33	9	9
24	34	9	9
25	35	9	9
26	36	9	9
27	37	10	10

Site Acres	Number of Borings	OCP Analyses (Composites)	Arsenic Analyses (Discrete only)
28	38	10	10
29	39	10	10
30	40	10	10
31	41	11	11
32	42	11	11
33	43	11	11
34	44	11	11
35	45	12	12
36	46	12	12
37	47	12	12
38	48	12	12
39	49	13	13
40	50	13	13
41	51	13	13
42	52	13	13
43	53	14	14
44	54	14	14
45	55	14	14
46	56	14	14
47	57	15	15
48	58	15	15
49	59	15	15
50	60	15	15
>50	Consult with DTSC		

3.3 Composite Samples

Since this guidance assumes a relatively even distribution of chemicals across the agricultural field portion of a site, compositing of discrete samples allows for increased sampling coverage for a site, while not significantly increasing the number of analytical samples. Composite surface samples may be made up of a maximum of four discrete surface samples from adjacent sampling locations. Compositing may occur in the field or at the laboratory. In cases where two crops were grown on the site, only discrete samples from within the same crop area may be composited.

Specify the method of selecting the discrete samples to be composited and the compositing factor (e.g. 3 to 1: three discrete samples composited to one) in the workplan. Compositing requires that each discrete sample be the same in terms of volume or weight, and that the discrete sample be thoroughly homogenized prior to compositing. The detection level does not need to be reduced since the composite sampling area is assumed to be homogeneous in concentration.

If compositing is not chosen, analyses will be performed on all the discrete samples and the number of analyses will correspond to the number of borings.

For more information on composite samples, see the references provided in Section 6.0.

3.4 Discrete Sampling for Arsenic

A minimum of four discrete on-site surface samples must be analyzed for arsenic. When samples are composited for OCP analysis, one discrete sample from each composite must be analyzed for arsenic. When more than four composite samples are analyzed for OCPs, the total number of discrete samples analyzed for arsenic does not need to be greater than the number of total composite samples used for OCP analysis (see Table 1).

3.5 Sampling Depth

Based on the extensive data DTSC has reviewed for agricultural properties, only surface samples will be required for the screening assessment. Each location should be sampled to include one surface sample (0 to 6 inches). [Note: 0 inches means first encountered soil. Thick mats of vegetable material, roots, and other extraneous material should not be sampled. The locations can be staked and surveyed using a sub-meter global positioning system. This will facilitate collection of supplemental site investigation samples, such as subsurface or step out sampling, if necessary.

3.6 Sample Collection

Sampling both the furrows and beds of existing rows will detect the greatest variability in the residuals. Some methods of pesticide application will favor residuals in the beds while others favor the furrows. In fields where rows remain, roughly half of the samples should be gathered from the furrows and half from the beds in an alternating pattern. Orchards should have the sampling locations placed at the current drip line for the trees, under the canopy, between the tree rows, and between the trees within a row. For sites with slopes, swales, or other uneven topography, sampling from centers should be modified to include samples from those areas where surface water would be expected to flow and accumulate.

3.7 Field Duplicates

Field duplicates should be collected at a rate of 10 percent (or a minimum of one). For arsenic, a discrete co-located sample should be collected and analyzed for every 10 arsenic samples collected. For OCPs where composite samples will be prepared and analyzed, every 10th

composite sample should be prepared (independently) in duplicate and analyzed. See Section 4.1 for a description on preparation of composite samples.

3.8 Requirements for Collection of Background Metal Samples

Consult with the DTSC project manager regarding the need for collecting background arsenic samples. In general, with the exception of arsenic, background samples for metals will not be necessary if all metals are below their respective California Human Health Screening Levels (CHHSLs). If all the arsenic results for the site are at or below 12 mg/kg, then collection of background samples will not be required. For sites where either arsenic or other metals are above their respective screening values, either collection of a background data set or use of an appropriate background data set may be required.

3.8.1 Sampling for Background Metals

If samples are needed to determine background levels of arsenic and/or other heavy metals (if additional metals are required for the PEA), a minimum of four onsite locations should be sampled at non-impacted areas, or samples may be collected at a depth of 5 to 5.5 feet bgs. In order to use background samples from 5 to 5.5 feet bgs, a licensed professional must make the determination that the background soils are similar enough geologically to the surface soils as to be representative.

Other background data sets may be substituted for on site sampling on a case by case basis in consultation with DTSC.

4.0 LABORATORY ANALYSES

4.1 Preparation of Composite Samples

Each discrete sample should be homogenized and uniformly split by trained field staff prior to compositing. A portion of each discrete sample should be frozen and archived in case additional analysis is warranted based on the composite results. Compositing requires that each discrete sample be the same in terms of volume or weight, and that the discrete sample be thoroughly homogenized prior to compositing. Excess sample from the homogenized composite sample shall be archived by the lab and/or used as a duplicate, as appropriate, for that composite set. The samples may be discarded when the PEA process has been completed and approved by the DTSC.

4.2 Methods

The analytes of primary concern are OCPs, arsenic, and, in some cases, Title 22 metals. Depending on the site history, analysis of other types of pesticides may be required. OCPs should be analyzed using U.S. EPA 8081A or equivalent. Metals must be analyzed using the U.S. EPA 6000/7000 series. If the site history indicates other classes of persistent pesticides should be evaluated, DTSC should be consulted for the acceptable method of analysis and appropriate detection limits. Highly organic topsoil may interfere with proper extraction of pesticides.

Sample holding times should be consistent with U.S. EPA SW-846. Variances to holding times and affects on data results must be discussed in the data validation section of the report.

Please note, for comparison of chlordane concentrations against the CHHSL, chlordane must be quantified against a ***technical chlordane*** standard. For purposes of the PEA, DTSC will not

allow quantitation of the individual alpha and gamma isomers, with a total concentration determined by addition of those concentrations.

4.3. Detection Limits

The actual detection limits obtained will vary depending on the particular analyte. For OCPs, the analytes typically causing detection limit concerns in agricultural fields are aldrin, dieldrin, and toxaphene. The detection limits should be 0.005 mg/kg for aldrin, dieldrin, and 0.05 mg/kg for toxaphene. Table 2 lists the detection limits for several OCPs.

In samples with elevated DDT, the detected concentration may be above the range of calibration. This can result in the analytical laboratory diluting the sample for reanalysis, and then reporting only the final result. In these cases, the reported detection limits for aldrin, dieldrin, and toxaphene may exceed the detection limits needed for determining potential health effects. Ideally the laboratory should be asked to report if those three analytes were detected in the first analysis prior to dilution. Multiple analyses of the same samples may be required to obtain the data necessary for risk assessment purposes.

Table 2. Analytical Methods and Detection Limits for Selected OCPs

Pesticide	Methods[2]	CAS No.[3]	DL[4] mg/kg
Aldrin	8081A	309-00-2	0.005
a-BHC	8081A	319-84-6	0.005
b-BHC	8081A	319-85-7	0.005
g-BHC (Lindane)	8081A	58-89-9	0.005
d-BHC	8081A	319-86-8	0.005
Total Chlordane[1]	8081A	57-74-9	0.05
DBCP[5]	8081A	96-12-8	0.01
DDD	8081A	72-54-8	0.05
DDE	8081A	72-55-9	0.05
DDT	8081A	50-29-3	0.05
Dieldrin	8081A	60-57-1	0.005
Endosulfan I	8081A	959-98-8	0.005
Endosulfan II	8081A	33213-65-9	0.005
Endosulfan sulfate	8081A	1031-07-8	0.005
Endrin	8081A	72-20-8	0.05
Endrin aldehyde	8081A	7421-93-4	0.05
Endrin ketone	8081A	53494-70-5	0.05
Heptachlor	8081A	76-44-8	0.05
Heptachlor epoxide	8081A	1024-57-3	0.005
Hexachlorobenzene (HCB)	8081A	118-74-1	0.3
Hexachlorocyclopentadiene	8081A	77-47-4	0.5
Methoxychlor	8081A	72-43-5	0.005
Toxaphene	8081A	8001-35-2	0.05

Notes:

1 = Report total Chlordane (based on a Technical Chlordane standard)
2 = Although other methods may be used to quantify OPCs, DTSC recommends the use of 8081A as the primary method of quantitation
3 = Chemical Abstract Service registry number
4 = Detection Limit recommended for risk assessment purposes
5 = If sampling for this compound is indicated, inclusion in the method must be requested in the workplan and/or QAPP

4.4 Pesticide Analyses

Surface samples, discrete or composite, must be analyzed for OCPs. Analysis for other classes of persistent pesticides may be required as indicated by the agricultural history of the site. If the composite sample result exceeds the health risk screening criteria (see Section 5.3), analyze each discrete sample that made up the composite sample.

4.5 Sub-surface sample analysis

In consultation with DTSC, analyses of sub-surface samples may be required if surface samples results exceed specified screening levels. This sampling may be a part of the PEA or included in a Supplemental Site Investigation. If subsurface samples were collected during the PEA sampling event, those samples may be taken off "hold" and analyzed by the laboratory. If subsurface samples were not collected during the PEA, a Supplemental Site Investigation Workplan or Technical Memorandum should be prepared identifying appropriate step-out (vertical and horizontal) sampling locations.

4.6 Quality Control

Quality control (QC) procedures specified in SW-846 must be followed. A matrix spike/matrix spike duplicate on one soil sample per batch of 20 samples must be performed to demonstrate that the targeted pesticide(s) can be recovered from the soil investigated. The laboratory data package must include a summary of the quality control sample results: blanks, matrix spike/ matrix spike duplicate, surrogate recoveries, laboratory control samples, etc., as specified by the method. The laboratory should provide a signed narrative stating whether the QC was met and listing any discrepancies. The consultant should perform a supplementary evaluation of the data, also referred to as data validation, and present the results of that evaluation in the PEA report. For an example of what to included in the data validation section, see the example data validation memorandum at the DTSC website:
http://www.dtsc.ca.gov/Schools/upload/Data_Validation.pdf

5.0 REPORTING

5.1 Format

The results of the sampling effort are to be reported in a PEA report as described in the DTSC PEA Guidance Manual.

5.1.1 Summary Tables

Include data tables in the PEA report to summarize the results of the investigation. Summary tables should include the analytes of interest, the reported concentrations or the reporting limit for non-detect results, and indicate whether a reported concentration exceeds its respective CHHSL screening level (if a CHHSL comparison is being conducted). In addition, for samples analyzed at multiple dilutions for purposes of reporting concentrations within calibration ranges (as described in Section 4.3), summary tables should either present the results for all of the dilution analyses indicating the appropriate result for each analyte, or a combined analysis indicating which results are being reported after a dilution. Sample results should also be flagged with appropriate qualifiers, where necessary, after data validation.

5.2 Evaluating Metals (Inorganic Elements) Data

Using a robust statistical procedure to determine if on-site metal concentrations are indicative of background conditions or the result of site-related activities can be problematic because of the limited number of background samples collected at any one site. Local site background may be used if the data is approved for use by the DTSC project manager and toxicologist. If DTSC

background levels are not available, then a defensible procedure for comparing on-site with background metals should be used. The DTSC project manager and DTSC toxicologist assigned to the project should be consulted on the most appropriate method of comparison.

5.2.1 Arsenic Evaluations

The DTSC Schools Program evaluated data from a large number of school sites across California. The data evaluation indicates that 12 mg/kg maybe a useful screening number for the Schools Program when evaluating arsenic as a COPC. If the proposed school property has been adequately characterized for arsenic and all the arsenic data are equal to or less than 12 mg/kg, then arsenic will be not be considered a COPC. This decision does not require collection and comparison to a background data set. If arsenic concentrations are greater than 12 mg/kg, then comparisons to background data will be required. In some cases additional sampling may also be required.

5.2.2 Strategy for Comparison of Background Metals

If background samples are necessary, follow the procedures provided in Section 3.8.
The following strategy may be used for comparing site data to background data:

1. Compare the highest site concentration with the highest background concentration. If the site concentration is equal to or less than the background, the metal may be eliminated as a COPC. If the onsite maximum is greater than the background maximum, go to 2).

2. Compare the site and background arithmetic mean concentrations. If the means are comparable, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If the site mean is greater than the maximum background, go to 3).

3. Two approaches may be used, depending on the size of the background data set.
   - If the background data set is of sufficient size, statistically evaluate the overlap of the background and onsite distributions to determine if they come from the same population. If they do, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If not, include the metal as a COPC in the risk evaluation.

   - If the background data set is limited (n=4), the onsite data can be evaluated statistically using probability plots to determine if one or more populations are present. If only one population is present, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If there are two or more populations present, then include the metal as a COPC.

4. Additional information on eliminating metals as COPCs can be found in "*Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities – Final Policy* (DTSC/HERD 1997),

5.3 Human Health Risk Assessment

All detected pesticides and any onsite metals above background should be evaluated as COPCs in a human health risk assessment as described in the DTSC PEA Guidance Manual or in comparison to CHHSLs. In the initial screening analysis, the highest

concentration of each detected pesticide and metal above background must be used as the exposure point concentration in the risk assessment.

Since agricultural properties are assumed to have uniform application of pesticides, DTSC has allowed compositing of samples for OCP analyses (Sections 3.3 and 4.1). The concentration from the composited sample can be used directly in the risk assessment without adjusting the toxicity screening numbers, such as the CHHSLs. The review of the former agricultural properties over the past seven years has supported the assumption of uniform application. This is in contrast to other DTSC guidance, such as the *Lead-Based Paint, Termiticide and PCB Guidance*, (DTSC, June, 2006), where adjustments to the CHHSLs are required for composite samples because applications were not necessarily uniform.

5.3.1 Application of PEA Risk Assessment Equations and CHHSLs

Chemicals of potential concern are evaluated either by comparison to the CHHSL, or by calculating the excess cancer risk and hazard index based on equations in the PEA Guidance.

Note: CHHSLs may not be used to "screen out" COPCs.

5.3.1.1 CHHSLs

CHHSLs are soil and/or soil gas concentrations for selected chemicals developed by Cal-EPA with a target threshold of a 1E-06 risk for carcinogens, and a hazard quotient of one for non-carcinogens. CHHSLs were developed using models and exposure assumptions similar to those used in the PEA Guidance Manual, with the exception of the concentrations for volatile organic compounds (VOCs), which were developed using the vapor intrusion model for addressing the inhalation of contaminated indoor air. CHHSLs may be used as a soil screening value at school sites if all of the chemicals detected at the site have a listed CHHSL, if it is agreed upon by all parties concerned, and if it is agreed that the screening document will be reviewed by a toxicologist from the Human and Ecological Risk Division. For school sites, only the residential-based CHHSLs may be used. The exposure pathways used in calculating the CHHSLs are incidental soil ingestion, dermal absorption, and inhalation of dusts in indoor air for non-volatile soil-bound chemicals, and the inhalation of indoor air pathway for VOCs. Direct exposures to VOCs are not included in the calculation of the CHHSLs and CHHSLs do not take into consideration the leaching of contaminants from soil to groundwater. CHHSLs are not appropriate if ecological receptors are the most sensitive species on the site. Lead should be evaluated using the most current DTSC LeadSpread Model or the school site lead screening level of 255 mg/kg.

5.3.1.2 Human Health Risk Assessment with CHHSLs

Independent of whether sites were analyzed with discrete samples or with composite samples, the evaluation is similar. Note that the CHHSL values are not adjusted for the number of discrete samples that comprise a composite. The rationale behind this comparison to un-adjusted CHHSL is that application of pesticides is assumed to be uniform throughout the field, and large variations in the pesticide concentrations are not expected. This rationale applies only to the agricultural portion, not to mixing areas, storage sites, structures, etc.

5.3.2 Procedure for Human Health Risk Assessment with CHHSL or PEA Guidance

- Determine that all of the chemicals detected at the site have the appropriate CHHSLs for soil and/or soil vapor. If they do not, then a PEA risk assessment must be conducted. A DTSC toxicologist will evaluate if the CHHSL screening is appropriate for the site

- The screening document, PEA or equivalent, will be reviewed by a toxicologist from the Human and Ecological Risk Division.

- The most recently published CHHSLs should be used. This may be found at: http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf.
- The exposure pathways at the site must match the exposure pathways used to develop the CHHSLs.
  Use the maximum concentration of each contaminant detected at the site and compare to unrestricted (residential) CHHSL or PEA risk calculations.
- Background metal concentrations can be used to screen metals as COPC. Construct a table listing the COPC (see Section 5.2.2 for discussion on background metals).
- The risk and hazard for each COPC should be calculated using the following equations:

$$\text{RISK} = \frac{[\text{maximum detected concentration}]}{\text{CHHSL}} \times 10^{-6}$$

$$\text{HQ} = \frac{[\text{maximum detected concentration}]}{\text{CHHSL}}$$

  - If there are multiple COPCs, calculate the cumulative risk and/or hazard. An Excel calculator is provided on the Cal/EPA website for CHHSLs: (http://www.calepa.ca.gov/Brownfields/documents/2005/Calculator.xls).
  - Complete a Risk Characterization Section where the total risk and hazard are presented and discussed along with the need for any further action.
  - If the maximum concentrations detected on site pose an unacceptable risk or hazard, a spatial analysis should be conducted to determine if the elevated levels represent a "hot spot", or are representative of concentrations across the site. In those cases where the elevated concentrations are determined to be one or more "hot spots", risk or concentration isopleths should be constructed to differentiate between those areas of the site in need of further action, and those where no further action is required. Any deviations from these analyses must be approved by the DTSC toxicologist assigned to the project.

Note: For evaluation of composite samples, the CHHSL values are not adjusted for the number of discrete samples that comprise a composite. The rationale behind this comparison to un-adjusted CHHSL is that application of pesticides is assumed to be uniform throughout the field, and large variations in the pesticide concentrations are not expected. Note that this rationale applies only to the agricultural portion, not to mixing areas, storage sites, structures, etc.

6.0 ADDITIONAL SOURCES OF INFORMATION

Pesticide Physical Properties and Half-Lives

http://ace.orst.edu/info/extoxnet/pips/ghindex.html
http://www.arsusda.gov/rsml/ppdb1.html

Active Pesticide Ingredient by Brand Name

http://www.cdpr.ca.gov/docs/label/prodnam.htm
http://www.cdpr.ca.gov/ - see databases
Farm Chemicals Handbook, current edition, Meister Publishing Company,

Willoughby, Ohio.

Maximum Application Rates

http://ace.orst.edu/info/extoxnet/
Agricultural Chemicals – Thomas Publications, Fresno, CA

Pesticide Usage by Year, County, and Crop

http://www.ipm.ucdavis.edu/PUSE/puse1.html
http://www.cdpr.ca.gov/ - see databases

Composite Sampling

http://www.clu-in.org/download/char/SF_Rep_Samp_Guid_soil.pdf
U.S.EPA. 1995a. *Superfund Program Representative Sampling Guidance, Volume 1: Soil, Interim Final,* OSWER Directive 9360.4-10, EPA 540/R-95/141, PB96-963207. Environmental Response Team, Office of Emergency and Remedial Response, Office of Solid Waste and Emergency Response. December 1995, Page 28.

http://clu-in.org/download/stats/composite.pdf
U.S.EPA. 1995b. *EPA Observational Economy Series, Volume 1: Composite Sampling*, EPA-230-R-95-005. Policy, Planning, and Evaluation (2163). August 1995.

Test Methods

http://www.epa.gov/epaoswer/hazwaste/test/
SW-846: U.S. EPA, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, Current Revision*

Pesticide Toxicology Information

http://ace.orst.edu/info/extoxnet/ghindex.html
http://www.state.nj.us/health/eoh/rtkweb/rtkhsfs.htm

CHHSLs

http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf
http://www.calepa.ca.gov/Brownfields/documents/2005/Calculator.xls

Acronym List

bgs	Below Ground Surface
CalEPA	California Environmental Protection Agency
CHHSL	California Human Health Screening Levels
COPC(s)	Chemicals of Potential Concern
DBCP	Dibromochloropropane
DTSC	Department of Toxic Substances Control
NFA	No Further Action
OCP(s)	Organochlorine Pesticides
PAH	Polyaromatic Hydrocarbon
PEA	Preliminary Endangerment Assessment
QC	Quality Control
TPH	Total Petroleum Hydrocarbon
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds



17-Plex
Color Scheme #3

12-Plex
Color Scheme #2

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

May 04, 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2
Enlarged Site Plan | Parcel A SP3
Enlarged Site Plan | Parcel B.....SP4

ARCHITECTURE

Recreation Building: Floor Plan | Parcel A.....A1
Recreation Building: Elevations | Parcel A A2
Recreation Building: Floor Plan | Parcel B.....A3
Recreation Building: Elevations | Parcel B A4

12 Plex | Building Plan.....A5
12 Plex | Building Plan.....A6
12 Plex | Building Elevations.....A7

17 Plex | Building Plan.....A8
17 Plex | Building Plan.....A9
17 Plex | Building Elevations.....A10

Unit Plans | Plan 1.....A11
Unit Plans | Plan 1X.....A12
Unit Plans | Plan 2.....A13
Unit Plans | Plan 3.....A14
Unit Plans | Plan 4.....A15
Unit Plans | Plan 5.....A16
Unit Plans | Plan 6.....A17

Trash Enclosure & Carport Sample A18
Exterior Color & Materials | Lighting Fixture.....A19

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

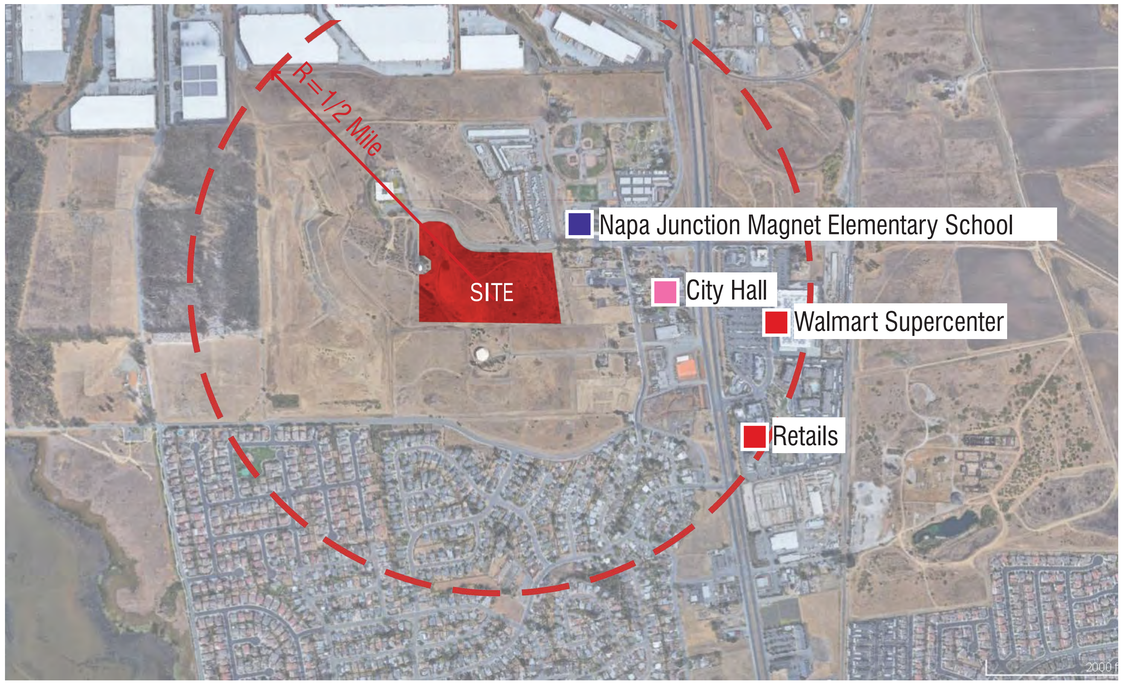
ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP2

0 20 40 80

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Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

ENLARGED SITE PLAN - PARCEL A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP3

0 15 30 60

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Project Summary

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

ENLARGED SITE PLAN - PARCEL B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP4

0 15 30 60

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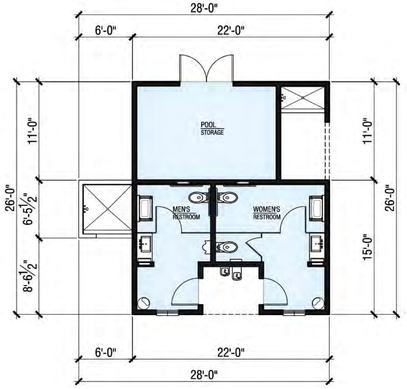
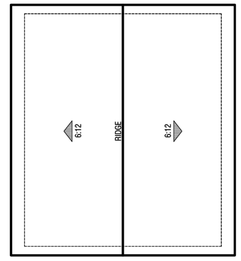
PLAN KEY: Pool Building

611 SF



Pool Building Floor Plan: Parcel A

611 SF Total



Pool Building Roof Plan: Parcel A

Recreation Building Floor Plan: Parcel A

3,335 SF Total

Recreation Building Roof Plan: Parcel A

PLAN KEY: Recreation Building

- Conditioned Space: 3,335 SF
- Entry Porch: 96 SF
- Covered Patio & Porch: 1,175 SF
- Covered Outdoor Fitness: 384 SF

RECREATION BUILDING FLOOR PLAN | Parcel A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A1

0 4 8 16

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Recreation Building Right



Pool Building Right

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem
9. Fiber Cement Louvered Panels
10. Shower Enclosure



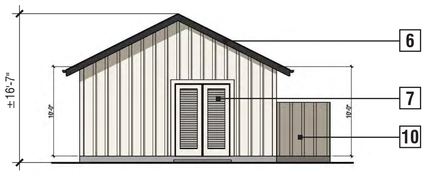
Recreation Building Left



Pool Building Left



Recreation Building Rear



Pool Building Rear



Recreation Building Front



Pool Building Front

RECREATION BUILDING ELEVATIONS | Parcel A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A2

0 4 8 16

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ORANGE COUNTY . LOS ANGELES . BAY AREA

PLAN KEY: Recreation Building

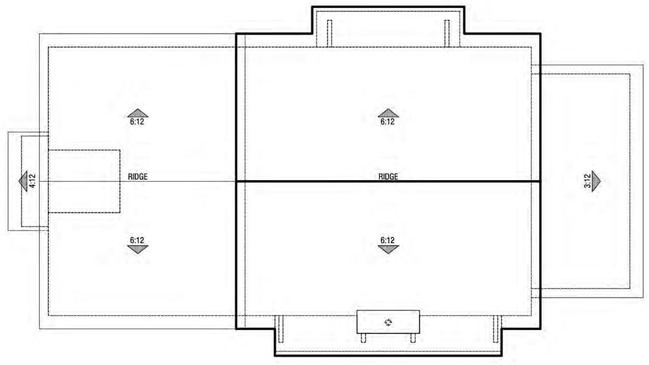
Conditioned Space: 1,842 SF

Entry Porch: 56 SF



Recreation Building Floor Plan: Parcel B

1,842 SF Total



Recreation Building Roof Plan: Parcel B

RECREATION BUILDING FLOOR PLAN | Parcel B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A3

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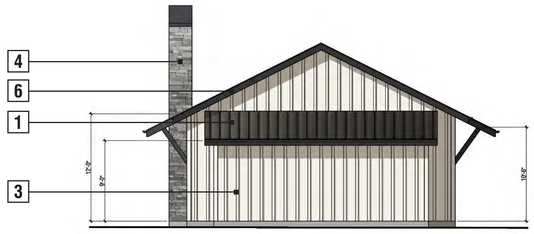
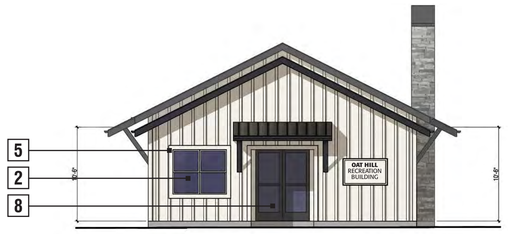


Recreation Building Right



Recreation Building Rear



Recreation Building Left



Recreation Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem

RECREATION BUILDING ELEVATIONS | Parcel B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A4

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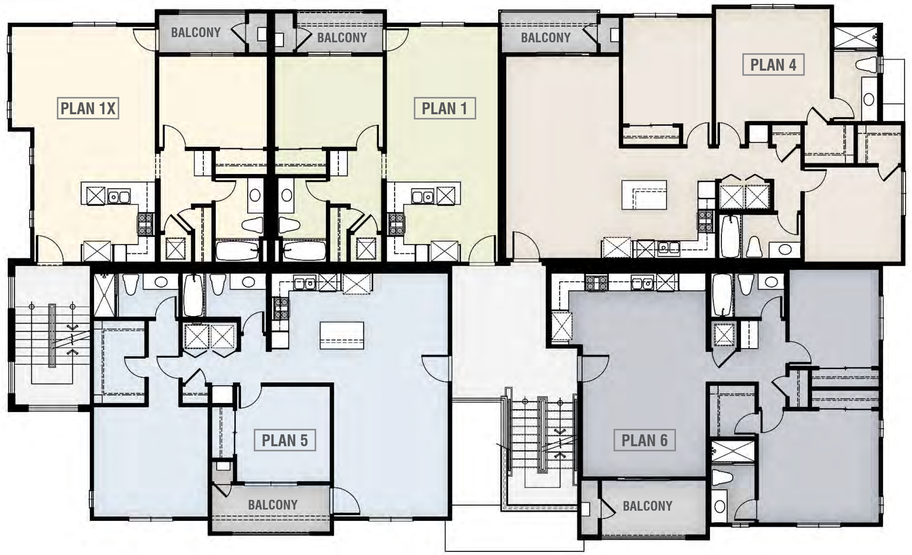

Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A5

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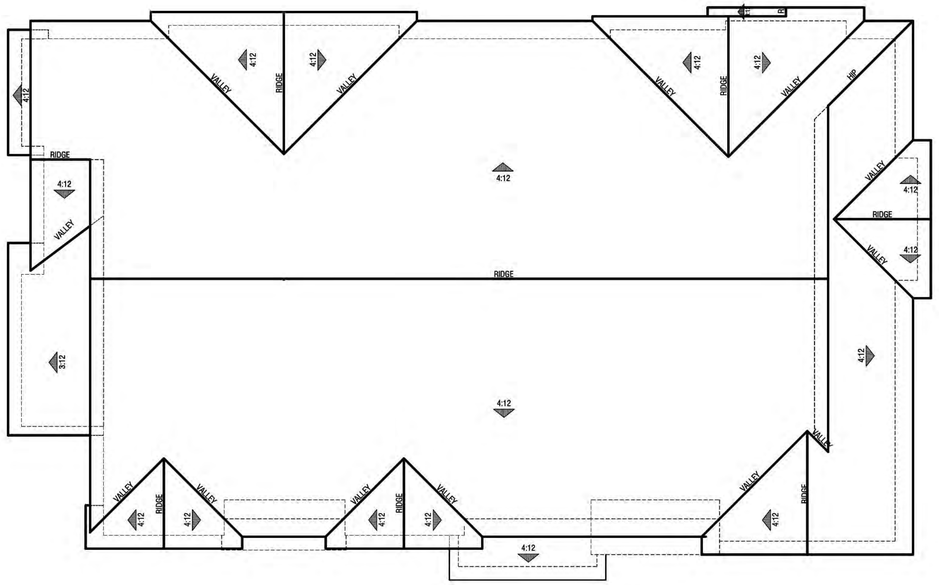

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A6

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WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA



Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #2

1. Concrete Slate Roofing - *Eagle, Sierra Madre*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A19

12-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A7

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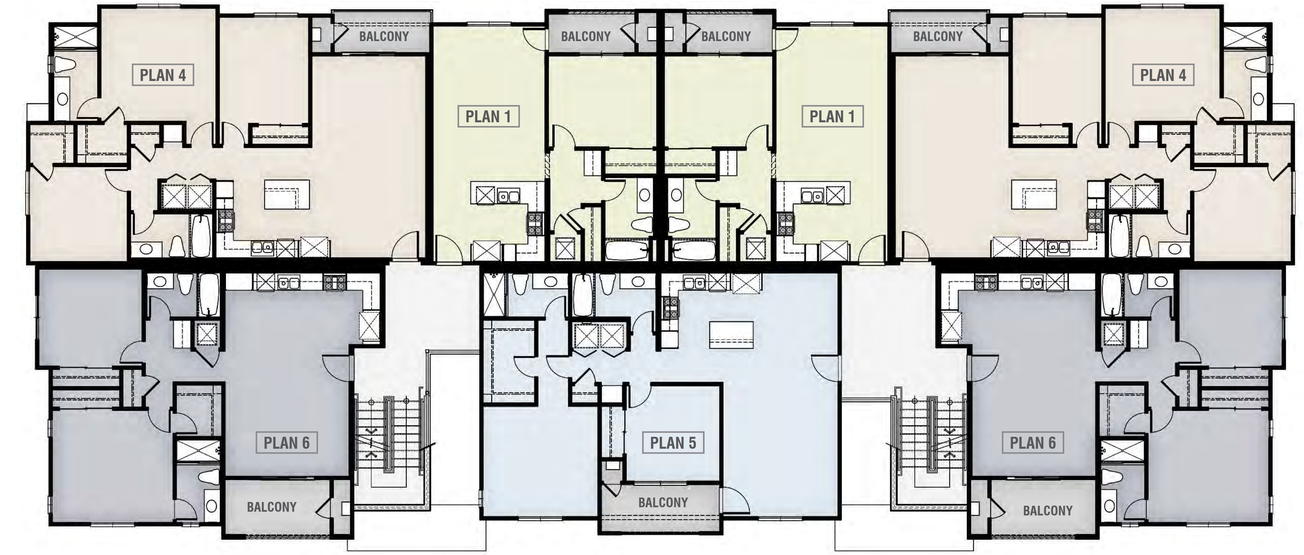

Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

RH HESS DEVELOPMENT

A8

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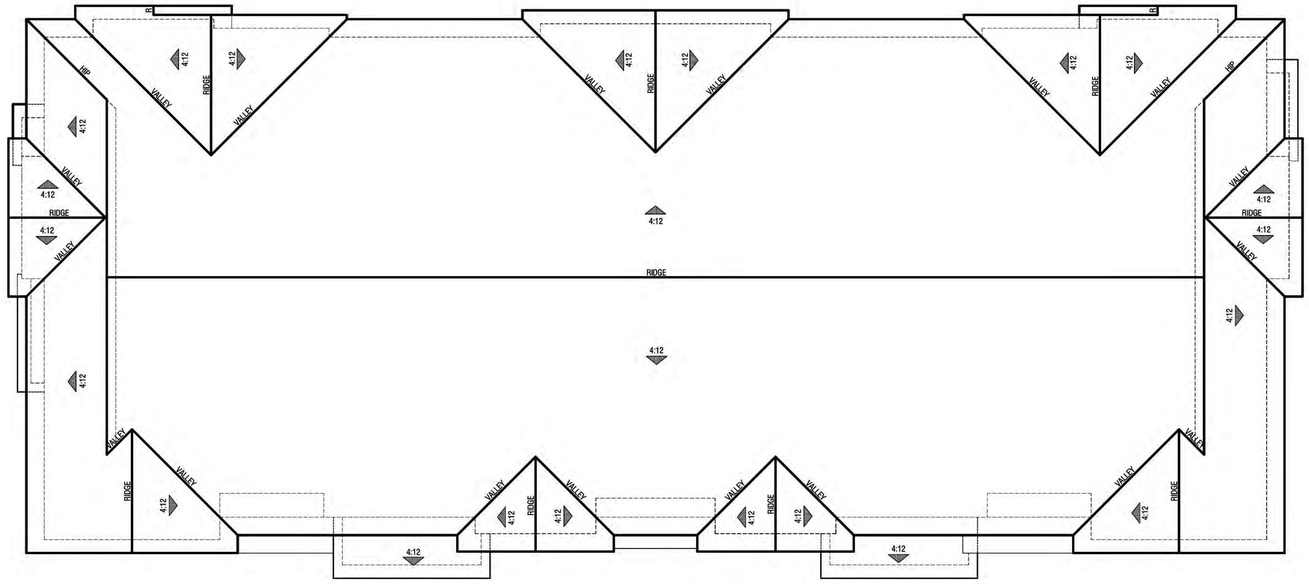

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A9

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ORANGE COUNTY . LOS ANGELES . BAY AREA



Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A19

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A10

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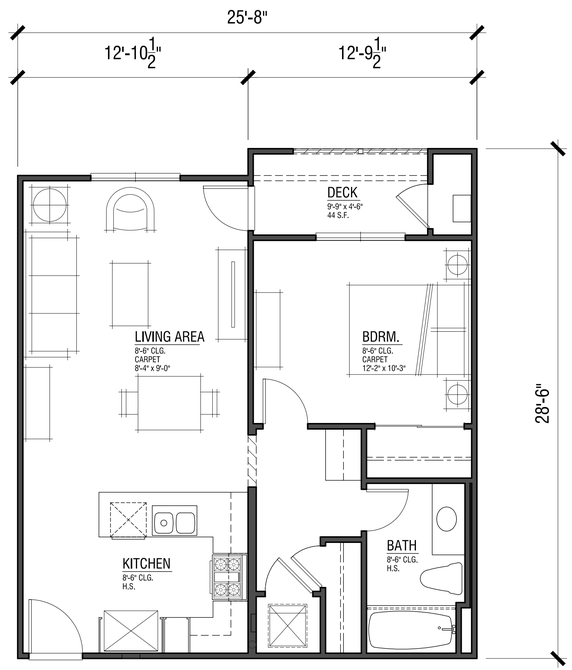
ORANGE COUNTY . LOS ANGELES . BAY AREA

5630



Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A11

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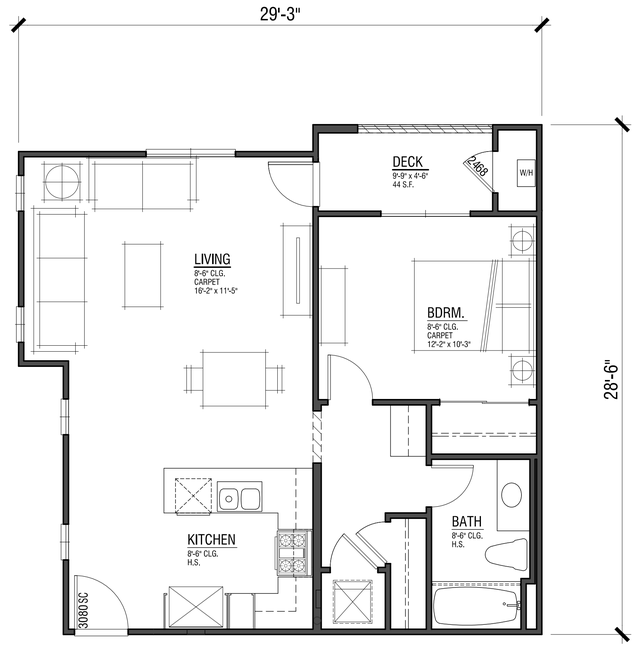
5631



Plan 1X

672 SF

1 Bdrm | 1 Bath

UNIT PLANS | Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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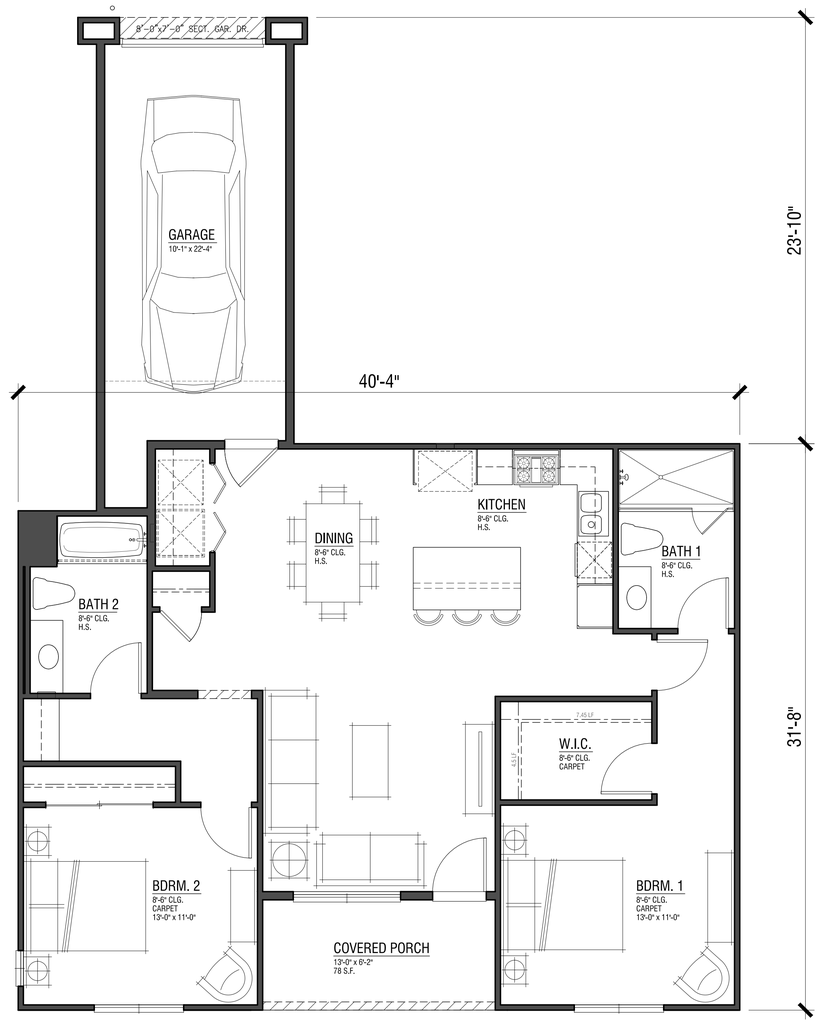

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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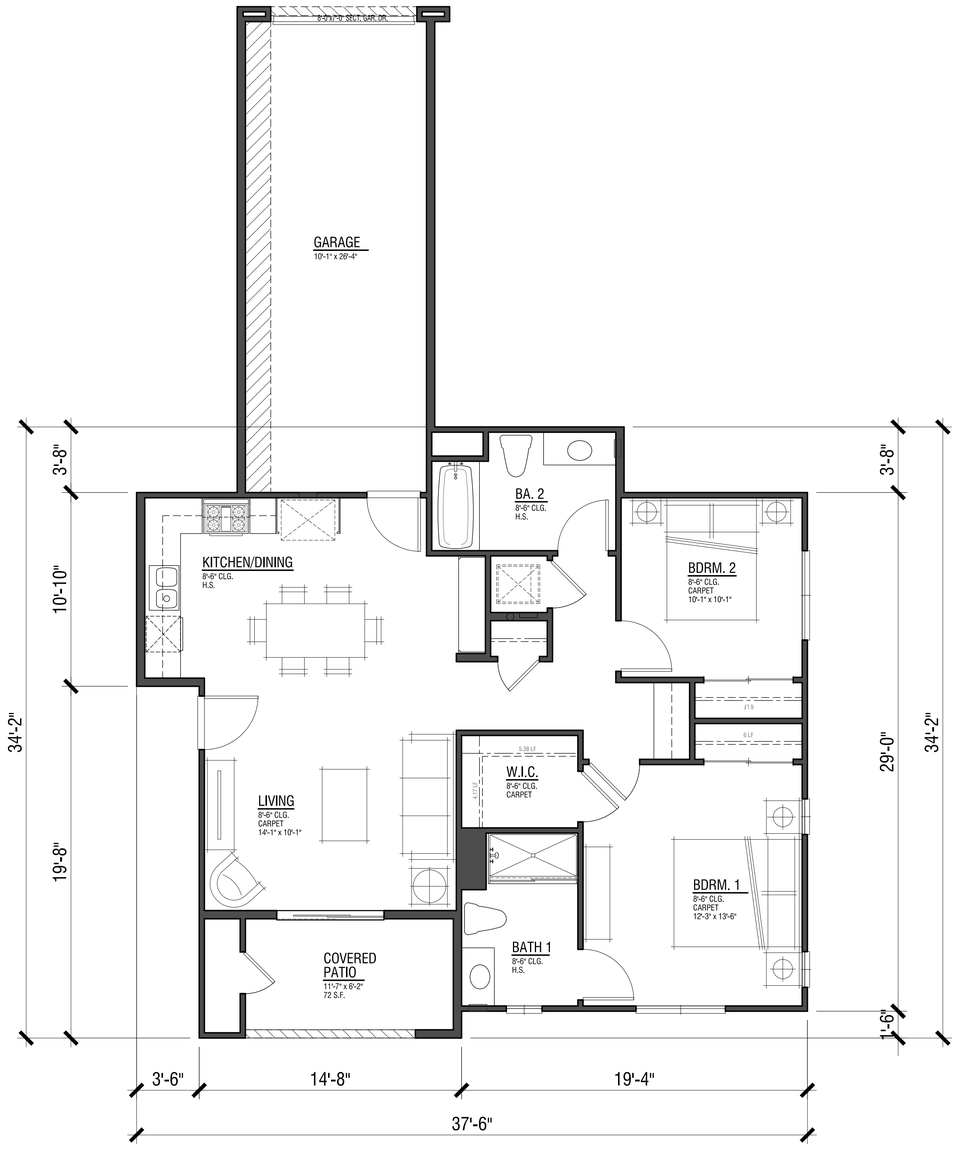

Plan 3

932 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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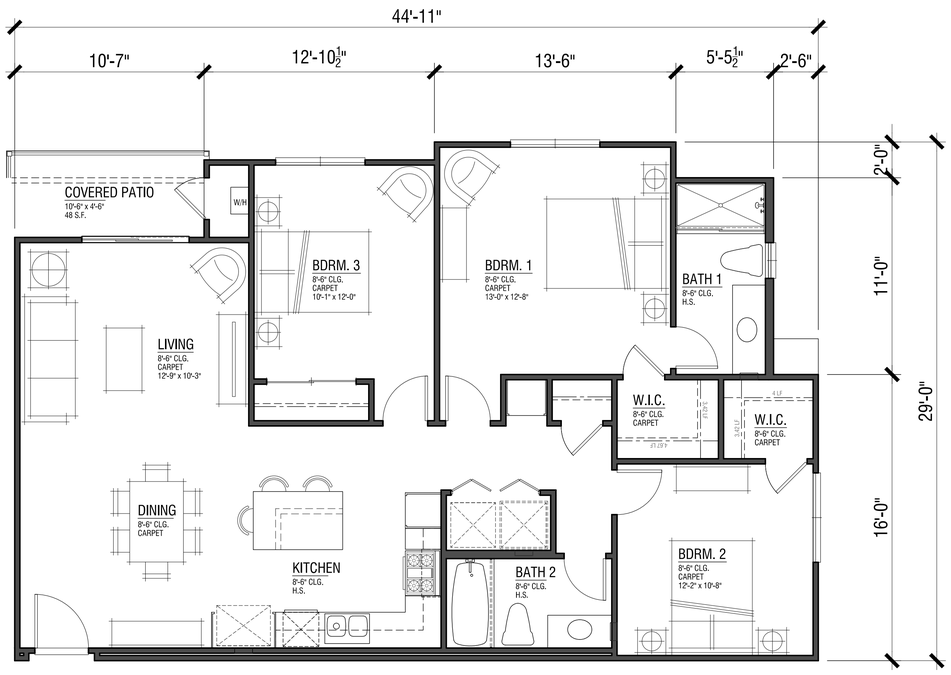
5634



Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A15

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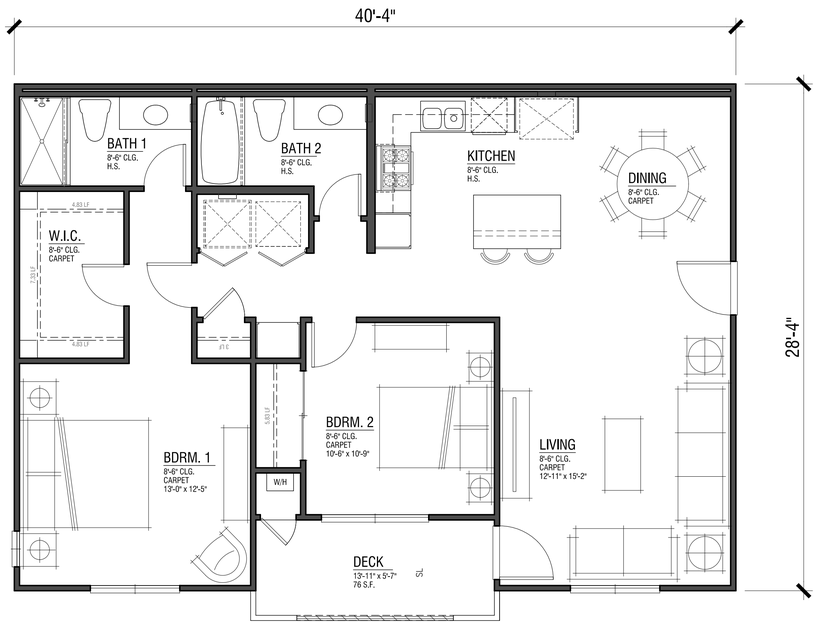

Plan 5

1,024 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A16

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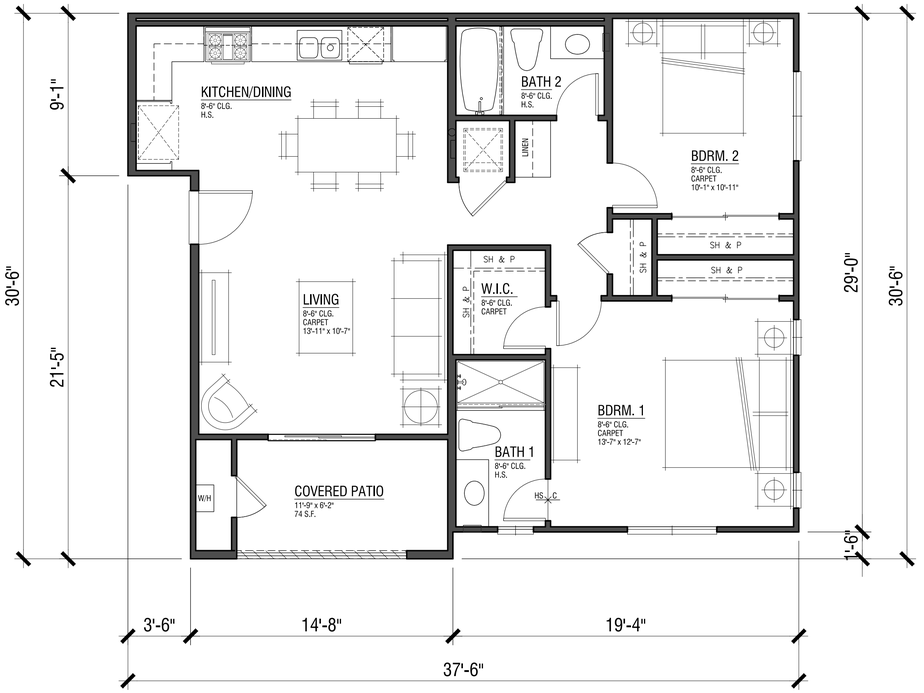
5636



Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 6

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A17

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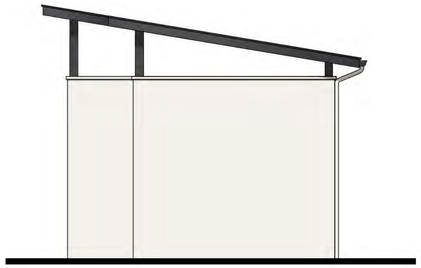
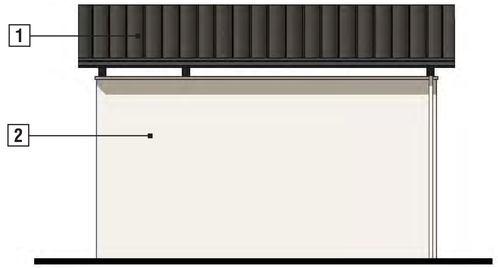
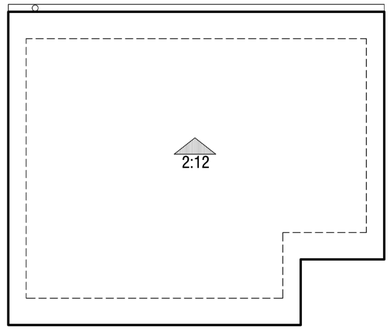


Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Roof Plan



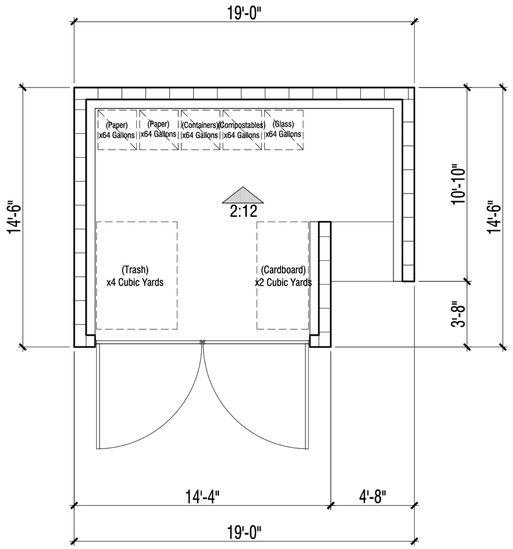
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A18

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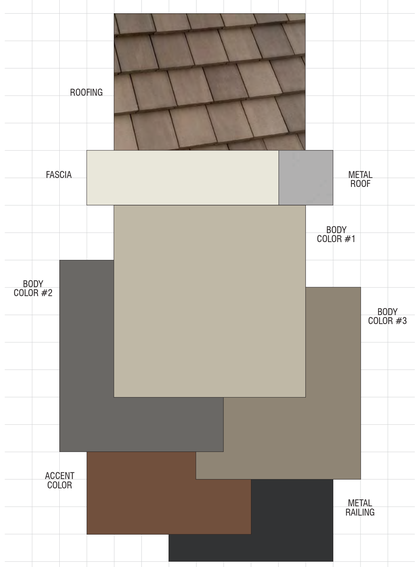
Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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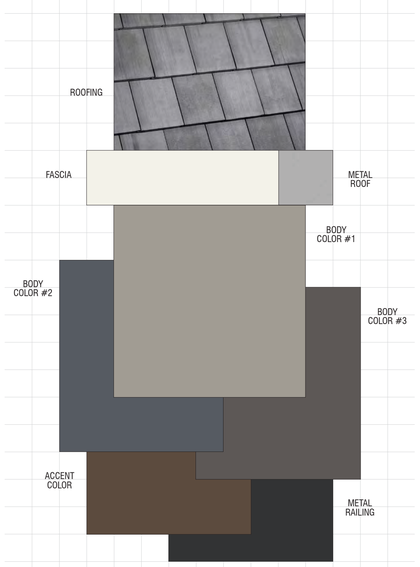
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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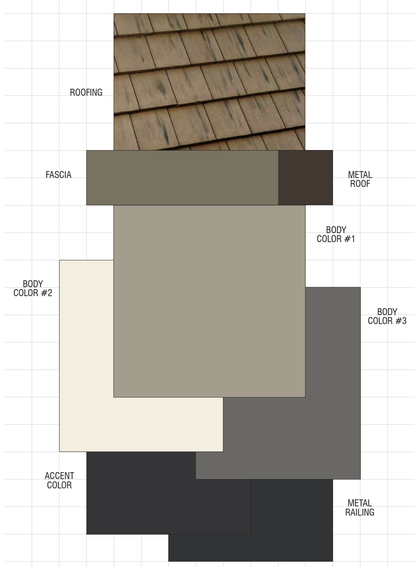
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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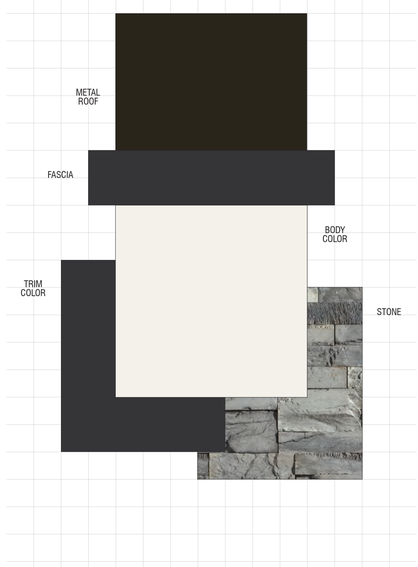
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to):* Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A19

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ARCHITECTS . PLANNERS . DESIGNERS
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APPENDIX I

QUALIFICATIONS

Michael Audibert, REPA – Associate Consultant

Education:

Master's, Public Administration, San Francisco State University, 2000
BS, Business Administration, University of Vermont, 1992

Training/Licenses/Registrations:

ASTM Phase I Environmental Site Assessments (ESAs)
Phase II ESAs (ASTM E 1527 & ASTM E 1903) Training, 2003 and 2006
AHERA Accredited Asbestos Inspector #30950, 2011
Lead-Related Construction Sampling Technician #23886, 2012
EDR Vapor Intrusion Assessment (VI) Training, 2008
Certified Mold Inspector (CMI) (Environmental Solutions Association), 2005

Summary of Professional Experience:

Mr. Audibert has been conducting Phase I and II Environmental Site Assessments (ESAs) of commercial, industrial, and multi-family residential properties throughout the United States since 2001. He has also managed regulatory compliance evaluation programs on a nationwide basis. With a background in business management and public administration, Mr. Audibert brought these skills into the environmental due diligence and health & safety arenas with strengths in project management, real estate transaction due diligence, and public sector agency correspondence. Mr. Audibert also has extensive experience managing various industrial hygiene projects, including asbestos surveys, mold assessments, radon testing, lead-based paint testing, lead-in drinking-water testing, and other indoor air quality assessments. In addition, Mr. Audibert has completed multiple Phase I ESA's for Fannie Mae, Freddie Mac, and HUD projects.

Select Project Experience for Mr. Audibert includes:

- Former Steel Foundry, Oakland, CA - Mr. Audibert performed a Phase I ESA for a former steel and brass foundry to be converted into live/work loft apartments. The City of Oakland required that a comprehensive Phase I ESA be conducted for this property for foundry closure purposes. This project involved extensive agency and historical research, as well as determining what areas of the former foundry would be considered "at risk zones" for subsurface contamination.
- Gasoline Service Station Portfolio, CA - Mr. Audibert has performed Phase I ESAs for existing gas stations developed on the sites of former gas stations, as well as several historical and current leaking underground storage tank (LUST) sites, which involve an extensive historical use investigation and agency records review to determine the status of current and past underground storage tanks (USTs).
- Former Union Hall, San Francisco, CA – Mr. Audibert performed a Phase I ESA for a former union hall to be developed into a high rise cosmopolitan apartment building. Because of the age of the buildings to be demolished, a comprehensive asbestos survey and ensuing operations and maintenance program for removal and disposal of asbestos was recommended and implemented.
- Former Printers, San Francisco, CA – Mr. Audibert performed a Phase I ESA for a former printing operation. The property had a long history of high-risk uses, including various manufacturing, automobile repair, and printing operations. A comprehensive agency records investigation and review was conducted.

Katie Hindt – Client Manager

B.A. – Environmental Studies, University of California, Santa Cruz

Registered Environmental Property Assessor (REPA) #528528

Ms. Hindt has over 10 years of experience in the environmental service industry and provides project management to ensure ASTM compliance and satisfaction of client requirements for Phase 1 Environmental Site Assessments, Environmental Transaction Screens, Environmental Transaction Analyses, Records Research with Risk Assessments, Regulatory Database Reviews and Historical Records Reviews. She has completed assessments on a variety of residential, agricultural, commercial and industrial sites. Ms. Hindt is familiar with all aspects of Due Diligence Property Assessments and the requirements of many reporting standards including, ASTM, AAI, HUD and client-specific formats.

Project experience for Ms. Hindt includes:

- Phase 1 Environmental Site Assessments (Phase 1 ESA)
- Environmental Transaction Screens (ETS)
- Environmental Transaction Analyses (ETA)
- Records Search with Risk Assessment (RSRA)
- Regulatory Database Reviews
- Historical Records Reviews
- Project Coordination and Setup

As a Client Manager, Ms. Hindt provides senior author services and client management. Additional responsibilities include managing projects and staff mentorship.

In addition, prior to joining the environmental service industry, Ms. Hindt spent four years studying a broad range of environmental disciplines including: National environmental law, policy and economics, restoration ecology, California environmental history and California freshwater policy/issues.

APPENDIX J

LIST OF COMMONLY USED ABBREVIATIONS

UNITS

µg/L	Micrograms per Liter	**pCi/L**	PicoCuries per Liter
mg/kg	Milligrams per Kilogram	**ppb**	Parts per Billion
mg/L	Milligrams per Liter	**ppm**	Parts per Million

ABBREVIATIONS AND ACRONYMS

ACM	Asbestos-Containing Material	**NESHAP**	National Emission Standards for Hazardous Air Pollutants
ADJ	Adjacent site	**NFA**	No Further Action
AEI	AEI Consultants	**NFRAP**	No Further Remedial Action Planned
AHERA	Asbestos Hazard Emergency Response Act	**NLR**	No Longer Reporting
APN	Assessor's Parcel Number	**NOV**	Notice of Violation
AST	Aboveground Storage Tank	**NPL**	National Priorities List
AUL	Activity and Use Limitation	**O&M**	Operations and Maintenance
bgs	Below Ground Surface	**OEC**	Other Environmental Considerations
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes	**OSHA**	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	**PCB**	Polychlorinated Biphenyl
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System	**PCE, PERC**	Perchloroethylene, Tetrachloroethylene, Tetrachloroethene
CESQGs	Conditionally Exempt Small Quantity Generators	**RCRA**	Resource Conservation and Recovery Act
COC	Contaminant of Concern	**REC**	Recognized Environmental Condition
CREC	Controlled Recognized Environmental Condition	**RP**	Responsible Party
EC	Engineering Controls	**SDS**	Safety Data Sheet
EDR	Environmental Data Resources, Inc.	**SEMS**	Superfund Enterprise Management System
EPA	Environmental Protection Agency	**SF**	Square Footage/Square Feet
ERIS	Environmental Risk Information Services	**SP**	Subject Property
ERNS	Emergency Response Notification System	**SQG**	Small Quantity Generator
ESA	Environmental Site Assessment	**SWLF**	Solid Waste Landfill
GPR	Ground-Penetrating Radar	**SVOC**	Semi-Volatile Organic Compound
HREC	Historical Recognized Environmental Condition	**TCE**	Trichloroethylene, Trichloroethene
HVAC	Heating, Ventilation and Air Conditioning	**TPH**	Total Petroleum Hydrocarbons
HWS	Hazardous Waste Site	**TPHd**	Total Petroleum Hydrocarbons (diesel range)
IC	Institutional Controls	**TPHg**	Total Petroleum Hydrocarbons (gasoline range)
LBP	Lead-Based Paint	**TPHo**	Total Petroleum Hydrocarbons (oil range)
LCP	Lead-Containing Paint	**TRPH**	Total Recoverable Petroleum Hydrocarbons
LLP	Landowner Liability Protection	**TSDF**	Treatment, Storage, and Disposal Facility
LQG	Large Quantity Generator	**USDA**	United States Department of Agriculture
LUST	Leaking Underground Storage Tank	**USGS**	United States Geological Survey
MCL	Maximum Contaminant Level	**UST**	Underground Storage Tank
MTBE	Methyl Tertiary Butyl Ether	**VCP**	Voluntary Cleanup Program
ND	None Detected	**VOC**	Volatile Organic Compound

APPENDIX E

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR PARCEL B

AEI Consultants

August 11, 2020

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Property Information:
Napa Junction Road at Oat Hill
Assessor's Parcel Number: 058-320-001
American Canyon, Napa County, California 94503

Project Information:
AEI Project No. 424780
Client Reference Name: Oat Hill Multi-Family

Prepared For:
R.H. Hess Dev Co.
3423 Broadway, Suite D5
American Canyon, California 94503

Prepared By:
AEI Consultants
2500 Camino Diablo, Suite 100
Walnut Creek, California 94597-3940

Environmental Due Diligence

Building Assessments

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

Construction Risk Management

Zoning Analysis Reports & ALTA Surveys

AEI Consultants

August 11, 2020

Rick Hess
R.H. Hess Dev Co.
3423 Broadway, Suite D5
American Canyon, California 94503

Subject: Phase I Environmental Site Assessment
Napa Junction Road at Oat Hill
American Canyon, California 94503
AEI Project No. 424780
Client Reference Name: Oat Hill Multi-Family

Dear Rick Hess:

AEI Consultants is pleased to provide the *Phase I Environmental Site Assessment* of the above referenced property. This assessment was authorized and performed in accordance with the scope of services engaged.

We appreciate the opportunity to provide services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (925) 746-6000 or pmcintyre@aeiconsultants.com.

Sincerely,

Peter McIntyre, PG
Executive Vice President
AEI Consultants

PROJECT SUMMARY

Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
AEI Project No. 424780

Report Section		REC	CREC	HREC	OEC	Recommended Action
1.0	Introduction					None
2.0	Site and Vicinity Description					None
3.0	Historical Review of Site and Vicinity					None
4.0	Regulatory Agency Records Review					None
5.0	Regulatory Database Records Review					None
6.0	Interviews and User Provided Information					None
7.0	Site Reconnaissance					None
8.1	Asbestos-Containing Building Materials					None
8.2	Lead-Based Paint					None
8.3	Radon					None
8.4	Mold					None

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EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by R.H. Hess Dev Co. to conduct a Phase I ESA in conformance with AEI's contract and the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill, American Canyon, Napa County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

Pertinent subject property information is noted below:

PROPERTY INFORMATION	
Site Address(es)	Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
Property ID (APN or Block/Lot)	058-320-001
Location	Southwest of the intersection of Napa Junction Road and Hess Road
Property Type	Vacant Land
SITE AND BUILDING INFORMATION	
Approximate Site Acreage/Source	10.63/Assessor
Number of Buildings	None
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Basement or Subgrade Area(s)	None identified
Number of Units	N/A
Additional Improvements	None
On-site Occupant(s)	None
Current On-site Operations/Use	Goat grazing
Current Use of Hazardous Substances	None identified
REGULATORY INFORMATION	
Regulatory Database Listing(s)	None identified

A chronological summary of historical subject property information is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1937	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs
1937	Agricultural/apparent hay farming land	Aerial photograph
1948-present	Vacant pasture land	Aerial photographs, city directories, agency records, prior Phase I ESA report, interview, onsite observations

The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Napa Junction Road, followed by: Oat Hill RV Parking and Hess Construction (4484/ 4501 Hess Road) Napa Junction Elementary School (300 Napa Junction Road) Vacant land (no address)	4484: HIST UST, UST, CERS, CERS HAZ WASTE
East	Residences (285 Napa Junction Road, 11 Medeiros Lane), the Calvary Baptist Church (117 Theresa Avenue) and a farm facility (no address)	None identified
South	Vacant land and water tower, with portion of Medeiros Lane (no address)	None identified
West	Vacant land (no address)	None identified

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

FINDINGS

Recognized Environmental Condition (REC) is defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

- AEI did not identify evidence of RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations (OEC) warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-13. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP,

radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

- AEI did not identify evidence of Other Environmental Considerations during the course of this assessment.

Conclusions, Opinions, and Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) of Napa Junction Road at Oat Hill, American Canyon, Napa County, California, the *subject property*. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

AEI did not identify evidence of RECs or CRECs in connection with the subject property during the course of this assessment. AEI recommends no further investigation for the subject property at this time.

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment performed in conformance with AEI's contract and scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill, American Canyon, Napa County, California (Appendix A: Figures and Appendix B: Property Photographs).

1.1 Scope of Work

The purpose of the Phase I ESA is to assist the client in identifying potential RECs, in accordance with ASTM E1527-13, associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal, and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

1.2 Additional Services

Other Environmental Considerations such as ACMs, LBP, lead in drinking water, radon, mold, and wetlands can result in business environmental risks for property owners which may disrupt current or planned operations or cash flow and are generally beyond the scope of a Phase I assessment as defined by ASTM E1527-13. Based upon the agreed-on scope of services this ESA did not include subsurface or other invasive assessments, business environmental risks, or other services not specifically identified and discussed herein.

1.3 Significant Assumptions

The following assumptions are made by AEI in this report. AEI relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow, unless otherwise specified by on-site well data or well data from the subject property or nearby sites, is inferred from contour information depicted on the USGS topographic maps. AEI assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.4 LIMITATIONS

Property conditions, as well as local, state, tribal, and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this assessment apply strictly to the environmental regulations and property conditions existing at the time the assessment was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the assessment.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: ACMs, radon, LBP, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-13.

If requested by the client, these non-scope issues are discussed herein. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under CERCLA. ASTM Standard Practice E1527-13 and the United States EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1. 42 U.S.C. § 9601(35)(B), referenced in the ASTM Standard Practice E1527-13.
2. Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).
3. 42 U.S.C. § 9601(40) and 42 U.S.C. § 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, current subject property use, and observations and conditions that existed on the date and time of the property reconnaissance.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

AEI's limited radon screening, if included, is intended to provide a preliminary screening to evaluate the potential presence of elevated radon concentrations at the site. The proposed scope is not intended to define the full extent of the presence of radon at the subject property. As such, the results should be used for lending purposes only. The recommendations and conclusions presented as a result of the limited preliminary radon screening apply strictly to the property conditions existing at the time the sampling was performed. The sample analytical results are only valid for the time, place, and condition of the site at the time of collection and AEI does not warrant that the results will be repeatable or are representative of past or future conditions.

1.5 Limiting Conditions/Deviations

The performance of this assessment was limited by the following:

- While additional assessments may have been conducted on the subject property, these documents must be provided for AEI's review in order for the information to be summarized/included in this report. Please refer to Section 6.3 for a summary of previous reports and other documentation provided to AEI during this assessment.
- A search of historical city directories was conducted for the subject property utilizing EDR. Since there is no known address for the subject property, no listings were present. Based on the nature of historical occupancy as established from other sources, the lack of historical city directory information is not expected to alter the findings of this assessment.
- Due to the size of the subject property, AEI performed a reconnaissance of the property utilizing a field technique of traversing the site in an attempt to provide an overlapping field of view. Due to the size of the property and the vegetation present on site, isolated areas of the site may have not been accessible for direct observation during AEI's field reconnaissance. Based on the quality of information obtained from historical sources and interviews, this limitation is not expected to significantly alter the findings of this assessment.

1.6 Data Failure and Data Gaps

According to ASTM E1527-13, data gaps occur when the Environmental Professional is unable to obtain information required by the Standard, despite good faith efforts to gather such information. Pursuant to ASTM E1527-13, only significant data gaps, defined as those that affect the ability of the Environmental Professional to identify RECs, need to be documented.

Data failure is one type of data gap. According to ASTM E1527-13, data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Pursuant to ASTM E1527-13, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier, or periods of five years or greater.

1.6.1 Data Failure

The following data failure was identified during the course of this assessment:

Data Failure	Historical sources were not obtained at five-year intervals dating back to 1940 or first developed use. AEI was not able to track the history of the subject property between the years 1938 and 1947 as none of the historical sources

	utilized as part of this assessment covered this time period. In the 1937 aerial photograph, the subject property appears to be used for agricultural purposes (hay harvesting). In the 1948 aerial photograph, the subject property appears as vacant pasture land. Thus, it is assumed that during this time period the subject property would have been used for similar purposes. Therefore, this data failure is not expected to significantly alter the findings of this assessment.
Information/Sources Consulted	Aerial photographs, agency records, previous report, interviews

1.6.2 Significant Data Gaps

AEI did not identify significant data gaps which affected our ability to identify RECs.

1.7 Reliance

All reports, both verbal and written, are for the benefit of R.H. Hess Dev Co. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's contract and Terms and Conditions executed by R.H. Hess Dev Co. on June 15, 2020. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

PROPERTY INFORMATION	
Site Address(es)	Napa Junction Road at Oat Hill, American Canyon, Napa County, California 94503
Property ID (APN or Block/Lot)	058-320-001
Location	Southwest of the intersection of Napa Junction Road and Hess Road
Property Type	Vacant Land
SITE AND BUILDING INFORMATION	
Approximate Site Acreage/Source	10.63/Assessor
Number of Buildings	None
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Basement or Subgrade Area(s)	None identified
Number of Units	N/A
Additional Improvements	None
On-site Occupant(s)	None
Current On-site Operations/Use	Goat grazing
Current Use of Hazardous Substances	None identified
REGULATORY INFORMATION	
Regulatory Database Listing(s)	None identified

2.2 ON-SITE UTILITIES

Utility	Source/System Information
Heating System	N/A
Cooling System	N/A
Potable Water	N/A
Sewage Disposal/Treatment	N/A

Utility source/system information listed in the table above is provided by Mr. Rick Hess, unless otherwise noted above.

2.3 SITE AND VICINITY CHARACTERISTICS

The subject property is located in a rural and commercial area of American Canyon, California. The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Napa Junction Road, followed by:	4484: HIST UST, UST, CERS, CERS HAZ WASTE

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
	Oat Hill RV Parking and Hess Construction (4484/ 4501 Hess Road) Napa Junction Elementary School (300 Napa Junction Road) Vacant land (no address)	
East	Residences (285 Napa Junction Road, 11 Medeiros Lane), the Calvary Baptist Church (117 Theresa Avenue) and a farm facility (no address)	None identified
South	Vacant land and water tower, with portion of Medeiros Lane (no address)	None identified
West	Vacant land (no address)	None identified

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

2.4 PHYSICAL SETTING

Geologic Unit: Description/Source	Alluvial deposits of the Cenozoic Era/USGS and United States Department of the Interior
Soil Series: Description/Source	Fagan: Clay loam with slow infiltration rates and well drained. Depth to bedrock is estimated at 46-50 inches./USDA Soil Survey
Groundwater Flow Direction/Source	East/Topographic map interpretation
Estimated Depth to Groundwater/ Source	1.52-7.67 feet bgs/SWRCB groundwater monitoring data for a nearby site (4391 Highway 29), approximately 0.61 mile to the south-southeast Note: The closest readily available data was 1.52-7.67 feet deep at at distance of 0.61 mile away. However given the topography of the subject property relative to this depth to groundwater source, depth to groundwater at the subject property is likely deeper.
Surface waters on the subject property or adjoining sites	None
Additional notes	None

Note: Groundwater flow direction can be influenced locally and regionally by the presence of local wetland features, surface topography, recharge and discharge areas, horizontal and vertical inconsistencies in the types and location of subsurface soils, and proximity to water pumping wells. Depth and gradient of the water table can change seasonally in response to variation in precipitation and recharge, and over time, in response to urban development such as storm water controls, impervious surfaces, pumping wells, cleanup activities, dewatering, seawater intrusion barrier projects near the coast, and other factors.

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-13 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historical city directories, Sanborn fire insurance maps, and agency records, is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1937	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs
1937	Agricultural/apparent hay farming land	Aerial photograph
1948-present	Vacant pasture land	Aerial photographs, city directories, agency records, prior Phase I ESA report, interview, onsite observations

Historical Use Summary

Based on a review of an aerial photograph from 1937, it appears that the subject property was historically used for hay harvesting. The subject property appeared as vacant range land in the next available historical resource, a 1948 aerial photograph. Additionally, the subject property owner representative, Mr. Rick Hess, indicated that the land was always for grazing only to the best of his knowledge and that no pesticides have been applied.

Based on review of the California Department of Toxic Substances Control's (DTSC) August 7, 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*, organochlorine pesticides (OCPs) were introduced to California in 1944 and reached their peak in the 1960s. The document continues to state that properties which ended their agricultural use prior to 1950 need not be sampled for OCPs.

Hay cultivation does not typically involve the application of agricultural chemicals, such as pesticides, herbicides and fertilizers. Therefore, the historical use of the property is not expected to represent a significant environmental concern.

If available, copies of historical sources are provided in Appendix D.

3.1 AERIAL PHOTOGRAPHS

AEI reviewed aerial photographs of the subject property and surrounding area. A search was made of the EDR collection of aerial photographs. Aerial photographs were reviewed for the following years:

Year(s)	Subject Property Description	Adjoining Site Descriptions
1937	Appears as agricultural/hay farming land	Appears as agricultural/hay farming land. Residential to east.

Year(s)	Subject Property Description	Adjoining Site Descriptions
1948 1957 1965 1970	Appears as unimproved pasture land.	Pasture land; residential to east School to northeast by 1957. Partial coverage in 1965
1982	Appears as vacant land	NORTH: Current RV parking and construction facility, school EAST: Residences and a farm SOUTH: Pasture land and water tower WEST: Pasture land
1993 1998 2005 2006	No significant changes noted from the 1982 aerial photograph. Apparent dirt path with some storage. The subject property generally appears as it does today.	No significant changes

Based on a review of aerial photographs, the subject property appears to have been developed with agricultural/hay farming land in at least 1937, please refer to Section 3.0 for additional information.

3.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of the EDR collection of Sanborn Fire Insurance maps.

Sanborn map coverage was not available for the subject property.

3.3 City Directories

A search of historical city directories was conducted for the subject property utilizing EDR. Since there is no known address for the subject property, no listings were present. Refer to Section 1.5 for discussion of this limiting condition.

3.4 Historical Topographic Maps

Based on the quality of information obtained from other sources, historical topographic maps were not reviewed as a part of this assessment.

3.5 Chain of Title

Based on the quality of information obtained from other sources, a chain of title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous substance use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to AULs, defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1 LOCAL ENVIRONMENTAL HEALTH DEPARTMENT AND/OR STATE ENVIRONMENTAL AGENCY

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Napa County Environmental Health Department (NCEHD)	July 30, 2020	Website	Records Manager	No hazardous materials records on file

4.2 FIRE DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Fire Department (ACFD)	July 30, 2020	Telephone	Records Manager	No records on file

4.3 BUILDING DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Building Department (ACBD)	July 30, 2020	Telephone	Records Clerk	No records on file

4.4 PLANNING DEPARTMENT

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
American Canyon Planning Department (ACPD)	July 30, 2020	Telephone	Associate Planner	No evidence indicating the existence of AULs on file for the subject property

4.5 ASSESSOR'S OFFICE

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Napa County Assessor's Office	July 30, 2020	Website	N/A	Information obtained is discussed below

Records Summary

APN	058-320-001
Acreage	10.63 acres

Construction Date	N/A
Building Square Footage	N/A
Current Owner	Not provided

4.6 Other Agencies Searched

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
CA State Water Resources Control Board (SWRCB) GeoTracker	July 30, 2020	Website	N/A	No records on file
CA Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System (HWTS)	July 30, 2020	Website	N/A	No records on file
CA DTSC EnviroStor	July 30, 2020	Website	N/A	No records on file
Bay Area Air Quality Management District (AQMD)	July 30, 2020	Website	N/A	No records on file

4.7 Oil and Gas Wells

Agency	Date Referenced	Resource	Oil or gas wells located within 500 feet of the subject property
California Geologic Energy Management Division (CalGEM)	July 30, 2020	CalGEM Map	No

4.8 Oil and Gas Pipelines

Agency	Date Referenced	Resource	Pipelines located within 500 feet of the subject property
National Pipeline Mapping System (NPMS)	July 30, 2020	NPMS Public Map Viewer	No

4.9 State Environmental Superliens

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state environmental superliens.

4.10 State Property Transfer Laws

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state property transfer laws.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted EDR to conduct a search of publicly available information from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination and sites of potential environmental significance. Data gathered during the current regulatory database search is compiled by EDR into one regulatory database report. Location information for listed sites is designated using geocoded information provided by federal, state, or local agencies and commonly used mapping databases with the exception of "Orphan" sites. Due to poor or inadequate address information, Orphan sites are identified but not geocoded/mapped by EDR, rather, information is provided based upon vicinity zip codes, city name, and state. The number of listed sites identified within the approximate minimum search distance from the federal and state environmental records database listings specified in ASTM Standard E1527-13 is summarized in Section 5.1, along with the total number of Orphan sites. A copy of the regulatory database report, which includes detailed descriptions of the databases noted below, is included in Appendix C of this report.

In determining if a listed site is a potential environmental concern to the subject property, AEI generally applies the following criteria to classify the site as lower potential environmental concern: 1) the site only holds an operating permit (which does not imply a release), 2) the site's distance from, and/or topographic position relative to, the subject property, and/or 3) the site has recently been granted "No Further Action" by the appropriate regulatory agency.

Regulatory database listings associated with the subject property, adjoining site(s) and/or nearby sites of concern that were determined to warrant additional discussion are identified and further discussed in Section 5.1.

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Listings Within Search Distance	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
NPL	1.0	0			
DELISTED NPL	0.5	0			
SEMS/CERCLIS	0.5	0			
SEMS-ARCHIVE/CERCLIS NFRAP	0.5	0			
RCRA CORRACTS	1.0	0			
RCRA-TSDF	0.5	0			
RCRA LQG, SQG, CESQGs, NLR	SP/ADJ	0			
US ENG CONTROLS	SP	0			
US INST CONTROLS	SP	0			
ERNS	SP	0			
STATE/TRIBAL HWS	1.0	3			
STATE/TRIBAL SWLF	0.5	1			
STATE/TRIBAL REGISTERED STORAGE TANKS	SP/ADJ	1		✔	
STATE/TRIBAL LUST	0.5	5			✔

Database	Search Distance (Miles)	Listings Within Search Distance	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
STATE/TRIBAL EC and IC	SP	0			
STATE/TRIBAL VCP	0.5	1			
STATE/TRIBAL BROWNFIELD	0.5	0			
ORPHAN	N/A	2			
ADDITIONAL ENVIRONMENTAL RECORD SOURCES	SP/ADJ	3		✔	

Facility Name	Hess Concrete/Construction
Address	4484 Hess Road
Distance & Direction	Adjoining to the north, beyond road
Hydrologic Position	Cross-gradient
Databases Listed	UST, HIST UST, CERS HAZ WASTE, CERS
Comments	According to the regulatory database, this site was equipped with one (1) 1,000-gallon diesel UST and one (1) 550-gallon gasoline UST which were both installed in 1977, which were removed from the site in 1988. AEI inquired as to the location of the former tanks, however the property owner's representative, Mr. Rick Hess, was unaware of their former locations. No releases have been reported in association with these USTs. Based on the inferred groundwater flow direction and lack of a documented release, the review of regulatory agency files for this site was not deemed necessary, and the site is not expected to represent a significant environmental concern.

Facility Name	Medeiros Property
Address	289 Napa Junction Road
Distance & Direction	Plotted 0.1 mile east (exact location unknown)
Hydrologic Position	Down-gradient
Databases Listed	LUST
Comments	The site was listed as a closed LUST case related to a historical diesel fuel release. AEI reviewed documentation on GeoTracker. The only document available was an NFA letter from 1998. Based on the regulatory status and groundwater flow, this nearby site is not expected to represent a significant environmental concern.

5.2 Vapor Migration

AEI reviewed reasonably ascertainable information for the subject and nearby properties, including a regulatory database, files for nearby release sites, and/or historical documentation, to determine if potential vapor-phase migration concerns may be present which could impact the subject property.

Based on a review of available resources as documented in this report, AEI did not identify significant on-site concerns and/or regulated listings from nearby sites which suggest that a vapor-phase migration concern currently exists at the subject property.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-13, the following interviews were performed during this assessment in order to obtain information indicating RECs in connection with the subject property.

6.1.1 OWNER AND KEY SITE MANAGER

Relation to Property	Name	Date Interviewed	Method of Contact	Year First Associated w/ Property	Notes
Owner/Owner Representative and Key Site Manager	Mr. Rick hess	August 5, 2020	In Person	1977	Interviewed; see Interview Summary table below

Interview Summary

Question	Owner (Representative) Response/ Comment	Key Site Manager Response/ Comment
Do you have any knowledge of USTs, clarifiers or oil/water separators, sumps, or other subsurface features?	No	No
Do you have any knowledge of previous environmental investigations conducted on site?	Yes	Yes
Do you have any knowledge of current or past industrial operations and/or other operations which would involve the use of hazardous substances and/or petroleum products?	No	No
Are you aware of any known plans for site redevelopment or change in site use?	No	No
Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	No	No
Are you aware of any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	No	No
Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	No	No
Are you aware of any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality?	No	No

6.1.2 PAST OWNERS, OPERATORS, AND OCCUPANTS

AEI did not attempt to interview past owners, operators, and occupants of the subject property because information from these sources would likely be duplicative of information already obtained from other sources.

6.1.3 Interview with Others

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this report.

6.2 User Provided Information

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the Environmental Professional. The responsibility for qualifying for LLPs by conducting the inquiries ultimately rests with the User, and providing the information to the Environmental Professional would be prudent if such information is available.

The User Questionnaire was completed by Mr. Rick Hess, Property Owner. The following table represents information contained therein.

Question	Response / Comment
1. Environmental liens that are filed or recorded against the property (40 CFR 312.25) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?	No
2. Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)). Did a search of recorded land title records (or judicial records where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?	No
3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Yes: Property in family since 1978
4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	N/A
5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:	A) Yes, B-D) No

Question	Response / Comment
(a) Do you know the past uses of the property? (b) Do you know of specific chemicals that are present or once were present at the property? (c) Do you know of spills or other chemical releases that have taken place at the property? (d) Do you know of any environmental cleanups that have taken place at the property?	
6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	No

6.3 Previous Reports and Other Provided Documentation

Documentation was provided to AEI by the Client during this assessment. A summary of this information follows:

Phase I Environmental Site Assessment (Napa Junction Road/Oat Hill), prepared by AEI Consultants (December 7, 2011)

It should be noted that this prior Phase I ESA was conducted on the adjacent parcel to the west.

The December 2011 Phase I ESA did not reveal any RECs, HRECs, De Minimis Conditions, or BERs during the course of the assessment.

This assessment revealed no evidence of RECs in connection with the property. AEI recommended no further investigations for the subject property at that time.

A copy of the report is included in the appendices.

6.4 Environmental Lien Search

In accordance with our approved scope of services, an environmental lien search was not performed as part of this assessment.

7.0 SITE RECONNAISSANCE

Site Reconnaissance Date	August 5, 2020
AEI Site Assessor(s)	Michael Audibert
Property Escort(s)/ Relationship(s) to Property	Mr. Rick Hess/Property Owner
Units/Areas Observed	No buildings onsite Exterior areas: All property grounds
Area(s) not accessed and reason(s)	None
Other Physical Constraints	Large parcel, refer to Section 1.5

Reconnaissance Findings Summary

Feature	Observed on Subject Property (see Section 7.1)	Observed on Adjoining Property (see Section 7.2)
Regulated Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use		
Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)		
Hazardous Substance and Petroleum Product Containers Not in Connection with Property Use		
Unidentified Substance Containers		
Electrical or Mechanical Equipment Likely to Contain Fluids		✔
Interior Stains or Corrosion		
Strong, Pungent, or Noxious Odors		
Pools of Liquid		
Drains, Sumps, and Clarifiers		
Pits, Ponds, and Lagoons		
Stained Soil or Pavement		
Stressed Vegetation		
Solid Waste Disposal or Evidence of Fill Materials		
Waste Water Discharges		
Wells		
Septic Systems		
Biomedical Wastes		
Other	✔	

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.1.1 Other

Various debris, including concrete, wood, metal, empty water drums/containers for goats (all non-hazardous). Based on the nature of the items, their presence is not expected to represent a significant environmental concern.

7.2 Adjoining Property Reconnaissance Findings

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.2.1 Electrical or Mechanical Equipment Likely to Contain Fluids

Toxic PCBs were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing." Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

Various pole-mounted and pad-mounted transformers were observed on the adjoining sites during the site reconnaissance. No spills, staining, or leaks were observed on or around the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

8.0 NON-ASTM SERVICES

8.1 Asbestos-Containing Building Materials

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect asbestos containing materials were identified during the site inspection.

8.2 Lead-Based Paint

The subject property is currently vacant land and lacks structures. Consequently, AEI did not observe building components likely to contain suspect LBP during the site reconnaissance.

8.3 Radon

Radon is a naturally-occurring, odorless, and invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

Radon sampling was not requested as part of this assessment. According to the California Department of Health Services Radon Database, 18 tests were conducted for radon levels in the subject property zip code (94503) in 2016. All of these tests indicated that radon levels were below the action level of 4.0 pCi/L set forth by the US EPA. Therefore, radon is not expected to represent a significant environmental concern.

8.4 Mold

The subject property is currently vacant land and lacks structures. Consequently, mold was not addressed as part of this assessment.

9.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Michael Audibert
Associate Consultant

Reviewed By:



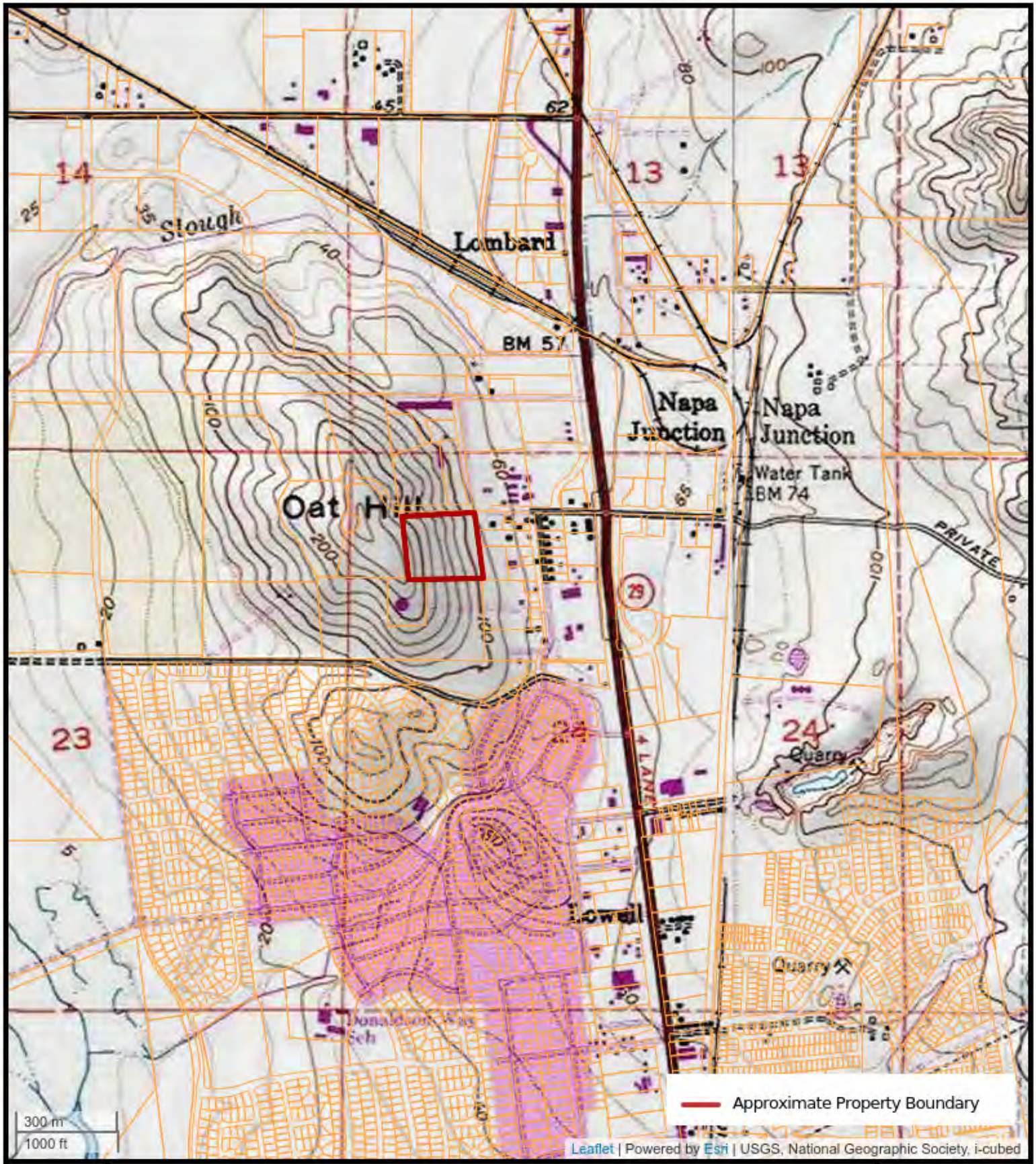
Katie Hindt, REPA
Senior Author

10.0 REFERENCES

Item	Date(s)	Source
Soils Information	Accessed August 2020	USDA Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Topographic Map	2015	USGS, Cuttings Wharf
Depth to Groundwater Information	August 2020	SWRCB GeoTracker Database
Aerial Photographs	1937-2006 (non-inclusive)	EDR
Sanborn Map Report/Search	No Coverage Letter, July 2020	EDR
City Directories	No Coverage Letter, July 2020	EDR
Environmental Health Department	July 30, 2020	Napa County Environmental Health Department
Fire Department	July 30, 2020	American Canyon Fire Department
Building Department	July 30, 2020	American Canyon Building Department
Planning Department	July 30, 2020	American Canyon Planning Department
Assessor's Information and Parcel Map	July 30, 2020	Napa County Assessor's Office
Other Agencies Searched	July 30, 2020	SWRCB GeoTracker, DTSC HWTS, DTSC EnviroStor, Bay Area AQMD
Oil and Gas Wells	July 30, 2020	CalGEM
Oil and Gas Pipelines	July 30, 2020	NPMS Public Map Viewer https://www.npms.phmsa.dot.gov/PublicViewer/composite.jsf
Regulatory Database Report	July 23, 2020	EDR
Interview with Owner/Key Site Manager	August 5, 2020	Mr. Rick hess
Previous Report(s)	December 7, 2011	*Phase I Environmental Site Assessment (Napa Junction Road at Oat Hill)*, prepared by AEI Consultants
Radon Zone Information	2016	CA DHS
Other Sources	Accessed: July 2020	Department of Toxic Substances Control's (DTSC) August 7, 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*

APPENDIX A

FIGURES



N

FIGURE 1: TOPOGRAPHIC MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503

AEI Project Number: 424780

AEI Consultants



N

FIGURE 2: SITE MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503

AEI Project Number: 424780

AEI Consultants

APPENDIX B

PROPERTY PHOTOGRAPHS



1. Entrance to subject property from Napa Junction Road



2. Dirt road onsite



3. Main middle area of subject property



4. Goats grazing



5. Water totes for goats



6. Debris - plastic



7. Debris - metal



8. Abandoned camper onsite



9. Adjacent north - Hess Construction and RV storage



10. Adjacent east - residences and a church



11. Adjacent south - vacant land



12. Adjacent west - vacant land

APPENDIX C

REGULATORY DATABASE

424780
Napa Junction Road
American Canyon, CA 94503

Inquiry Number: 6131122.2s
July 23, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.1841190 - 38° 11' 2.82''
Longitude (West):	122.2616670 - 122° 15' 42.00''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564663.3
UTM Y (Meters):	4226295.0
Elevation:	208 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012
East Map:	5602186 CORDELIA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	GOLDEN STATE LUMBER	150 NAPA JUNCTION RD	LUST, Cortese, HIST CORTESE, CERS	Lower	46, 0.009, NNW
A2	HESS CONSTRUCTION CO	4484 HESS DR	UST, HIST UST	Lower	383, 0.073, NNE
A3	HESS CONCRETE CONSTR	4484 HESS DR	CERS HAZ WASTE, CERS	Lower	474, 0.090, NE
B4	MEDEIROS PROPERTY	289 NAPA JUNCTION	LUST, HIST CORTESE, CERS	Lower	531, 0.101, ENE
B5	MEDEIROS PROPERTY	289 NAPA JUNCTION RD	LUST, UST, Cortese	Lower	531, 0.101, ENE
6	MIOCENE WINE LLC	100 NAPA JUNCTION RD	RCRA NonGen / NLR	Lower	601, 0.114, NW
C7	WARD MAHER CONSTRUCT	4545 HESS DRIVE	UST	Lower	755, 0.143, NNE
8	MAHERS MOBILE STORAG	125 LOMBARD RD	RCRA NonGen / NLR	Lower	931, 0.176, ENE
C9	R E MAHER INC	4545 HESS DR	RCRA NonGen / NLR	Lower	981, 0.186, NNE
C10	R.E. MAHER INC.	4545 HESS DR	CERS HAZ WASTE, CERS	Lower	981, 0.186, NNE
D11	INDEPENDENT STAVE CO	4391 NAPA VALLEJO HW	UST	Lower	1030, 0.195, East
D12	EVAN-ATHAN ENTERPRIS	4381 NAPA VALLEJO HW	LUST, UST	Lower	1161, 0.220, East
13	AMERICAN CANYON SANI	WESTERN TERMINUS OF	SWF/LF, Financial Assurance, CERS	Lower	2098, 0.397, WSW
14	HAYES MOBILE REPAIR	4711 PAOLI LOOP RD	LUST, HAZNET, HWTS	Lower	2207, 0.418, NNE
15	CANYON CROSSINGS	NAPA JUNCTION ROAD	ENVIROSTOR, VCP	Lower	2317, 0.439, ENE
16	AMERICAN CANYON REDE	3915 BROADWAY ST	SWRCY	Lower	2561, 0.485, SE
17	NAPA JUNCTION ELEMEN	2 EUCALYPTUS DRIVE	ENVIROSTOR, LUST, SCH, CIWQS	Lower	3262, 0.618, WSW
18	POLYVINYL CHEMICAL I	501 GREEN ISLAND ROA	ENVIROSTOR	Lower	3290, 0.623, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program
CDL..... Clandestine Drug Labs
Toxic Pits..... Toxic Pits Cleanup Act Sites
US CDL..... National Clandestine Laboratory Register
PFAS..... PFAS Contamination Site Location Listing

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CA FID UST	Facility Inventory Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines

FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
HWTS	Hazardous Waste Tracking System
MINES MRDS	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/27/2020 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANYON CROSSINGS Facility Id: 60002585 Status: Active	***NAPA JUNCTION ROAD***	***ENE 1/4 - 1/2 (0.439 mi.)***	***15***	***34***
NAPA JUNCTION ELEMEN Facility Id: 60002662 Status: No Further Action	***2 EUCALYPTUS DRIVE***	***WSW 1/2 - 1 (0.618 mi.)***	***17***	***37***
POLYVINYL CHEMICAL I Facility Id: 28510002 Status: No Action Required	501 GREEN ISLAND ROA	NNW 1/2 - 1 (0.623 mi.)	18	41

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within

approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANI	***WESTERN TERMINUS OF***	***WSW 1/4 - 1/2 (0.397 mi.)***	***13***	***30***
Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020 Facility ID: 28-AA-0001 Operational Status: Closed Regulation Status: Permitted				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500191 Global Id: T0605591147 date9: 7/2/2001 date9: 5/7/2001 Status: Completed - Case Closed Facility Id: 28-0248 Facility Id: 28-0212 Facility Status: Case Closed				
MEDEIROS PROPERTY	***289 NAPA JUNCTION***	***ENE 0 - 1/8 (0.101 mi.)***	***B4***	***18***
Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500249 Status: Completed - Case Closed				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Database: LUST REG 2, Date of Government Version: 09/30/2004 date9: 8/20/1998 Facility Id: 28-0292 Facility Status: Case Closed				
EVAN-ATHAN ENTERPRIS	***4381 NAPA VALLEJO HW***	***E 1/8 - 1/4 (0.220 mi.)***	***D12***	***29***
Database: LUST, Date of Government Version: 05/13/2020 Global Id: T0605500209 Status: Completed - Case Closed				
HAYES MOBILE REPAIR	***4711 PAOLI LOOP RD***	***NNE 1/4 - 1/2 (0.418 mi.)***	***14***	***32***
Database: NAPA CO. LUST, Date of Government Version: 01/09/2017 Status: Closed Permit ID: 248359				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONSTRUCTION CO	***4484 HESS DR***	***NNE 0 - 1/8 (0.073 mi.)***	***A2***	***13***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0280				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0670				
WARD MAHER CONSTRUCT	4545 HESS DRIVE	NNE 1/8 - 1/4 (0.143 mi.)	C7	22
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0619				
INDEPENDENT STAVE CO	4391 NAPA VALLEJO HW	E 1/8 - 1/4 (0.195 mi.)	D11	28
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0374				
EVAN-ATHAN ENTERPRIS	***4381 NAPA VALLEJO HW***	***E 1/8 - 1/4 (0.220 mi.)***	***D12***	***29***
Database: NAPA CO. UST, Date of Government Version: 09/05/2019 Facility Id: NAPA0609				

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 04/27/2020 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANYON CROSSINGS	***NAPA JUNCTION ROAD***	***ENE 1/4 - 1/2 (0.439 mi.)***	***15***	***34***
Status: Active Facility Id: 60002585				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 03/09/2020 has revealed that there is 1

SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON REDE Cert Id: RC216208.001	3915 BROADWAY ST	SE 1/4 - 1/2 (0.485 mi.)	16	36

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/20/2020 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONCRETE CONSTR	***4484 HESS DR***	***NE 0 - 1/8 (0.090 mi.)***	***A3***	***14***
R.E. MAHER INC.	***4545 HESS DR***	***NNE 1/8 - 1/4 (0.186 mi.)***	***C10***	***24***

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HESS CONSTRUCTION CO Facility Id: 00000010261	***4484 HESS DR***	***NNE 0 - 1/8 (0.073 mi.)***	***A2***	***13***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/23/2020 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MIOCENE WINE LLC EPA ID:: CAL000446673	100 NAPA JUNCTION RD	NW 0 - 1/8 (0.114 mi.)	6	20
MAHERS MOBILE STORAG EPA ID:: CAP000200134	125 LOMBARD RD	ENE 1/8 - 1/4 (0.176 mi.)	8	22
R E MAHER INC	4545 HESS DR	NNE 1/8 - 1/4 (0.186 mi.)	C9	23

EXECUTIVE SUMMARY

EPA ID:: CAL000253415

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/23/2020 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Cleanup Status: COMPLETED - CASE CLOSED				
MEDEIROS PROPERTY	***289 NAPA JUNCTION RD***	***ENE 0 - 1/8 (0.101 mi.)***	***B5***	***19***
Cleanup Status: COMPLETED - CASE CLOSED				

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

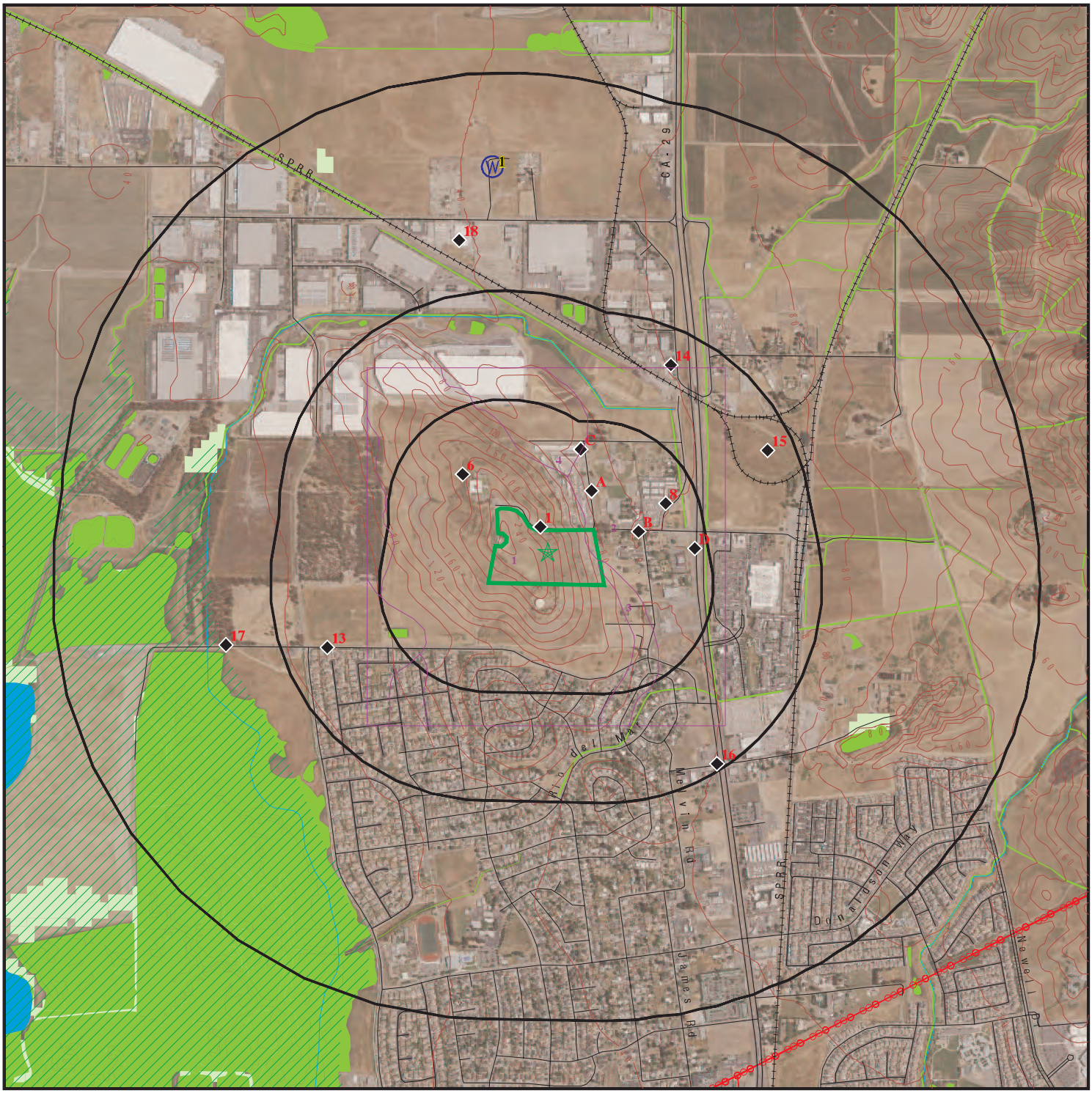
Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER	***150 NAPA JUNCTION RD***	***NNW 0 - 1/8 (0.009 mi.)***	***1***	***9***
Reg Id: 48-0248				
Reg Id: 28-0212				
MEDEIROS PROPERTY	***289 NAPA JUNCTION***	***ENE 0 - 1/8 (0.101 mi.)***	***B4***	***18***
Reg Id: 28-0292				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
NAPA PIPE CORP	SEMS-ARCHIVE, RCRA-SQG
AMERICAN CANYON POND SITE	LUST

OVERVIEW MAP - 6131122.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
		INQUIRY #:	6131122.2s
LAT/LONG:	38.184119 / 122.261667	DATE:	July 23, 2020 1:28 pm

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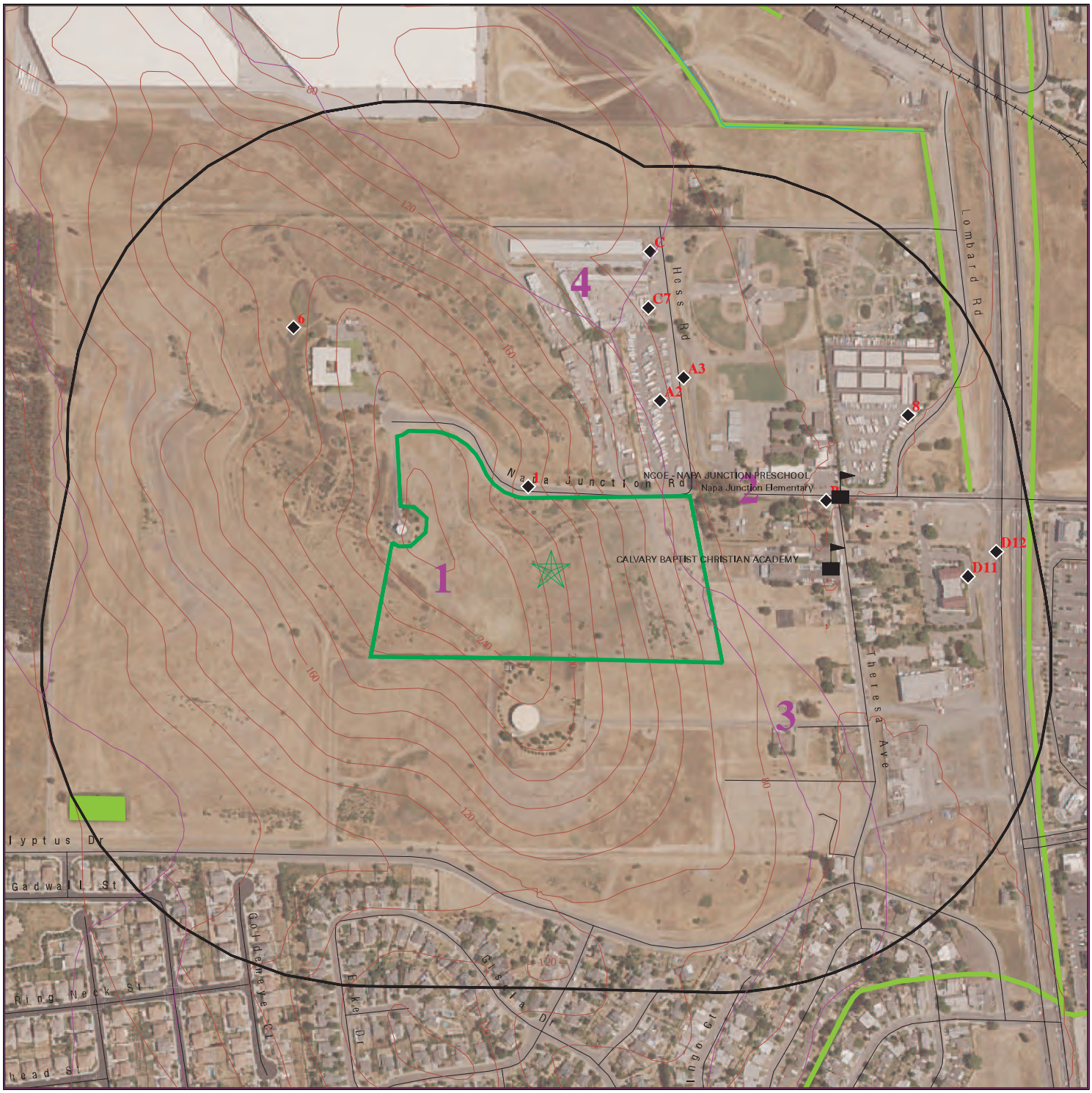
DETAIL MAP - 6131122.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 424780	CLIENT: AEI Consultants
ADDRESS: Napa Junction Road American Canyon CA 94503	CONTACT: Christian Cagonot
LAT/LONG: 38.184119 / 122.261667	INQUIRY #: 6131122.2s DATE: July 23, 2020 1:30 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
LUST	0.500		3	1	1	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	3	NR	NR	NR	5
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	1	NR	NR	1
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		1	1	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	2	NR	NR	NR	3
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		2	0	0	NR	NR	2
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		2	0	0	NR	NR	2
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	12	7	5	2	0	26

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NNW
< 1/8
0.009 mi.
46 ft.

GOLDEN STATE LUMBER INC
150 NAPA JUNCTION RD
AMERICAN CANYON, CA 94589

LUST
Cortese
HIST CORTESE
CERS

1001610888
N/A

Relative:
Lower

Actual:
190 ft.

LUST REG 2:

Region:	2
Facility Id:	28-0212
Facility Status:	Case Closed
Case Number:	0340
How Discovered:	Tank Closure
Leak Cause:	Structure Failure
Leak Source:	Tank
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	11/6/1990
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

Region:	2
Facility Id:	28-0248
Facility Status:	Case Closed
Case Number:	28-0248
How Discovered:	OM
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	2/15/1996
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST:

Name:	GOLDEN STATE LUMBER INC
Address:	150 NAPA JUNCTION RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500191
Global Id:	T0605500191
Latitude:	38.178389
Longitude:	-122.252889
Status:	Completed - Case Closed
Status Date:	05/07/2001
Case Worker:	ZZZ
RB Case Number:	28-0212
Local Agency:	NAPA COUNTY
File Location:	Not reported
Local Case Number:	0340
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

GOLDEN STATE LUMBER INC (Continued) **1001610888**

LUST:
Global Id: T0605500191
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: NAPA COUNTY
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

LUST:
Global Id: T0605500191
Action Type: Other
Date: 07/30/1990
Action: Leak Discovery

Global Id: T0605500191
Action Type: Other
Date: 07/30/1990
Action: Leak Stopped

Global Id: T0605500191
Action Type: Other
Date: 07/26/1990
Action: Leak Reported

Global Id: T0605500191
Action Type: ENFORCEMENT
Date: 05/26/1992
Action: * Historical Enforcement

LUST:
Global Id: T0605500191
Status: Open - Case Begin Date
Status Date: 07/26/1990

Global Id: T0605500191
Status: Open - Site Assessment
Status Date: 11/06/1990

Global Id: T0605500191
Status: Completed - Case Closed
Status Date: 05/07/2001

Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD S
City,State,Zip: AMERICAN CANYON, CA 94503-1200
Lead Agency: NAPA COUNTY
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605591147
Global Id: T0605591147
Latitude: 38.1773
Longitude: -122.252
Status: Completed - Case Closed
Status Date: 07/02/2001

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Case Worker: Not reported
RB Case Number: 28-0248
Local Agency: NAPA COUNTY
File Location: Not reported
Local Case Number: 28-0248
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0605591147
Contact Type: Local Agency Caseworker
Contact Name: Napa LOP
Organization Name: NAPA COUNTY
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

LUST:
Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Discovery

Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Stopped

Global Id: T0605591147
Action Type: Other
Date: 01/01/1994
Action: Leak Reported

LUST:
Global Id: T0605591147
Status: Open - Case Begin Date
Status Date: 01/01/1994

Global Id: T0605591147
Status: Open - Site Assessment
Status Date: 02/15/1996

Global Id: T0605591147
Status: Completed - Case Closed
Status Date: 07/02/2001

CORTESE:
Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0605500191

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

Name:	GOLDEN STATE LUMBER INC
Address:	150 NAPA JUNCTION RD S
City,State,Zip:	AMERICAN CANYON, CA
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0605591147
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	GOLDEN STATE LUMBER INC
edr_fadd1:	150 NAPA JUNCTION
City,State,Zip:	VALLEJO, CA 94590
Region:	CORTESE
Facility County Code:	48
Reg By:	LTNKA
Reg Id:	48-0248

edr_fname:	GOLDEN STATE LUMBER INC
edr_fadd1:	150 NAPA JUNCTION
City,State,Zip:	VALLEJO, CA 94590
Region:	CORTESE

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0212

CERS:
Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD S
City,State,Zip: AMERICAN CANYON, CA 94503-1200
Site ID: 197060
CERS ID: T0605591147
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: Napa LOP - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

Name: GOLDEN STATE LUMBER INC
Address: 150 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Site ID: 231089
CERS ID: T0605500191
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

A2 **HESS CONSTRUCTION COMPANY** **UST** **U001598759**
NNE **4484 HESS DR** **HIST UST** **N/A**
< 1/8 **VALLEJO (A C), CA**
0.073 mi.
383 ft. **Site 1 of 2 in cluster A**

Relative:
Lower

Actual:
82 ft.

NAPA CO. UST:
Name: HESS CONSTRUCTION COMPANY
Address: 4484 HESS DR
City,State,Zip: VALLEJO (A C)
Facility ID: NAPA0280
Permit ID: Not reported
Facility Status: Not reported
Permit Type: Not reported
District: Not reported

HESS CONSTRUCTION COMPANY (Continued) **U001598759**

Num of Tanks: 0

HIST UST:

Name:	HESS CONCRETE CONST CO INC
Address:	4484 HESS DRIVE
City,State,Zip:	VALLEJO, CA 94589
File Number:	000212B5
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000212B5.pdf
Region:	STATE
Facility ID:	00000010261
Facility Type:	Other
Other Type:	CONSTRUCTION
Contact Name:	HAROLD HESS PRESIDENT
Telephone:	7075527931
Owner Name:	HESS CONCRETE CONST. CO., INC
Owner Address:	4484 HESS DRIVE
Owner City,St,Zip:	VALLEJO, CA 94589
Total Tanks:	0002
Tank Num:	001
Container Num:	490
Year Installed:	1977
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	002
Container Num:	491
Year Installed:	1977
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

A3 **HESS CONCRETE CONSTRUCTION CO.** **CERS HAZ WASTE** **S121741080**
NE **4484 HESS DR** **CERS** **N/A**
< 1/8 **AMERICAN CANYON, CA 94503**
0.090 mi.
474 ft. **Site 2 of 2 in cluster A**

Relative:
Lower

Actual:
76 ft.

CERS HAZ WASTE:

Name:	HESS CONCRETE CONSTRUCTION CO.
Address:	4484 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	122396
CERS ID:	10171237
CERS Description:	Hazardous Waste Generator

CERS:

Name:	HESS CONCRETE CONSTRUCTION CO.
Address:	4484 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Site ID: 122396
CERS ID: 10171237
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Site ID: 122396
Site Name: HESS CONCRETE CONSTRUCTION CO.
Violation Date: 09-29-2015
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to properly close hazardous waste containers when not in active use.
Violation Notes: Returned to compliance on 10/19/2015.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Eval Date: 09-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Napa County Env Mgmt
Entity Title: Not reported
Affiliation Address: 1195 Third Street, Suite 210
Affiliation City: Napa
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94559
Affiliation Phone: (707) 253-4417

Affiliation Type Desc: Environmental Contact
Entity Name: Larry Hess
Entity Title: Not reported
Affiliation Address: 4484 Hess Rd.
Affiliation City: American Canyon
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94503
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Larry Hess
Entity Title: President
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: HESS CONCRETE CONSTRUCTION CO.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HESS CONCRETE CONSTRUCTION CO. (Continued) **S121741080**

Affiliation Type Desc:	Legal Owner
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	4484 Hess DR
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 552-7931

Affiliation Type Desc:	Document Preparer
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	4484 Hess Rd.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94503
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(707) 552-7931

Affiliation Type Desc:	Property Owner
Entity Name:	Larry Hess
Entity Title:	Not reported
Affiliation Address:	4484 Hess Rd.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 310-3780

B4 **MEDEIROS PROPERTY** **LUST** **S103649731**
ENE **289 NAPA JUNCTION** **HIST CORTESE** **N/A**
< 1/8 **AMERICAN CANYON, CA 94589** **CERS**
0.101 mi.
531 ft. **Site 1 of 2 in cluster B**

Relative:
Lower

Actual:
59 ft.

LUST:

Name:	MEDEIROS PROPERTY
Address:	289 NAPA JUNCTION RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500249
Global Id:	T0605500249
Latitude:	38.1849014
Longitude:	-122.2582196
Status:	Completed - Case Closed
Status Date:	08/20/1998
Case Worker:	ZZZ
RB Case Number:	28-0292
Local Agency:	NAPA COUNTY
File Location:	Local Agency
Local Case Number:	0670
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0605500249
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

LUST:

Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Discovery
Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Stopped
Global Id:	T0605500249
Action Type:	Other
Date:	02/24/1998
Action:	Leak Reported

LUST:

Global Id:	T0605500249
Status:	Open - Case Begin Date
Status Date:	02/24/1998
Global Id:	T0605500249

MEDEIROS PROPERTY (Continued) **S103649731**

Status: Completed - Case Closed
Status Date: 08/20/1998

HIST CORTESE:
edr_fname: MEDEIROS PROPERTY
edr_fadd1: 289 NAPA JUNCTION
City,State,Zip: AMERICAN CANYON, CA 94589
Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0292

CERS:
Name: MEDEIROS PROPERTY
Address: 289 NAPA JUNCTION RD
City,State,Zip: AMERICAN CANYON, CA 94589
Site ID: 255880
CERS ID: T0605500249
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - NAPA COUNTY
Entity Title: Not reported
Affiliation Address: 1195 THIRD ST., ROOM 101
Affiliation City: NAPA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7072534269

B5 **MEDEIROS PROPERTY** **LUST** **U003659767**
ENE **289 NAPA JUNCTION RD** **UST** **N/A**
< 1/8 **AMERICAN CANYON, CA** **Cortese**
0.101 mi.
531 ft. **Site 2 of 2 in cluster B**

Relative:
Lower

Actual:
59 ft.

LUST REG 2:
Region: 2
Facility Id: 28-0292
Facility Status: Case Closed
Case Number: 0670
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

MEDEIROS PROPERTY (Continued) **U003659767**

NAPA CO. UST:
- Name: MEDEIROS PROPERTY
- Address: 289 NAPA JUNCTION RD
- City,State,Zip: AMERICAN CANYON
- Facility ID: NAPA0670
- Permit ID: Not reported
- Facility Status: Not reported
- Permit Type: Not reported
- District: Not reported
- Num of Tanks: 0

CORTESE:
- Name: MEDEIROS PROPERTY
- Address: 289 NAPA JUNCTION RD
- City,State,Zip: AMERICAN CANYON, CA 94589
- Region: CORTESE
- Envirostor Id: Not reported
- Global ID: T0605500249
- Site/Facility Type: LUST CLEANUP SITE
- Cleanup Status: COMPLETED - CASE CLOSED
- Status Date: Not reported
- Site Code: Not reported
- Latitude: Not reported
- Longitude: Not reported
- Owner: Not reported
- Enf Type: Not reported
- Swat R: Not reported
- Flag: active
- Order No: Not reported
- Waste Discharge System No: Not reported
- Effective Date: Not reported
- Region 2: Not reported
- WID Id: Not reported
- Solid Waste Id No: Not reported
- Waste Management Uit Name: Not reported
- File Name: Active Open

6
NW
< 1/8
0.114 mi.
601 ft.

MIOCENE WINE LLC
100 NAPA JUNCTION RD
AMERICAN CANYON, CA 94503

RCRA NonGen / NLR **1025873547**
CAL000446673

Relative:
Lower

Actual:
195 ft.

RCRA NonGen / NLR:
- Date form received by agency: 2019-06-17 00:00:00.0
- Facility name: MIOCENE WINE LLC
- Facility address: 100 NAPA JUNCTION RD
  AMERICAN CANYON, CA 94503
- EPA ID: CAL000446673
- Contact: ADAM BRAUNSTEIN
- Contact address: 100 NAPA JUNCTION RD
  AMERICAN CANYON, CA 94503
- Contact country: Not reported
- Contact telephone: 707-666-1938
- Contact email: ADAM@MIOCENWINES.COM
- EPA Region: 09
- Classification: Non-Generator

MIOCENE WINE LLC (Continued) **1025873547**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	HOFACKET WARD FAMILY TRUST
Owner/operator address:	PO BOX 3796
	CAREFREE, AZ 85377
Owner/operator country:	Not reported
Owner/operator telephone:	707-481-7021
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ADAM BRAUNSTEIN
Owner/operator address:	100 NAPA JUNCTION RD
	AMERICAN CANYON, CA 94503
Owner/operator country:	Not reported
Owner/operator telephone:	707-666-1938
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	Yes
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	Yes
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C7
NNE
1/8-1/4
0.143 mi.
755 ft.

WARD MAHER CONSTRUCTION
4545 HESS DRIVE
VALLEJO(AM CYN), CA

Site 1 of 3 in cluster C

UST **U003114710**
N/A

Relative:
Lower

Actual:
78 ft.

NAPA CO. UST:

Name:	WARD MAHER CONSTRUCTION
Address:	4545 HESS DRIVE
City,State,Zip:	VALLEJO(AM CYN)
Facility ID:	NAPA0619
Permit ID:	Not reported
Facility Status:	Not reported
Permit Type:	Not reported
District:	Not reported
Num of Tanks:	0

8
ENE
1/8-1/4
0.176 mi.
931 ft.

MAHERS MOBILE STORAGE
125 LOMBARD RD
AMERICAN CANYON, CA 94503

RCRA NonGen / NLR **1025880786**
CAP000200134

Relative:
Lower

Actual:
59 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-01-19 00:00:00.0
Facility name:	MAHERS MOBILE STORAGE
Facility address:	125 LOMBARD RD AMERICAN CANYON, CA 94503
EPA ID:	CAP000200134
Contact:	JOSEPH BROM
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	707-758-3188
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	2013-10-22 00:00:00.0
Site name:	MAHERS MOBILE STORAGE

MAHERS MOBILE STORAGE (Continued) **1025880786**

Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

C9
NNE
1/8-1/4
0.186 mi.
981 ft.

R E MAHER INC **RCRA NonGen / NLR** **1026054183**
4545 HESS DR **CAL000253415**
AMERICAN CANYON, CA 94503

Site 2 of 3 in cluster C

Relative:
Lower

Actual:
74 ft.

RCRA NonGen / NLR:

Date form received by agency:	2020-01-08 00:00:00.0
Facility name:	R E MAHER INC
Facility address:	4545 HESS DR AMERICAN CANYON, CA 94503
EPA ID:	CAL000253415
Mailing address:	HESS DR AMERICAN CANYON, CA 94503
Contact:	LINDA GREEN
Contact address:	HESS DR AMERICAN CANYON, CA 94503
Contact country:	US
Contact telephone:	707-642-3907
Contact email:	LINDA@REMAHERINC.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	R E MAHER INC
Owner/operator address:	HESS DR AMERICAN CANYON, CA 94503
Owner/operator country:	US
Owner/operator telephone:	707-642-3907
Owner/operator email:	Not reported
Owner/operator fax:	707-642-4014
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	R E MAHER INC
Owner/operator address:	HESS DR AMERICAN CANYON, CA 94503
Owner/operator country:	US
Owner/operator telephone:	707-642-3907
Owner/operator email:	Not reported
Owner/operator fax:	707-642-4014
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	Not reported

R E MAHER INC (Continued) **1026054183**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C10 **R.E. MAHER INC.** **CERS HAZ WASTE S121788844**
NNE **4545 HESS DR** **CERS N/A**
1/8-1/4 **AMERICAN CANYON, CA 94503**
0.186 mi.
981 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
74 ft.

CERS HAZ WASTE:

Name:	R.E. MAHER INC.
Address:	4545 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	59860
CERS ID:	10171991
CERS Description:	Hazardous Waste Generator

CERS:

Name:	R.E. MAHER INC.
Address:	4545 HESS DR
City,State,Zip:	AMERICAN CANYON, CA 94503
Site ID:	59860
CERS ID:	10171991
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	59860
Site Name:	R.E. MAHER INC.
Violation Date:	01-08-2020
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 01/08/2020. The business failed to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material including familiarity with the emergency response plan or failure to document and maintain training records for a minimum of three years. Did not have training for the last 3 years but had the current training. Give training yearly and keep records for 3 years. Establish and electronically submit an employee training program containing provisions to ensure initial and annual training for all employees in safety procedures in the event of a release or threatened release of a hazardous material and document and maintain training records for a

R.E. MAHER INC. (Continued) **S121788844**

minimum of three years.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 07-31-2013
Citation: HSC 6.5 25250.19(c) - California Health and Safety Code, Chapter 6.5, Section(s) 25250.19(c)
Violation Description: Failure to retain paperwork documenting disposal of used oil for three years.
Violation Notes: Returned to compliance on 11/06/2013.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 01-08-2020
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes: Returned to compliance on 01/10/2020. The generator has not obtained an active EPA ID number to manage hazardous waste. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. EPA ID number was inactive. The re-activation papers were sent to DTSC during inspection. Submit documentation to the CUPA demonstrating that you have obtained an EPA ID number.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 07-31-2013
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 11/06/2013.
Violation Division: Napa County Department of Environmental Management
Violation Program: HW
Violation Source: CERS

Site ID: 59860
Site Name: R.E. MAHER INC.
Violation Date: 01-08-2020
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a

R.E. MAHER INC. (Continued) **S121788844**

previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: Returned to compliance on 01/08/2020. The business failed to update business plan within 30 days when one of the following occurs: a 100 percent or more increase in the quantity of a previously disclosed material; any handling of a previously undisclosed hazardous material; a change of business address, business ownership, or business name; or a substantial change in the handler's operations that requires modification to any portion of the business plan. The material "Cure" was reported at having 155 gallons onsite. There were several 55 gallon drums, 5 gallon drums and a 200 gallon tank. The inventory amount was corrected onsite in CERS at the time of inspection. Update all submittal elements effected by the change(s) and electronically submit the update within 30 days.
Violation Division: Napa County Department of Environmental Management
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-31-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Based on today's Hazardous Waste inspection and the information reviewed, no violations were observed. Waste Oil is hauled by AES.
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-08-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HMRRP
Eval Source: CERS

R.E. MAHER INC. (Continued) **S121788844**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-08-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-31-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Napa County Department of Environmental Management
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Operator
Entity Name: R. E. Maher Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (707) 642-3907

Affiliation Type Desc: Identification Signer
Entity Name: Linda Green
Entity Title: Controller
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4545 Hess Dr
Affiliation City: American Canyon
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94503
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: R.E. MAHER INC.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

R.E. MAHER INC. (Continued) **S121788844**

Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Napa County Env Mgmt
Entity Title:	Not reported
Affiliation Address:	1195 Third Street, Suite 210
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	(707) 253-4417
Affiliation Type Desc:	Document Preparer
Entity Name:	Linda Green
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Linda Green
Entity Title:	Not reported
Affiliation Address:	4545 Hess Dr.
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94503
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Rod Maher
Entity Title:	Not reported
Affiliation Address:	4545 Hess Dr
Affiliation City:	American Canyon
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94503
Affiliation Phone:	(707) 642-3907

D11 **INDEPENDENT STAVE COMPANY** **UST** **U003659758**
East **4391 NAPA VALLEJO HWY** **N/A**
1/8-1/4 **AMERICAN CANYON, CA**
0.195 mi.
1030 ft. **Site 1 of 2 in cluster D**

Relative: NAPA CO. UST:
Lower

Name:	INDEPENDENT STAVE COMPANY
Address:	4391 NAPA VALLEJO HWY
City,State,Zip:	AMERICAN CANYON
Facility ID:	NAPA0374
Permit ID:	Not reported
Facility Status:	Not reported
Permit Type:	Not reported
District:	Not reported

Actual:
62 ft.

INDEPENDENT STAVE COMPANY (Continued) **U003659758**

Num of Tanks: 0

D12 **EVAN-ATHAN ENTERPRISES** **LUST** **U003659757**
East **4381 NAPA VALLEJO HWY** **UST** **N/A**
1/8-1/4 **AMERICAN CANYON, CA**
0.220 mi.
1161 ft. **Site 2 of 2 in cluster D**

Relative:
Lower

Actual:
63 ft.

LUST:

Name:	EVAN ATHAN ENTERPRISES
Address:	4381 HWY 29
City,State,Zip:	AMERICAN CANYON, CA 94589
Lead Agency:	NAPA COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500209
Global Id:	T0605500209
Latitude:	38.181784
Longitude:	-122.254271
Status:	Completed - Case Closed
Status Date:	05/10/1995
Case Worker:	ZZZ
RB Case Number:	28-0235
Local Agency:	NAPA COUNTY
File Location:	Not reported
Local Case Number:	0609
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0605500209
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

LUST:

Global Id:	T0605500209
Action Type:	Other
Date:	11/17/1992
Action:	Leak Discovery

Global Id:	T0605500209
Action Type:	Other
Date:	11/17/1992
Action:	Leak Stopped

Global Id:	T0605500209
Action Type:	Other
Date:	10/26/1992
Action:	Leak Reported

LUST:

Global Id:	T0605500209

EVAN-ATHAN ENTERPRISES (Continued) **U003659757**

Status: Open - Case Begin Date
Status Date: 10/26/1992

Global Id: T0605500209
Status: Open - Site Assessment
Status Date: 10/07/1993

Global Id: T0605500209
Status: Completed - Case Closed
Status Date: 05/10/1995

NAPA CO. UST:
Name: EVAN-ATHAN ENTERPRISES
Address: 4381 NAPA VALLEJO HWY
City,State,Zip: AMERICAN CANYON
Facility ID: NAPA0609
Permit ID: Not reported
Facility Status: Not reported
Permit Type: Not reported
District: Not reported
Num of Tanks: 0

13
WSW
1/4-1/2
0.397 mi.
2098 ft.

AMERICAN CANYON SANITARY LANDFILL **SWF/LF** **S102361374**
WESTERN TERMINUS OF EUCALYPTUS DRIVE **Financial Assurance** **N/A**
NAPA, CA **CERS**

Relative:
Lower

Actual:
26 ft.

SWF/LF (SWIS):
Name: AMERICAN CANYON SANITARY LANDFILL
Address: WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip: NAPA, CA
Facility ID: 28-AA-0001
Lat/Long: 38.18056 / -122.27556
Owner Name: Napa-Vallejo Waste Management Authority
Owner Telephone: 7072534545
Owner Address: Not reported
Owner Address2: 1195 Third Street, Room 101
Owner City,St,Zip: Napa, CA 94559
Operational Status: Closed
Operator: Napa-Vallejo Waste Management Authority
Operator Phone: 7072534545
Operator Address: Not reported
Operator Address2: 1195 Third Street, Room 101
Operator City,St,Zip: Napa, CA 94559
Permit Date: 12/17/2013
Permit Status: Permitted
Permitted Acreage: $122.00
Activity: Solid Waste Disposal Site
Regulation Status: Permitted
Landuse Name: Agricultural
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Mixed municipal

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Closure Date:	12/01/1995
Closure Type:	Actual
Disposal Acreage:	$97.00
SWIS Num:	28-AA-0001
Waste Discharge Requirement Num:	III
Program Type:	Financial Assurance Responsibilities
Permitted Throughput with Units:	1350
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	4900000
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Cubic Yards
Lat/Long:	38.18056 / -122.27556

CA Financial Assurance 2:

Name:	AMERICAN CANYON SANITARY LANDFILL
Address:	WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip:	NAPA, CA
Region:	2
SWIS_NO:	28-AA-0001
Closure Approved:	Yes
Closure Inf Coverage Date:	Not reported
Closure Plan Coverage:	0
Closure Plan Date:	03/01/2019
PostClose Approved:	Yes
PostClose Adequacy Date:	03/01/2019
PostClose Inf Coverage:	10631933
PostClose Inf Coverage Date:	06/01/2019
CorActCoverage:	1030170
CorActApproved:	Yes
CorAct Mec Adequacy Date:	Not reported
CorAct Inf Coverage:	1030170
CorActPlanCoverage:	640630
CorAct Plan Date:	03/01/2019
Lia Coverage:	0
Lia Approved:	No
Review:	07/17/2019
Closure Mechanism A:	Not reported
Closure Mechanism B:	Not reported
Closure Coverage:	0
Closure Adequacy:	Not reported
Closure Inflation Estimate:	0
Post Closure Mechanism A:	PLEDGE OF REVENUE
Post Closure Established A:	05/13/1994
Post Closure Mechanism B:	Not reported
Post Closure Coverate:	625408
Post Closure Adequacy:	Not reported
Corrective Action Extablished A:	Not reported
Corrective Actiont Coverage:	1030170
Corrective Action Approved:	Yes
Corrective Action Inflation Estimate:	1030170
Corrective Action Inflationdate:	06/01/2019
Corrective Action Plan Estimate:	640630
Liability Mechanism A:	Not reported
Liability Established A:	Not reported
Liability Mechanism B:	Not reported
CostAnniversary:	02/10/2008
ClosureEstablishedA:	Not reported

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

ClosureEstablishedB:	Not reported
ClosureDisbursement:	0
PostClosureEstablishedB:	Not reported
PostClosureDisbursement:	0
CorrectiveActionMechanismA:	PLEDGE OF REVENUE
CorrectiveActionMechanismB:	Not reported
CorrectiveActionExtablishedB:	Not reported
CorrectiveActiontDisbursement:	0
LiabilityEstabllishedB:	Not reported
LiabilityAdequacy:	Not reported
Responsible Party:	U.S. Bank Corporate Trust Services
Provider:	Napa-Vallejo Waste Management Authority
Contact:	Not reported

CERS:

Name:	AMERICAN CANYON SANITARY LANDFILL
Address:	WESTERN TERMINUS OF EUCALYPTUS DRIVE
City,State,Zip:	NAPA, CA
Site ID:	506663
CERS ID:	28-AA-0001
CERS Description:	Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc:	Legal Operator
Entity Name:	Napa-Vallejo Waste Management Authority
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	7072534545

Affiliation Type Desc:	Legal Owner
Entity Name:	Napa-Vallejo Waste Management Authority
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Napa
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94559
Affiliation Phone:	7072534545

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14 **HAYES MOBILE REPAIR SERVICE** **LUST** **S113085458**
NNE **4711 PAOLI LOOP RD** **HAZNET** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94589** **HWTS**
0.418 mi.
2207 ft.

Relative:
Lower

Actual:
62 ft.

NAPA CO. LUST:

Name:	HEIDE AND WILLIAMS, INC.
Address:	4711 PAOLI LOOP RD
City,State,Zip:	AMERICAN CANYON, CA 94589
Permit ID:	248359
Status:	Closed
Permit Type:	Non-LOP
District:	0

HAYES MOBILE REPAIR SERVICE (Continued) **S113085458**

HAZNET:

Name:	HAYES MOBILE REPAIR SERVICE
Address:	4711 PAOLI LOOP RD
Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000
Contact:	JACK HAYES
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	166 WATSON LN
Year:	1997
Gepaid:	CAL000160245
TSD EPA ID:	CAD059494310
CA Waste Code:	352 - Other organic solids
Disposal Method:	H01 - Transfer Station
Tons:	0.2

Additional Info:

Year:	1997
Gen EPA ID:	CAL000160245
Shipment Date:	19970828
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19970828
Manifest ID:	96803292
Trans EPA ID:	CAD000083121
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	F003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	HAYES MOBILE REPAIR SERVICE
Address:	4711 PAOLI LOOP RD
Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000
EPA ID:	CAL000160245
Inactive Date:	06/30/2000
Create Date:	03/26/1996
Last Act Date:	01/22/2001
Mailing Name:	Not reported

HAYES MOBILE REPAIR SERVICE (Continued) **S113085458**

Mailing Address:	166 WATSON LN
Mailing Address 2:	Not reported
Mailing City,State,Zip:	AMERICAN CANYON, CA 945890000
Owner Name:	JACK HAYES
Owner Address:	4711 PAOLI LOOP RD
Owner Address 2:	Not reported
Owner City,State,Zip:	AMERICAN CANYON, CA --
Contact Name:	JACK HAYES
Contact Address:	INACTIVE PER VQ00 - BMI
Contact Address 2:	Not reported
City,State,Zip:	AMERICAN CANYON, CA 945890000

15
ENE
1/4-1/2
0.439 mi.
2317 ft.

CANYON CROSSINGS **ENVIROSTOR S121475155**
NAPA JUNCTION ROAD **VCP N/A**
AMERICAN CANYON, CA 94503

Relative:
Lower

Actual:
69 ft.

ENVIROSTOR:

Name:	CANYON CROSSINGS
Address:	NAPA JUNCTION ROAD
City,State,Zip:	AMERICAN CANYON, CA 94503
Facility ID:	60002585
Status:	Active
Status Date:	12/05/2017
Site Code:	202168
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	15.2
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Karen Steen
Supervisor:	Kimberly Walsh
Division Branch:	Cleanup Berkeley
Assembly:	, 04
Senate:	, 03
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	38.18756
Longitude:	-122.2524
APN:	NONE SPECIFIED
Past Use:	RAILROAD RIGHT OF WAY
Potential COC:	Arsenic Lead Polynuclear aromatic hydrocarbons (PAHs Cobalt
Confirmed COC:	Arsenic Lead Polynuclear aromatic hydrocarbons (PAHs Cobalt
Potential Description:	SOIL
Alias Name:	202168
Alias Type:	Project Code (Site Code)
Alias Name:	60002585
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	03/20/2018

CANYON CROSSINGS (Continued) **S121475155**

Comments: No final submission necessary under scope of work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/17/2018
Comments: Phase I and II for information only; not for DTSC comment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 02/28/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/17/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: CANYON CROSSINGS
Address: NAPA JUNCTION ROAD
City,State,Zip: AMERICAN CANYON, CA 94503
Facility ID: 60002585
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 15.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Karen Steen
Supervisor: Kimberly Walsh
Division Branch: Cleanup Berkeley
Site Code: 202168
Assembly: , 04
Senate: , 03
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 12/05/2017
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 38.18756 / -122.2524
APN: NONE SPECIFIED
Past Use: RAILROAD RIGHT OF WAY

CANYON CROSSINGS (Continued) **S121475155**

Potential COC: 30001, 30013, 30019, 30154
Confirmed COC: 30001,30013,30019,30154
Potential Description: SOIL
Alias Name: 202168
Alias Type: Project Code (Site Code)
Alias Name: 60002585
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/20/2018
Comments: No final submission necessary under scope of work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/17/2018
Comments: Phase I and II for information only; not for DTSC comment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 02/28/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/17/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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16 **AMERICAN CANYON REDEMPTION CENTER** **SWRCY** **S117654797**
SE **3915 BROADWAY ST** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503**
0.485 mi.
2561 ft.

Relative: SWRCY:
Lower
Actual: Name: AMERICAN CANYON REDEMPTION CENTER
60 ft. Address: 3915 BROADWAY ST
City,State,Zip: AMERICAN CANYON, CA 94503
Reg Id: 216208
Cert Id: RC216208.001
Mailing Address: PO Box 331
Mailing City: Vallejo
Mailing State: CA

AMERICAN CANYON REDEMPTION CENTER (Continued) **S117654797**

Mailing Zip Code:	94590
Website:	Not reported
Email:	Not reported
Phone Number:	(707) 853-4373
Rural:	N
Operation Begin Date:	02/02/2015
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Hours of Operation:	Mon - Sat 9:00 am - 2:30 pm; Sun Closed
Organization ID:	216208
Organization Name:	American Canyon Redemption Center

17
WSW
1/2-1
0.618 mi.
3262 ft.

NAPA JUNCTION ELEMENTARY SCHOOL
2 EUCALYPTUS DRIVE
AMERICAN CANYON, CA 94503

ENVIROSTOR
LUST
SCH
CIWQS

S111291382
N/A

Relative:
Lower

Actual:
9 ft.

ENVIROSTOR:

Name:	NAPA JUNCTION ELEMENTARY SCHOOL
Address:	2 EUCALYPTUS DRIVE
City,State,Zip:	AMERICAN CANYON, CA 94503
Facility ID:	60002662
Status:	No Further Action
Status Date:	03/27/2019
Site Code:	204302
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	15.11
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Elizabeth Tisdale
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	, 04
Senate:	, 03
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	38.18207
Longitude:	-122.2704
APN:	058-030-067
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	058-030-067
Alias Type:	APN
Alias Name:	204302
Alias Type:	Project Code (Site Code)
Alias Name:	60002662
Alias Type:	Envirostor ID Number

Completed Info:

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/07/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 07/19/2018
Comments: Consultant, Chris Heiny, submitted EOP Application (via email) on behalf of District on 7/19/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2018
Comments: DTSC approved the PEA Workplan in a letter dated 31 October 2018 which was emailed on 1 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/07/2018
Comments: DTSC conducted oversight of PEA sampling on 7 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/27/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/23/2018
Comments: PEA scoping meeting held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/20/2018
Comments: Fully executed EOA mailed to District.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

NAPA CO. LUST:
Name: COUCH PROPERTY
Address: 2 EUCALYPTUS DR
City,State,Zip: AMERICAN CANYON, CA 94589
Permit ID: 248266
Status: Closed
Permit Type: Non-LOP
District: 0

SCH:

Name: NAPA JUNCTION ELEMENTARY SCHOOL
Address: 2 EUCALYPTUS DRIVE
City,State,Zip: AMERICAN CANYON, CA 94503
Facility ID: 60002662
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 15.11
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Elizabeth Tisdale
Supervisor: Jose Salcedo
Division Branch: Northern California Schools & Santa Susana
Site Code: 204302
Assembly: , 04
Senate: , 03
Special Program Status: Not reported
Status: No Further Action
Status Date: 03/27/2019
Restricted Use: NO
Funding: School District
Latitude: 38.18207
Longitude: -122.2704
APN: 058-030-067
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 058-030-067
Alias Type: APN
Alias Name: 204302
Alias Type: Project Code (Site Code)
Alias Name: 60002662
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/07/2018
Comments: Not reported

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 07/19/2018
Comments: Consultant, Chris Heiny, submitted EOP Application (via email) on behalf of District on 7/19/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2018
Comments: DTSC approved the PEA Workplan in a letter dated 31 October 2018 which was emailed on 1 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/07/2018
Comments: DTSC conducted oversight of PEA sampling on 7 November 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/27/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/23/2018
Comments: PEA scoping meeting held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/20/2018
Comments: Fully executed EOA mailed to District.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CIWQS:
Name: COUCH PROPERTY
Address: 2 EUCALYPTUS DRIVE

NAPA JUNCTION ELEMENTARY SCHOOL (Continued) **S111291382**

City,State,Zip:	AMERICAN CANYON, CA 94503
Agency:	AMERICAN CANYON FLAT LAND COMPANY INC
Agency Address:	111 East Seventh Street, Hanford, CA 93230
Place/Project Type:	Construction - Other: Eucalyptus grove removal.
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 28C362311
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	10/28/2011
Termination Date:	11/28/2012
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	38.18306
Longitude:	-122.27222

18
NNW
1/2-1
0.623 mi.
3290 ft.

POLYVINYL CHEMICAL INDUSTRIES, INC
501 GREEN ISLAND ROAD
VALLEJO, CA 94589

ENVIROSTOR **S118756649**
N/A

Relative:
Lower

Actual:
38 ft.

ENVIROSTOR:

Name:	POLYVINYL CHEMICAL INDUSTRIES, INC
Address:	501 GREEN ISLAND ROAD
City,State,Zip:	VALLEJO, CA 94589
Facility ID:	28510002
Status:	No Action Required
Status Date:	06/05/2008
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	04
Senate:	03
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	38.19456
Longitude:	-122.2654
APN:	057160002000
Past Use:	UNKNOWN

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Potential COC: * HYDROCARBON SOLVENTS * UNSPECIFIED ALKALINE SOLUTIONS * LATEX WASTE
Not reported
Confirmed COC: NONE SPECIFIED
Potential Description: UE
Alias Name: CALIFORNIA RESINS (NAME CHANGE 11/17/82)
Alias Type: Alternate Name
Alias Name: PCI
Alias Type: Alternate Name
Alias Name: 057160002000
Alias Type: APN
Alias Name: CAD061163325
Alias Type: EPA Identification Number
Alias Name: SL0605547879
Alias Type: GeoTracker Global ID
Alias Name: 28510002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/05/1988
Comments: FACILITY IDENTIFIED DHS DRIVE-BY. PHOTOS TAKEN SITE SCREENING DONE PAH REQ BASED ON NAPA CO ENVR HLTH FILE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/12/1988
Comments: FACILITY IDENTIFIED ENVR HLTH NAPA KNOWN CONTAMINATED SITE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/29/1990
Comments: PRELIM ASSESS DONE ECOLOGY AND ENVIRONMENT PRELIMINARY ASSESSMENT 2/12/90. SITE POSES A HIGH POTENTIAL OF RELEASE TO SURFACE WATER. EPA RECOMMENDATION-MEDIUM PRIORITY SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/05/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/16/1987
Comments: SITE SCREENING DONE MANUFACTURER OF ACRYLIC EMULSIONS CHEMS. ORGANIC CHEMICALS FOUND IN SOIL AND GROUNDWATER AROUND PIT. PCI WAS PART OF BEATRICE CHEMICAL DIVISION OF BEATRICE FOODS. THE DIVISION WAS SOLD TO IMPERIAL CHEMICAL INDUSTRIES 03/01/85.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/28/2008

POLYVINYL CHEMICAL INDUSTRIES, INC (Continued) **S118756649**

Comments:	The Triage recommended No Further Action. A Sensitive Receptor Survey and Risk Based Corrective Action Assessment submitted to the SF Water Board indicate that the contaminant residuals present at the site do not pose a significant health risk to current or future occupants of the site. Based on this Report, a No Further Action Letter was issued by the SF Board dated November 20, 2000.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	05/01/2014
Comments:	DTSC conducted a reassessment of sites in EPA's CERCLIS database on EPA's behalf. The regional waterboard had reviewed past soil and groundwater investigations and determined that no further action was required. Based on this information and available sampling data, DTSC recommended no further federal assessment under CERCLA.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMERICAN CANYON	S119102654	AMERICAN CANYON POND SITE	EUCALYPTUS DR	94503	LUST
NAPA	1000143048	NAPA PIPE CORP	NAPA VALLEJO HWY	94558	SEMS-ARCHIVE, RCRA-SQG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 71
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/26/2020
Number of Days to Update: 76
Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/15/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/06/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/01/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/19/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/03/2020
Date Data Arrived at EDR: 03/05/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 1

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/28/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 03/01/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/15/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/05/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 149

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/15/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/05/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/21/2020
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/11/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 86

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 50

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/22/2020
Number of Days to Update: 84

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/05/2020
Date Data Arrived at EDR: 03/06/2020
Date Made Active in Reports: 05/29/2020
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 80
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/19/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 69

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/04/2019
Date Data Arrived at EDR: 01/29/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 71

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/16/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 8

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/19/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/12/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 72

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 72

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2020
Date Data Arrived at EDR: 03/13/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/19/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 2

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/08/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 07/01/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/27/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/06/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/01/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 77

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 04/16/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/08/2020
Number of Days to Update: 79

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/10/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/19/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 26

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/14/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 70

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/14/2020
Number of Days to Update: 77

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LASSEN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/31/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 69

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/13/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 44

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/06/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2020
Date Data Arrived at EDR: 03/05/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 69

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/05/2020
Date Data Arrived at EDR: 02/06/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 69

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/05/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 04/24/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 71

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/13/2020
Number of Days to Update: 71

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/12/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/14/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 65

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/24/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 13
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 04/23/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/26/2020
Next Scheduled EDR Contact: 09/13/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/04/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 71
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 03/11/2020
Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/04/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 01/23/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/08/2020
Number of Days to Update: 66

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 03/16/2020
Date Data Arrived at EDR: 03/17/2020
Date Made Active in Reports: 05/26/2020
Number of Days to Update: 70

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/10/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/20/2020
Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 01/27/2020
Date Data Arrived at EDR: 03/10/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 71
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 77
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 79
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/04/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

424780
NAPA JUNCTION ROAD
AMERICAN CANYON, CA 94503

TARGET PROPERTY COORDINATES

Latitude (North):	38.184119 - 38° 11' 2.83''
Longitude (West):	122.261667 - 122° 15' 42.00''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564663.3
UTM Y (Meters):	4226295.0
Elevation:	208 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602106 CUTTINGS WHARF, CA
Version Date:	2012
East Map:	5602186 CORDELIA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

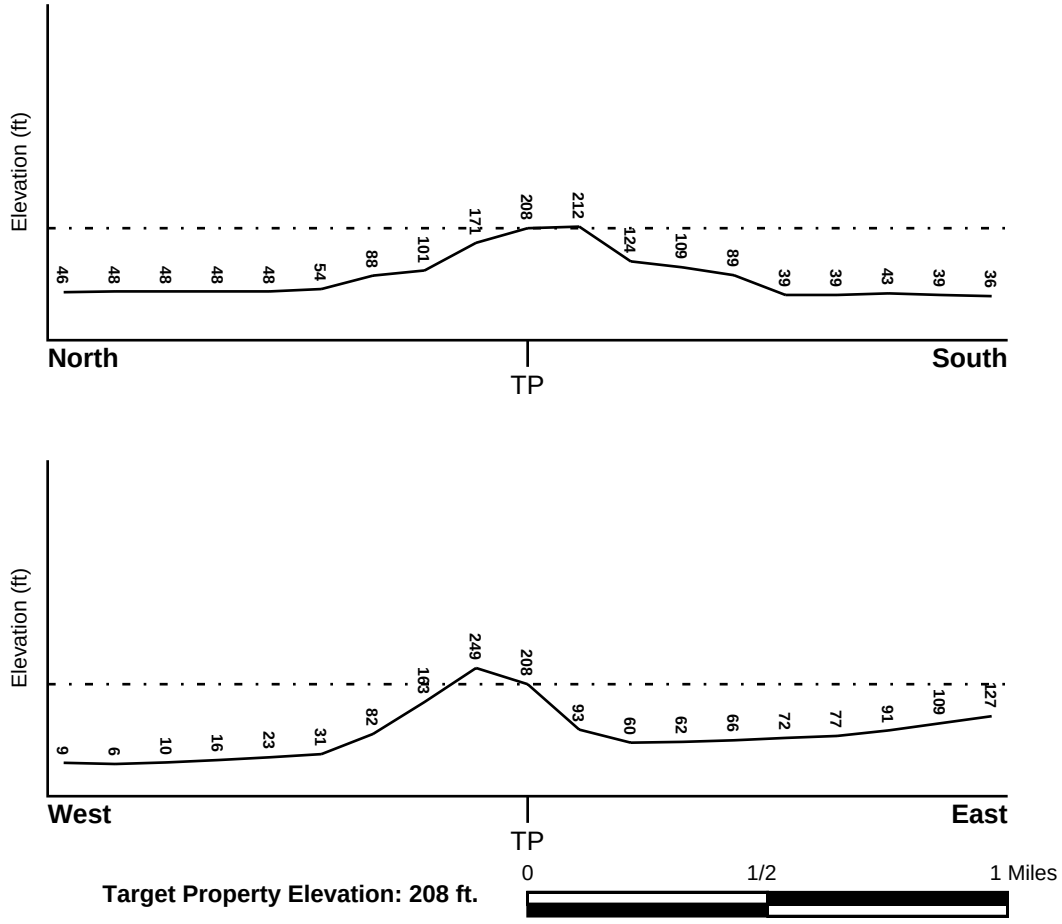
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06055C0625E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06055C0610E	FEMA FIRM Flood data
06055C0650E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CUTTINGS WHARF	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

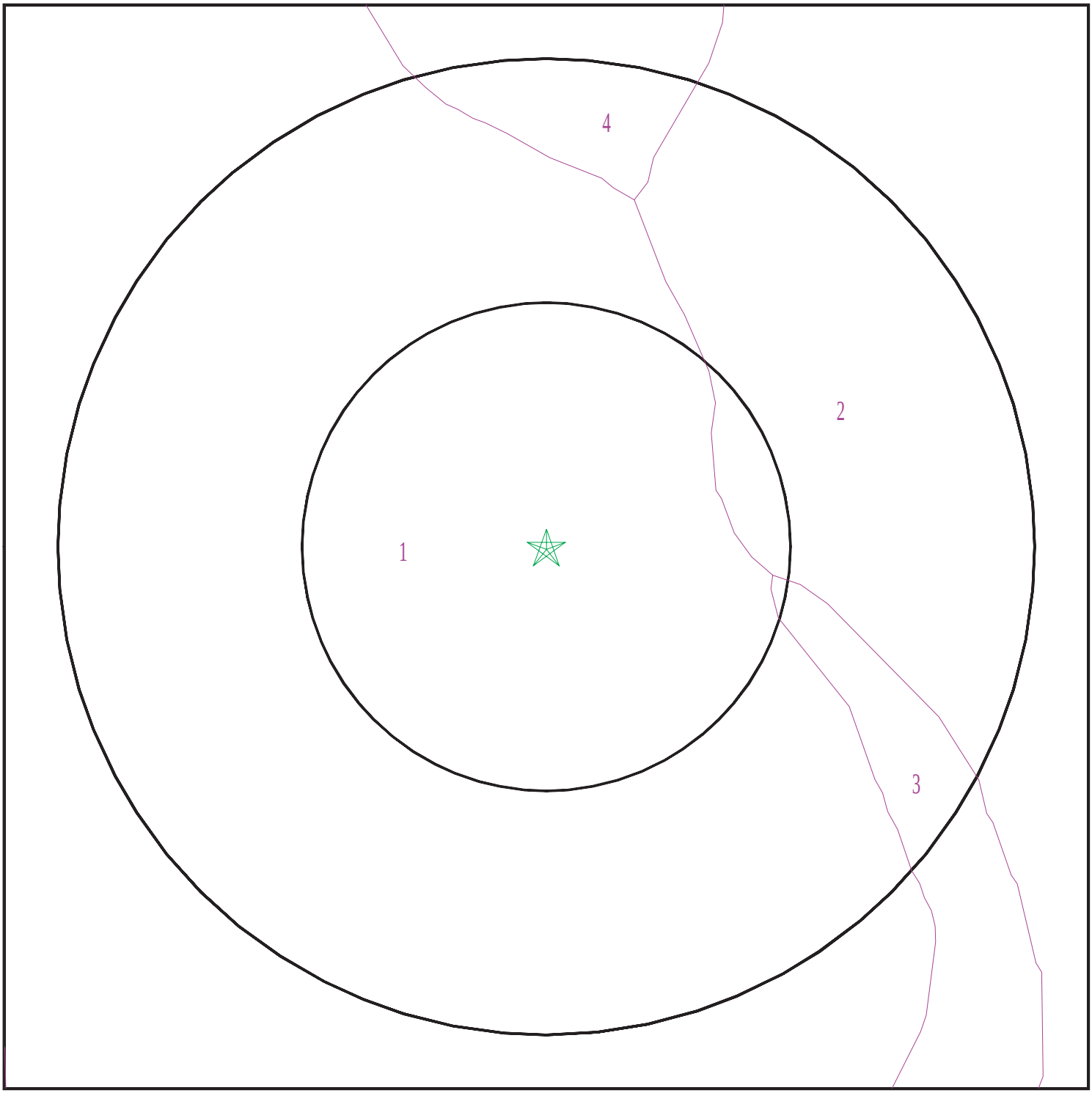
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tp *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6131122.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
LAT/LONG:	38.184119 / 122.261667	INQUIRY #:	6131122.2s
		DATE:	July 23, 2020 1:30 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
4	46 inches	50 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:

Soil Map ID: 2

Soil Component Name: CLEAR LAKE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	31 inches	68 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: HAIRE

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
2	22 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
3	27 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5
4	44 inches	59 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 5.5 Min: 4.5

Soil Map ID: 4

Soil Component Name: Fagan

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
2	16 inches	27 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
3	27 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
4	46 inches	50 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

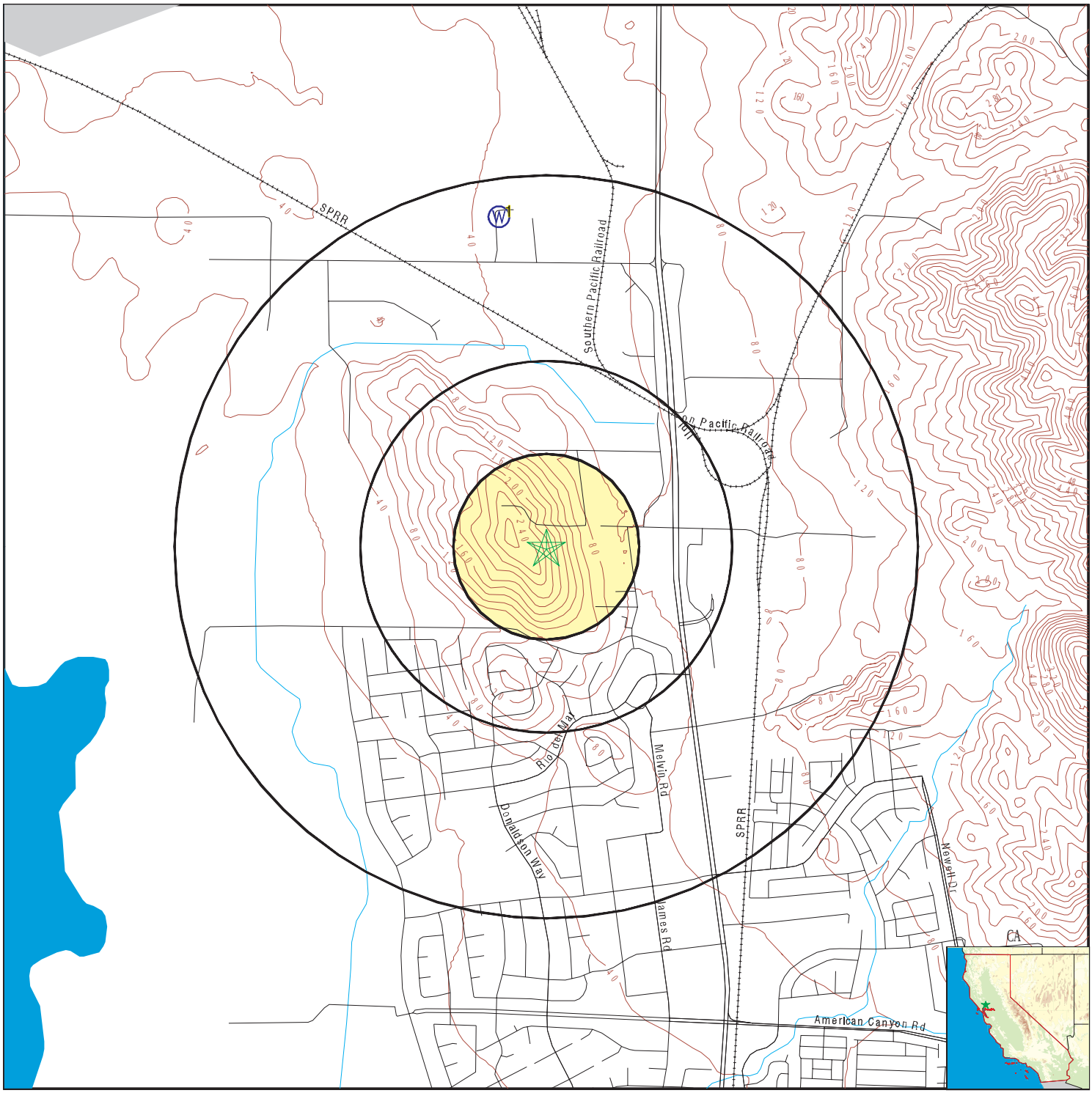
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADWR8000037293	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 6131122.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	424780	CLIENT:	AEI Consultants
ADDRESS:	Napa Junction Road American Canyon CA 94503	CONTACT:	Christian Cagonot
		INQUIRY #:	6131122.2s
LAT/LONG:	38.184119 / 122.261667	DATE:	July 23, 2020 1:30 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
1 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR8000037293**

State Well #:	04N04W13E001M	Station ID:	23191
Well Name:	Not Reported	Well Use:	Stockwatering
Well Type:	Unknown	Well Depth:	98
Basin Name:	Napa-Sonoma Lowlands	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94503	11	0

Federal EPA Radon Zone for NAPA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NAPA COUNTY, CA

Number of sites tested: 27

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.937 pCi/L	93%	7%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.800 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D

HISTORICAL SOURCES

424780

Napa Junction Road

American Canyon, CA 94503

Inquiry Number: 6131122.3

July 23, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/23/20

Site Name:

424780
Napa Junction Road
American Canyon, CA 94503
EDR Inquiry # 6131122.3

Client Name:

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597
Contact: Christian Cagonot

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by AEI Consultants were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 34B5-4377-BE7B

PO # 229931

Project 424780

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 34B5-4377-BE7B

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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424780
Napa Junction Road
American Canyon, CA 94503

Inquiry Number: 6131122.5
July 27, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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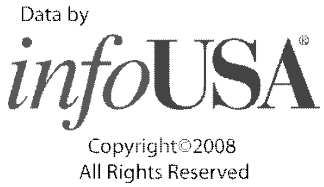

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☑	EDR Digital Archive
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1986	☑	☑	Haines Criss-Cross Directory
1981	☑	☐	Haines Criss-Cross Directory
1977	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Napa Junction Road
American Canyon, CA 94503

Year	*CD Image*	*Source*

NAPA JUNCTION RD

2017	pg A2	EDR Digital Archive
2014	pg A4	EDR Digital Archive
2010	pg A6	EDR Digital Archive
2005	pg A8	EDR Digital Archive
2000	pg A10	EDR Digital Archive
1995	pg A13	EDR Digital Archive
1986	pg A18	Haines Criss-Cross Directory
1981	pg A19	Haines Criss-Cross Directory
1977	pg A20	Haines Criss-Cross Directory
1977	pg A21	Haines Criss-Cross Directory

S NAPA JUNCTION RD

2000	pg A11	EDR Digital Archive
1995	pg A14	EDR Digital Archive
1992	pg A16	EDR Digital Archive

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
HESS DR			
2000	pg. A9	EDR Digital Archive	
1995	pg. A12	EDR Digital Archive	
1992	pg. A15	EDR Digital Archive	
1986	pg. A17	Haines Criss-Cross Directory	
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
HESS RD			
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	pg. A7	EDR Digital Archive	

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2017

4484 HESS CONSTRUCTION
OAT HILL RV PARKING
4507 COMMISSION LANDSCAPING
ODEN & DOUCETTE
4545 R E MAHER INC
4551 JOHNNY ON THE SPOT
4561 MIDWAY STORAGE
UHAUL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2017

100	LASER EXHIBITOR SERVICE
280	AMERICAN CANYON WEST VALLEJO LITTLE
285	SLAYBAUGH, DELBERT E
300	NAPA JUNCTION ELEMENTARY SCHOOL
	NAPA VALLEY UNIFIED SCHOOL DISTRICT
305	NELSON, CHARLES
421	JUM, SONG
	MCDONALDS
425	RICE, TABITHA N
451	ELDORADO PLASTICS
659	STEEL MILL RECYCLING

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2014

4484	HESS CONSTRUCTION
	OAT HILL RV PARKING
4503	MARTINEZ LANDSCAPING INC
4545	R E MAHER INC
4551	JOHNNY ON THE SPOT
4561	MIDWAY STORAGE
	MIDWAY STORAGE INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2014

100	CROSSFIT SKYBOX
280	AMERICAN CANYON WEST VALLEJO LITTLE
285	SLAYBAUGH, EARL
300	NAPA JUNCTION ELEMENTARY SCHOOL
	NAPA VALLEY UNIFIED SCHOOL DISTRICT
305	NELSON, CHARLES
401	CHEVRON STATION EXTRA MILE AMERICAN
421	MCDONALDS
	OCCUPANT UNKNOWN,
451	ELDORADO PLASTICS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2010

4484	HESS CONSTRUCTION CO
	OAT HILL RV PARKING
4545	R E MAHER INC
4551	DESERT VIEW AUTO AUCTIONS INC
4561	MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2010

280	AMERICAN CANYON WEST VALLEJO
285	SLAYBAUGH, DELBERT
300	NAPA JUNCTION ELEMENTARY SCHL
305	OCCUPANT UNKNOWN,
425	PANGELINA, JOHN M
451	EL DORADO PLASTICS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS RD 2005

4484 OAT HILL RV PARKING
4561 MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2005

300	NAPA VALLEY COMMUNITY COLLEGE DST
305	OCCUPANT UNKNOWN,
360	OCCUPANT UNKNOWN,
425	NEGRI, ALMA T
435	OCCUPANT UNKNOWN,
451	EL DORADO PLASTICS
455	MONTGOMERY DESIGNS
659	LENAS TAVERN
	LENAS TAVERN AND GRILL

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 2000

4484 HESS CONSTRUCTION COMPANY
OAT HILL RV PARKING
4501 DELANCEY DESIGN
4507 ZECO ELECTRIC COMPANY
4551 SUPERIOR EQUIPMENT COMPANY
4561 MIDWAY STORAGE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 2000

289 OHLEMACHER, MARTIN
300 NAPA VALLEY UNIFIED SCHOOL DISTRICT SCHOOLS
658 CRAWFORD, KEVIN S
659 EL DOR PLASTICS
EL DORADO PLASTICS
LENA'S TAVERN
NAPA STEEL MILL SUPPLY
STEEL MILL SUPPLY OF NAPA
STEEL MILL SUPPLY OF NAPA I

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 2000

100	TRIBOTECH
150	GOLDEN STATE LUMBER
570	OCCUPANT UNKNOWN,
658	CRAWFORD, KEVIN S

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 1995

4484 HESS CONSTRUCTION CO
OAT HILL RV PARKING
4501 DE LANCEY DESIGN
4503 ROYS PROFESSIONAL PAINTING
4505 BASTIAN, ROBERT
4545 JOE BRANCH ELECTRIC
MIDWAY STORAGE
WARD MAHER & SON INC
4551 DEL MAS INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NAPA JUNCTION RD 1995

659 LENAS TAVERN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 1995

150 GOLDEN STATE LUMBER INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HESS DR 1992

4484 HESS CONCRETE CONST
OAT HILL RV PARKING
4501 DELANCEY DESIGN
4507 G&M PRODUCE
WIEBE, JERRY
ZECO ELECTRIC CO
4545 BRANCH JOE ELECTRIC
MAHER WARD&SON
4551 DELMAS&MAROF INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S NAPA JUNCTION RD 1992

100 MICROMINIATURE TECH
TRIBOTECH
WESTSCOPE INC
150 GOLDEN ST LMBR INC

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HESS DR 1986

HESS DR 94590 VALLEJO

4484	HESS CONCRETE CONST	552-7931	3
	HESS CONSTRUCTION	255-8686	+6
	OAT HILL RY PARKING	652-7932	3
4503	MADISON JOHN W	554-3176	+6
4507	BAKER ROOFING CO	557-3626	5
4545	TRIBOTECH	643-2146	+6
4551	DELMASSMAROF INC	552-0862	3
★	6 BUS 1 RES	3 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1986

NAPA JCTN RD 94590
VALLEJO

150	WICKES LUMBER	552-3225	5
289	RUTTER MARILYN J	642-3355	3
300	NAPA JCT ELEM SC	252-5461	
	NAPA JNCTN ELEM SCH	644-0050	
425	PAOLI J	643-6785	+6
570	NEWELL JACK H	552-1824	4
658	CABRERRA JOSE	643-3938	
	HANSEN TOPSOIL	226-2763	5
	HANSENS R F TOPSOIL	842-2026	5
	R F HANSONS TOPSOIL	842-2026	5
	RAYBURN ALESIA	644-2163	+6
659D	CERVENY TOMMY L	552-4268	5
D	LENAS PLACE	553-1004	5
NO #	AITKEN CHAS H	644-7098	
NO #	BETZ PAUL H	554-0268	5
NO #	CABRERA C	644-1654	
NO #	CRANDALL ELEANOR	557-5310	+6
NO #	CRANDALL ELEANOR	644-5778	7
NO #	GYPSUM DRYWALL SPLY	552-4216	5
NO #	GYPSUM DRYWALL SPLY	255-4450	5
NO #	HALL GENE	557-2680	5
NO #	ISLAND AQUARIUM	552-7360	5
NO #	LEMOS C C	642-6361	0
NO #	LEMOS PETER E	644-0062	
NO #	MCCLENIC JAS	642-2825	
NO #	NAPA STEEL MILL SPL	226-3950	
NO #	NAPA STEEL MILL SPL	842-2635	8
NO #	NEGRI LENO	642-9644	
NO #	NORTH BAY BLDG MTRL	552-4216	9
NO #	NORTH BAY BLOG MTRL	255-4450	8
NO #	REID JAS W	554-6358	+6
NO #	STEEL MILL SPL NAPA	842-2935	9
NO #	STEEL MILL SUPPLY	226-3980	
NO #	WAGON TRN TRDNG PST	842-6763	3
NO #	WEST VALLEJO LTL LG	644-5430	
NO #	YOUNG JOHN L	642-9831	
★	18 BUS 18 RES	4 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1981

NAPA JCTN RD 94590
VALLEJO

150	**WICKES LUMBER**	**425-1212**	**+1**
300	**NAPA JCT ELEM SC**	**252-5461**	**6**
	NAPA JNCTN ELEM SCH	**644-0050**	
658	CABRERRA JOSE	643-3938	
NO #	AITKEN CHAS H	644-7098	3
NO #	BETZ PAUL	643-0271	0
NO #	CABRERA C	644-1654	
NO #	CONRADO FLORENCE	642-2854	
NO #	CRANDALL ELEANOR	644-5778	7
NO #	GLADSTONE JAS	643-8981	6
NO #	HAMMER V	643-8798	6
NO #	HORSTKAMP W F MRS	643-7942	
NO #	LARSEN HANK	552-3986	+1
NO #	LEBECK STEVEN	643-5361	0
NO #	LEMOS C C	642-6361	0
NO #	LEMOS PETER E	644-0062	
NO #	**LENAS PLACE**	**552-9149**	**0**
NO #	MCCLENIC JAS	642-2825	
NO #	**NAPA STEEL MILL SPL**	**226-3950**	**5**
NO #	**NAPA STEEL MILL SPL**	**642-2835**	**8**
NO #	NEGRI LENO	642-9644	
NO #	**NORTH BAY BLDG MTRL**	**552-4216**	**9**
NO #	**NORTH BAY BLDG MTRL**	**255-4450**	**8**
NO #	**PLASTERMAN THE**	**643-0256**	**7**
NO #	SLAYBAUGH EARL D	644-1203	
NO #	SMYTH ROBERT W	552-3603	+1
NO #	**SOUTHERN PAC TRNSPT**	**644-7781**	
NO #	**SOUTHERN PAC TRNSPT**	**226-2522**	**5**
NO #	**STEEL MILL SPL NAPA**	**642-2835**	**9**
NO #	**STEEL MILL SUPPLY**	**226-3950**	**5**
NO #	**WEST VALLEJO LTL LG**	**644-5430**	**6**
NO #	YOUNG JOHN L	642-9831	

★ 14 BUS 18 RES 3 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1977

NAPA JUNCTION RD 94590 VALLEJO

150*WICKES LUMBER 425-1212+7
300*NAPA JCT ELEM SC 252-5461 6
*NAPA JNCTN ELEM SCH644-0050

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

NAPA JUNCTION RD 1977

..NAPA JUNCTION RD 94590 CONT..

	658	CABRERRA JOSE	643-3938
NO	#	AITKEN CHAS H	644-7098 3
NO	#*	BASALT ROCK CO INC	642-3510
NO	#	BRUMMETT HELEN E	644-1751
NO	#	BRUMMETT MAX O	644-1751
NO	#	CABRERA C	644-1654
NO	#	CONRADO FLORENCE	642-2854
NO	#	CRANDALL ELEANOR	644-5778+7
NO	#	GLADSTONE JAS	643-8981 6
NO	#	HAMMER V	643-8798 6
NO	#	HORSTKAMP W F MRS	643-7942
NO	#	HOYE CHARLES C	642-5942+7
NO	#	KAGELE FRANK L	644-0372 5
NO	#	LEMOS C C	642-6361
NO	#	LEMOS PETER E	644-0062
NO	#	LEMOS REBECCA	644-8532 6
NO	#*	LENAS PLACE	642-2891 5
NO	#	MCBRIDE ROBT G	644-9730+7
NO	#	MCCLENIC JAS	642-2825
NO	#*	NAPA STEEL MILL SPL	226-3950 5
NO	#	NEGRI LENO	642-9644
NO	#*	PLASTERMAN THE	643-0256+7
NO	#	SINGH SARJIT	648-2234 4
NO	#	SLAYBAUGH EARL D	644-1203
NO	#*	SOUTHERN PAC TRNSP	644-7781
NO	#*	SOUTHERN PAC TRNSPT	226-2522 5
NO	#*	STEEL MILL SPL NAPA	226-3950 5
NO	#*	STEEL MILL SUPPLY	642-2835
NO	#*	WEST VLLJO LTL LGE	644-5430 6
NO	#	YOUNG JOHN L	642-9831

* 12 BUS 21 RES 5 NEW

Napa Junction Road At Oat Hill

Napa Junction Road At Oat Hill

American Canyon, CA 94503

Inquiry Number: 3212571.4

November 30, 2011

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Date EDR Searched Historical Sources:

Aerial Photography November 30, 2011

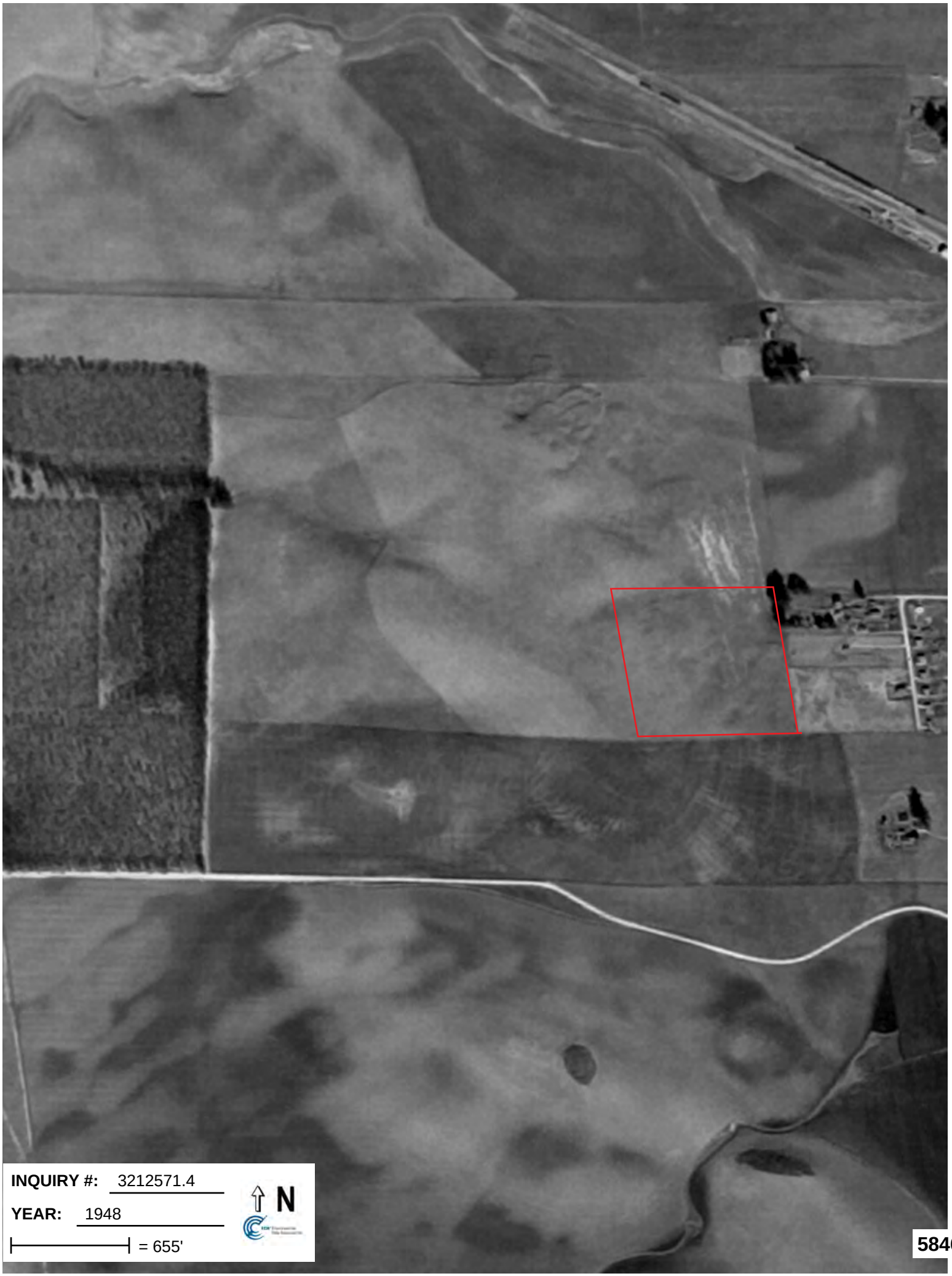
Target Property:

Napa Junction Road At Oat Hill

American Canyon, CA 94503

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=555'	Flight Year: 1937	Laval
1948	Aerial Photograph. Scale: 1"=655'	Flight Year: 1948	USGS
1957	Aerial Photograph. Scale: 1"=555'	Flight Year: 1957	Laval
1965	Aerial Photograph. Scale: 1"=333'	Flight Year: 1965	Cartwright
1970	Aerial Photograph. Scale: 1"=555'	Flight Year: 1970	Cartwright
1982	Aerial Photograph. Scale: 1"=690'	Flight Year: 1982	USGS
1993	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1993	EDR
1998	Aerial Photograph. Scale: 1"=666'	Flight Year: 1998	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR


INQUIRY #: 3212571.4
YEAR: 1937
= 555'
N
5845


INQUIRY #: 3212571.4
YEAR: 1948
= 655'
N


INQUIRY #: 3212571.4
YEAR: 1957
= 555'
N
5847


INQUIRY #: 3212571.4
YEAR: 1965
= 333'
N


INQUIRY #: 3212571.4
YEAR: 1970
= 555'
N
5849


INQUIRY #: 3212571.4
YEAR: 1982
= 690'
N
5850


INQUIRY #: 3212571.4
YEAR: 1993
= 500'
N
5851


INQUIRY #: 3212571.4
YEAR: 1998
= 666'
N
5852


INQUIRY #: 3212571.4
YEAR: 2005
= 500'
N
5853


INQUIRY #: 3212571.4
YEAR: 2006
= 500'
N
5854

APPENDIX E

REGULATORY AGENCY RECORDS

Parcel Report for { 058320001000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org



Environmental Data

Alquist Priolo Faults:	Alquist Priolo faults found
Archaeology:	Potential Archaeological sites may occur in this general area, please contact the Planning, Building, & Environmental Services Dept. for details*
California Planar Coordinate:	DF267 DF268 Multiple results found. For more information, see report footnote**
CalVeg:	No CalVeg data found
CalWater Watershed: Hydrologic Region (HR) Hydrologic Unit (HU) Hydrologic Area (HA) Hydrologic Sub Area (HSA) Super Planning Watershed (SPW) Planning Watershed (PW)	HR: San Francisco Bay HU: San Pablo HA: Napa River HSA: Napa River SPW: Lower Napa River PW: Mouth of Napa River
Faults:	No Faults found
FEMA Flood Zone:	Parcel not in FEMA Flood Zone

Parcel Report for { 058320001000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

Fire Hazard Severity:	High Fire Hazard Severity (SRA). Compliance with Chapter 7 A of the California Building Code is required for new construction.
GW Ordinance:	Parcel not in a designated Groundwater Deficient Area (actual groundwater conditions may vary)
Landslides:	Landslides found
Local Drainage:	Rancho del Mar Creek North Slough Multiple results found. For more information, see report footnote**
Soil Type:	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 14 Fagan clay loam, 30 to 50 percent slopes, slipped Haire loam, 0 to 2 percent slopes Multiple results found. For more information, see report footnote**
Special Species:	Potential Special Species may occur in this general area, please contact the Planning, Building, & Environmental Services Dept. for details*
Spotted Owls:	No Spotted Owls found

HazMat Releases - Local Oversight Program (LOP) (within 1500 ft):
EVAN-ATHAN ENTERPRISES
MEDEIROS PROPERTY
INDEPENDENT STAVE COMPANY

HazMat Releases - Non-Local Oversight Program (Non-LOP) (within 1500 ft):
No Non-LOP hazardous materials releases found

Agricultural Use USTs (within 1500 ft):
No Agricultureal Use USTs found

Location of archaeological sites, spotted owls, and other sensitive resources are generalized to protect their exact locations. For this reason, there is no guarantee they are located within or outside of the subject parcel. Please contact PBES to learn more.

Boundary Data

Basemap Grid:	1 - C 2 - C Multiple results found. For more information, see report footnote**
Census Data:	Tract: 201005 Block Group: 1
County Zoning:	American Canyon - Refer to city. Zoning is only available for the unincorporated area.
Fire Jurisdiction:	American Canyon Fire
Garbage Zone 1:	Parcel not in Garbage Zone 1
Projected Township, Range & Section:	M04N04W24
School District:	Napa Valley Unified
Supervisor District:	District 5 - Belia Ramos
Township & Range:	T04N-R04W24
USGS Topo Quad Name:	Cuttings Wharf
Voting Precinct:	561341

Parcel Report for { 058320001000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

Imagery	
Description	**File**
2002 DTM & Imagery:	U - 10 Download U - 10 Image File Download U - 10 DTM CAD File Download U - 10 DTM Shapefile
2005 Imagery:	6482_1828 - *File(s) are not downloadable.*
2007 Imagery:	L17-37NW Download L17-37NW Image File
2011 1 Foot Imagery:	486826 - *File(s) are not downloadable.*
2011 1 Foot Imagery:	481826 - *File(s) are not downloadable.*
2011 6 Inch Imagery:	486828 - *File(s) are not downloadable.*
2011 6 Inch Imagery:	484828 - *File(s) are not downloadable.*
Digital Ortho Quarter Quad (DOQQ) Imagery:	/data/aerials/doqq/cd6/cuttings_wharf_se.lan - *File(s) are not downloadable.*
Digital Terrain Model (DTM):	u10_topo.zip - *File(s) are not downloadable.*
USGS Topo Quad (DRG):	o38122b3.tif - *File(s) are not downloadable.*

Filed Maps:
058-32 - Assessor Map Page
26RM27 - Record Map
12RM54 - Record Map
6RS47 - Record of Survey
14RM5 - Record Map
1AM89 - Assessment Districts
1AM70 - Assessment Districts
1AM71 - Assessment Districts
14PM63 - Parcel Map
10PM3 - Parcel Map

Cultural Data

Schools (within 0.25 mi):
Napa Junction Elementary
Calvary Baptist Christian Academy

Permit History - No Records Found

**Note: Multiple results were found.
In some cases, multiple results could be valid; for example, Zoning.
In other cases, a parcel may cross over the boundary of more than one data area; for example, multiple Precincts.

To review any possible data issues, use the interactive map and turn on the relevant layers.

Parcel Report for { 058320001000 }

Developed by Napa County GIS
GISStaff@CountyOfNapa.org

Disclaimer: *This report was prepared for informational purposes only. No liability is assumed for the accuracy of the data delineated hereon.*

Information as of Lien Date	**January 1st 2020**

View/Print Value Notice

Navigation	
New Search	Print
Property Information	
Assessor ID Number	058-320-001-000
Tax Rate Area (TRA)	005007
Last Recording Date	8/4/1994
Current Doc No.	1994R024411
Property Type	VACANT LAND INDUSTRIAL
Acres	10.63
Lot Size(SqFt)	
Asmt Description	
Asmt Status	ACTIVE
Roll Values	
Land	187,603
Structural Imprv	
Fixtures Real Property	
Growing Imprv	
Total Land and Improvements	187,603
Fixtures Personal Property	
Personal Property	
Manufactured Homes	
Homeowners Exemption	
Other Exemption	
Net Assessed Value	187,603
Building Description(s)	
Building Seq. Number	
Unit Seq. Number	0
Building Code	
Number Of Units	
Building Square Footage	
Garage Square Footage	0.00
Unfinished Square Footage	
Year Built	
Bedrooms	
Full Baths	
Half Baths	
Fireplaces	
Pools	
Navigation	
New Search	

APPENDIX F

ASTM USER QUESTIONNAIRE

AEI Consultants

ASTM E 1527-13 USER QUESTIONNAIRE

To qualify for the protection offered under the EPA All Appropriate Inquiry (AAI) Standard, the User (entities seeking to use the ASTM E1527-13 Practice to complete an environmental site assessment of the property; i.e. Lenders and/or Borrowers) must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that AAI is not complete. This information should be the collective knowledge of the entities relying on the Phase I. **Please note that you are not being asked to evaluate the property, but rather to provide your knowledge of information on the property.**

Site Name/Address: CAT HILL PROJECT
058-320-001

Property Owner (Name/Title/Company): HAROLD AND BOBBIE HESS TRUST DATED 7-20-94

Phone/Email: rick @ rhhess.com

Key Site Personnel (Name/Title/Company): RICK HESS

Phone/Email: 925-487-1052

Past Owner (Name/Title/Company)

Phone/Email:

1. Environmental cleanup liens that are filed or recorded against the property (40 CFR 312.25).
Did a search of recorded land title records (or judicial records where appropriate, see NOTE 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

NOTE 1: In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

2. Activity and land use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi).
Did a search of recorded land title records (or judicial records where appropriate, see NOTE 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

Engineering Controls are defined as physical modifications to a site or facility to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property). Institutional Controls are defined as a legal or administrative restriction on the use of, or access to, a site or facility to 1) reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property, or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).
Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

☒ Yes ☐ No If yes, please include an explanation in the space provided below:

OUR FAMILY HAS OWNED PROPERTY SINCE 1978

NA

4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).
Does the purchase price being paid for this property reasonably reflect the fair market value of the property?

☐ Yes ☐ No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

☐ Yes ☐ No

Comments:

5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

a. Do you know the past uses of the property?
☒ Yes ☐ No

b. Do you know of specific chemicals that are present or once were present at the property?
☐ Yes ☒ No

c. Do you know of spills or other chemical releases that have taken place at the property?
☐ Yes ☒ No

d. Do you know of any environmental cleanups that have taken place at the property?
☐ Yes ☒ No

If yes for questions above, please include an explanation in the space provided below:

6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).
Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

☐ Yes ☒ No If yes, please include an explanation in the space provided below:

Person Interviewed:

Name: RICHARD H. HESS

Title/Company/
Affiliation with Property: SON

Signature: Richard H Hess

Date: 7-21-20

Phone/Email: rick@rhless.com 925-487-1052

APPENDIX G

PREVIOUS REPORTS

December 7, 2011

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Property Identification:
Napa Junction Road at Oat Hill
Napa Junction Road at Oat Hill (APN 058-380-008
American Canyon, Napa County, California 94503

AEI Project No. 302503
Client Reference No. 29829

Prepared for:
DeNova Homes
1500 Willow Pass Court
Concord, California 94520

Prepared by:
AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
(925) 746-6000

San Francisco HQ
Atlanta
Chicago
Dallas
Denver
Irvine
Los Angeles
Miami
New York
Phoenix
Portland
San Jose

Napa Junction Road at Oat Hill
Napa Junction Road at Oat Hill, American Canyon, Napa County, California

Report Section		No Further Action	REC	HREC	BER	Recommended Action
2.1	Current use of subject property	X				
2.2	Adjoining property information	X				
3.1	Historical Summary	X				
4.0	Regulatory Agency Records Review	X				
5.0	Regulatory Database Records Review	X				
6.3	Previous Reports	X				
7.0	Site Inspection and Reconnaissance	X				
7.2.1	Asbestos-Containing Materials	X				
7.2.2	Lead-Based Paint	X				
7.2.3	Radon	X				
7.2.4	Lead in Drinking Water	X				
7.2.5	Mold	X				

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by DeNova Homes to conduct a Phase I Environmental Site Assessment (ESA), in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

PROPERTY DESCRIPTION

The subject property, which consists of vacant land, is located on the south side of Napa Junction Road in a mixed commercial and residential area of American Canyon, California. The property totals approximately 10.17 acres and is currently unimproved and unoccupied.

The property has consisted of unimproved pasture and/or undeveloped land from as early as 1937.

The subject property was not identified in the regulatory database.

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Napa Junction Road, followed by undeveloped land
South	Undeveloped land and a water tower
East	Undeveloped land
West	A water tower and undeveloped land
Northwest	A vacant commercial/industrial building (100 Napa Junction Road)

None of the adjacent sites were identified in the regulatory database.

Based upon topographic map interpretation and groundwater monitoring data for a nearby site, the direction of groundwater flow beneath the subject property is inferred to be to the east. Based on a *Quarterly Monitoring Report – First Quarter 2011* for a nearby site (3462 Broadway) prepared by Cook Environmental Services and dated September 29, 2011, groundwater is presumed to be present at an estimated depth of 5-10 feet below ground surface (bgs).

FINDINGS

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. AEI's assessment has revealed the following RECs associated with the subject property or nearby properties:

- No on-site RECs were identified during the course of this assessment.

Historical Recognized Environmental Conditions (HRECs) are defined by the ASTM Standard Practice E1527-05 as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized

environmental condition currently. AEI's assessment has revealed the following HRECs associated with the subject property or nearby properties:

- No on-site HRECs were identified during the course of this assessment.

De Minimis Environmental Conditions include environmental concerns identified by AEI that warrant discussion but do not qualify as RECs, as defined by the ASTM Standard Practice E1527-05. AEI's assessment has revealed the following de minimis environmental conditions associated with the subject property or nearby properties:

- No on-site de minimis environmental conditions were identified during the course of this assessment.

Business Environmental Risks (BERs) include risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the subject property, not necessarily limited to those environmental issues required to be investigated in the standard ASTM scope. BERs may affect the liabilities and financial obligations of the client, the health & safety of site occupants, and the value and marketability of the subject property. AEI's assessment has revealed the following BERs associated with the subject property or nearby properties:

- No BERs were identified during the course of this assessment.

CONCLUSIONS, OPINIONS AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California, in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report. This assessment has revealed no evidence of RECs in connection with the property. AEI recommends no further investigations for the subject property at this time.

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1 Site Location Map
2 Site Map

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1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment (ESA) performed in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at Napa Junction Road at Oat Hill in the City of American Canyon, Napa County, California (Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs).

1.1 SCOPE OF WORK

The purpose of the Phase I Environmental Site Assessment is to assist the client in identifying potential environmental liabilities associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property, as well as regulatory non-compliance that may have occurred at the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

The goal of AEI Consultants in conducting the Phase I Environmental Site Assessment was to identify the presence or likely presence of any hazardous substances or petroleum products on the property that may indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into the soil, groundwater, or surface water of the property.

1.2 SIGNIFICANT ASSUMPTIONS

The following assumptions are made by AEI Consultants in this report. AEI Consultants relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI Consultants has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow and depth to groundwater, unless otherwise specified by on-site well data, or well data from adjacent sites are assumed based on contours depicted on the United States Geological Survey topographic maps. AEI Consultants assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.3 LIMITATIONS

Property conditions, as well as local, state, tribal and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this study apply strictly to the environmental regulations and property conditions existing at the time the study was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI Consultants makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the study.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, vapor intrusion, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-05.

If requested by the client, these non-scope issues are discussed in Section 7.2. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). ASTM Standard Practice E1527-05 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1) 42 U.S.C § 9601(35)(B), referenced in the ASTM Standard Practice E1527-05.

2) Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

3) 42 U.S.C. 9601(40) and 42 U.S.C. 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, and observations and conditions that existed on the date and time of the property visit.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted

procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

1.4 LIMITING CONDITIONS

AEI was granted full and complete access to the subject property.

1.5 DATA GAPS AND DATA FAILURE

According to ASTM E1527-05, data gaps occur when the Environmental Professional is unable to obtain information required, despite good faith efforts to gather such information.

Data failure is one type of data gap. According to ASTM E1527-05 "data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met". Pursuant to ASTM Standards, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier.

No data gaps were identified during the course of this assessment.

1.6 RELIANCE

All reports, both verbal and written, are for the benefit of DeNova Homes. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by DeNova Homes on November 15, 2011. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The subject property, which consists of vacant land, is located on the south side of Napa Junction Road in a mixed commercial and residential area of American Canyon, California. The property totals approximately 10.17 acres and is currently unimproved and unoccupied.

The subject property was not identified in the regulatory database.

The Assessor's Parcel Number (APN) for the subject property is 058-380-008. Based on the undeveloped nature of the subject property, it is not current serviced by any utilities. According to the American Canyon Building Department (ACBD), properties in the vicinity of the subject property are serviced by Pacific Gas and Electric (PG&E) for natural gas and electricity, and municipal services (City of American Canyon) for potable water and sewage disposal.

Refer to Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs for site location.

2.2 SITE AND VICINITY CHARACTERISTICS

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Napa Junction Road, followed by undeveloped land
South	Undeveloped land and a water tower
East	Undeveloped land
West	A water tower and undeveloped land
Northwest	A vacant commercial/industrial building (100 Napa Junction Road)

None of the adjacent sites were identified in the regulatory database.

2.3 PHYSICAL SETTING

Geology: According to information obtained from the United States Geological Survey (USGS), the area surrounding the subject property is underlain by alluvial deposits of the Cenozoic-era. Based on a review of the United States Department of Agriculture (USDA) Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as the Fagan Series. Soils from this series are characterized as a clay loam.	
USGS Topographic Map:	*Cuttings Wharf, California* Quadrangle
Nearest surface water to subject property:	Napa River/Approximately 1.4 miles to the west
Gradient Direction/Source:	East/Topographic map interpretation and groundwater monitoring data for a nearby site
Estimated Depth to Groundwater/Source:	5-10 feet bgs/*Quarterly Monitoring Report – First Quarter 2011* for a nearby site (3462 Broadway) prepared by Cook Environmental Services and dated September 29, 2011

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

3.1 HISTORICAL SUMMARY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-05 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historic city directories, Sanborn fire insurance maps and agency records is as follows:

Date Range	Subject Property Description/Use	Source(s)
Circa 1937 - present	Unimproved pasture and/or undeveloped land	Aerial photographs, interview

The property has consisted of unimproved pasture and/or undeveloped land from as early as 1937.

No potential environmental concerns were identified in association with the current or historical use of the subject property.

If available, copies of historical sources are provided in the report appendices.

3.2 AERIAL PHOTOGRAPH REVIEW

AEI Consultants reviewed aerial photographs of the subject property and surrounding area. Aerial photographs were reviewed for the following years:

Date(s)	Scale	Subject Property Description	Surrounding Area Descriptions
1937 1948 1957 1965 1970	1" = 555' 1" = 655' 1" = 555 1" = 333' 1" = 555'	Appears as unimproved pasture land.	North: Unimproved pasture land South: Unimproved pasture land East: Unimproved pasture land West: Unimproved pasture land
1982	1" = 690'	Appears as undeveloped land with various dirt paths/roads on the lot.	North: Undeveloped land South: Undeveloped land East: Undeveloped land West: Undeveloped land
1993 2006	1" = 500' 1" = 500'	No significant changes noted from the 1982 aerial photograph. The subject property generally appears as it does today.	North: Napa Junction Road, followed by undeveloped land South: Undeveloped land and a water tower East: Undeveloped land West: A water tower and undeveloped land Northwest: A square-shaped commercial building (as it appears today)

3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of Environmental Data Resources, Inc. (EDR) collection of Sanborn Fire Insurance maps.

Sanborn map coverage was not available for the subject property.

3.4 CITY DIRECTORIES

Based on the historical undeveloped nature of the subject property and lack of a physical address, a search of historic city directories was not conducted for the subject property.

3.5 HISTORICAL TOPOGRAPHIC MAPS

In accordance with our approved scope of services, historical topographic maps were not reviewed as a part of this assessment.

3.6 CHAIN OF TITLE

In accordance with our approved scope of services, a Chain of Title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

4.1 REGULATORY AGENCIES

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous materials use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to Activity and Use Limitations (AULs), defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1.1 HEALTH DEPARTMENT

On November 25, 2011, AEI contacted the Napa County Environmental Health Department (NCEHD) for information on the subject property and nearby sites of concern. Files at this agency may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the NCEHD.

4.1.2 FIRE DEPARTMENT

On November 25, 2011, AEI contacted the American Canyon Fire District (ACFD) for information on the subject property to identify any evidence of previous or current hazardous material usage.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the ACFD.

4.1.3 BUILDING DEPARTMENT

On December 2, 2011, AEI contacted the American Canyon Building Department (ACBD) for information on the subject property in order to identify historical tenants and property use.

According to the ACBD, the subject property site has never been developed.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the ACBD.

4.1.4 PLANNING DEPARTMENT

On December 2, 2011, AEI contacted the American Canyon Planning Department (ACPD) for information on the subject property in order to identify AULs associated with the subject property.

No information indicating the existence of AULs was on file for the subject property with the ACPD.

4.1.5 COUNTY ASSESSOR OFFICE

On December 2, 2011, AEI contacted the Napa County assessor's office for information on the subject property in order to determine the earliest recorded date of development and use.

According to the Napa County assessor's office, the subject property has never been developed.

4.1.6 DEPARTMENT OF OIL AND GAS

Department of Oil and Gas (DOG) maps concerning the subject property and nearby properties were reviewed. DOG maps contain information regarding oil and gas development.

According to the DOG map, there are no oil or gas wells within 500 feet of the subject property. No environmental concerns were noted during the DOG map review.

4.1.7 OTHER AGENCIES SEARCHED

On December 2, 2011, AEI accessed the State Water Resources Control Board (SWRCB) GeoTracker Database for information on the subject property and nearby sites of concern. Files on this agency database may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property on the SWRCB GeoTracker Database.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted EDR to conduct a search of federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-05 are summarized in the following table. A copy of the regulatory database report is included in Appendix B of this report.

The subject property was not identified in the databases reviewed.

In determining if a site is a potential environmental concern to the subject property in the records summary table below, AEI has applied the following criteria to classify the site(s) as low concern: 1) the site(s) only hold an operating permit (which does not imply a release), 2) the site(s) have been granted "No Further Action" by the appropriate regulatory agency, and/or 3) based upon AEI's review, the distance and/or topographic position relative to the subject property reduce the level of risk associated with the site(s).

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
NPL	1	No	0	
DELISTED NPL	0.5	No	0	
CERCLIS	0.5	No	0	
CERCLIS NFRAP	0.5	No	0	
RCRA CORRACTS	1	No	0	
RCRA-TSD	0.5	No	0	
RCRA LG-GEN, SM-GEN, CESQGs, VGN, NLR	TP/ADJ		0	
US ENG CONTROLS	TP	No	0	
US INST CONTROLS	TP	No	0	
ERNS	TP	No	0	
STATE/TRIBAL HWS	1	No	0	
STATE/TRIBAL SWLF	0.5	No	1	No; the site is located over ¼-mile from the subject property.
STATE/TRIBAL REGISTERED STORAGE TANKS	TP/ADJ	No	0	

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
STATE/TRIBAL LUST	0.5	No	5	No; all five sites have been issued a Case Closed status by the local oversight program (LOP).
STATE/TRIBAL ENG-INST CONTROLS	TP	No	0	
STATE/TRIBAL VCP	0.5	No	0	
STATE/TRIBAL BROWNFIELD	0.5	No	0	
ORPHAN	N/A	No	37	None of the identified orphan sites are located in the immediate vicinity (500-feet) of the subject property, and therefore, these sites are not expected to represent a significant environmental concern.
NON-ASTM DATABASES	TP/ADJ	No	0	

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-05, the following interviews were performed during this investigation in order to obtain information indicating RECs in connection with the subject property.

6.1.1 INTERVIEW WITH OWNER

The subject property owner representative, Mr. Derek Pampe, was contacted by email on November 22, 2011 and December 2, 2011. Mr. Pampe has been associated with the subject property for five months. Mr. Pampe was asked if he was aware of any of the following:

Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	X	No
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	X	No
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	X	No
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	X	No

6.1.2 INTERVIEW WITH KEY SITE MANAGER

AEI was not accompanied during the site reconnaissance; therefore, an interview with a key site manager was not conducted.

6.1.3 PAST OWNERS, OPERATORS AND OCCUPANTS

Interviews with past owners and occupants regarding historical onsite operations were not reasonably ascertainable. However, based on information obtained from other sources including aerial photographs, building records, assessor records, and an interview, it is likely that the information provided by past owners and operators would have been duplicative.

6.1.4 INTERVIEW WITH OTHERS

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this section.

6.2 USER PROVIDED INFORMATION

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-05 and EPA's AAI Rule, certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the environmental professional. The responsibility for qualifying for Landowner Liability Protections (LLPs) by conducting the inquiries ultimately rests with the User, and providing the information to the environmental professional would be prudent if such information is available.

6.2.1 ENVIRONMENTAL LIENS

AEI was not informed by the User, DeNova Homes, of any environmental cleanup liens encumbering the subject property that are filed or recorded under federal, tribal, state or local law.

6.2.2 Activity and Land Use Limitations

AEI was not informed by the User of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state or local law.

6.2.3 Specialized Knowledge

AEI was not informed by the User of any specialized knowledge or experience related to the subject property or nearby properties.

6.2.4 Valuation Reduction for Environmental Issues

The User did not indicate to AEI any information to suggest that the valuation of the subject property is significantly less than the valuation for comparable properties due to environmental factors.

6.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not inform AEI of any commonly known or reasonably ascertainable information about the subject property which aided AEI in identifying conditions indicative of a release or threatened release.

6.2.6 Knowledge of Presence or Likely Presence of Contamination

The User did not inform AEI of any obvious indicators that pointed to the presence or likely presence of contamination at the subject property.

6.3 Previous Reports and Other Provided Documentation

No prior reports or relevant documentation in association with the subject property were made available to AEI during the course of this assessment.

7.0 SITE INSPECTION AND RECONNAISSANCE

On December 2, 2011, a site reconnaissance of the subject property and adjacent properties was conducted by Michael Audibert, REA of AEI in order to obtain information indicating the likelihood of RECs at the subject property and adjacent properties as specified in ASTM Standard Practice E1527-05 §8.4.2, 8.4.3 and 8.4.4. During the onsite reconnaissance, AEI was was not accompanied. During the onsite reconnaissance, AEI inspected the entire subject property site (the site is unimproved).

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
	X	Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
	X	Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Interior Stains or Corrosion
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
X		Other

The subject property currently consists of unimproved vacant land.

The above identified observed item is further discussed below.

OTHER

AEI observed scattered debris in various locations on the subject property lot. The debris consisted of various construction materials, including metal and plastic piping, concrete, and wood; as well as some scattered household trash items, including glass, plastic containers, paper, and other miscellaneous trash. None of these materials appeared to be hazardous. Based on their non-hazardous nature, the presence of these materials is not expected to represent a significant environmental concern.

7.2 NON-ASTM SERVICES

7.2.1 ASBESTOS-CONTAINING BUILDING MATERIALS

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect asbestos containing materials were identified during the site inspection.

7.2.2 LEAD-BASED PAINT

The subject property is currently vacant land and lacks structures. Consequently, no building components containing suspect lead-based paint were identified during the site inspection.

7.2.3 RADON

Radon is a naturally-occurring, odorless, invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

Radon sampling was not requested as part of this investigation. According to the Department of Health Services (DHS) Radon Database for California for 2002, for one (1) total radon test conducted for the subject property zip code (94503), the one (1) test indicated an average indoor screening level below the action level of 4.0 pCi/L set forth by the EPA. Based on these results, radon does not appear to be a concern. However, testing would be required to determine site-specific radon levels.

7.2.4 DRINKING WATER SOURCES AND LEAD IN DRINKING WATER

The City of American Canyon supplies potable water to the subject property. The most recent water quality report states that lead levels in the areas water supply were well within standards established by the USEPA.

7.2.5 MOLD / INDOOR AIR QUALITY ISSUES

The subject property is currently vacant land or lacks structures. Consequently, mold was not addressed as part of this assessment.

7.3 ADJACENT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
	X	Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
X		Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
	X	Other

The above identified observed item is further discussed below.

ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Toxic polychlorinated biphenyls (PCBs) were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing". Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

One pad-mounted transformer was observed on the adjacent site to the northwest during the site inspection. No spills, staining or leaks were observed on or around the transformer. Based on the good condition of the equipment, the transformer is not expected to represent a significant environmental concern.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

By signing this report, the senior author declares that, to the best of his or her professional knowledge and belief, he or she meets the definition of *Environmental Professional* as defined in §312.10 of 40 CFR Part 312.

The senior author has the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. The senior author has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Michael Audibert, REA
Project Manager

Reviewed By:

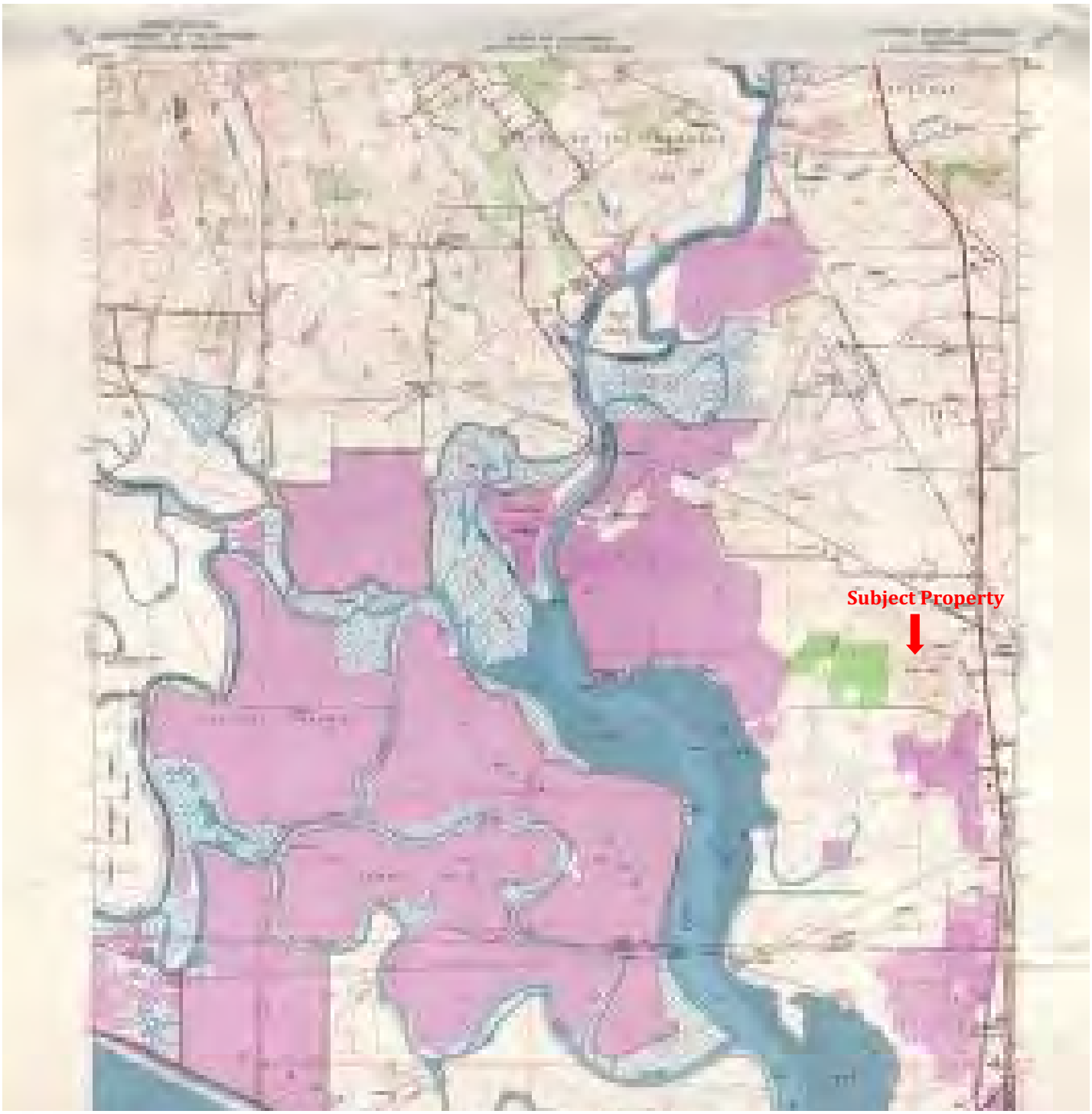


Steve Kovach, Environmental Professional
Senior Author

9.0 REFERENCES

Item	Date(s)	Source
Topographic Map	1994	United States Geological Survey (USGS)
Regulatory Database	November 23, 2011	Environmental Data Resources, Inc. (EDR)
Sanborn Maps (No Coverage)	November 23, 2011	EDR
Aerial Photographs	1937, 1948, 1957, 1965, 1970, 1982, 1993, 2006	EDR
Building Records Search	December 2011	American Canyon Building Department
Assessor Records	December 2011	Napa County Assessor
Environmental Records Search	December 2011	Napa County Environmental Health Department, American Canyon Fire District, State Water Resources Control Board GeoTracker Database
Soil Data	November 2011	U.S. Department of Agriculture – Natural Resources Conservation Service
Radon Data	October 2002	California Department of Health Services (DHS)
Interview/User Questionnaire	December 2, 2011	Mr. Derek Pampe, DeNova Homes

FIGURES



SITE LOCATION MAP

Napa Junction road at Oat Hill, American Canyon, California 94503

N

FIGURE 1

Source: USGS (1981)

Project Number: 302503

AEI Consultants



Inferred Direction of Groundwater Flow

SITE MAP

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Legend

Approximate Property Boundary

FIGURE 2

Project Number: 302503

AEI Consultants

APPENDIX A

PROPERTY PHOTOGRAPHS



1. View of the north boundary of the subject property.



2. View of the east boundary of the subject property.



3. View of the south boundary of the subject property.



4. View of the west boundary of the subject property.



5. View of an adjacent property north (undeveloped land) beyond Napa Junction Road.



6. View of the adjacent property east (undeveloped land).



7. View of the adjacent property south (undeveloped land).



8. View of the adjacent property west (undeveloped land).



9. View of the adjacent northwest (vacant commercial/industrial building).



10. View from the center of the subject property facing north.



11. View from the center of the subject property facing east.



12. View from the center of the subject property facing south.



13. View from the center of the subject property facing west.



14. View of the adjacent Napa Junction Road to the north.



15. View of concrete debris on-site.



16. View of random construction debris on-site.



17. View of metal/iron piping debris on-site.



18. View of plastic piping debris on-site.



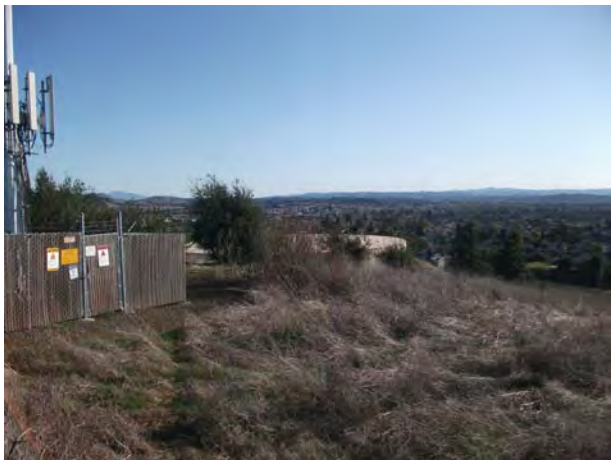
19. View of household trash debris on-site.



20. View of wood debris on-site.



21. View of the adjacent west reservoir (water) tank.



22. View of the adjacent south reservoir (water) tank.



23. View of the adjacent south cell tower.



24. View of adjacent (north, within Napa Junction Road) public utility access points.

APPENDIX B

REGULATORY DATABASE

Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Inquiry Number: 3212571.2s
November 23, 2011

The EDR Radius Map™ Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAPA JUNCTION ROAD AT OAT HILL
AMERICAN CANYON, CA 94503

COORDINATES

Latitude (North):	38.184400 - 38° 11' 3.8''
Longitude (West):	122.263100 - 122° 15' 47.2''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	564537.6
UTM Y (Meters):	4226325.5
Elevation:	260 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	38122-B3 CUTTINGS WHARF, CA
Most Recent Revision:	1981
East Map:	38122-B2 CORDELIA, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2009, 2010
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ---------- EnviroStor Database

State and tribal leaking storage tank lists

SLIC ---------- Statewide SLIC Cases
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities

INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
Toxic Pits ..... Toxic Pits Cleanup Act Sites
CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database
HIST UST ..... Hazardous Substance Storage Container Database
SWEEPS UST ..... SWEEPS UST Listing

Local Land Records

LIENS 2 ..... CERCLA Lien Information
LUCIS ..... Land Use Control Information System
LIENS ..... Environmental Liens Listing
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen ..... RCRA - Non Generators

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
WDS	Waste Discharge System
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
Notify 65	Proposition 65 Records
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
ENF	Enforcement Action Listing
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PROC	Certified Processors Database
FINANCIAL ASSURANCE	Financial Assurance Information Listing
HWP	EnviroStor Permitted Facilities Listing
PCB TRANSFORMER	PCB Transformer Registration Database
MWMP	Medical Waste Management Program Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
HWT	Registered Hazardous Waste Transporter Database

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 08/22/2011 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN CANYON SANITARY LANDF	*WESTERN TERMINUS OF EUC*	*WSW 1/4 - 1/2 (0.406 mi.)*	*6*	*14*

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 09/19/2011 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER INC Status: Completed - Case Closed Status: Completed - Case Closed	*150 NAPA JUNCTION*	*NE 0 - 1/8 (0.003 mi.)*	*1*	*8*
MEDEIROS PROPERTY Status: Completed - Case Closed	*289 NAPA JUNCTION RD*	*E 1/8 - 1/4 (0.189 mi.)*	*2*	*11*
INDEPENDENT STAVE COMPANY	*4391 NAPA VALLEJO HWY*	*E 1/4 - 1/2 (0.338 mi.)*	*A3*	*12*
EVAN-ATHAN ENTERPRISES	*4381 NAPA VALLEJO HWY*	*E 1/4 - 1/2 (0.363 mi.)*	*A4*	*12*
EVAN ATHAN ENTERPRISES Status: Completed - Case Closed	*4381 BROADWAY*	*E 1/4 - 1/2 (0.364 mi.)*	*A5*	*13*

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 09/19/2011 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MEDEIROS PROPERTY	*289 NAPA JUNCTION RD*	*E 1/8 - 1/4 (0.189 mi.)*	*2*	*11*

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

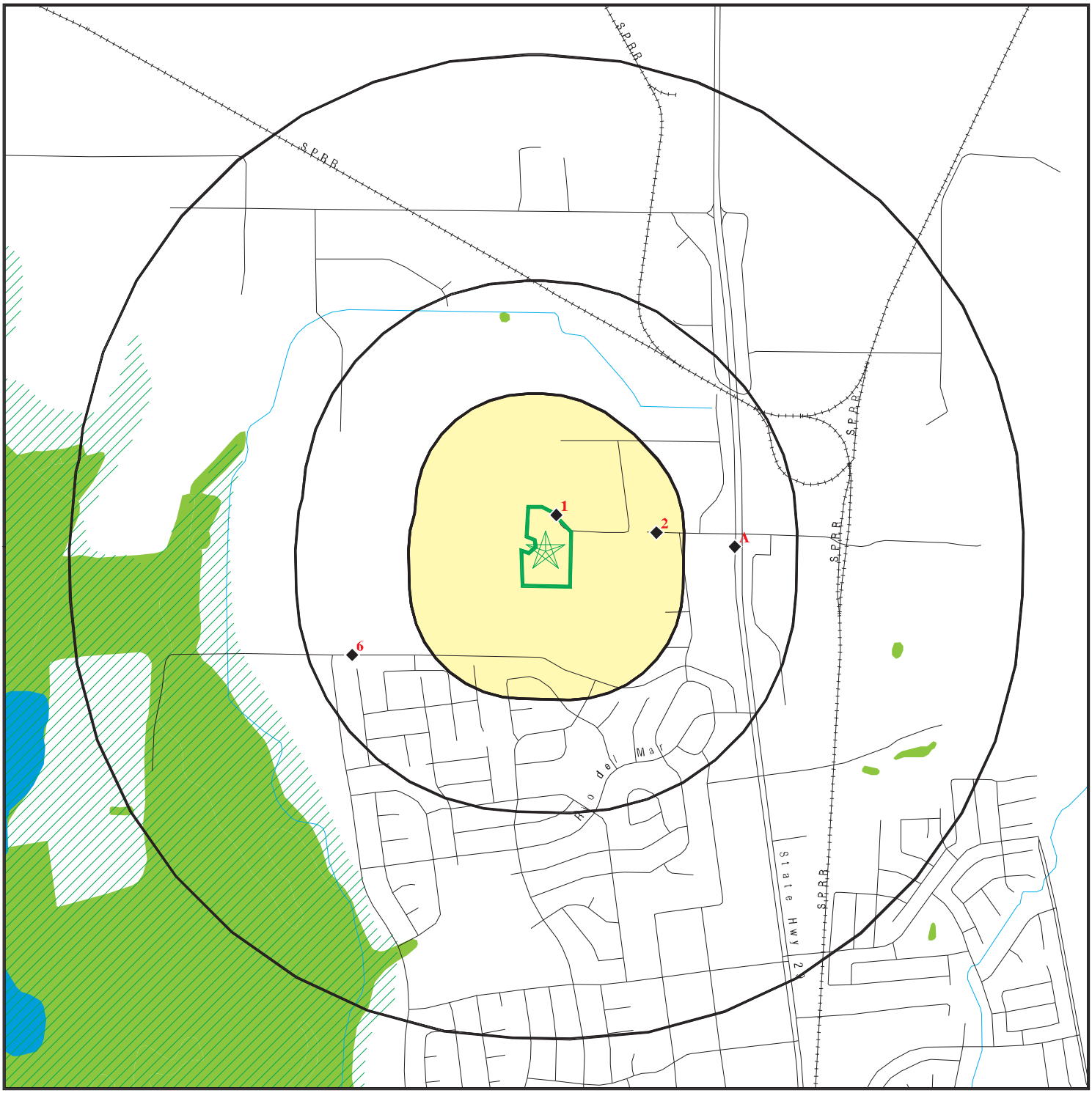
Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN STATE LUMBER INC	*150 NAPA JUNCTION*	*NE 0 - 1/8 (0.003 mi.)*	*1*	*8*
EVAN ATHAN ENTERPRISES	*4381 BROADWAY*	*E 1/4 - 1/2 (0.364 mi.)*	*A5*	*13*

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 37 records.

Site Name	Database(s)
NAPA CFCD-E. SIDE OF MAIN	ENF
ARCO	LUST SAN MATEO,HIST CORTESE
INDEPENDENT STAVE COMPANY	LUST SAN MATEO,HIST CORTESE
WEST NAPA PUMP STATION	HIST CORTESE
BARITELLE WINERY	LUST SAN MATEO,HIST CORTESE
NAPA AMERICAN CANYON JOIN	HIST CORTESE
NAPA CHARTER LINES	FID,SWEEPS UST
NAPA VALLEY COLLEGE	SWEEPS UST
TULUCAY SUBSTATION	FID,SWEEPS UST
NAPA SHOP	FID,SWEEPS UST
NSD WEST NAPA PUMP STATION	LUST SAN MATEO
PACIFIC AUTO SALVAGE, INC.	LUST SAN MATEO,UST ALAMEDA
MARKLEY COVE RESORT	LUST SAN MATEO
NAPA AMERICAN CANYON JOINT WASTE	LUST SAN MATEO
WEST NAPA PUMP STATION	LUST SAN MATEO
CENTRAL STATES CONCRETE PRODUC	HIST UST
TULUCAY SUBSTATION	HIST UST
MARKLEY COVE RESORT	AST
NAPA WYE	HAZNET
JAMESON CANYON WATER TREATMENT PLA	HAZNET
NAPA RECYCLING & WASTE SERVICE	HAZNET
NAPA ARMORY CA ARNG	HAZNET
NAPA COUNTY/DEPT OF ENVIRON MGMT	HAZNET
NAPA COUNTY ENVIRONMENTAL MANAGEME	HAZNET
NAPA COUNTY/EMERG RESPONSE ONLY	HAZNET
NAPA RIVER AT CUTTING WHARF NORTH	ERNS
NAPA RIVER ADJACENT TO JFK PARK	ERNS
NORTH OF HORSEBEND ON NAPA RIVER,	ERNS
NAPA FACILITY 2983 GREEN ISLAND RO	ERNS
NAPA FACILITY 2983 GREEN ISLAND RO	ERNS
DI ROSA PRESERVE	SLIC REGION 2
NAPA VALLEY WASTE MGMT AUTHORI	WDS
2577-2595 LAUREL ST. NAPA	WDS
NAPA COUNTY STORM WATER	WDS
SYAR INDUSTRIES	MINES
NAPA STATE HOSPITAL	EMI
NOVA GROUP, INC.	ENVIROSTOR

OVERVIEW MAP - 3212571.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Napa Junction Road At Oat Hill	CLIENT: AEI Consultants
ADDRESS: Napa Junction Road At Oat Hill American Canyon CA 94503	CONTACT: Karina Garcia
LAT/LONG: 38.1844 / 122.2631	INQUIRY #: 3212571.2s DATE: November 23, 2011 9:47 am

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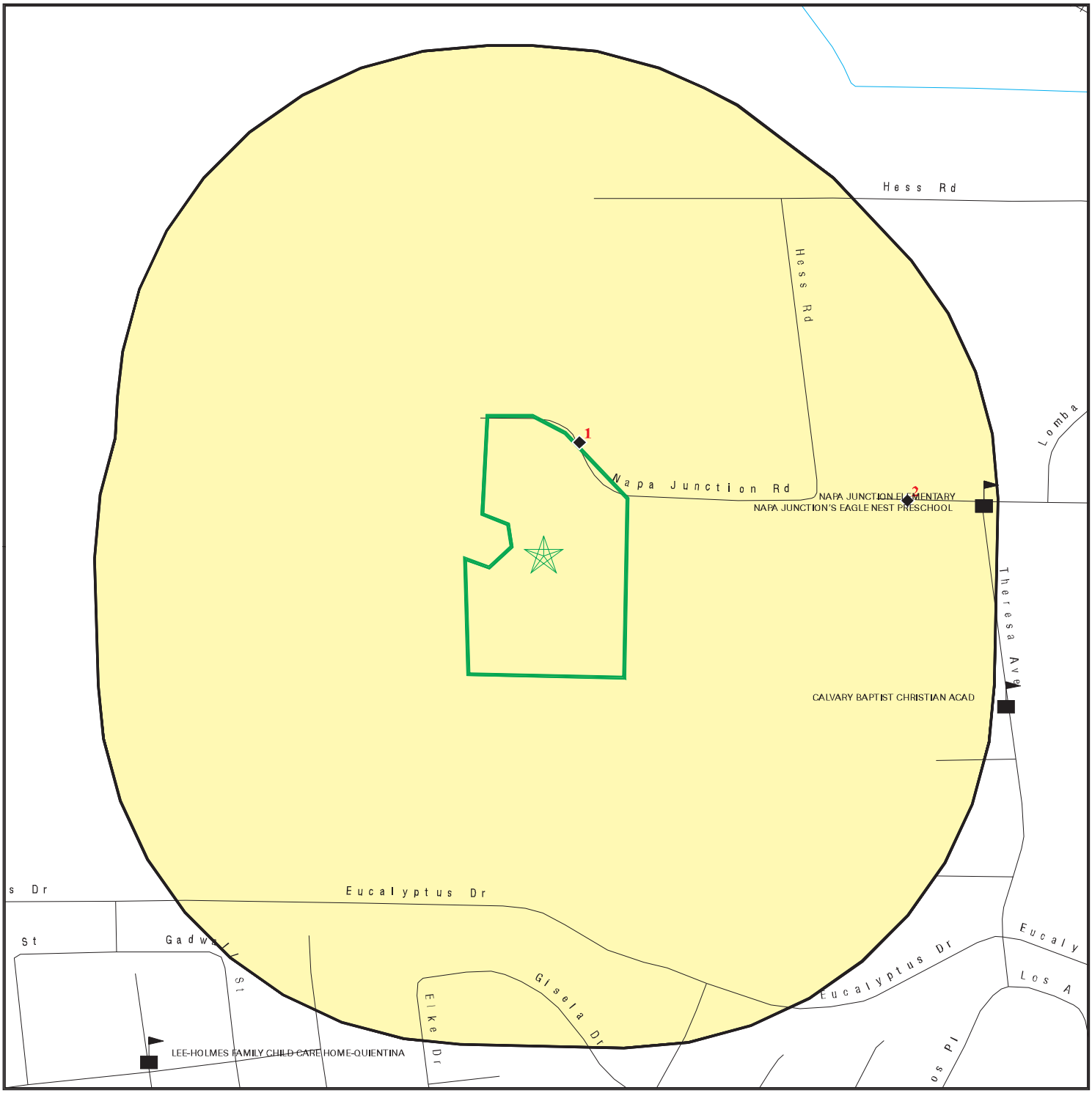
DETAIL MAP - 3212571.2s



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Napa Junction Road At Oat Hill	CLIENT: AEI Consultants
ADDRESS: Napa Junction Road At Oat Hill American Canyon CA 94503	CONTACT: Karina Garcia
LAT/LONG: 38.1844 / 122.2631	INQUIRY #: 3212571.2s DATE: November 23, 2011 9:48 am

Copyright © 2011 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
LUST		0.500	1	1	3	NR	NR	5
SLIC		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	1	NR	NR	NR	1
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP		0.500	0	0	0	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.250	0	0	NR	NR	NR	0
HIST UST		0.250	0	0	NR	NR	NR	0
SWEEPS UST		0.250	0	0	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
CHMIRS		TP	NR	NR	NR	NR	NR	0
LDS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0
HIST CORTESE		0.500	1	0	1	NR	NR	2
Notify 65		1.000	0	0	0	0	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
ENF		TP	NR	NR	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
HWT		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NE
< 1/8
0.003 mi.
14 ft.

GOLDEN STATE LUMBER INC
150 NAPA JUNCTION
VALLEJO, CA 94590

HIST CORTESE
LUST

1001610888
N/A

Relative:
Lower

Actual:
228 ft.

CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0248

Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0212

LUST:
Region: STATE
Global Id: T0605591147
Latitude: 38.1773
Longitude: -122.252
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/02/2001
Lead Agency: NAPA COUNTY LOP
Case Worker: Not reported
Local Agency: NAPA COUNTY LOP
RB Case Number: 28-0248
LOC Case Number: 28-0248
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0605591147
Contact Type: Local Agency Caseworker
Contact Name: Napa LOP
Organization Name: NAPA COUNTY LOP
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

Global Id: T0605591147
Contact Type: Regional Board Caseworker
Contact Name: MARY ROSE CASSA
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: mcassa@waterboards.ca.gov
Phone Number: 5106222447

LUST:
Global Id: T0605591147
Action Type: Other

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Date:	1950-01-01 00:00:00
Action:	Leak Reported
Global Id:	T0605591147
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Discovery
Global Id:	T0605591147
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Stopped
Region:	STATE
Global Id:	T0605500191
Latitude:	38.178389
Longitude:	-122.252889
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/07/2001
Lead Agency:	NAPA COUNTY LOP
Case Worker:	ZZZ
Local Agency:	NAPA COUNTY LOP
RB Case Number:	28-0212
LOC Case Number:	0340
File Location:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0605500191
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY LOP
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269
Global Id:	T0605500191
Contact Type:	Regional Board Caseworker
Contact Name:	MARY ROSE CASSA
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET
City:	OAKLAND
Email:	mcassa@waterboards.ca.gov
Phone Number:	5106222447

LUST:

Global Id:	T0605500191
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Reported

GOLDEN STATE LUMBER INC (Continued) **1001610888**

Global Id: T0605500191
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0605500191
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Stopped

Global Id: T0605500191
Action Type: ENFORCEMENT
Date: 1992-05-26 00:00:00
Action: * Historical Enforcement

LUST REG 2:
Region: 2
Facility Id: 28-0212
Facility Status: Case Closed
Case Number: 0340
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 11/6/1990
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Region: 2
Facility Id: 28-0248
Facility Status: Case Closed
Case Number: 28-0248
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 2/15/1996
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

2
East
1/8-1/4
0.189 mi.
998 ft.

MEDEIROS PROPERTY
289 NAPA JUNCTION RD
AMERICAN CANYON, CA 94503

LUST **U003659767**
UST **N/A**

Relative:
Lower

Actual:
64 ft.

LUST:

Region:	STATE
Global Id:	T0605500249
Latitude:	38.1849014
Longitude:	-122.2582196
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/20/1998
Lead Agency:	NAPA COUNTY LOP
Case Worker:	ZZZ
Local Agency:	NAPA COUNTY LOP
RB Case Number:	28-0292
LOC Case Number:	0670
File Location:	Local Agency
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0605500249
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	NAPA COUNTY LOP
Address:	1195 THIRD ST., ROOM 101
City:	NAPA
Email:	Not reported
Phone Number:	7072534269

Global Id:	T0605500249
Contact Type:	Regional Board Caseworker
Contact Name:	MARY ROSE CASSA
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET
City:	OAKLAND
Email:	mcassa@waterboards.ca.gov
Phone Number:	5106222447

LUST:

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Reported

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Discovery

Global Id:	T0605500249
Action Type:	Other
Date:	1950-01-01 00:00:00

MEDEIROS PROPERTY (Continued) **U003659767**

Action: Leak Stopped

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0670
Date Closed: 8/20/1998

LUST REG 2:
Region: 2
Facility Id: 28-0292
Facility Status: Case Closed
Case Number: 0670
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

NAPA CO. UST:
Facility ID: NAPA0670
Num of Tanks: 0

A3 **INDEPENDENT STAVE COMPANY** **LUST** **U003659758**
East **4391 NAPA VALLEJO HWY** **UST** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503**
0.338 mi.
1787 ft. **Site 1 of 3 in cluster A**

Relative:
Lower

Actual:
62 ft.

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0374
Date Closed: 9/19/2007

NAPA CO. UST:
Facility ID: NAPA0374
Num of Tanks: 0

A4 **EVAN-ATHAN ENTERPRISES** **LUST** **U003659757**
East **4381 NAPA VALLEJO HWY** **UST** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94503**
0.363 mi.
1914 ft. **Site 2 of 3 in cluster A**

Relative:
Lower

Actual:
63 ft.

NAPA CO. LUST:
Region: NAPA
Facility ID: NAPA0609
Date Closed: 5/10/1995

EVAN-ATHAN ENTERPRISES (Continued) **U003659757**

NAPA CO. UST:
Facility ID: NAPA0609
Num of Tanks: 0

A5 **EVAN ATHAN ENTERPRISES** **HIST CORTESE** **S105022491**
East **4381 BROADWAY** **LUST** **N/A**
1/4-1/2 **AMERICAN CANYON, CA 94589**
0.364 mi.
1922 ft. **Site 3 of 3 in cluster A**

Relative:
Lower

Actual:
63 ft.

CORTESE:
Region: CORTESE
Facility County Code: 28
Reg By: LTNKA
Reg Id: 28-0235

LUST:
Region: STATE
Global Id: T0605500209
Latitude: 38.181784
Longitude: -122.254271
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/10/1995
Lead Agency: NAPA COUNTY LOP
Case Worker: ZZZ
Local Agency: NAPA COUNTY LOP
RB Case Number: 28-0235
LOC Case Number: 0609
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0605500209
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: NAPA COUNTY LOP
Address: 1195 THIRD ST., ROOM 101
City: NAPA
Email: Not reported
Phone Number: 7072534269

Global Id: T0605500209
Contact Type: Regional Board Caseworker
Contact Name: MARY ROSE CASSA
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: mcassa@waterboards.ca.gov
Phone Number: 5106222447

LUST:
Global Id: T0605500209

EVAN ATHAN ENTERPRISES (Continued) **S105022491**

Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

Global Id: T0605500209
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0605500209
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Stopped

LUST REG 2:
Region: 2
Facility Id: 28-0235
Facility Status: Case Closed
Case Number: 0609
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 10/7/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

6
WSW
1/4-1/2
0.406 mi.
2146 ft.

AMERICAN CANYON SANITARY LANDFILL **SWF/LF** **S102361374**
WESTERN TERMINUS OF EUCALYPTUS DRIVE **FINANCIAL ASSURANCE** **N/A**
NAPA, CA

Relative:
Lower

Actual:
26 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 28-AA-0001
Lat/Long: 38.18056 / -122.27556
Owner Name: Napa-Vallejo Waste Management Authority
Owner Telephone: 7072534545
Owner Address: Not reported
Owner Address2: 1195 Third Street, Room 101
Owner City,St,Zip: Napa, CA 94559
Operator: Napa-Vallejo Waste Management Authority
Operator Phone: 7072534545
Operator Address: Not reported
Operator Address2: 1195 Third Street, Room 101
Operator City,St,Zip: Napa, CA 94559
Operator's Status: Closed
Permit Date: 10/09/1996
Permit Status: Permitted
Permitted Acreage: 122
Activity: Solid Waste Landfill

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Regulation Status: Permitted
Landuse Name: Agricultural
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Mixed municipal
Closure Date: 12/01/1994
Closure Type: Actual
Disposal Acreage: 97
SWIS Num: 28-AA-0001
Waste Discharge Requirement Num: III
Program Type: Financial Assurance Responsibilities
Permitted Throughput with Units: 1350
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 4900000
Remaining Capacity: Not reported
Remaining Capacity with Units: Cubic Yards

FINANCIAL ASSURANCE 2:
Region: 2
Id Number: 28-AA-0001
SWIS_NO: 28-AA-0001
Closure Approved: Yes
Closure Inf Coverage Date: Not reported
Closure Plan Coverage: 3301570
Closure Plan Date: 04/15/2005
PostClose Approved: Yes
PostClose Adequacy Date: 07/25/2005
PostClose Inf Coverage: 25388985
PostClose Inf Coverage Date: 06/01/2007
CorActCoverage: 842462
CorActApproved: Yes
CorAct Mec Adequacy Date: Not reported
CorAct Inf Coverage: 842462
CorActPlanCoverage: 767000
CorAct Plan Date: 09/25/2003
Lia Coverage: 1000000
Lia Approved: Yes
Review: 02/21/2008
Cost Anniversary: 02/10/2008
Closure Mechanism A: Not reported
Closure Extablished A: Not reported
Closure Mechanism B: Not reported
Closure Established B: Not reported
Closure Coverage: 0
Closure Adequacy: Not reported
Closure Approved: Yes
Closure Disbursement: 0
Closure Inflation Estimate: 0
Closure Inflation Date: Not reported
Closure Plan Coverage: 3301570
Closure Plan Date: 04/15/2005
Post Closure Mechanism A: PLEDGE OF REVENUE
Post Closure Established A: 05/13/1994
Post Closure Mechanism B: Not reported
Post Closure Established B: Not reported

AMERICAN CANYON SANITARY LANDFILL (Continued) **S102361374**

Post Closure Coverate:	25388985
Post Closure Adequacy:	Not reported
Post Closure Approved:	Yes
Post Closure Disbursement:	0
Post Close Inflation Estimate:	25388985
Post Closure Inflation Date:	06/01/2007
Post Closure Plan Estimate:	483500
Post Closure Plan Date:	07/25/2005
Corrective Action Mechanism A:	PLEDGE OF REVENUE
Corrective Action Extablished A:	Not reported
Corrective Action Mechanism B:	Not reported
Corrective Action Extablished B:	Not reported
Corrective Actiont Coverage:	842462
Corrective Action Adequacy:	Not reported
Corrective Action Approved:	Yes
Corrective Action Disbursement:	0
Corrective Action Inflation Estimate:	842462
Corrective Action Inflationdate:	06/01/2007
Corrective Action Plan Estimate:	767000
Corrective Action Plan Date:	09/25/2003
Liability Mechanism A:	INS & ENVIRONMENTAL FUND
Liability Established A:	06/29/1992
Liability Mechanism B:	Not reported
Liability Established B:	Not reported
Liability Coverage:	1000000
Liability Adequacy:	Not reported
Liability Approved:	Yes
Contacts:	Not reported

Count: 37 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
VALLEJO	92268182	NAPA FACILITY 2983 GREEN ISLAND RO	NAPA FACILITY 2983 GREEN ISLAN	94590	ERNS
VALLEJO	92467813	NAPA FACILITY 2983 GREEN ISLAND RO	NAPA FACILITY 2983 GREEN ISLAN	94590	ERNS
NAPA	93306890	NORTH OF HORSEBEND ON NAPA RIVER,	NORTH OF HORSEBEND ON NAPA RIV	94558	ERNS
NAPA	93306891	NAPA RIVER ADJACENT TO JFK PARK	NAPA RIVER ADJACENT TO JFK PAR	94558	ERNS
NAPA	94393088	NAPA RIVER AT CUTTING WHARF NORTH	NAPA RIVER AT CUTTING WHARF NO	94558	ERNS
NAPA	A100324331	MARKLEY COVE RESORT	7521 HWY 128	94558	AST
	M300006783	SYAR INDUSTRIES	NAPA QUARRY		MINES
	S100633572	NAPA COUNTY/EMERG RESPONSE ONLY	NAPA COUNTY	00000	HAZNET
NAPA	S100940558	NAPA ARMORY CA ARNG	13606 MENLO AVE	94558	HAZNET
NAPA	S100940560	NAPA COUNTY/DEPT OF ENVIRON MGMT	NAPA VALLEY COLLGE/SO PARK LOT	94558	HAZNET
NAPA	S101623948	NAPA CHARTER LINES	N BAY WAY & WALL ST	94558	FID,SWEEPS UST
NAPA	S101623953	NAPA SHOP	TOWER RD & HWY 29	94558	FID,SWEEPS UST
NAPA	S101623998	TULUCAY SUBSTATION	2760 NAPA-VALLEJO HWY	94558	FID,SWEEPS UST
NAPA	S103978849	NAPA COUNTY ENVIRONMENTAL MANAGEME	NAPA VALLEY COLLEGE	94558	HAZNET
NAPA	S104914963	WEST NAPA PUMP STATION	COOMBS ST	94558	HIST CORTESE
AMERICAN CANYON	S105022493	ARCO	3462 29	94589	LUST SAN MATEO,HIST CORTESE
AMERICAN CANYON	S105022494	INDEPENDENT STAVE COMPANY	4391 29	94589	LUST SAN MATEO,HIST CORTESE
NAPA	S105025137	BARITELLE WINERY	1546 HELENA HWY		LUST SAN MATEO,HIST CORTESE
NAPA	S105025143	NAPA AMERICAN CANYON JOIN	SOSCOL RD	94558	HIST CORTESE
NAPA	S105256202	2577-2595 LAUREL ST. NAPA	2577 2577-2595 LAUREL ST	94559	WDS
NAPA	S105773234	NSD WEST NAPA PUMP STATION	COOMBS ST	94558	LUST SAN MATEO
NAPA	S106094279	NAPA WYE	1200 FT S O HWY 12	94558	HAZNET
AMERICAN CANYON	S106101896	NAPA VALLEY WASTE MGMT AUTHORI	WEST END OF EUCALYPTUS RD	94503	WDS
NAPA	S106162514	NAPA AMERICAN CANYON JOINT WASTE	UNKNOWN SOSCOL FERRY RD	94558	LUST SAN MATEO
NAPA	S106163014	WEST NAPA PUMP STATION	UNKNOWN COOMBS ST	94558	LUST SAN MATEO
	S106800345	NAPA COUNTY STORM WATER	STORMWATER MANAGEMENT SYSTEMS	0	WDS
NAPA	S106836112	NAPA STATE HOSPITAL	IMOLA AVE, EAST OF HIGHWAY 12	94558	EMI
NAPA	S106929780	NAPA VALLEY COLLEGE	NAPA VALLEJO HWY	94558	SWEEPS UST
NAPA	S108749003	JAMESON CANYON WATER TREATMENT PLA	LAT 381319N LONG 1221327W	94558	HAZNET
NAPA	S108751575	NAPA RECYCLING & WASTE SERVICE	820 LEVITIAN WAY	94558	HAZNET
NAPA	S109117953	DI ROSA PRESERVE	5200 CARNEROS HIGHWAY 121		SLIC REGION 2
LAKE BERRYESSA	S109849936	MARKLEY COVE RESORT	7521 HWY 128	94558	LUST SAN MATEO
NAPA	S110494113	NOVA GROUP, INC.	7411 NAPA-VALLEJO HIGHWAY	94558	ENVIROSTOR
NAPA	S111212954	NAPA CFCD-E. SIDE OF MAIN	MAIN ST, BETWEEN 3RD AND 4TH	94558	ENF
NAPA	U001597512	CENTRAL STATES CONCRETE PRODUC	HWY 29 & TOWER RD	94558	HIST UST
NAPA	U001597672	TULUCAY SUBSTATION	2760 NAPA-VALLEJO HIGHWAY	94558	HIST UST
NAPA	U003763636	PACIFIC AUTO SALVAGE, INC.	5759 NAPA VALLEJO HWY	94558	LUST SAN MATEO,UST ALAMEDA

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010
Date Data Arrived at EDR: 01/11/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/14/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/09/2011
Date Data Arrived at EDR: 03/15/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 91

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/22/2011
Date Data Arrived at EDR: 08/24/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 40

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/01/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/16/2011
Date Data Arrived at EDR: 06/02/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 103
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 39

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 06/01/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 13

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 18

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/28/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/08/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/07/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 08/11/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8
Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31
Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/13/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 94

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/01/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 41

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/31/2011
Date Data Arrived at EDR: 09/14/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 15

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/14/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/08/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/27/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/19/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/13/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/13/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/23/2011
Date Data Arrived at EDR: 08/24/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 21

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 07/21/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/19/2011
Date Made Active in Reports: 08/16/2011
Number of Days to Update: 28

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/30/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 10/18/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/16/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/21/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/01/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 38
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339
Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/09/2011
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 03/29/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 12/01/2010
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/30/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Semi-Annually

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 24

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/18/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/08/2011
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/27/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 20

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/09/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 29

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/28/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/24/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/22/2011
Number of Days to Update: 28
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/25/2011
Next Scheduled EDR Contact: 11/07/2011
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 26
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 09/13/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/04/2011
Number of Days to Update: 21

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 20

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 09/23/2011
Date Data Arrived at EDR: 09/23/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 31

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/22/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 27

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/18/2011
Number of Days to Update: 35

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 24
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/26/2012
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/12/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 27
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/14/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 25
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/26/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/16/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 11/16/2010
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 70

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/27/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/13/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 27

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/12/2012
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/22/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 32

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 09/06/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 32

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 08/31/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 9

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/31/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/06/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 36

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/26/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 24

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 07/26/2011
Date Data Arrived at EDR: 08/08/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 32

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/30/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/23/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 24

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/18/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 38

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/31/2011
Next Scheduled EDR Contact: 12/12/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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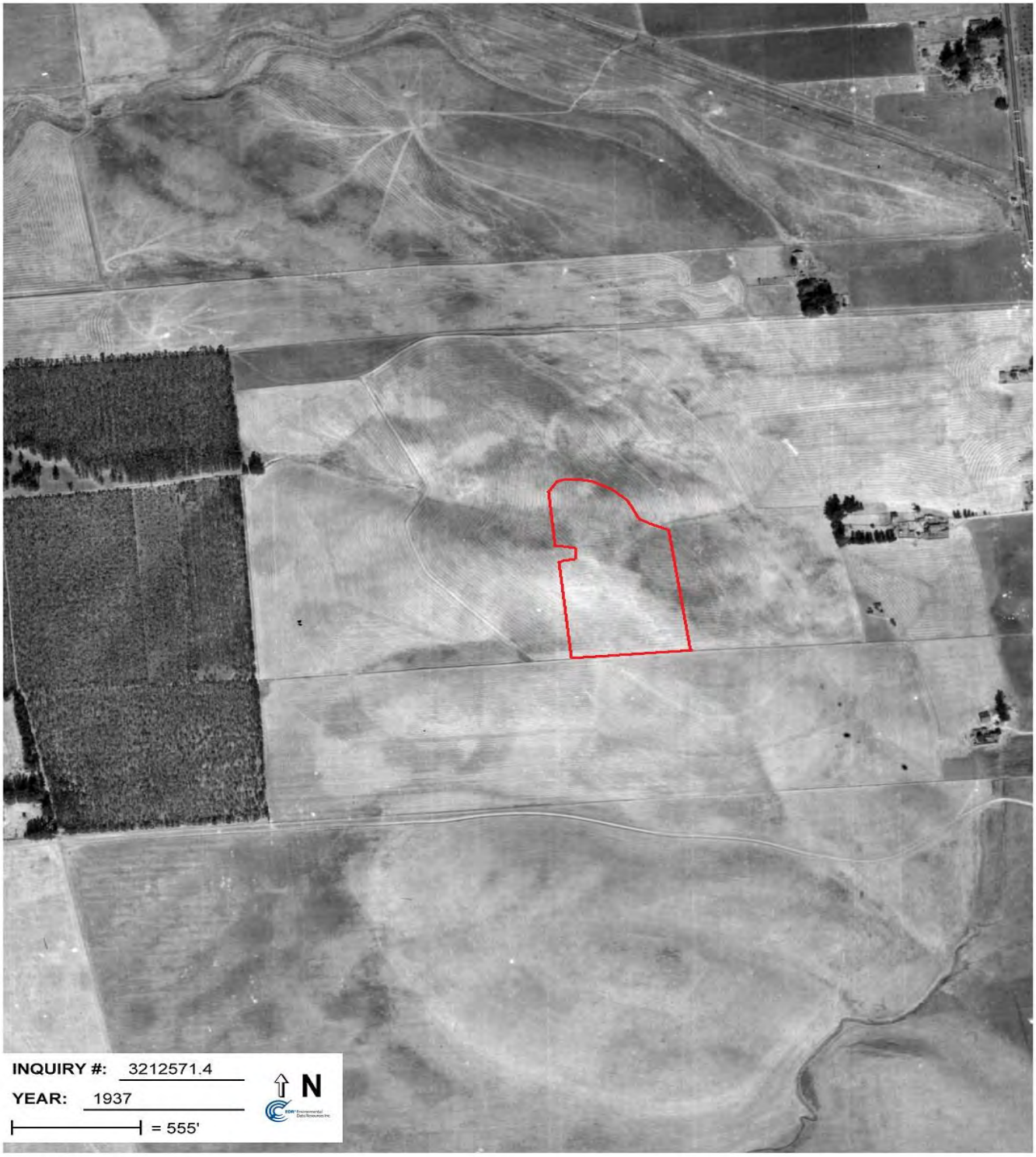
APPENDIX C

HISTORICAL SOURCES



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1937

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

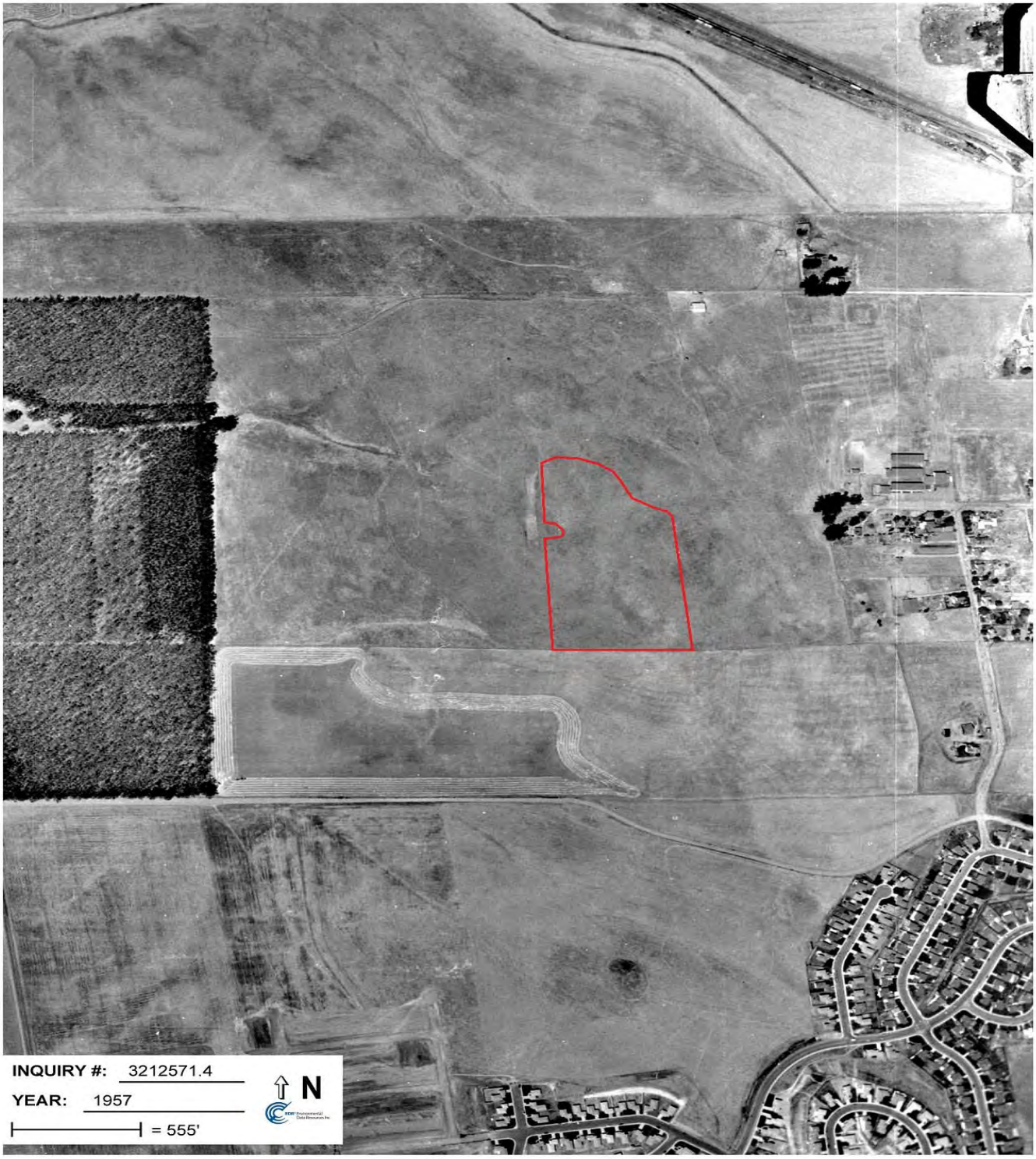
N

Approximate Property Boundary

Year: 1948

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

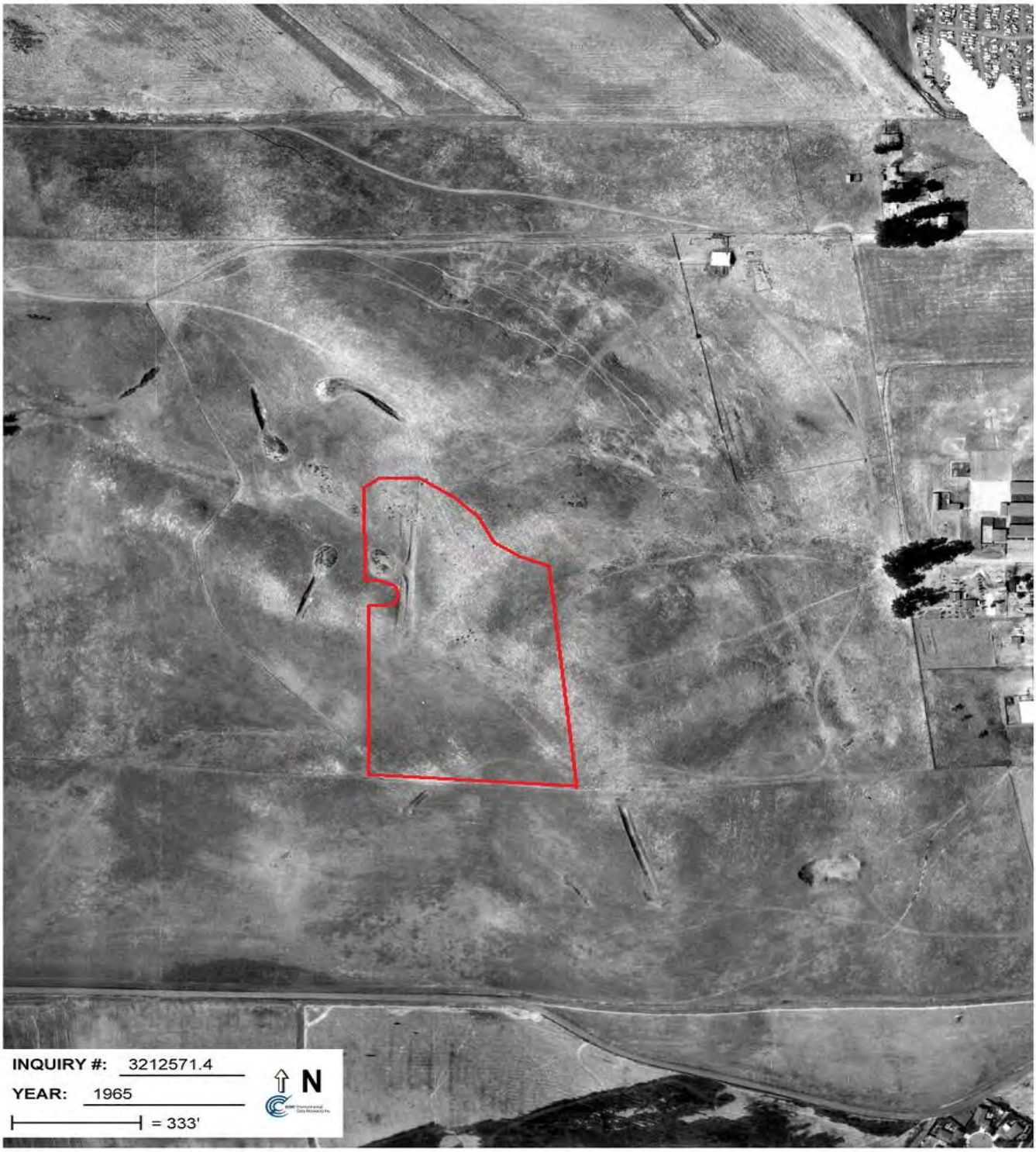
N

Approximate Property Boundary

Year: 1957

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1965

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1970

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1982

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 1993

Project Number: 302503

AEI Consultants



AERIAL PHOTOGRAPH

Napa Junction Road at Oat Hill, American Canyon, California 94503

N

Approximate Property Boundary

Year: 2006

Project Number: 302503

AEI Consultants

Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Inquiry Number: 3212571.3
November 23, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/23/11

Site Name:
Napa Junction Road At Oat Hill
Napa Junction Road At Oat Hill
American Canyon, CA 94503

Client Name:
AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597

EDR Inquiry # 3212571.3

Contact: Karina Garcia

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by AEI Consultants were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Napa Junction Road At Oat Hill
Address: Napa Junction Road At Oat Hill
City, State, Zip: American Canyon, CA 94503
Cross Street:
P.O. # 12189
Project: 302503
Certification # B550-48F1-AE3F

Sanborn® Library search results
Certification # B550-48F1-AE3F

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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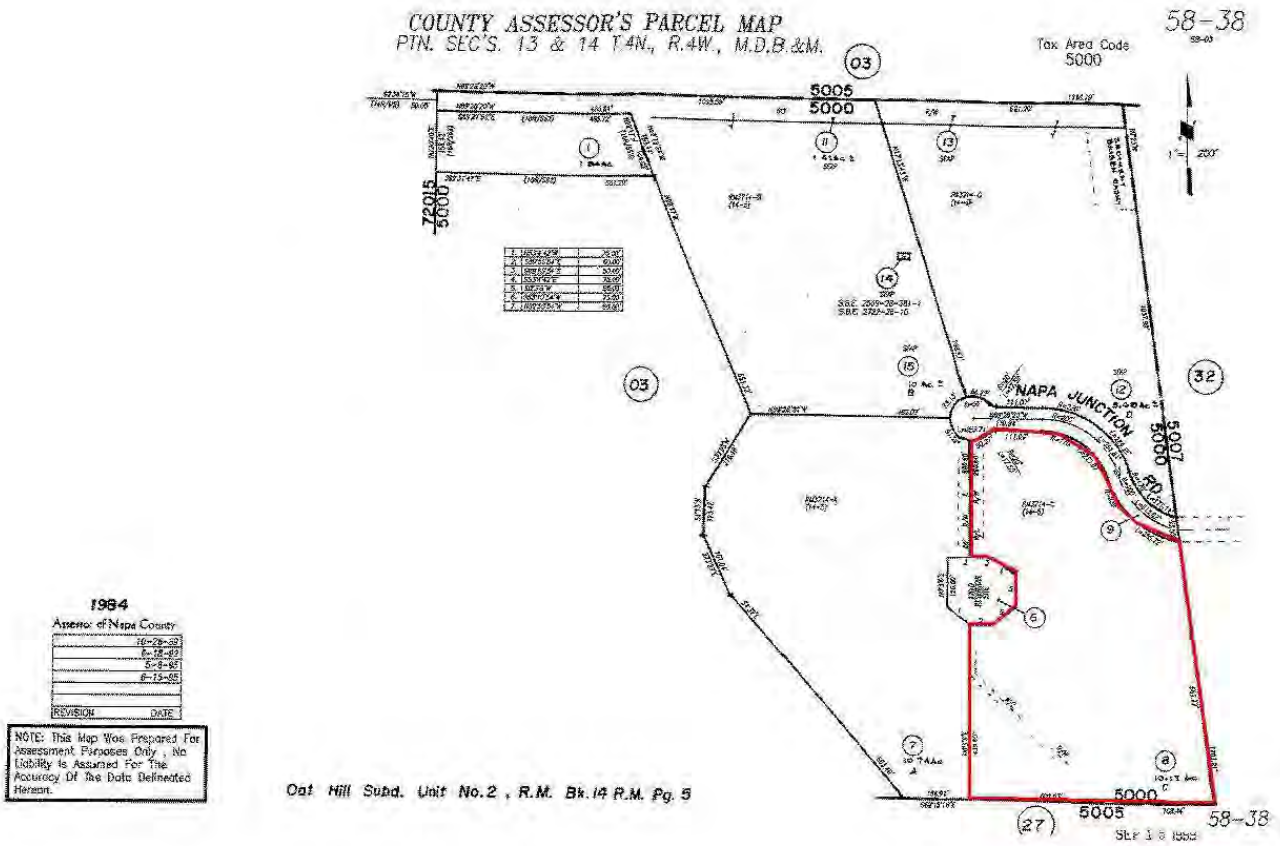
APPENDIX D

REGULATORY AGENCY RECORDS


COUNTY ASSESSOR'S PARCEL MAP
PTN. SEC'S. 13 & 14 T.4N., R.4W., M.D.B.&M.
58-38
Tax Area Code
5000
5005
5000
7201S
5000
NAPA JUNCTION RD.
5007
5000
5000
5005
58-38
1984
Assessor of Napa County
REVISION
DATE
NOTE: This Map Was Prepared For Assessment Purposes Only, No Liability Is Assumed For The Accuracy Of The Data Delineated Hereon.
Oat Hill Subd. Unit No.2, R.M. Bk.14 R.M. Pg. 5

APPENDIX E

ASTM USER QUESTIONNAIRE

AEI Consultants
Environmental & Engineering Services

ASTM E 1527-05 User Questionnaire

In order to qualify for the protection offered under the EPA All Appropriate Inquiry (AAI) Standard, the **User** (entities seeking to use the ASTM E1527-05 Practice to complete an environmental site assessment of the property; i.e. Lenders and/or Borrowers) must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that AAI is not complete. This information should be the collective knowledge of the entities relying on the Phase I. **Please note that you are not being asked to evaluate the property, but rather to provide your knowledge of information on the property.**

Site Name/Address: Napa Junction Road

Person Interviewed/Title: Derek Pampe - Director of Forward Planning Date: 12/2/11

If known, when was the property initially developed? undeveloped

If different, when were the current building(s) on the property constructed? n/a

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? (**Note:** If unknown, a review of title records or an environmental lien search is recommended)

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

2. Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Engineering Controls are defined as physical modifications to a site or facility to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property). *Institutional Controls* are defined as a legal or administrative restriction on the use of, or access to, a site or facility to 1) reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property, or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *User* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes☐ No☑ If you answer yes, please include an explanation in the space provided below:

4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

a) Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*?

Yes☑ No☐ If you answer no, please include an explanation in the space provided below, including whether the lower purchase price is because contamination is known or believed to be present at the *property*?

5. Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *User*:

a. Do you know the past uses of the *property*?

Yes☐ No☑

b. Do you know of specific chemicals that are present or once were present at the *property*?

Yes☐ No☑

c. Do you know of spills or other chemical releases that have taken place at the *property*?

Yes☐ No☑

d. Do you know of any environmental cleanups that have taken place at the *property*?

Yes☐ No☑

If you answered yes to any of the questions above, please include an explanation in the space provided below:

6. The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *User* of this *ESA*, based on your knowledge and experience related to the *property,* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

Yes ☐ No ☑ If you answer yes, please include an explanation in the space provided below:

_____

_____

_____

_____

Please provide the following property contact information:

Property Owner: Rick Hess Phone Number: 925-487-1052

Key Site Personnel: Derek Pampe Phone Number: 925-852-0553

Past Owner: _____ Phone Number: _____

Signature: _____ Date: 12/2/11

APPENDIX F

QUALIFICATIONS

Michael Audibert, REA – Senior Project Manager

MPA - Public Administration, San Francisco State University, 2000
BS - Business Administration, University of Vermont, 1992

California Registered Environmental Assessor (REA) #30090
Certified Mold Inspector (CMI) (Environmental Solutions Association), 2005

Mr. Audibert has over 8 years of experience in the environmental service industry. As Senior Project Manager, Mr. Audibert is responsible for conducting Phase I Environmental Site Assessments (ESAs), Real Estate Transaction Screens, radon screening projects, asbestos inspections, lead-based paint inspections, and reviewing/evaluating Phase II reports. His experience includes management of portfolio projects involving numerous properties throughout the US. Mr. Audibert also provides senior review expertise to ensure compliance and satisfaction of client requirements for Phase I Environmental Site Assessments and Transaction Screens.

His project management experience has included:

- Phase I Environmental Site Assessments and Real Estate Transaction Screens in conformance with ASTM.

- Various other environmental due diligence assessments, including regulatory compliance evaluations and industrial hygiene inspections, including asbestos, radon, lead-in-paint, lead-in-water, and mold surveys.

- The oversight of several Phase II soil and groundwater investigations for a variety of suspected contaminants for due diligence and liability purposes.

Mr. Audibert performed a Phase I Environmental Site Assessment (ESA) for a former steel and brass foundry to be converted into live/work loft apartments. The City of Oakland required that a comprehensive Phase I ESA be conducted for this property for foundry closure purposes. This project involved extensive agency and historical research, as well as determining what areas of the former foundry would be considered "at risk zones" for subsurface contamination.

Mr. Audibert has performed Phase I Environmental Site Assessments (ESAs) for existing gas stations developed on the site of former gas stations, as well as several historical and current leaking underground storage tank (LUST) sites, which involve an extensive historical use investigation and agency records review to determine the status of current and past underground storage tanks (USTs).

Steve G. Kovach - **Environmental Professional**

B.A. - Botany, Miami University (Ohio)
Minor – Conservation and the Environment

Mr. Kovach has spent over nine years working in a broad range of environmental and engineering disciplines including: engineering and environmental due diligence services, industrial air, water, and wastewater permit compliance and monitoring, hazardous waste management and disposal, electrical utilities projects, environmental engineering projects, and wetland ecology research. Mr. Kovach has worked closely with regulatory agencies including the US Environmental Protection Agency, Department of Toxic Substance Control, California Water Resources Control Board, California Integrated Waste Management Board, Bay Area Air Quality Management District, East Bay Municipal Utilities District, and the US Department of Energy.

Currently, Mr. Kovach is the Due Diligence Manager, Northern California Region for AEI, specializing in environmental due diligence services. As a senior member of AEI, Mr. Kovach provides staff supervision and senior review expertise to ensure ASTM compliance and satisfaction of client requirements for environmental assessments. AEI's review process provides for customization of reports to client needs, as well as strict conformance to ASTM standards. Additionally, Mr. Kovach provides senior project management to ensure ASTM compliance and satisfaction of client requirements for Phase I Environmental Site Assessments, Transaction Screens, and other related environmental assessments performed throughout California, Arizona, Nevada, Oregon, and Washington.

APPENDIX H

OTHER SUPPORTING DOCUMENTATION

Napa County Public Browser

Rate us/Comments

058-320-001

Home | Tools

Home | Pan | Zoom In | Zoom Out | Full Extent — Navigation

Identify by Point | Identify by Rectangle | Plot Coordinates — Location Info

Export | Print — Printing

Search Results: 058-320-001 (1)

Parcel: 058320001000

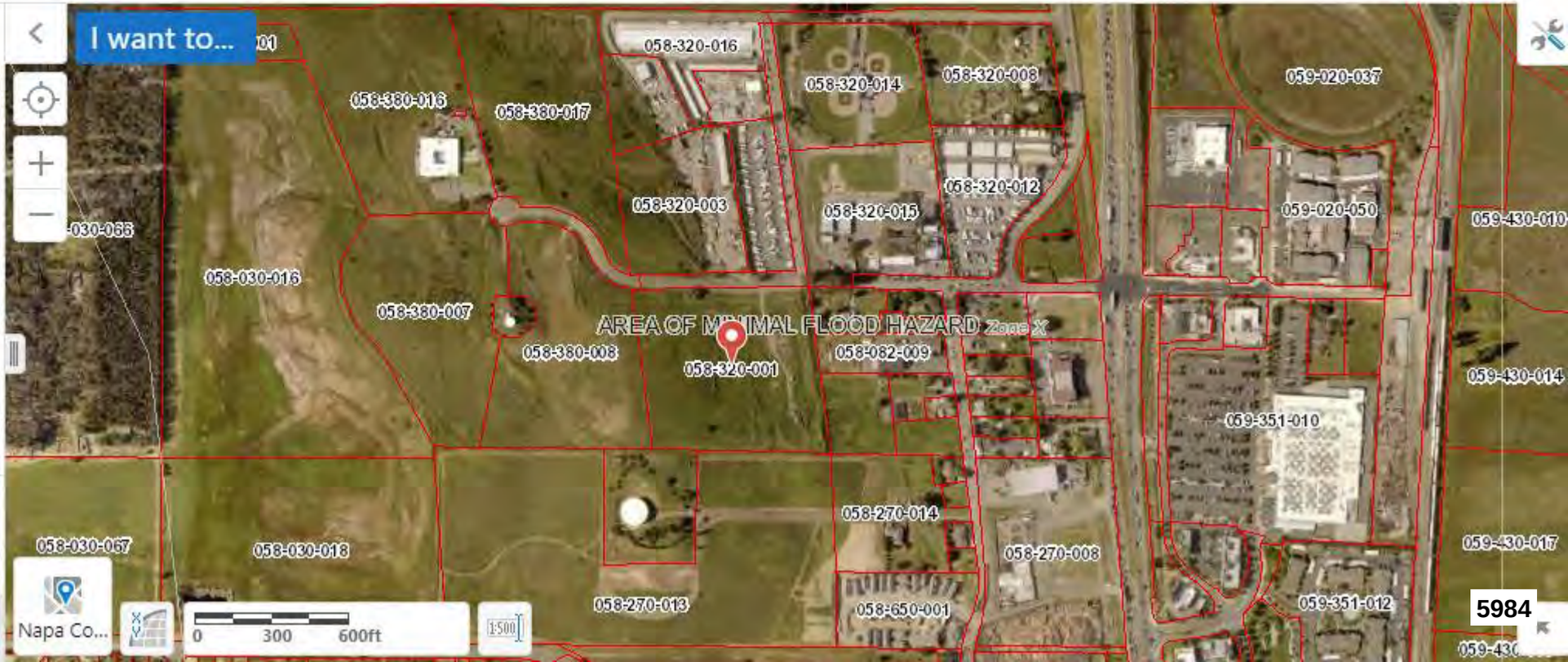
Notes:

Get Parcel Report

Displaying 1 - 1 (Total: 1)

Page 1 of 1

Napa Coun... | Layers | Search Res...



5984


058-380-008
CATHILL PROPERTIES II
HAROLD & BOBBIE
HESS
058-320-001
THERESA AVE
NAPA JUNCTION ROAD (COUNTY)
LOMBARD RD.

Department of Toxic Substances Control

Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

Interim Guidance for Sampling Agricultural Properties (Third Revision)

California Department of Toxic Substances Control
California Environmental Protection Agency

August 7, 2008

Preface

In June 2000, DTSC issued "Interim Guidance for Sampling Agricultural Soils" to provide a uniform approach for evaluating former agricultural properties where pesticides have been applied, and DTSC issued the revised Version 2 in August 2002. Over the last seven years, DTSC has reviewed several hundred former agricultural properties across California. DTSC has been committed to revising and updating the approach to these properties as new information and issues emerge. This revised guidance, Version 3, incorporates and refines the sampling and risk assessment approach to former agricultural properties.

This guidance is intended to supplement the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual, CalEPA 1994 (Second Printing, June 1999). Data obtained from the investigations should be evaluated for potential health risks according the PEA Manual. This guidance is not intended to diminish the need to take focused, authoritative samples at site locations commonly associated with hazardous substances releases nor replace guidance provided by the PEA Guidance Manual. This guidance is not applicable to areas where pesticides were mixed, stored, disposed, or areas where pesticides may have accumulated, such as ponds and drainage ditches.

The scope of this document is limited to evaluating only agricultural properties during a PEA or other initial sampling investigation. This applies to proposed new and/or expanded school sites or other project where new land use could result in increased human exposure, especially residential use. Agricultural properties are lands where pesticides were uniformly applied for agricultural purposes consistent with normal application practices, and where other non-agriculturally related activities have been absent. Data obtained from the sampling analyses will be incorporated into the PEA Report, including performing a risk analysis in accordance with the guidance in the PEA Manual.

This guidance does not apply to disturbed land, such as, land that has been graded in preparation for construction, areas where imported soil has been brought in, or any other activity

that would redistribute or impact the soil, other than normal agricultural practices, such as disking and plowing.

This guidance is an on-going effort to streamline the characterization of agricultural properties. As additional knowledge and experience is obtained, DTSC may modify this guidance, as appropriate.

1.0 PURPOSE

This guidance was initially prepared for use in evaluating soil at proposed new school sites and existing schools undergoing expansion projects where the property was currently or previously used for agricultural activities. This guidance is now expanded to include any project with DTSC oversight and is intended to supplement the DTSC PEA, and provide a uniform and streamlined approach for evaluating agricultural properties. This guidance can be used to assist environmental assessors in designing initial investigations or developing PEA Workplans for properties with agricultural uses. The analytical data obtained are to be incorporated into a risk analysis and PEA Report performed in accordance with the guidance in the PEA Manual.

2.0 AGRICULTURAL PROPERTIES

2.1 Eligible Agricultural Properties

This guidance is specific to agricultural properties where pesticides and/or fertilizers were presumably applied uniformly, for agricultural purposes consistent with normal application practices. It is applicable to agricultural properties that are currently under cultivation with row, fiber or food crops, orchards, or pasture. It is also applicable to fallow and former agricultural properties that are no longer in production and have not been disturbed beyond normal disking and plowing practices. Each field of the same crop is assumed to have been watered, fertilized and treated with agricultural chemicals to the same degree across the field. Because of this homogeneous application, contaminant levels are expected to be similar at any given location within the field. This is the underlying premise of the guidance, and one that must be verified at the scoping stage of the PEA process.

2.2 Properties not covered by this Guidance

This guidance does not apply to former agricultural property that has been graded for construction or other purposes, that has received fill, or has had parking lots or structures placed on it following active use as an agricultural field. An urban residential area that was agricultural property in the past does not qualify for this guidance since the construction of the residences would have resulted in the disturbance and redistribution of potential agricultural contaminants in the soil. These areas may require biased, discrete sampling as opposed to the sampling for agricultural properties discussed in this document.

2.3 Grazing Land and Dry-Land Farmed Agricultural Properties

2.3.1 Grazing Land and Pasture

Agricultural sampling is not required for property used exclusively as grazing lands or pasture, where the topography is not conducive to pesticide application, or the application of pesticides is not economically feasible. Aerial photographs, topographic maps, and a site visit should be used to evaluate the topography of the proposed school site and past land use. Sites that are suitable for animal grazing will often have irregular topography and often a cover of native trees,

brush and range grasses. In keeping with the definition of agricultural soils, the site must not have contained any structures, or been used for any commercial or manufacturing activities.

2.3.2 Dry-Land Farmed Agricultural Soils

Dry-land farming is the practice of growing a crop without irrigation. Many dry-land farming fields are not treated with pesticides or infrequently treated, since the lack of water does not provide a desirable habitat for most agricultural pests. Properties that clearly qualify as dry-land farming do not need further investigation for pesticides or metals. For properties where there is uncertainty regarding dry-land farming, limited sampling may be conducted at a rate of four discrete samples per site, with one sample collected in each quadrant.

Some production crops such as winter wheat and barley can be grown under dry-land farming conditions. If the site has been planted in a dry-land farming production crop, every assurance should be made to determine that the crop was not irrigated and pesticides were not applied. This information may be obtained from interviews with farmers in the area, records that the County Agricultural Commissioner may have, and information the Commissioner may have about the irrigation practices for that crop in the specific county. If it cannot be clearly shown that irrigation did not take place and pesticides were not applied, limited sampling for organochlorine pesticides (OCPs) and arsenic may be necessary. At a minimum, this should include four samples per site, one sample per quadrant.

2.4 Agricultural Properties Prior to 1950

A review of 35 proposed school sites along with the historical background of OCP use in California indicates that sites with agricultural usage ending prior to 1950 do not need to be evaluated for OCPs. Organochlorine pesticides were first introduced into California agriculture in 1944 and reached peak usage in the 1960's. In 1974 the use of the DDT was banned for agricultural purposes, and the elimination of remaining OCPs in California agriculture quickly followed. Data from 35 proposed school sites where agricultural use ended prior to 1950 indicates that OCPs were not identified as chemicals of potential concern. In those cases where OCPs were identified, the source appears to have been the application to structures on the property, and not the agricultural crops grown prior to 1950. It is recommended that former agricultural properties that terminated operation prior to 1950 not be evaluated for agriculturally related OCPs. Arsenic should still be evaluated as a chemical of potential concern (COPC) since its use as arsenical pesticides and herbicides predates 1950.

2.5 Continued Agricultural Use After PEA Sampling

Chemicals associated with agricultural activities may result in potential risks to human health or the environment. If agricultural activities continue on the subject site after DTSC issues a no further action determination on the PEA, DTSC cannot ensure the no further action determination will remain in effect.

This may have impacts for school projects where the school districts elect to postpone school construction and allow continued agricultural use of the property. The most recent chemical use documentation (e.g., local Agricultural Commissioner Pesticide Application Permits) regarding the quantity and types of agricultural chemicals used on the property should be provided in the PEA report. If the type of agricultural chemicals applied to the site change after DTSC's no further action determination, DTSC recommends submittal of the chemical use documentation to DTSC at least three months prior to commencement of grading or other construction activities at the school site. DTSC will review the information, and if necessary, may recommend additional sample collection and analyses to assess potential impacts and ensure school site safety.

2.6 Other Areas of Concern on Agricultural Properties

In many cases, agricultural properties may include other areas of concern such as operations yards, storage areas, fuel tanks, residences, irrigation systems, and animal facilities. Examples of areas of concern may include:

- Structures such as homes, garages, equipment sheds, barns, and other out-buildings
- Pesticide storage, mixing/loading, and wash-down areas
- Ecological habitats, or rare, threatened, or endangered species
- Irrigation ditches/canals, containment berms, and low-lying swales or drainage areas
- Irrigation water containment ponds and collection/recirculation sumps
- Production wells and pumps
- Pole- or pad-mounted transformers
- Waste oil areas
- Animal pens, barns, and manure and disposal piles
- Burn piles
- Underground and above ground storage tanks
- Properties in dibromochloropropane (DBCP) study areas

Although agricultural-related, these targeted areas should be considered during the PEA scoping meeting and investigated using standard PEA protocols. The following DTSC guidance documents may be considered in these investigations:

- Interim Guidance: Evaluating Total Petroleum Hydrocarbons (TPH) (DTSC 2008) (The draft TPH guidance document is being revised at this time and will not be available to the public until DTSC finalizes the document.)
- Interim Guidance: Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers (DTSC, June 9, 2006)
- Arsenic Strategies for Determination of Arsenic Remediation: Development of Arsenic Cleanup Goals for Proposed and Existing School Sites (DTSC 2007)
- Advisory: Methane Assessment and Common Remedies at School Sites (DTSC, June 2005)
- Advisory: Active Soil Gas Investigations (DTSC, January 2003)
- Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion into Indoor Air (DTSC 2004)
- Fact Sheet: Information Advisory, Clean Imported Fill Material (DTSC, October 2001)
- Guidance Manual: Preliminary Endangerment Assessment (DTSC, January 1999)
- Data Validation Memorandum , Summary of Level II Data Validation (DTSC, May 2006)
- Guidance: Ecological Risk Assessment at Hazardous Waste Sites and Permitted Facilities (DTSC, July 4, 1996)

3.0 SAMPLING STRATEGIES

3.1 Chemicals of Concern

3.1.1 Pesticides

When the property is under active agricultural production, the operator should be interviewed to determine the types and amounts of pesticides historically used on the property. The County Agricultural Commissioner should also be consulted to verify pesticide usage on the property. The Agricultural Commissioner is required to maintain this information for three years, but often will have extensive knowledge of the farming practices over many years. A local or specialized farm advisor such as the University of California Cooperative Extension Agent is another source of information for farming practices in the area. These consultations should occur during the scoping phase of the investigation. For those properties that have not been actively farmed in the past three years, obtaining accurate information is more difficult. Information from surrounding or neighboring agricultural operations on the types of crops grown in the area during the time of active farming can provide clues on what chemicals may have been applied.

Based on data from former agricultural properties over the past seven years, the only pesticide class requiring analyses at agricultural properties are OCPs, such as DDT, toxaphene, dieldrin, etc. OCPs are biopersistent and bioaccumulate in the environment. Most other classes of pesticides have relatively short half-lives and have not been found in the agricultural fields. While paraquat does have a longer half-life in soil, it has either not been detected or detected rarely at trace levels at sites which DTSC has had oversight, therefore routine analyses for paraquat is not required for field areas. Analyses for paraquat may be required in storage and mixing/loading areas.

3.1.2 Metals

Based on data from former agricultural properties, the only heavy metal required for routine analyses for these properties is arsenic. Arsenic in the form of arsenical herbicides has been applied to many agricultural properties and elevated levels of arsenic have been reported in the evaluation of these properties.

Other heavy metals may be required on a case by case basis depending on history of the property and the surrounding environment. Certain counties, such as Kern and Merced in the Central Valley, allow the application of municipal sludge on agricultural properties with or without a permit. Municipal sludge has been often shown to have elevated levels of heavy metals. These metals concentrations can impact vadose soils and often may migrate to groundwater. If there is a history of sludge application, or if sludge application is suspected on an agricultural property, Title 22 metals (former CAM 17 metals) should be evaluated.

Copper compounds were generally applied directly to select crops (e.g. vineyards) to prevent or reduce mildew. Vineyards and grain storage areas may have elevated copper due to the use of copper compounds as fungicides. To date, DTSC has not found elevated copper in any agricultural property. However, analyzing soil or sediment samples for copper may be appropriate at agricultural properties with the potential to impact aquatic ecological habitats (e.g. a creek or stream which runs through site).

3.1.3 Additional Chemicals of Concern

3.1.3.1 Mixing/Loading/Storage Areas

Focused sampling in mixing/loading/storage areas, drainage ditches, farm houses, or outbuilding areas may require analyses for a number of other constituents besides OCPs and arsenic, including other classes of pesticides/herbicides, paraquat, metals, and petroleum related compounds (see Section 2.6).

3.1.3.2 Smudge Pots

If smudge pots have been routinely used on agricultural properties, for example in citrus groves, additional sampling for PAHs and TPH may be required.

3.2 Sampling Frequency

Sampling frequency may vary depending on the size of the site and conditions found. When the site has been used for agricultural crop, the presumption is that agricultural chemicals were applied uniformly across the site in any given year and that the variation across the site will be relatively small. An analysis of several hundred former agricultural properties by DTSC has supported the general use of the assumption of uniform application.

The assumption of uniform application may not apply to areas cultivated in different crops, adjoining or adjacent properties with different owners or operators. The uniform application assumption does not apply for non-cultivated areas (e.g. drainage ditches, farm houses and other structures, mixing/loading areas, storage sheds, etc.)

In general, the sampling pattern should be sufficient to characterize the site. Recommended numbers of borings or sampling locations and composite analyses are provided in Table 1 for both OCPs and arsenic analyses for sites up to 50 acres. DTSC should be consulted for sites greater than 50 acres. For these sites, the sampling frequency may be reduced based on documentation that verifies consistent owner, operator, and use. If different parcels of the property have different owners, operators or crops, the number of samples shown in Table 1 should be applied for each different parcel.

Table 1: Recommended Number of Sampling Locations

Site Acres	Number of Borings	OCP Analyses (Composites)	Arsenic Analyses (Discrete only)
1	4	4 (Discrete analyses)	4
2	4	4 (Discrete analyses)	4
3	4	4 (Discrete analyses)	4
4	8	4	4
5	10	4	4
6	12	4	4
7	14	4	4
8	16	4	4
9	18	5	5
10	20	5	5
11	21	6	6
12	22	6	6
13	23	6	6
14	24	6	6
15	25	7	7
16	26	7	7
17	27	7	7
18	28	7	7
19	29	8	8
20	30	8	8
21	31	8	8
22	32	8	8
23	33	9	9
24	34	9	9
25	35	9	9
26	36	9	9
27	37	10	10

Site Acres	Number of Borings	OCP Analyses (Composites)	Arsenic Analyses (Discrete only)
28	38	10	10
29	39	10	10
30	40	10	10
31	41	11	11
32	42	11	11
33	43	11	11
34	44	11	11
35	45	12	12
36	46	12	12
37	47	12	12
38	48	12	12
39	49	13	13
40	50	13	13
41	51	13	13
42	52	13	13
43	53	14	14
44	54	14	14
45	55	14	14
46	56	14	14
47	57	15	15
48	58	15	15
49	59	15	15
50	60	15	15
>50	Consult with DTSC		

3.3 Composite Samples

Since this guidance assumes a relatively even distribution of chemicals across the agricultural field portion of a site, compositing of discrete samples allows for increased sampling coverage for a site, while not significantly increasing the number of analytical samples. Composite surface samples may be made up of a maximum of four discrete surface samples from adjacent sampling locations. Compositing may occur in the field or at the laboratory. In cases where two crops were grown on the site, only discrete samples from within the same crop area may be composited.

Specify the method of selecting the discrete samples to be composited and the compositing factor (e.g. 3 to 1: three discrete samples composited to one) in the workplan. Compositing requires that each discrete sample be the same in terms of volume or weight, and that the discrete sample be thoroughly homogenized prior to compositing. The detection level does not need to be reduced since the composite sampling area is assumed to be homogeneous in concentration.

If compositing is not chosen, analyses will be performed on all the discrete samples and the number of analyses will correspond to the number of borings.

For more information on composite samples, see the references provided in Section 6.0.

3.4 Discrete Sampling for Arsenic

A minimum of four discrete on-site surface samples must be analyzed for arsenic. When samples are composited for OCP analysis, one discrete sample from each composite must be analyzed for arsenic. When more than four composite samples are analyzed for OCPs, the total number of discrete samples analyzed for arsenic does not need to be greater than the number of total composite samples used for OCP analysis (see Table 1).

3.5 Sampling Depth

Based on the extensive data DTSC has reviewed for agricultural properties, only surface samples will be required for the screening assessment. Each location should be sampled to include one surface sample (0 to 6 inches). [Note: 0 inches means first encountered soil. Thick mats of vegetable material, roots, and other extraneous material should not be sampled. The locations can be staked and surveyed using a sub-meter global positioning system. This will facilitate collection of supplemental site investigation samples, such as subsurface or step out sampling, if necessary.

3.6 Sample Collection

Sampling both the furrows and beds of existing rows will detect the greatest variability in the residuals. Some methods of pesticide application will favor residuals in the beds while others favor the furrows. In fields where rows remain, roughly half of the samples should be gathered from the furrows and half from the beds in an alternating pattern. Orchards should have the sampling locations placed at the current drip line for the trees, under the canopy, between the tree rows, and between the trees within a row. For sites with slopes, swales, or other uneven topography, sampling from centers should be modified to include samples from those areas where surface water would be expected to flow and accumulate.

3.7 Field Duplicates

Field duplicates should be collected at a rate of 10 percent (or a minimum of one). For arsenic, a discrete co-located sample should be collected and analyzed for every 10 arsenic samples collected. For OCPs where composite samples will be prepared and analyzed, every 10th

composite sample should be prepared (independently) in duplicate and analyzed. See Section 4.1 for a description on preparation of composite samples.

3.8 Requirements for Collection of Background Metal Samples

Consult with the DTSC project manager regarding the need for collecting background arsenic samples. In general, with the exception of arsenic, background samples for metals will not be necessary if all metals are below their respective California Human Health Screening Levels (CHHSLs). If all the arsenic results for the site are at or below 12 mg/kg, then collection of background samples will not be required. For sites where either arsenic or other metals are above their respective screening values, either collection of a background data set or use of an appropriate background data set may be required.

3.8.1 Sampling for Background Metals

If samples are needed to determine background levels of arsenic and/or other heavy metals (if additional metals are required for the PEA), a minimum of four onsite locations should be sampled at non-impacted areas, or samples may be collected at a depth of 5 to 5.5 feet bgs. In order to use background samples from 5 to 5.5 feet bgs, a licensed professional must make the determination that the background soils are similar enough geologically to the surface soils as to be representative.

Other background data sets may be substituted for on site sampling on a case by case basis in consultation with DTSC.

4.0 LABORATORY ANALYSES

4.1 Preparation of Composite Samples

Each discrete sample should be homogenized and uniformly split by trained field staff prior to compositing. A portion of each discrete sample should be frozen and archived in case additional analysis is warranted based on the composite results. Compositing requires that each discrete sample be the same in terms of volume or weight, and that the discrete sample be thoroughly homogenized prior to compositing. Excess sample from the homogenized composite sample shall be archived by the lab and/or used as a duplicate, as appropriate, for that composite set. The samples may be discarded when the PEA process has been completed and approved by the DTSC.

4.2 Methods

The analytes of primary concern are OCPs, arsenic, and, in some cases, Title 22 metals. Depending on the site history, analysis of other types of pesticides may be required. OCPs should be analyzed using U.S. EPA 8081A or equivalent. Metals must be analyzed using the U.S. EPA 6000/7000 series. If the site history indicates other classes of persistent pesticides should be evaluated, DTSC should be consulted for the acceptable method of analysis and appropriate detection limits. Highly organic topsoil may interfere with proper extraction of pesticides.

Sample holding times should be consistent with U.S. EPA SW-846. Variances to holding times and affects on data results must be discussed in the data validation section of the report.

Please note, for comparison of chlordane concentrations against the CHHSL, chlordane must be quantified against a ***technical chlordane*** standard. For purposes of the PEA, DTSC will not

allow quantitation of the individual alpha and gamma isomers, with a total concentration determined by addition of those concentrations.

4.3. Detection Limits

The actual detection limits obtained will vary depending on the particular analyte. For OCPs, the analytes typically causing detection limit concerns in agricultural fields are aldrin, dieldrin, and toxaphene. The detection limits should be 0.005 mg/kg for aldrin, dieldrin, and 0.05 mg/kg for toxaphene. Table 2 lists the detection limits for several OCPs.

In samples with elevated DDT, the detected concentration may be above the range of calibration. This can result in the analytical laboratory diluting the sample for reanalysis, and then reporting only the final result. In these cases, the reported detection limits for aldrin, dieldrin, and toxaphene may exceed the detection limits needed for determining potential health effects. Ideally the laboratory should be asked to report if those three analytes were detected in the first analysis prior to dilution. Multiple analyses of the same samples may be required to obtain the data necessary for risk assessment purposes.

Table 2. Analytical Methods and Detection Limits for Selected OCPs

Pesticide	Methods[2]	CAS No.[3]	DL[4] mg/kg
Aldrin	8081A	309-00-2	0.005
a-BHC	8081A	319-84-6	0.005
b-BHC	8081A	319-85-7	0.005
g-BHC (Lindane)	8081A	58-89-9	0.005
d-BHC	8081A	319-86-8	0.005
Total Chlordane[1]	8081A	57-74-9	0.05
DBCP[5]	8081A	96-12-8	0.01
DDD	8081A	72-54-8	0.05
DDE	8081A	72-55-9	0.05
DDT	8081A	50-29-3	0.05
Dieldrin	8081A	60-57-1	0.005
Endosulfan I	8081A	959-98-8	0.005
Endosulfan II	8081A	33213-65-9	0.005
Endosulfan sulfate	8081A	1031-07-8	0.005
Endrin	8081A	72-20-8	0.05
Endrin aldehyde	8081A	7421-93-4	0.05
Endrin ketone	8081A	53494-70-5	0.05
Heptachlor	8081A	76-44-8	0.05
Heptachlor epoxide	8081A	1024-57-3	0.005
Hexachlorobenzene (HCB)	8081A	118-74-1	0.3
Hexachlorocyclopentadiene	8081A	77-47-4	0.5
Methoxychlor	8081A	72-43-5	0.005
Toxaphene	8081A	8001-35-2	0.05

Notes:

1 = Report total Chlordane (based on a Technical Chlordane standard)
2 = Although other methods may be used to quantify OPCs, DTSC recommends the use of 8081A as the primary method of quantitation
3 = Chemical Abstract Service registry number
4 = Detection Limit recommended for risk assessment purposes
5 = If sampling for this compound is indicated, inclusion in the method must be requested in the workplan and/or QAPP

4.4 Pesticide Analyses

Surface samples, discrete or composite, must be analyzed for OCPs. Analysis for other classes of persistent pesticides may be required as indicated by the agricultural history of the site. If the composite sample result exceeds the health risk screening criteria (see Section 5.3), analyze each discrete sample that made up the composite sample.

4.5 Sub-surface sample analysis

In consultation with DTSC, analyses of sub-surface samples may be required if surface samples results exceed specified screening levels. This sampling may be a part of the PEA or included in a Supplemental Site Investigation. If subsurface samples were collected during the PEA sampling event, those samples may be taken off "hold" and analyzed by the laboratory. If subsurface samples were not collected during the PEA, a Supplemental Site Investigation Workplan or Technical Memorandum should be prepared identifying appropriate step-out (vertical and horizontal) sampling locations.

4.6 Quality Control

Quality control (QC) procedures specified in SW-846 must be followed. A matrix spike/matrix spike duplicate on one soil sample per batch of 20 samples must be performed to demonstrate that the targeted pesticide(s) can be recovered from the soil investigated. The laboratory data package must include a summary of the quality control sample results: blanks, matrix spike/ matrix spike duplicate, surrogate recoveries, laboratory control samples, etc., as specified by the method. The laboratory should provide a signed narrative stating whether the QC was met and listing any discrepancies. The consultant should perform a supplementary evaluation of the data, also referred to as data validation, and present the results of that evaluation in the PEA report. For an example of what to included in the data validation section, see the example data validation memorandum at the DTSC website:
http://www.dtsc.ca.gov/Schools/upload/Data_Validation.pdf

5.0 REPORTING

5.1 Format

The results of the sampling effort are to be reported in a PEA report as described in the DTSC PEA Guidance Manual.

5.1.1 Summary Tables

Include data tables in the PEA report to summarize the results of the investigation. Summary tables should include the analytes of interest, the reported concentrations or the reporting limit for non-detect results, and indicate whether a reported concentration exceeds its respective CHHSL screening level (if a CHHSL comparison is being conducted). In addition, for samples analyzed at multiple dilutions for purposes of reporting concentrations within calibration ranges (as described in Section 4.3), summary tables should either present the results for all of the dilution analyses indicating the appropriate result for each analyte, or a combined analysis indicating which results are being reported after a dilution. Sample results should also be flagged with appropriate qualifiers, where necessary, after data validation.

5.2 Evaluating Metals (Inorganic Elements) Data

Using a robust statistical procedure to determine if on-site metal concentrations are indicative of background conditions or the result of site-related activities can be problematic because of the limited number of background samples collected at any one site. Local site background may be used if the data is approved for use by the DTSC project manager and toxicologist. If DTSC

background levels are not available, then a defensible procedure for comparing on-site with background metals should be used. The DTSC project manager and DTSC toxicologist assigned to the project should be consulted on the most appropriate method of comparison.

5.2.1 Arsenic Evaluations

The DTSC Schools Program evaluated data from a large number of school sites across California. The data evaluation indicates that 12 mg/kg maybe a useful screening number for the Schools Program when evaluating arsenic as a COPC. If the proposed school property has been adequately characterized for arsenic and all the arsenic data are equal to or less than 12 mg/kg, then arsenic will be not be considered a COPC. This decision does not require collection and comparison to a background data set. If arsenic concentrations are greater than 12 mg/kg, then comparisons to background data will be required. In some cases additional sampling may also be required.

5.2.2 Strategy for Comparison of Background Metals

If background samples are necessary, follow the procedures provided in Section 3.8.
The following strategy may be used for comparing site data to background data:

1. Compare the highest site concentration with the highest background concentration. If the site concentration is equal to or less than the background, the metal may be eliminated as a COPC. If the onsite maximum is greater than the background maximum, go to 2).

2. Compare the site and background arithmetic mean concentrations. If the means are comparable, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If the site mean is greater than the maximum background, go to 3).

3. Two approaches may be used, depending on the size of the background data set.
   - If the background data set is of sufficient size, statistically evaluate the overlap of the background and onsite distributions to determine if they come from the same population. If they do, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If not, include the metal as a COPC in the risk evaluation.

   - If the background data set is limited (n=4), the onsite data can be evaluated statistically using probability plots to determine if one or more populations are present. If only one population is present, and if the highest site concentration is below the concentration associated with unacceptable risk or hazard, the metal may be eliminated as a COPC. If there are two or more populations present, then include the metal as a COPC.

4. Additional information on eliminating metals as COPCs can be found in "*Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities – Final Policy* (DTSC/HERD 1997),

5.3 Human Health Risk Assessment

All detected pesticides and any onsite metals above background should be evaluated as COPCs in a human health risk assessment as described in the DTSC PEA Guidance Manual or in comparison to CHHSLs. In the initial screening analysis, the highest

concentration of each detected pesticide and metal above background must be used as the exposure point concentration in the risk assessment.

Since agricultural properties are assumed to have uniform application of pesticides, DTSC has allowed compositing of samples for OCP analyses (Sections 3.3 and 4.1). The concentration from the composited sample can be used directly in the risk assessment without adjusting the toxicity screening numbers, such as the CHHSLs. The review of the former agricultural properties over the past seven years has supported the assumption of uniform application. This is in contrast to other DTSC guidance, such as the *Lead-Based Paint, Termiticide and PCB Guidance*, (DTSC, June, 2006), where adjustments to the CHHSLs are required for composite samples because applications were not necessarily uniform.

5.3.1 Application of PEA Risk Assessment Equations and CHHSLs

Chemicals of potential concern are evaluated either by comparison to the CHHSL, or by calculating the excess cancer risk and hazard index based on equations in the PEA Guidance.

Note: CHHSLs may not be used to "screen out" COPCs.

5.3.1.1 CHHSLs

CHHSLs are soil and/or soil gas concentrations for selected chemicals developed by Cal-EPA with a target threshold of a 1E-06 risk for carcinogens, and a hazard quotient of one for non-carcinogens. CHHSLs were developed using models and exposure assumptions similar to those used in the PEA Guidance Manual, with the exception of the concentrations for volatile organic compounds (VOCs), which were developed using the vapor intrusion model for addressing the inhalation of contaminated indoor air. CHHSLs may be used as a soil screening value at school sites if all of the chemicals detected at the site have a listed CHHSL, if it is agreed upon by all parties concerned, and if it is agreed that the screening document will be reviewed by a toxicologist from the Human and Ecological Risk Division. For school sites, only the residential-based CHHSLs may be used. The exposure pathways used in calculating the CHHSLs are incidental soil ingestion, dermal absorption, and inhalation of dusts in indoor air for non-volatile soil-bound chemicals, and the inhalation of indoor air pathway for VOCs. Direct exposures to VOCs are not included in the calculation of the CHHSLs and CHHSLs do not take into consideration the leaching of contaminants from soil to groundwater. CHHSLs are not appropriate if ecological receptors are the most sensitive species on the site. Lead should be evaluated using the most current DTSC LeadSpread Model or the school site lead screening level of 255 mg/kg.

5.3.1.2 Human Health Risk Assessment with CHHSLs

Independent of whether sites were analyzed with discrete samples or with composite samples, the evaluation is similar. Note that the CHHSL values are not adjusted for the number of discrete samples that comprise a composite. The rationale behind this comparison to un-adjusted CHHSL is that application of pesticides is assumed to be uniform throughout the field, and large variations in the pesticide concentrations are not expected. This rationale applies only to the agricultural portion, not to mixing areas, storage sites, structures, etc.

5.3.2 Procedure for Human Health Risk Assessment with CHHSL or PEA Guidance

- Determine that all of the chemicals detected at the site have the appropriate CHHSLs for soil and/or soil vapor. If they do not, then a PEA risk assessment must be conducted. A DTSC toxicologist will evaluate if the CHHSL screening is appropriate for the site

- The screening document, PEA or equivalent, will be reviewed by a toxicologist from the Human and Ecological Risk Division.

- The most recently published CHHSLs should be used. This may be found at: http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf.
- The exposure pathways at the site must match the exposure pathways used to develop the CHHSLs.
  Use the maximum concentration of each contaminant detected at the site and compare to unrestricted (residential) CHHSL or PEA risk calculations.
- Background metal concentrations can be used to screen metals as COPC. Construct a table listing the COPC (see Section 5.2.2 for discussion on background metals).
- The risk and hazard for each COPC should be calculated using the following equations:

$$\text{RISK} = \frac{[\text{maximum detected concentration}]}{\text{CHHSL}} \times 10^{-6}$$

$$\text{HQ} = \frac{[\text{maximum detected concentration}]}{\text{CHHSL}}$$

  - If there are multiple COPCs, calculate the cumulative risk and/or hazard. An Excel calculator is provided on the Cal/EPA website for CHHSLs: (http://www.calepa.ca.gov/Brownfields/documents/2005/Calculator.xls).
  - Complete a Risk Characterization Section where the total risk and hazard are presented and discussed along with the need for any further action.
  - If the maximum concentrations detected on site pose an unacceptable risk or hazard, a spatial analysis should be conducted to determine if the elevated levels represent a "hot spot", or are representative of concentrations across the site. In those cases where the elevated concentrations are determined to be one or more "hot spots", risk or concentration isopleths should be constructed to differentiate between those areas of the site in need of further action, and those where no further action is required. Any deviations from these analyses must be approved by the DTSC toxicologist assigned to the project.

Note: For evaluation of composite samples, the CHHSL values are not adjusted for the number of discrete samples that comprise a composite. The rationale behind this comparison to un-adjusted CHHSL is that application of pesticides is assumed to be uniform throughout the field, and large variations in the pesticide concentrations are not expected. Note that this rationale applies only to the agricultural portion, not to mixing areas, storage sites, structures, etc.

6.0 ADDITIONAL SOURCES OF INFORMATION

Pesticide Physical Properties and Half-Lives

http://ace.orst.edu/info/extoxnet/pips/ghindex.html
http://www.arsusda.gov/rsml/ppdb1.html

Active Pesticide Ingredient by Brand Name

http://www.cdpr.ca.gov/docs/label/prodnam.htm
http://www.cdpr.ca.gov/ - see databases
Farm Chemicals Handbook, current edition, Meister Publishing Company,

Willoughby, Ohio.

Maximum Application Rates

http://ace.orst.edu/info/extoxnet/
Agricultural Chemicals – Thomas Publications, Fresno, CA

Pesticide Usage by Year, County, and Crop

http://www.ipm.ucdavis.edu/PUSE/puse1.html
http://www.cdpr.ca.gov/ - see databases

Composite Sampling

http://www.clu-in.org/download/char/SF_Rep_Samp_Guid_soil.pdf
U.S.EPA. 1995a. *Superfund Program Representative Sampling Guidance, Volume 1: Soil, Interim Final,* OSWER Directive 9360.4-10, EPA 540/R-95/141, PB96-963207. Environmental Response Team, Office of Emergency and Remedial Response, Office of Solid Waste and Emergency Response. December 1995, Page 28.

http://clu-in.org/download/stats/composite.pdf
U.S.EPA. 1995b. *EPA Observational Economy Series, Volume 1: Composite Sampling*, EPA-230-R-95-005. Policy, Planning, and Evaluation (2163). August 1995.

Test Methods

http://www.epa.gov/epaoswer/hazwaste/test/
SW-846: U.S. EPA, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, Current Revision*

Pesticide Toxicology Information

http://ace.orst.edu/info/extoxnet/ghindex.html
http://www.state.nj.us/health/eoh/rtkweb/rtkhsfs.htm

CHHSLs

http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf
http://www.calepa.ca.gov/Brownfields/documents/2005/Calculator.xls

Acronym List

bgs	Below Ground Surface
CalEPA	California Environmental Protection Agency
CHHSL	California Human Health Screening Levels
COPC(s)	Chemicals of Potential Concern
DBCP	Dibromochloropropane
DTSC	Department of Toxic Substances Control
NFA	No Further Action
OCP(s)	Organochlorine Pesticides
PAH	Polyaromatic Hydrocarbon
PEA	Preliminary Endangerment Assessment
QC	Quality Control
TPH	Total Petroleum Hydrocarbon
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

NAPA COUNTY

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

1195 THIRD STREET, ROOM 101 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471

TRENT CAVE, R.E.H.S.
Director

August 20, 1998

Mr. Raymond Medeiros
289 Napa Junction Road
American Canyon, CA 94589

Subject: **Underground Storage Tank Case**
MEDEIROS PROPERTY
289 Napa Junction Road, American Canyon, California
Napa County Site LOP-670

Dear Mr. Medeiros:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721 (e) of Title 23 of the California Code of Regulations.

Please contact our office (707/253-4471) if you have any questions regarding this matter.

Sincerely,

Trent Cave,
Director, Napa County Department of Environmental Management

cc: Dave Deaner, UST Cleanup Fund, SWRCB, P.O. Box 944212, Sacramento, CA 94244-2120
cc: Abdul Karim Yusfzai, SFBRWQCB, 2101 Webster St, Ste 500, Oakland, CA 94612

6004



17-Plex
Color Scheme #3

12-Plex
Color Scheme #2

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

May 04, 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2
Enlarged Site Plan | Parcel A SP3
Enlarged Site Plan | Parcel B.....SP4

ARCHITECTURE

Recreation Building: Floor Plan | Parcel A.....A1
Recreation Building: Elevations | Parcel A A2
Recreation Building: Floor Plan | Parcel B.....A3
Recreation Building: Elevations | Parcel B A4

12 Plex | Building Plan.....A5
12 Plex | Building Plan.....A6
12 Plex | Building Elevations.....A7

17 Plex | Building Plan.....A8
17 Plex | Building Plan.....A9
17 Plex | Building Elevations.....A10

Unit Plans | Plan 1.....A11
Unit Plans | Plan 1X.....A12
Unit Plans | Plan 2.....A13
Unit Plans | Plan 3.....A14
Unit Plans | Plan 4.....A15
Unit Plans | Plan 5.....A16
Unit Plans | Plan 6.....A17

Trash Enclosure & Carport Sample A18
Exterior Color & Materials | Lighting Fixture.....A19

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

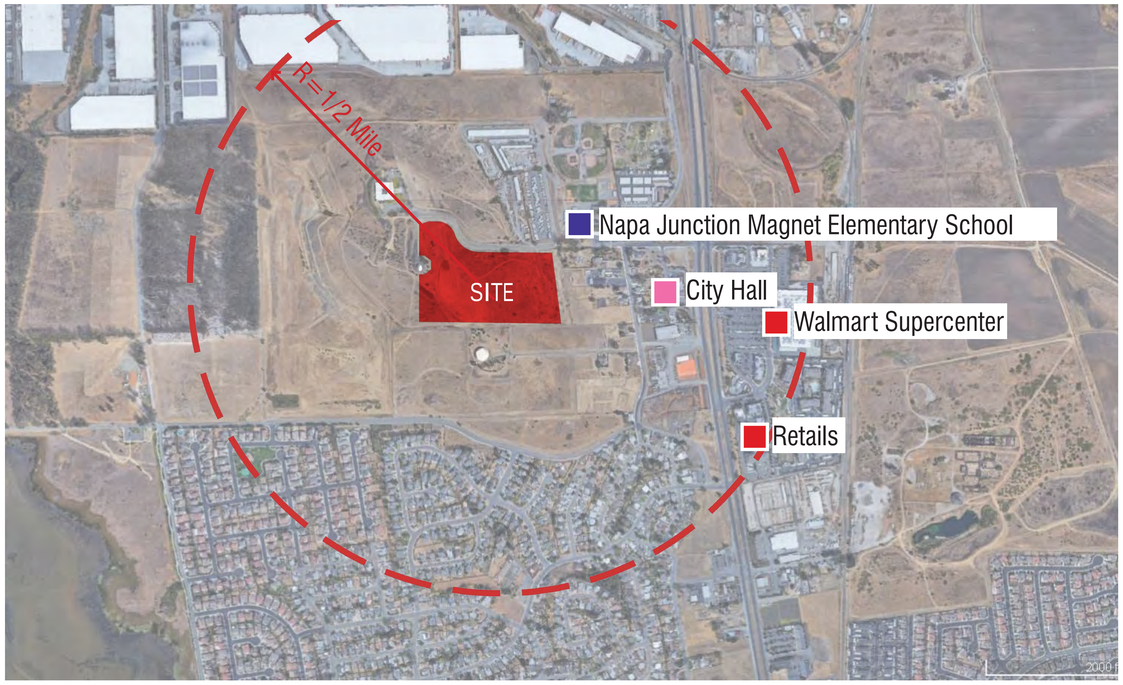
6005



BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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ORANGE COUNTY . LOS ANGELES . BAY AREA



Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP2

0 20 40 80

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6007



Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

ENLARGED SITE PLAN - PARCEL A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP3

0 15 30 60

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6008



Project Summary

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

ENLARGED SITE PLAN - PARCEL B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

SP4

0 15 30 60

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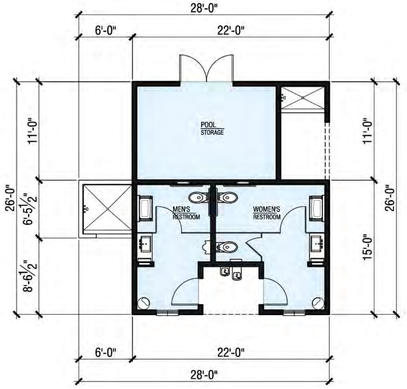
6009

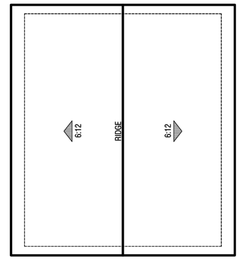
PLAN KEY: Pool Building

611 SF



Pool Building Floor Plan: Parcel A

611 SF Total



Pool Building Roof Plan: Parcel A

Recreation Building Floor Plan: Parcel A

3,335 SF Total

Recreation Building Roof Plan: Parcel A

PLAN KEY: Recreation Building

- Conditioned Space: 3,335 SF
- Entry Porch: 96 SF
- Covered Patio & Porch: 1,175 SF
- Covered Outdoor Fitness: 384 SF

RECREATION BUILDING FLOOR PLAN | Parcel A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A1

0 4 8 16

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6010



Recreation Building Right



Pool Building Right

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem
9. Fiber Cement Louvered Panels
10. Shower Enclosure



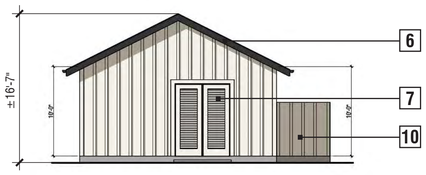
Recreation Building Left



Pool Building Left



Recreation Building Rear



Pool Building Rear



Recreation Building Front



Pool Building Front

RECREATION BUILDING ELEVATIONS | Parcel A

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A2

0 4 8 16

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PLAN KEY: Recreation Building

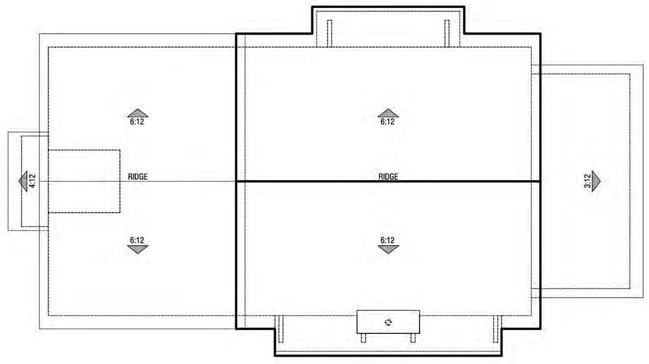
Conditioned Space: 1,842 SF

Entry Porch: 56 SF



Recreation Building Floor Plan: Parcel B

1,842 SF Total



Recreation Building Roof Plan: Parcel B

RECREATION BUILDING FLOOR PLAN | Parcel B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A3

0 4 8 16

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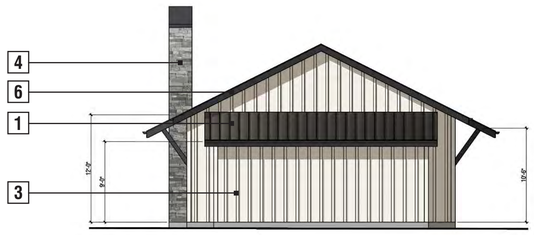
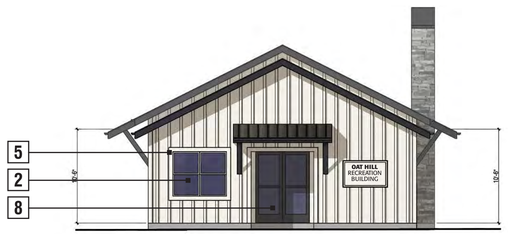
6012



Recreation Building Right



Recreation Building Rear



Recreation Building Left



Recreation Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem

RECREATION BUILDING ELEVATIONS | Parcel B

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A4

0 4 8 16

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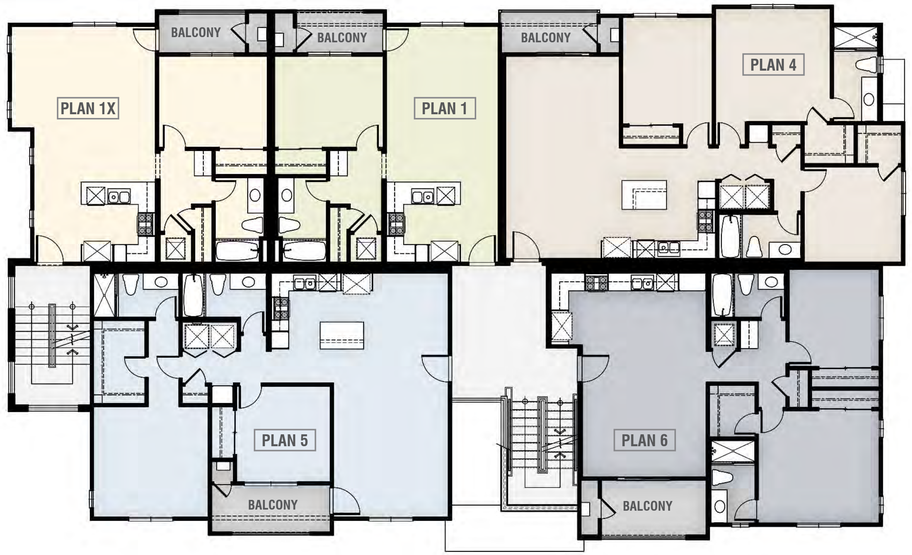
6013



Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A5

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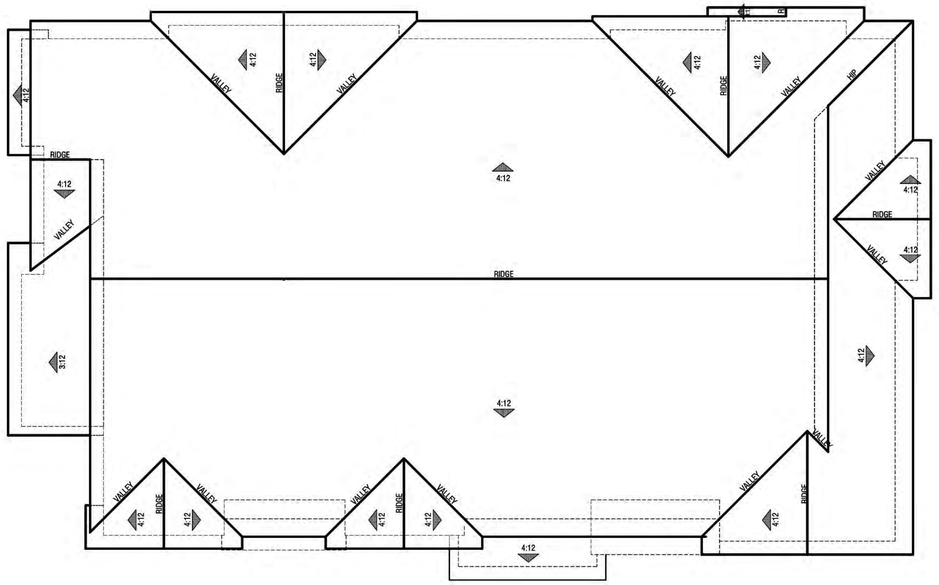
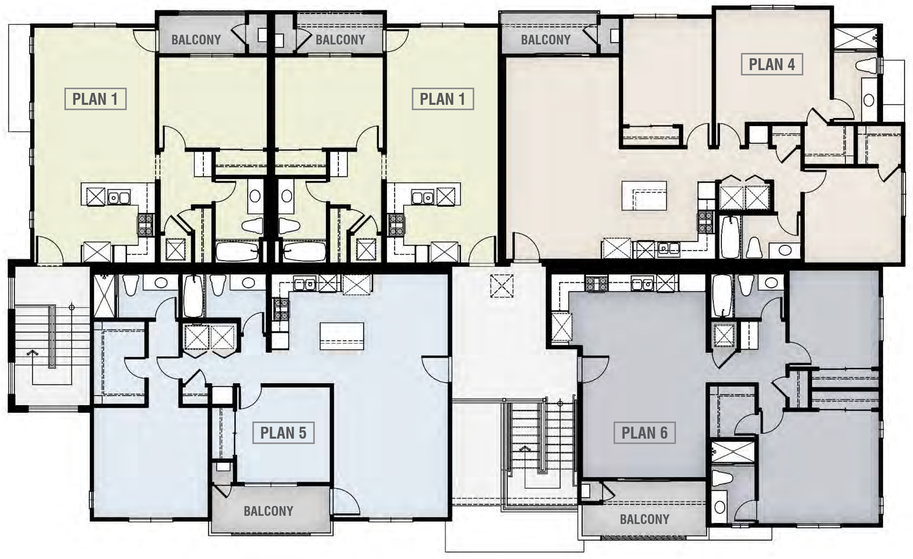


Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A6

0 4 8 16

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #2

1. Concrete Slate Roofing - *Eagle, Sierra Madre*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A19

12-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A7

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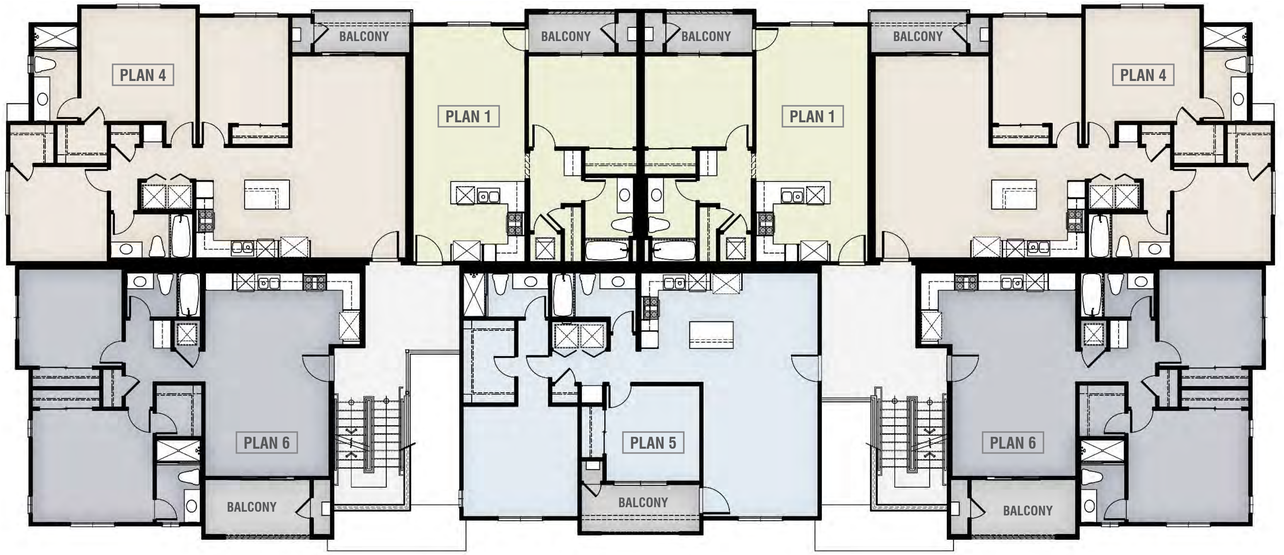

Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

RH HESS DEVELOPMENT

A8

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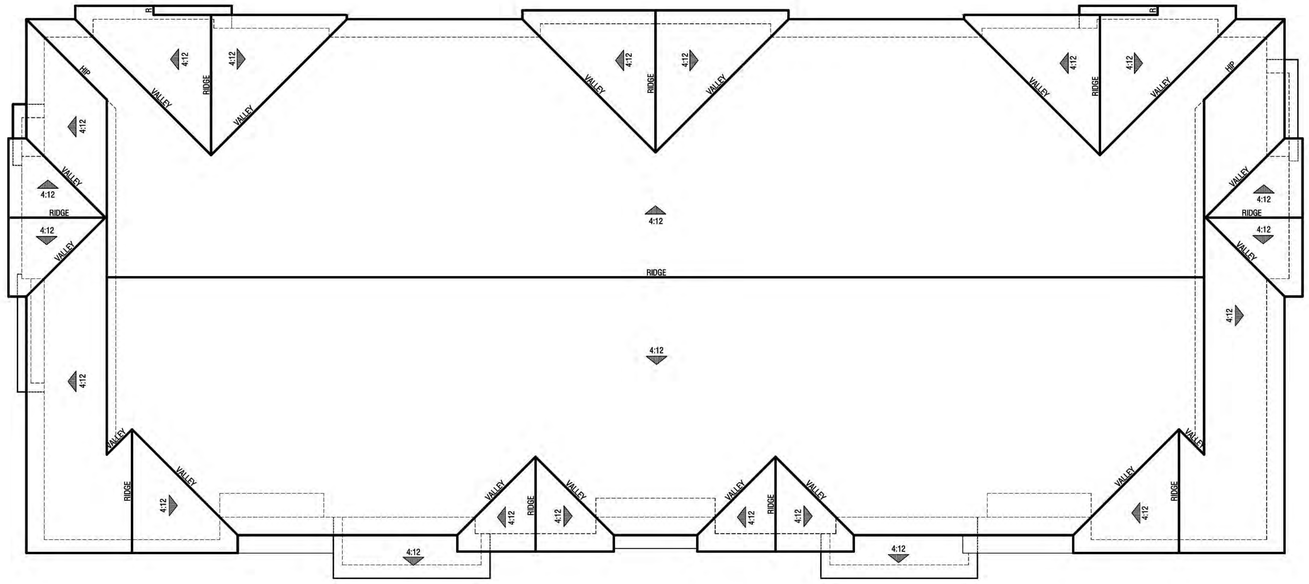

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

A9

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A19

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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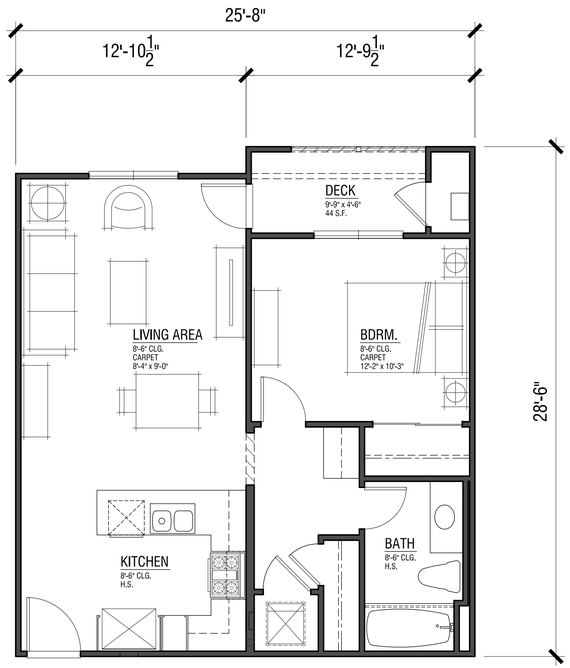

Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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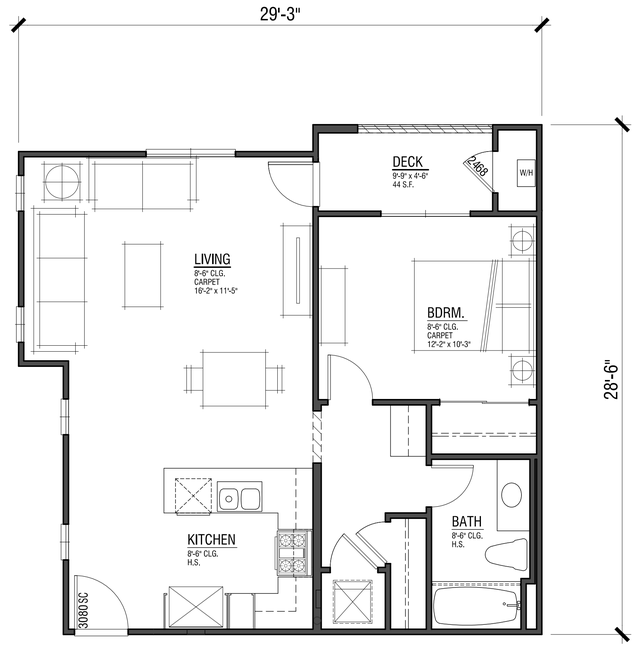

Plan 1X

672 SF

1 Bdrm | 1 Bath

UNIT PLANS| Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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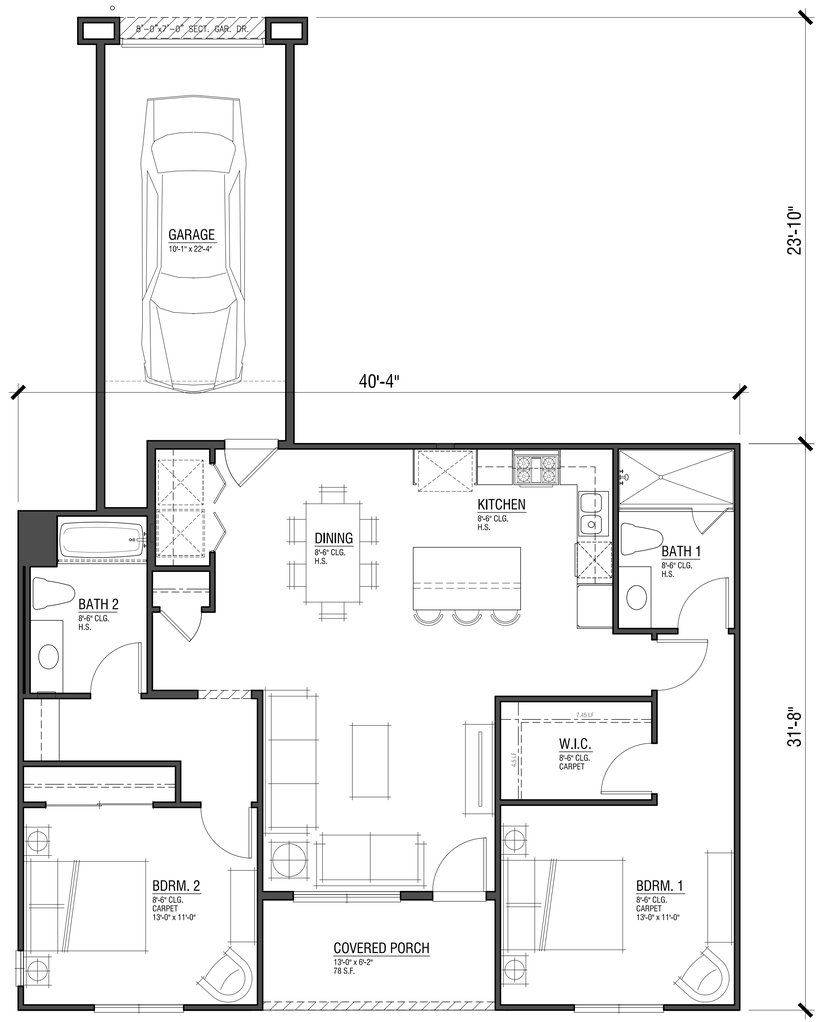

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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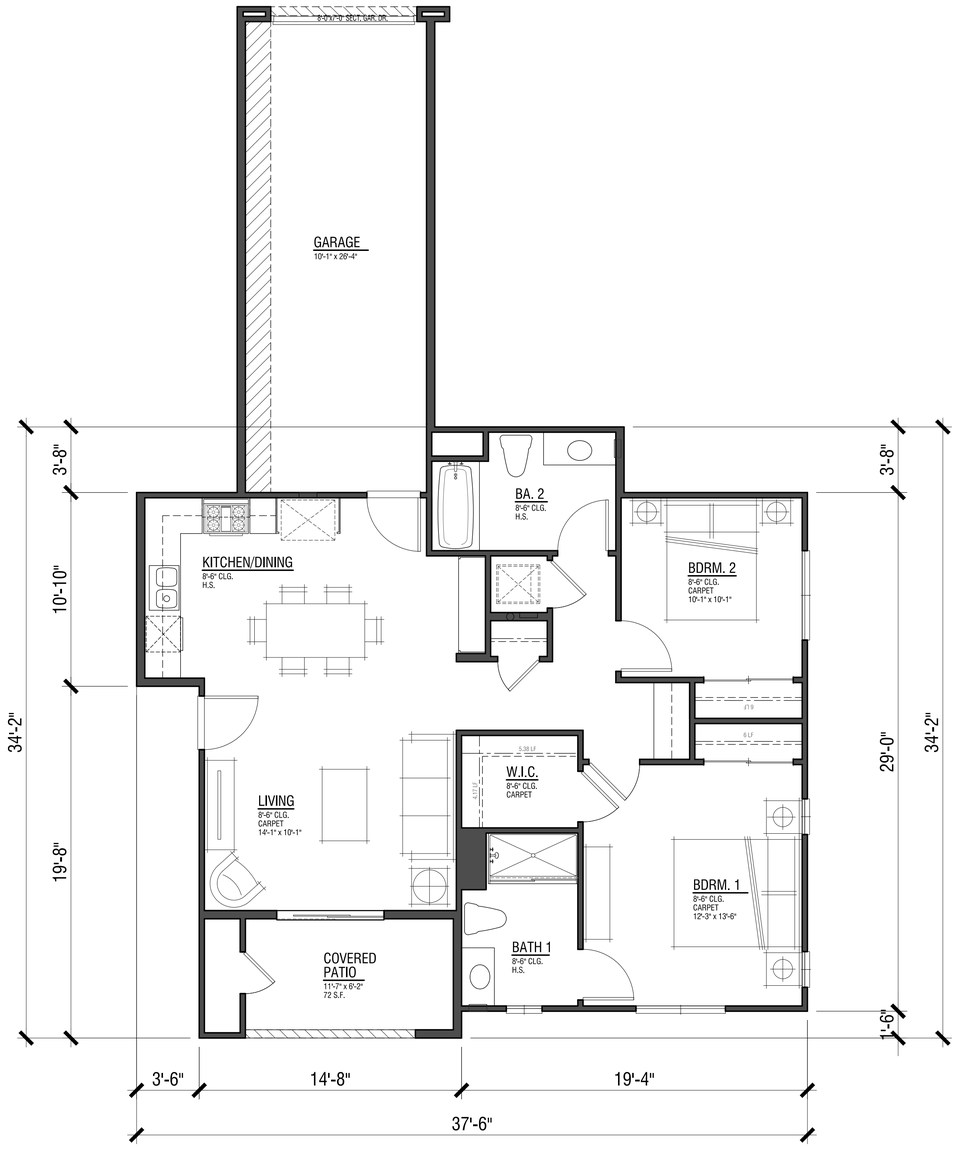

Plan 3

932 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

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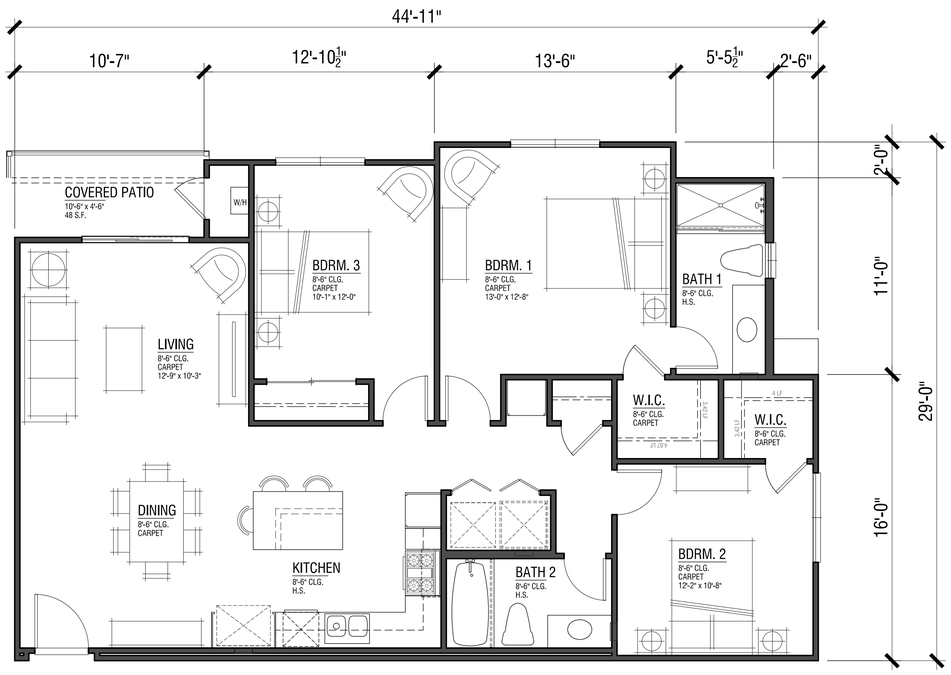

Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

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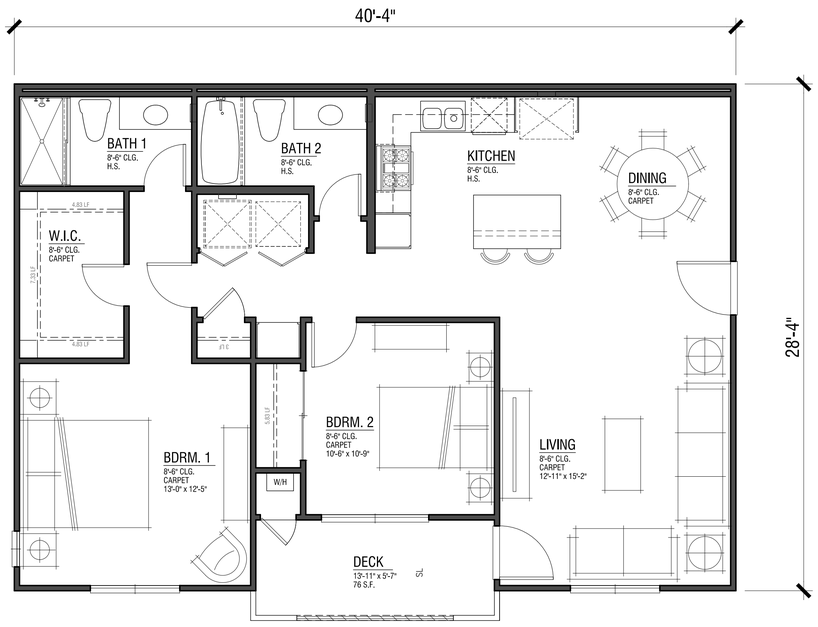

Plan 5

1,024 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

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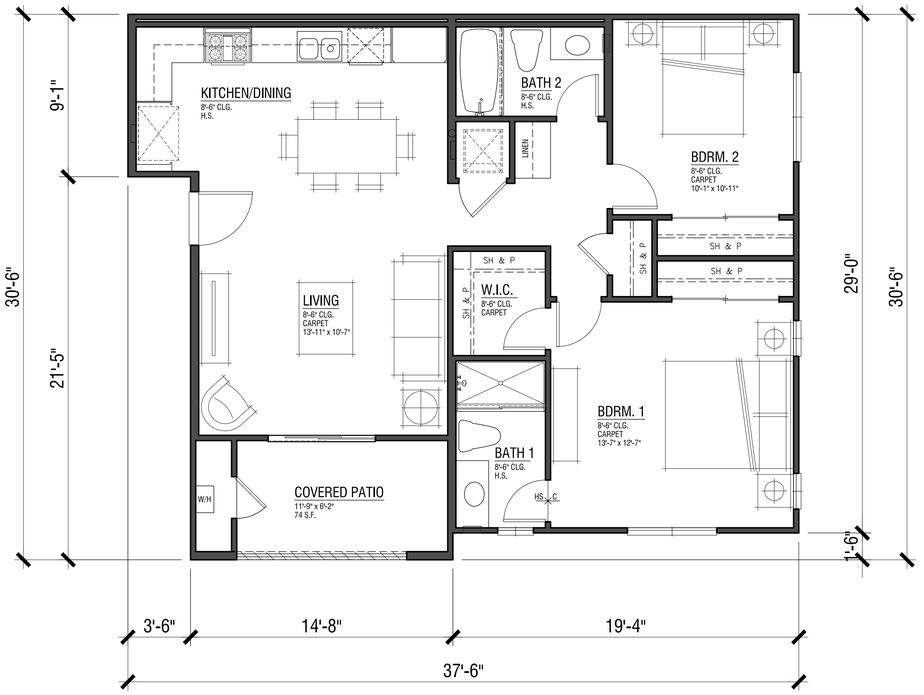

Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 6

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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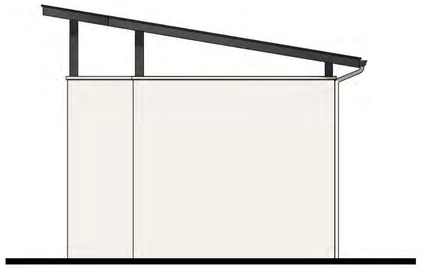
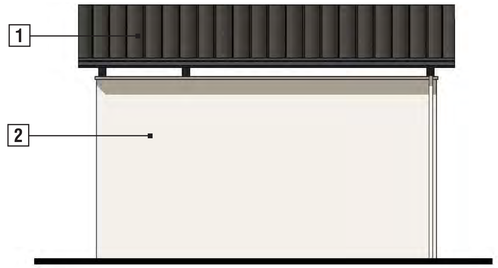
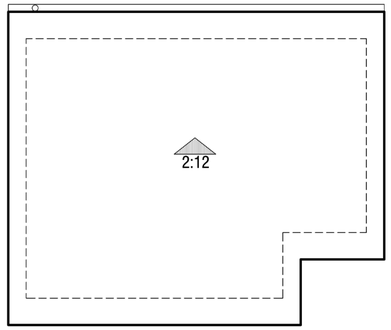


Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Roof Plan



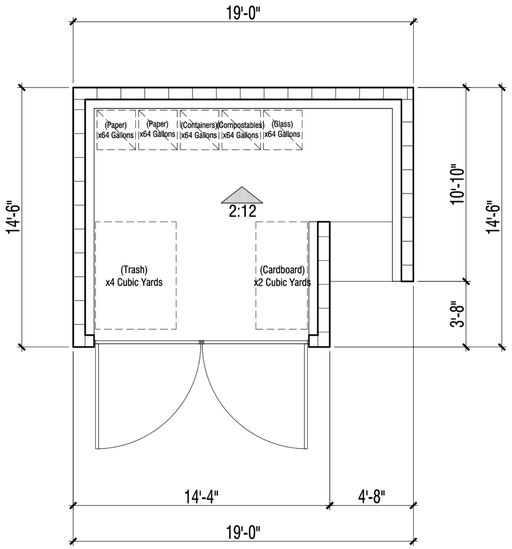
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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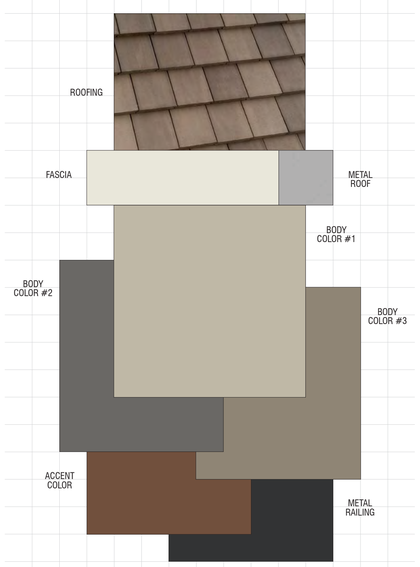
Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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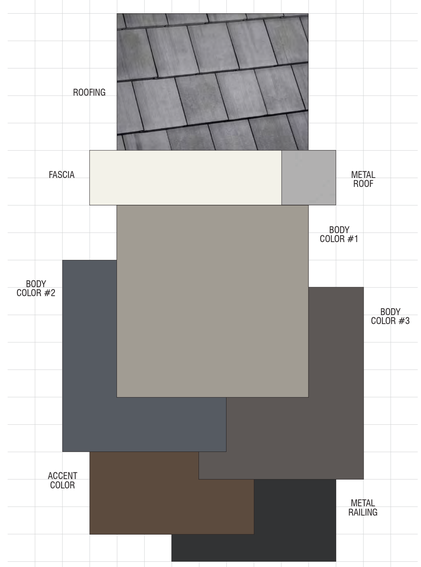
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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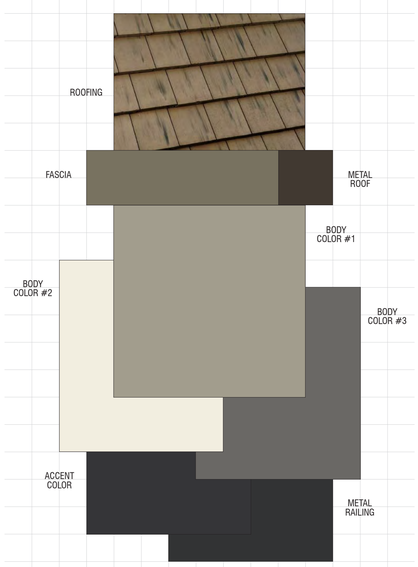
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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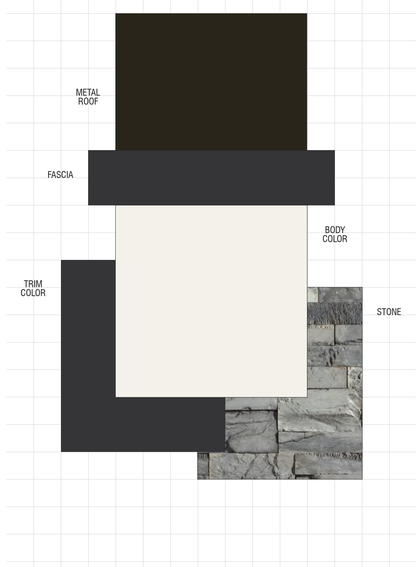
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to):* Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY SITE

AMERICAN CANYON, CALIFORNIA

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APPENDIX I

QUALIFICATIONS

Michael Audibert, REPA – Associate Consultant

Education:

Master's, Public Administration, San Francisco State University, 2000
BS, Business Administration, University of Vermont, 1992

Training/Licenses/Registrations:

ASTM Phase I Environmental Site Assessments (ESAs)
Phase II ESAs (ASTM E 1527 & ASTM E 1903) Training, 2003 and 2006
AHERA Accredited Asbestos Inspector #30950, 2011
Lead-Related Construction Sampling Technician #23886, 2012
EDR Vapor Intrusion Assessment (VI) Training, 2008
Certified Mold Inspector (CMI) (Environmental Solutions Association), 2005

Summary of Professional Experience:

Mr. Audibert has been conducting Phase I and II Environmental Site Assessments (ESAs) of commercial, industrial, and multi-family residential properties throughout the United States since 2001. He has also managed regulatory compliance evaluation programs on a nationwide basis. With a background in business management and public administration, Mr. Audibert brought these skills into the environmental due diligence and health & safety arenas with strengths in project management, real estate transaction due diligence, and public sector agency correspondence. Mr. Audibert also has extensive experience managing various industrial hygiene projects, including asbestos surveys, mold assessments, radon testing, lead-based paint testing, lead-in drinking-water testing, and other indoor air quality assessments. In addition, Mr. Audibert has completed multiple Phase I ESA's for Fannie Mae, Freddie Mac, and HUD projects.

Select Project Experience for Mr. Audibert includes:

- Former Steel Foundry, Oakland, CA - Mr. Audibert performed a Phase I ESA for a former steel and brass foundry to be converted into live/work loft apartments. The City of Oakland required that a comprehensive Phase I ESA be conducted for this property for foundry closure purposes. This project involved extensive agency and historical research, as well as determining what areas of the former foundry would be considered "at risk zones" for subsurface contamination.
- Gasoline Service Station Portfolio, CA - Mr. Audibert has performed Phase I ESAs for existing gas stations developed on the sites of former gas stations, as well as several historical and current leaking underground storage tank (LUST) sites, which involve an extensive historical use investigation and agency records review to determine the status of current and past underground storage tanks (USTs).
- Former Union Hall, San Francisco, CA – Mr. Audibert performed a Phase I ESA for a former union hall to be developed into a high rise cosmopolitan apartment building. Because of the age of the buildings to be demolished, a comprehensive asbestos survey and ensuing operations and maintenance program for removal and disposal of asbestos was recommended and implemented.
- Former Printers, San Francisco, CA – Mr. Audibert performed a Phase I ESA for a former printing operation. The property had a long history of high-risk uses, including various manufacturing, automobile repair, and printing operations. A comprehensive agency records investigation and review was conducted.

Katie Hindt – Client Manager

B.A. – Environmental Studies, University of California, Santa Cruz

Registered Environmental Property Assessor (REPA) #528528

Ms. Hindt has over 10 years of experience in the environmental service industry and provides project management to ensure ASTM compliance and satisfaction of client requirements for Phase 1 Environmental Site Assessments, Environmental Transaction Screens, Environmental Transaction Analyses, Records Research with Risk Assessments, Regulatory Database Reviews and Historical Records Reviews. She has completed assessments on a variety of residential, agricultural, commercial and industrial sites. Ms. Hindt is familiar with all aspects of Due Diligence Property Assessments and the requirements of many reporting standards including, ASTM, AAI, HUD and client-specific formats.

Project experience for Ms. Hindt includes:

- Phase 1 Environmental Site Assessments (Phase 1 ESA)
- Environmental Transaction Screens (ETS)
- Environmental Transaction Analyses (ETA)
- Records Search with Risk Assessment (RSRA)
- Regulatory Database Reviews
- Historical Records Reviews
- Project Coordination and Setup

As a Client Manager, Ms. Hindt provides senior author services and client management. Additional responsibilities include managing projects and staff mentorship.

In addition, prior to joining the environmental service industry, Ms. Hindt spent four years studying a broad range of environmental disciplines including: National environmental law, policy and economics, restoration ecology, California environmental history and California freshwater policy/issues.

APPENDIX J

LIST OF COMMONLY USED ABBREVIATIONS

UNITS

µg/L	Micrograms per Liter	**pCi/L**	PicoCuries per Liter
mg/kg	Milligrams per Kilogram	**ppb**	Parts per Billion
mg/L	Milligrams per Liter	**ppm**	Parts per Million

ABBREVIATIONS AND ACRONYMS

ACM	Asbestos-Containing Material	**NESHAP**	National Emission Standards for Hazardous Air Pollutants
ADJ	Adjacent site	**NFA**	No Further Action
AEI	AEI Consultants	**NFRAP**	No Further Remedial Action Planned
AHERA	Asbestos Hazard Emergency Response Act	**NLR**	No Longer Reporting
APN	Assessor's Parcel Number	**NOV**	Notice of Violation
AST	Aboveground Storage Tank	**NPL**	National Priorities List
AUL	Activity and Use Limitation	**O&M**	Operations and Maintenance
bgs	Below Ground Surface	**OEC**	Other Environmental Considerations
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes	**OSHA**	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	**PCB**	Polychlorinated Biphenyl
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System	**PCE, PERC**	Perchloroethylene, Tetrachloroethylene, Tetrachloroethene
CESQGs	Conditionally Exempt Small Quantity Generators	**RCRA**	Resource Conservation and Recovery Act
COC	Contaminant of Concern	**REC**	Recognized Environmental Condition
CREC	Controlled Recognized Environmental Condition	**RP**	Responsible Party
EC	Engineering Controls	**SDS**	Safety Data Sheet
EDR	Environmental Data Resources, Inc.	**SEMS**	Superfund Enterprise Management System
EPA	Environmental Protection Agency	**SF**	Square Footage/Square Feet
ERIS	Environmental Risk Information Services	**SP**	Subject Property
ERNS	Emergency Response Notification System	**SQG**	Small Quantity Generator
ESA	Environmental Site Assessment	**SWLF**	Solid Waste Landfill
GPR	Ground-Penetrating Radar	**SVOC**	Semi-Volatile Organic Compound
HREC	Historical Recognized Environmental Condition	**TCE**	Trichloroethylene, Trichloroethene
HVAC	Heating, Ventilation and Air Conditioning	**TPH**	Total Petroleum Hydrocarbons
HWS	Hazardous Waste Site	**TPHd**	Total Petroleum Hydrocarbons (diesel range)
IC	Institutional Controls	**TPHg**	Total Petroleum Hydrocarbons (gasoline range)
LBP	Lead-Based Paint	**TPHo**	Total Petroleum Hydrocarbons (oil range)
LCP	Lead-Containing Paint	**TRPH**	Total Recoverable Petroleum Hydrocarbons
LLP	Landowner Liability Protection	**TSDF**	Treatment, Storage, and Disposal Facility
LQG	Large Quantity Generator	**USDA**	United States Department of Agriculture
LUST	Leaking Underground Storage Tank	**USGS**	United States Geological Survey
MCL	Maximum Contaminant Level	**UST**	Underground Storage Tank
MTBE	Methyl Tertiary Butyl Ether	**VCP**	Voluntary Cleanup Program
ND	None Detected	**VOC**	Volatile Organic Compound

APPENDIX F

ENVIRONMENTAL NOISE ASSESSMENT

Environmental Noise Assessment

Oat Hill Apartments

City of American Canyon, California

September 10, 2020

Project #200705

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INTRODUCTION

The Oat Hill Apartments residential project is located along the south of Napa Junction Road and west of Highway 29 in the City of American Canyon, California. The project consists of the construction of 17 separate buildings on two combined parcels containing 291 residential units.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.



Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information.
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to

Oat Hill Apartments
City of American Canyon, California

Figure 1
Project Site Plan

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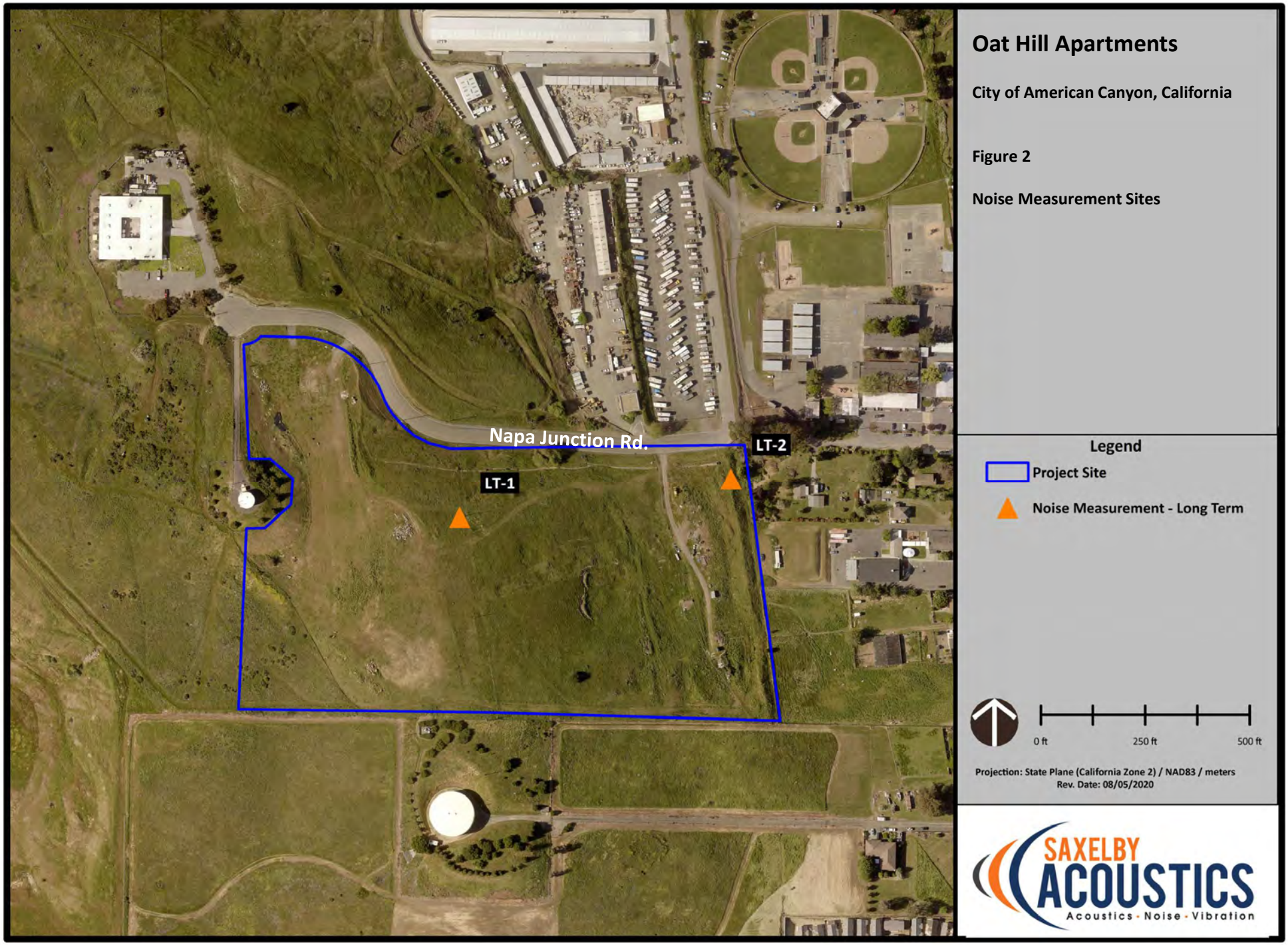

Oat Hill Apartments

City of American Canyon, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term

0 ft 250 ft 500 ft

Projection: State Plane (California Zone 2) / NAD83 / meters
Rev. Date: 08/05/2020

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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses and Calvary Baptist Church located east of the project site and Napa Junction Magnet Elementary School located northeast of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

The existing noise environment in the project area is primarily defined by traffic on the Napa Vallejo Highway (Highway 29). Other noise sources include airplane flyovers to and from the Napa County Airport, transportation noise from the Union Pacific Rail Road line to the north of the project, and operational noise originating from a lumber processing facility to the southwest.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at two locations on the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 812 and 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a B&K Model 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	Northeastern Corner of Project Site	8/5/20 to 8/6/20	55	51	49	64	48	46	60
LT-2	Western Corner of Project Site	8/5/20 to 8/6/20	55	49	47	66	48	46	61

Notes:
- All values shown in dBA
- Daytime hours: 7:00 a.m. to 10:00 p.m.
- Nighttime Hours: 10:00 p.m. to 7:00 a.m.
- Source: Saxelby Acoustics 2020

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

Off-Site Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for existing and future, project and no-project conditions.

Existing and Future noise levels due to traffic are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (W-Trans), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing and Future conditions which would result from the project are provided in terms of L_{dn}.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may not receive full shielding from noise barriers, or may be located at distances which vary from the assumed calculation distance.

Table 3 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3: PREDICTED TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Existing No Project	Existing + Project	Change	Future No Project	Future + Project	Change
Napa Junction Rd.	West of Theresa Ave.	47.3	52.2	4.9	47.8	52.4	4.6
Theresa Ave.	South of Napa Junction Rd.	60.2	60.5	0.3	60.7	61.0	0.3
Napa Junction Rd.	East of Theresa Ave.	60.6	61.1	0.5	61.1	61.6	0.4
Theresa Ave.	North of Eucalyptus Dr.	62.5	62.8	0.3	63.1	63.4	0.3

Note: All noise levels are predicted at closest sensitive receptors in terms of dBA, L_{dn}.

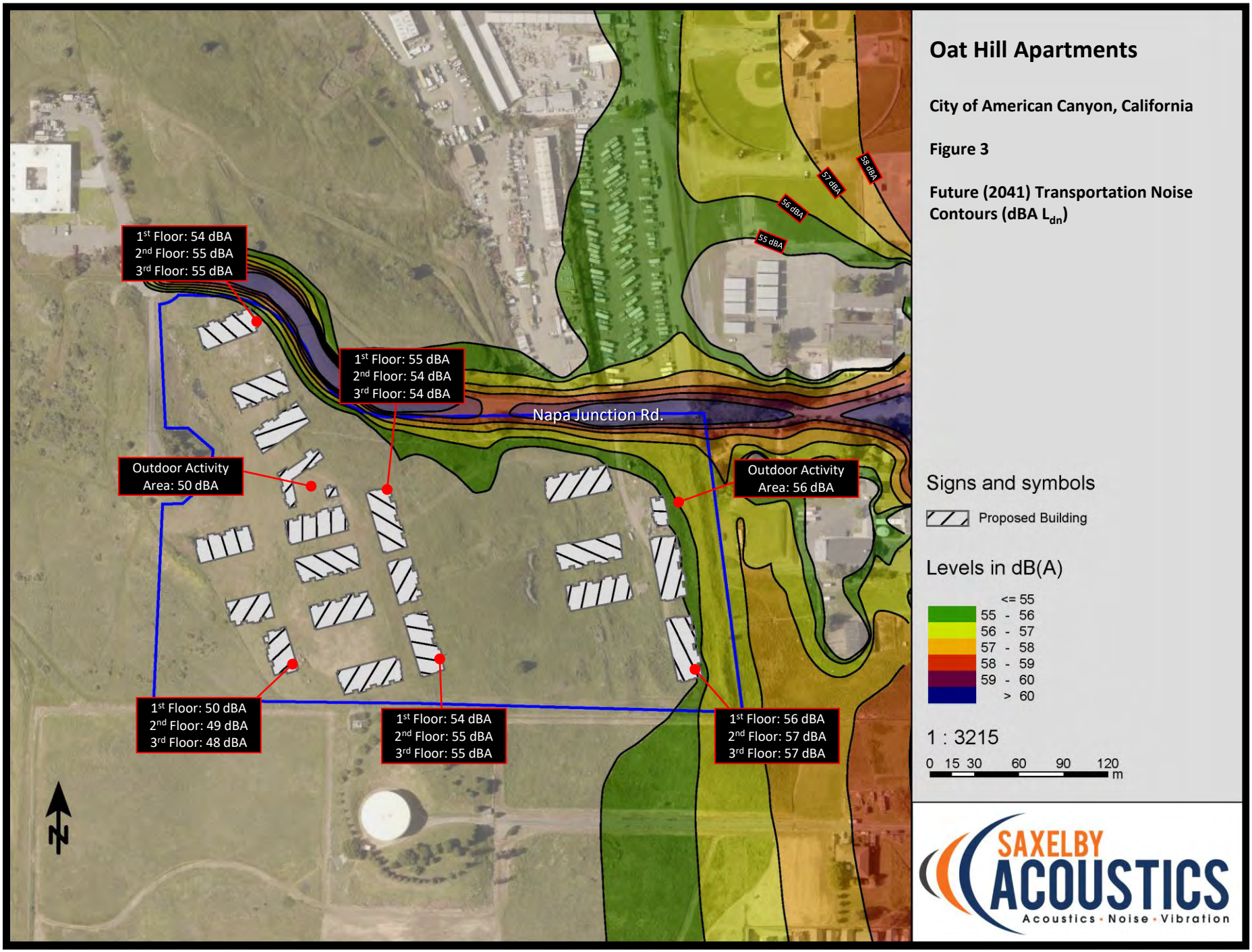
EVALUATION OF TRANSPORTATION NOISE SOURCES ON THE PROJECT SITE

On-Site Transportation Noise Prediction Methodology

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed residential uses due to traffic on Highway 29 and Napa Junction Road. The proposed project buildings and surrounding structures were input into the SoundPLAN model to determine the traffic noise exposure on the project site. Future (2041) traffic noise levels for Highway 29 were calculated by assuming a 1% per year increase in traffic volumes. Future traffic noise levels for Napa Junction Road were calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The results of this analysis are shown graphically on **Figure 3**.

NAPA COUNTY AIRPORT NOISE

The Napa County Airport is located approximately 1.8 miles west of the project site and aircraft overflights were observed during visits to the project site. **Figure 4** shows the noise contours for the airport as published in the City of American Canyon General Plan.


1st Floor: 54 dBA
2nd Floor: 55 dBA
3rd Floor: 55 dBA
1st Floor: 55 dBA
2nd Floor: 54 dBA
3rd Floor: 54 dBA
Napa Junction Rd.
Outdoor Activity Area: 50 dBA
Outdoor Activity Area: 56 dBA
1st Floor: 50 dBA
2nd Floor: 49 dBA
3rd Floor: 48 dBA
1st Floor: 54 dBA
2nd Floor: 55 dBA
3rd Floor: 55 dBA
1st Floor: 56 dBA
2nd Floor: 57 dBA
3rd Floor: 57 dBA
55 dBA
56 dBA
57 dBA
58 dBA
N
Oat Hill Apartments
City of American Canyon, California
Figure 3
Future (2041) Transportation Noise Contours (dBA L_{dn})
Signs and symbols
Proposed Building
Levels in dB(A)
<= 55
55 - 56
56 - 57
57 - 58
58 - 59
59 - 60
> 60
1 : 3215
0 15 30 60 90 120
m
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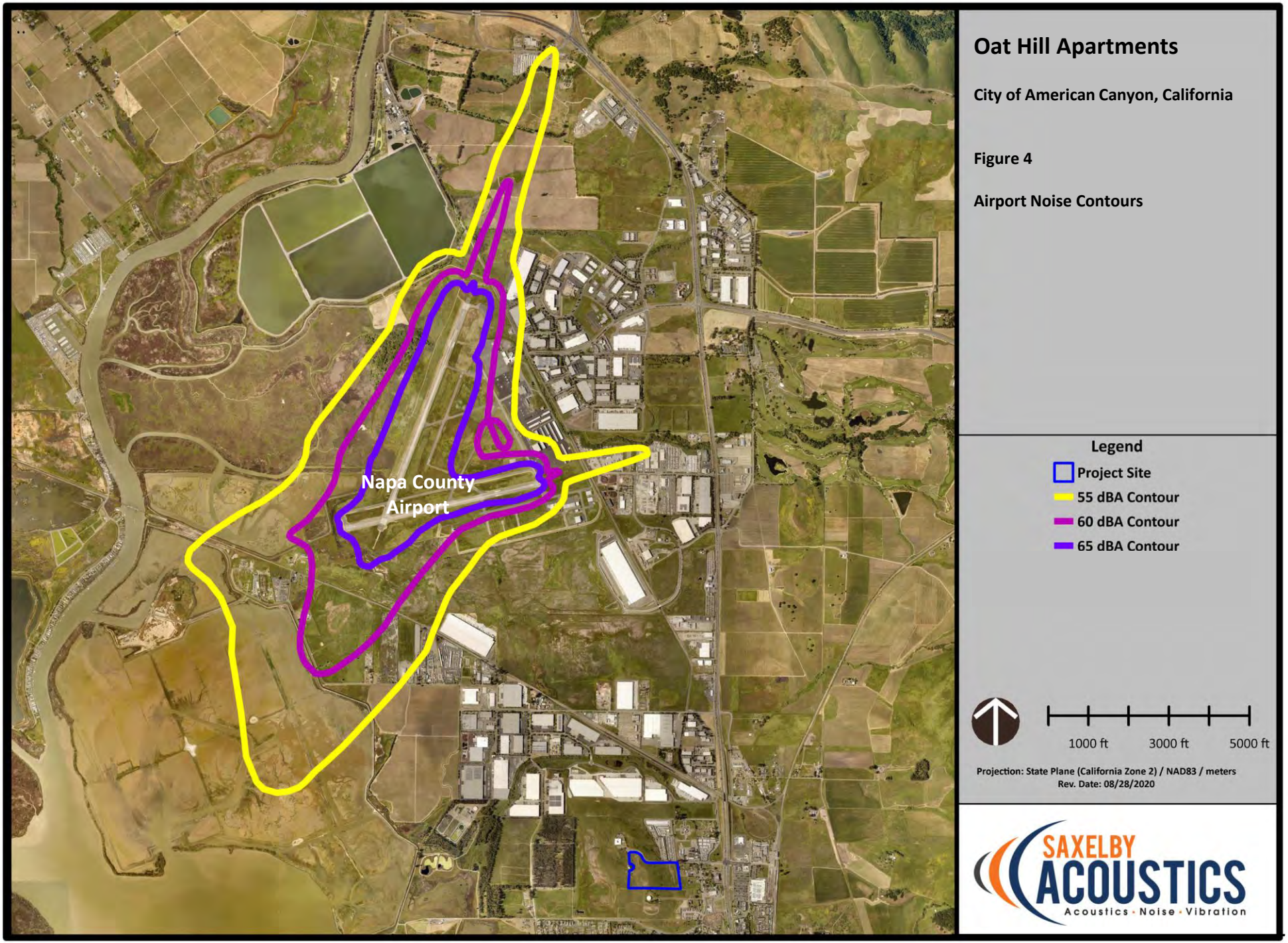

Oat Hill Apartments

City of American Canyon, California

Figure 4

Airport Noise Contours

Legend

- Project Site
- 55 dBA Contour
- 60 dBA Contour
- 65 dBA Contour

1000 ft 3000 ft 5000 ft

Projection: State Plane (California Zone 2) / NAD83 / meters
Rev. Date: 08/28/2020

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CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 4: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **TABLE 5** shows the typical vibration levels produced by construction equipment.

TABLE 5: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

LOCAL

City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to noise that are applicable to the proposed project:

- **Goal 11:** Ensure that American Canyon's existing and future residents, employees and employers, as well as visitors to the City, are protected from the adverse human health and environmental impacts of excessive noise levels created by stationary and ambient (intrusive) noise sources and conditions. Take all necessary and appropriate action to avoid or mitigate the detrimental effects of such excessive noise on the community.
- **Objective 11.1:** Control both ambient and stationary (intrusive) noise conditions and impacts that may occur in American Canyon. Maintain base line information regarding ambient and stationary noise sources within the community.
- **Policy 11.1.1:** Promote noise-compatible land use relationships by implementing the noise standards identified in Figure 11-2 [of the General Plan], to be utilized for design purposes in new development and for establishing a program to attenuate existing noise problems.
- **Policy 11.1.2:** Monitor and update available data regarding the community's ambient and stationary noise levels.
- **Objective 11.2:** Protect residents, employees, and visitors to the community from

excessive noise exposure. If possible, mitigate the adverse impacts of existing or unavoidable excessive noise on these same groups.

- **Policy 11.2.1:** Require that new development for locations in which the exterior or interior noise levels indicated in Figure 11-2 [of the General Plan] are likely to be exceeded, submit a noise attenuation study prepared by a qualified acoustical engineer in order to determine appropriate mitigation measures.
- **Policy 11.2.4:** Require that new industrial, commercial and related land uses, or the expansion of these existing land uses, demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65 dB(A) in areas containing housing, schools, health care facilities, or other "noise-sensitive" land uses. Additionally, require that potentially significant noise generators, including uses such as night clubs that cause sporadic noise intensities, submit noise analyses prepared by an acoustical expert that include specific recommendations for mitigation when: a) the project is located in close proximity to noise-sensitive land uses or land that is planned for noise-sensitive land uses, or b) the proposed noise source could violate the noise provisions of the General Plan or City Noise ordinance.
- **Objective 11.3:** Minimize the adverse impacts of traffic-generated noise on residential and other "noise-sensitive" uses as depicted on Figure 11-5 [of the General Plan].
- **Policy 11.3.1:** Minimize motor vehicle noise impacts from streets and highways through proper route location and sensitive roadway design by employing the following strategies:
  - **a.** Consider the impacts of truck routes, the effects of a variety of truck traffic, and future motor vehicle volumes on noise levels adjacent to master planned roadways when improvements to the circulation system are planned.
  - **b.** Mitigate traffic volumes and vehicle speed through residential neighborhoods.
  - **c.** Work closely with the State of California Department of Transportation (Caltrans) in the early stages of highway improvements and design modifications to ensure that proper consideration is given to potential noise impacts on the City.
- **Policy 11.3.2:** Require that all new nonresidential development design and configure on-site ingress and egress points to divert traffic (and its resultant noise) away from "noise-sensitive" land uses to the greatest degree practicable.
- **Policy 11.4.1:** Restrict the development of uses located within the 65 CNEL contour of Napa Airport to industrial, agricultural, or other open space uses (see Figure 11-5 [of the General Plan]).
- **Policy 11.4.1:** Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Airport Land Use Compatibility Plan (ALUP).

- **Objective 11.5:** Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or "noise-sensitive" uses.
- **Objective 11.7:** Minimize the impacts of construction noise on adjacent uses.

The City of American Canyon General Plan establishes an exterior noise level criterion of 65 dB L_{dn} (or CNEL) or less within outdoor activity areas of residential land uses. Additionally, the City requires that cumulative noise exposure from exterior noise sources within noise-sensitive dwellings not exceed 45 dB L_{dn} (or CNEL).

City of American Canyon Municipal Code

Municipal Code Chapter 8.12.080 establishes maximum noise limits for construction activities. Where economically and technically feasible, construction noise at residential receptors is limited to no more than 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. and 60 dBA between 7:00 p.m. and 7:00 a.m.

County of Napa

The Airport Land Use Compatibility Plan governs land use around the Napa County Airport and sets forth noise compatibility standards for new development land use activities. Table 2-1 of the Airport Land Use Compatibility Plan identifies acceptable aviation noise levels by land use. For multifamily residential uses, aviation noise levels of 50-55 dBA Community Noise Equivalent Level (CNEL) are listed as "clearly acceptable."

Figure 5 shows the Napa County Airport Land Use Compatibility Plan Noise Compatibility Guidelines.

FIGURE 5: NAPA COUNTY AIRPORT NOISE COMPATIBILITY GUIDELINES

Table 2-1

Noise Compatibility Guidelines

LAND USE CATEGORY	CNEL, dBA 50-55	55-60	60-65	65-70	70-75
Residential					
Single family, nursing homes, mobile homes	+	o	–	—	
multi-family, apartments, condominiums	++	+	o	–	
Public					
schools, libraries, hospitals	+	o	–	—	—
churches, auditoriums, concert halls	+	o	o	–	—
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	—	—

LAND USE AVAILABILITY		INTERPRETATION/COMMENTS
++	Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
—	Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 6** which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table 6 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 6: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: *Transportation Related Earthborne Vibrations.* Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-c]).

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Noise Level Increase Criteria for Long-Term Project-Related Noise Level Increases

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas." Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. **Table 7** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes

in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 7: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the **Table 7** data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB Ldn, or 3 dB or more where existing noise levels are between 60 to 65 dB Ldn. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB Ldn. The rationale for the **Table 7** criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 1: WOULD THE PROJECT GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

Exterior noise at New Sensitive Receptors

As shown in **Figure 3**, the proposed project is predicted to be exposed to transportation noise levels of up to 56 dBA at the eastern outdoor activity area and 50 dBA at the western outdoor activity area. This complies with the City of American Canyon existing General Plan standard of 65 dBA L_{dn} for outdoor activity areas.

The City of American Canyon General Plan requires that interior noise levels of new residential uses must be 45 dBA L_{dn} or less. Standard construction methods typically yield a 25 dBA noise reduction. The proposed project buildings are predicted to be exposed to noise levels of up to 57 dBA L_{dn}. Based upon a 25 dB reduction, the interior noise level would be 22 dBA L_{dn}. This complies with City of

American Canyon allowable transportation noise exposure limits.

This is a **less-than-significant** impact and no mitigation is required.

Traffic Noise Increases

The CEQA guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5.0 dB L_{dn} increase in roadway noise levels will be considered significant. As shown in **Table 3**, the maximum increase due to traffic noise is +4.9 dBA along Napa Junction Rd. on the segment west of Theresa Ave. The existing noise level due to traffic noise on this segment is 47.3 dBA and the future no-project noise level is predicted to be 47.8 dBA. All other increases are below +1.5 dBA.

Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant***.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

The City of American Canyon Municipal Code establishes maximum noise limits for construction activities of 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. and 60 dBA between 7:00 p.m. and 7:00 a.m. The nearest residential uses are located approximately 320 feet to the east, as measured from the center of the eastern housing site. At this distance, maximum construction noise levels would be in the range of 60-74 dBA L_{max} in the backyards of the nearest residential uses.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would occur during daytime hours.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***.

Mitigation Measure

1(a) The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:

- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7 AM and 7 PM daily.
- Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- When not in use, motorized construction equipment shall not be left idling for more than 5 minutes.
- Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

Timing/Implementation: Implemented prior to approval of grading and/or building permits
Enforcement/Monitoring: City of American Canyon Community Development Services Department

Implementation of mitigation measure 1(a) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.

IMPACT 2: WOULD THE PROJECT GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 5** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

This is a **less-than-significant** impact and no mitigation is required.

IMPACT 3: **FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, WOULD THE PROJECT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS?**

Based upon **Figure 4**, the proposed project is located approximately 1.4 miles outside of the predicted 55 dBA CNEL noise contour. According to Table 2-1 (**Figure 5**) of the Napa County Airport Land Use Compatibility Plan, multi-family residential land uses exposed to noise levels less than 55 dBA CNEL are "Clearly Acceptable." Land use may be carried out with essentially no interference from the noise exposure.

This is a **less-than-significant** impact and no mitigation is required.

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous and Short-Term Ambient Noise Measurement Results

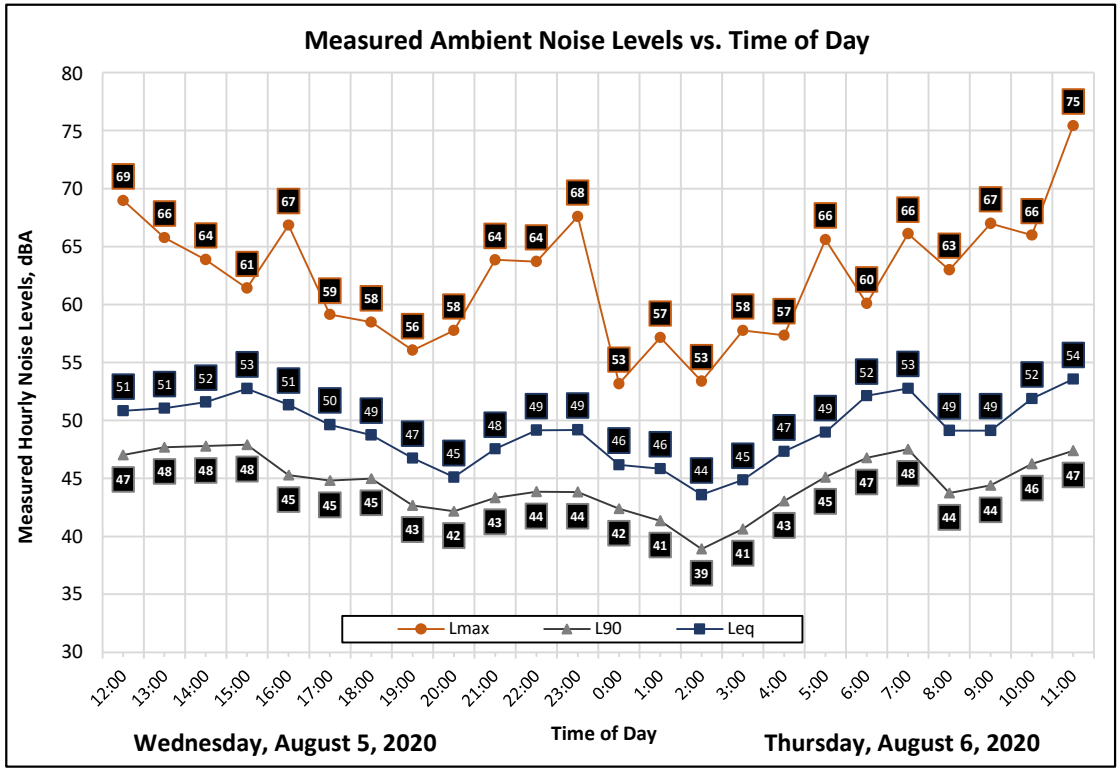


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: Oat Hill Apartments
Meter: LDL 820-1
Location: Western Half of Project Site
Calibrator: CAL200
Coordinates: 38.184423°, -122.261986°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, August 5, 2020	12:00	51	69	50	47
Wednesday, August 5, 2020	13:00	51	66	50	48
Wednesday, August 5, 2020	14:00	52	64	51	48
Wednesday, August 5, 2020	15:00	53	61	52	48
Wednesday, August 5, 2020	16:00	51	67	49	45
Wednesday, August 5, 2020	17:00	50	59	48	45
Wednesday, August 5, 2020	18:00	49	58	48	45
Wednesday, August 5, 2020	19:00	47	56	46	43
Wednesday, August 5, 2020	20:00	45	58	44	42
Wednesday, August 5, 2020	21:00	48	64	46	43
Wednesday, August 5, 2020	22:00	49	64	47	44
Wednesday, August 5, 2020	23:00	49	68	48	44
Thursday, August 6, 2020	0:00	46	53	46	42
Thursday, August 6, 2020	1:00	46	57	45	41
Thursday, August 6, 2020	2:00	44	53	43	39
Thursday, August 6, 2020	3:00	45	58	44	41
Thursday, August 6, 2020	4:00	47	57	47	43
Thursday, August 6, 2020	5:00	49	66	48	45
Thursday, August 6, 2020	6:00	52	60	51	47
Thursday, August 6, 2020	7:00	53	66	52	48
Thursday, August 6, 2020	8:00	49	63	48	44
Thursday, August 6, 2020	9:00	49	67	48	44
Thursday, August 6, 2020	10:00	52	66	50	46
Thursday, August 6, 2020	11:00	54	75	51	47

Statistics	Leq	Lmax	L50	L90
Day Average	51	64	49	46
Night Average	48	60	46	43
Day Low	45	56	44	42
Day High	54	75	52	48
Night Low	44	53	43	39
Night High	52	68	51	47
Ldn	55	Day %		75
CNEL	55	Night %		25



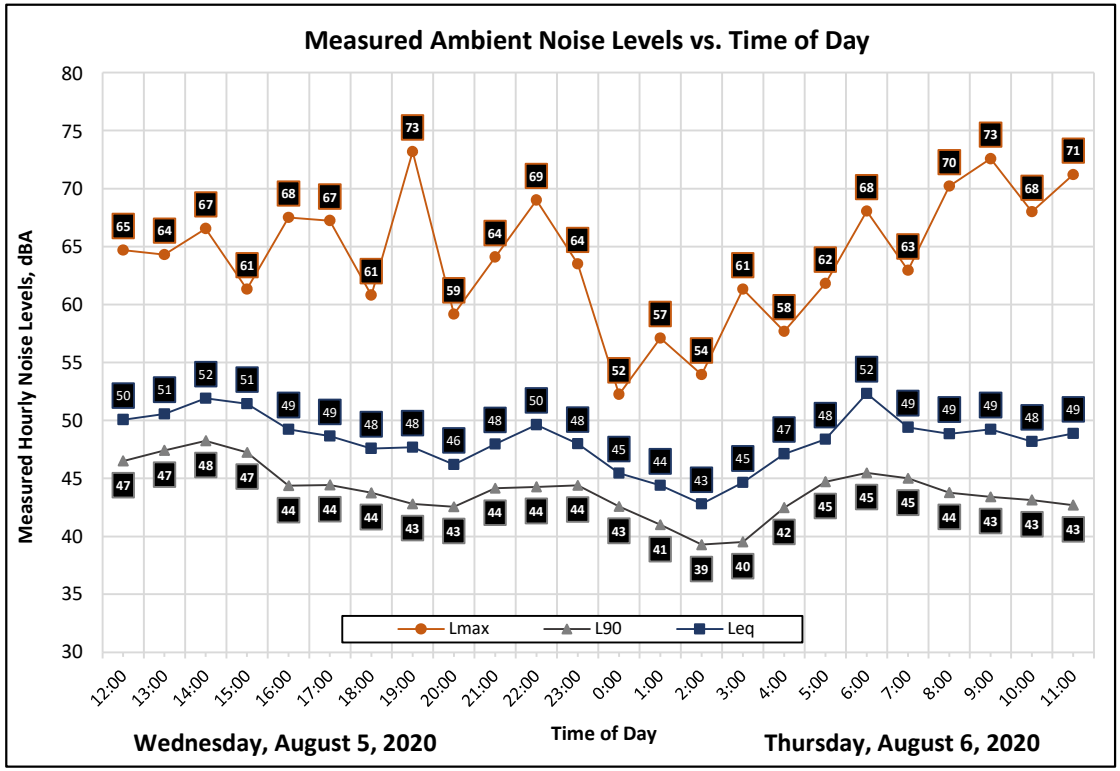


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2
Project: Oat Hill Apartments
Location: Eastern Half of Project Site
Coordinates: 38.184670°, -122.259716°
Meter: LDL 812-1
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, August 5, 2020	12:00	50	65	49	47
Wednesday, August 5, 2020	13:00	51	64	50	47
Wednesday, August 5, 2020	14:00	52	67	51	48
Wednesday, August 5, 2020	15:00	51	61	51	47
Wednesday, August 5, 2020	16:00	49	68	47	44
Wednesday, August 5, 2020	17:00	49	67	47	44
Wednesday, August 5, 2020	18:00	48	61	47	44
Wednesday, August 5, 2020	19:00	48	73	46	43
Wednesday, August 5, 2020	20:00	46	59	45	43
Wednesday, August 5, 2020	21:00	48	64	47	44
Wednesday, August 5, 2020	22:00	50	69	47	44
Wednesday, August 5, 2020	23:00	48	64	47	44
Thursday, August 6, 2020	0:00	45	52	45	43
Thursday, August 6, 2020	1:00	44	57	43	41
Thursday, August 6, 2020	2:00	43	54	42	39
Thursday, August 6, 2020	3:00	45	61	43	40
Thursday, August 6, 2020	4:00	47	58	46	42
Thursday, August 6, 2020	5:00	48	62	48	45
Thursday, August 6, 2020	6:00	52	68	50	45
Thursday, August 6, 2020	7:00	49	63	49	45
Thursday, August 6, 2020	8:00	49	70	48	44
Thursday, August 6, 2020	9:00	49	73	46	43
Thursday, August 6, 2020	10:00	48	68	45	43
Thursday, August 6, 2020	11:00	49	71	45	43

Statistics	Leq	Lmax	L50	L90
Day Average	49	66	47	45
Night Average	48	61	46	43
Day Low	46	59	45	43
Day High	52	73	51	48
Night Low	43	52	42	39
Night High	52	69	50	45
Ldn	55	Day %		70
CNEL	55	Night %		30





Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C1: FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project: Oat Hill Apartments
Description: Existing Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Napa Junction Rd.	West of Theresa Ave.	610	84	0	16	1.0%	1.0%	25	73	0	10	5	2	47.3
2	Theresa Ave.	South of Napa Junction Rd.	6,730	84	0	16	1.0%	1.0%	25	50	0	51	24	11	60.2
3	Napa Junction Rd.	East of Theresa Ave.	6,310	84	0	16	1.0%	1.0%	25	45	0	49	23	11	60.6
4	Theresa Ave.	North of Eucalyptus Dr.	6,810	84	0	16	1.0%	1.0%	25	35	0	52	24	11	62.5

Appendix C2: FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project: Oat Hill Apartments
Description: Existing Plus Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Contours (ft.) - No Offset: Offset (dB)	60 dBA	65 dBA	70 dBA	Level, dBA
1	Napa Junction Rd.	West of Theresa Ave.	1,890	84	0	16	1.0%	1.0%	25	73	0	22	10	5	52.2
2	Theresa Ave.	South of Napa Junction Rd.	7,240	84	0	16	1.0%	1.0%	25	50	0	54	25	12	60.5
3	Napa Junction Rd.	East of Theresa Ave.	7,080	84	0	16	1.0%	1.0%	25	45	0	53	25	11	61.1
4	Theresa Ave.	North of Eucalyptus Dr.	7,320	84	0	16	1.0%	1.0%	25	35	0	54	25	12	62.8

Appendix C3: FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project: Oat Hill Apartments
Description: Future Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Napa Junction Rd.	West of Theresa Ave.	690	84	0	16	1.0%	1.0%	25	73	0	11	5	2	47.8
2	Theresa Ave.	South of Napa Junction Rd.	7,660	84	0	16	1.0%	1.0%	25	50	0	56	26	12	60.7
3	Napa Junction Rd.	East of Theresa Ave.	7,180	84	0	16	1.0%	1.0%	25	45	0	53	25	12	61.1
4	Theresa Ave.	North of Eucalyptus Dr.	7,750	84	0	16	1.0%	1.0%	25	35	0	56	26	12	63.1

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Appendix C4: FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project: Oat Hill Apartments
Description: Future Plus Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Napa Junction Rd.	West of Theresa Ave.	1,970	84	0	16	1.0%	1.0%	25	73	0	23	10	5	52.4
2	Theresa Ave.	South of Napa Junction Rd.	8,170	84	0	16	1.0%	1.0%	25	50	0	58	27	13	61.0
3	Napa Junction Rd.	East of Theresa Ave.	7,950	84	0	16	1.0%	1.0%	25	45	0	57	27	12	61.6
4	Theresa Ave.	North of Eucalyptus Dr.	8,260	84	0	16	1.0%	1.0%	25	35	0	59	27	13	63.4

APPENDIX G

TRAFFIC IMPACT STUDY (2020)

Draft Report

Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Prepared for the
City of American Canyon

August 10, 2020

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Appendices

A. Intersection Level of Service Calculations

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Executive Summary

The proposed Oat Hill Multi-Family project would include construction of 291 housing units near the terminus of Napa Junction Road in the City of American Canyon. The project would be expected to generate an average of 1,583 new trips per day, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour.

The project would be expected to have a *less-than-significant* transportation impact on vehicle miles traveled (VMT) with implementation of TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.

The study area for the operational analysis includes the intersections of Napa Junction Road/Theresa Avenue, Napa Junction Road/Lombard Road, and Eucalyptus Drive/Theresa Avenue. Analysis indicates that these intersections operate acceptably under Existing Conditions and would continue to do so under Future Conditions and upon the addition of project-related traffic volumes. As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29 to address cumulative effects of project traffic.

As proposed, the project site would be accessible from two new connections to Napa Junction Road, one approximately 200 feet west of Hess Road and the other from the cul-de-sac at the western terminus of the roadway. With the project, a new section of Napa Junction Road would be constructed between the two disconnected segments east and west of Hess Road. All interior drive aisles and parking stalls as well as the new section of roadway should be designed to comply with City design standards and on-site circulation and site access is therefore expected to function acceptably for emergency response vehicles. The new connection of Napa Junction Road would result in a more direct route to the project site from SR 29 and other areas of the City so emergency response times to the section of Napa Junction Road west of Hess Road would be improved over existing conditions wherein vehicles have to loop around the little league fields using Lombard Road and Hess Road.

Access for pedestrians is not currently adequate as a sidewalk is missing along the project frontage with Napa Junction Road. The project should include construction of sidewalk along the project frontage and a connection to the existing sidewalk on the south side of Napa Junction Road near the school crossing. Transit facilities serving the site will be adequate with completion of the sidewalk connection so that a dedicated path of travel is provided between the site and the transit stops near City Hall. Bicycle facilities serving the project site are generally adequate, though space should be provided for bicycles to be stored on-site.

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Introduction

This report presents an analysis of the potential traffic impacts that would be associated with development of a proposed multifamily housing project to be located at the terminus of Napa Junction Road in the City of American Canyon. The traffic study was completed in accordance with the criteria established by the City of American Canyon, reflects a scope of work approved by City staff, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential traffic impacts of a proposed project, and any associated improvements that would be required in order to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other policies. Impacts relative to access for pedestrians, bicyclists, and to transit are addressed in the context of the CEQA criteria. Consistent with SB 743, the project's transportation impacts were analyzed using VMT. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on the study intersections.

Project Profile

The proposed project includes multifamily housing to be located near the terminus of Napa Junction Road in the City of American Canyon. As proposed, the project includes 291 one-, two-, and three-bedroom units. As part of the project, the two existing segments of Napa Junction Road east and west of Hess Road would be connected near the southwest corner of the Napa Junction Magnet Elementary School site. The project would be accessed from two new driveways on Napa Junction Road to the west of Hess Road. The location of the project site is shown in Figure 1.

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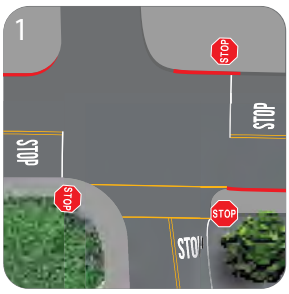



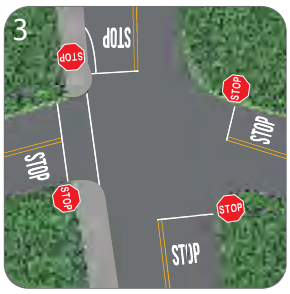

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 1 – Study Area and Existing Lane Configurations

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Transportation Setting

Operational Analysis

Study Area and Periods

The study area, which was selected in consultation with City staff, consists of the section of Napa Junction Road providing access to the project site and the project access points as well as the following intersections:

1. Napa Junction Road/Theresa Avenue
2. Napa Junction Road/Lombard Road
3. Eucalyptus Drive/Theresa Avenue

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

Napa Junction Road/Theresa Avenue is an all-way stop-controlled four-legged intersection with the Napa Junction Magnet Elementary School's driveway being slightly offset from the intersection as the north leg. There is a crosswalk on the south leg and a marked crossing on Napa Junction Road approximately 100 feet west of the center of the intersection.

Napa Junction Road/Lombard Road is a tee intersection with stop control on the southbound Lombard Road approach. There are no crosswalks.

Eucalyptus Drive/Theresa Avenue is an all-way stop-controlled intersection with a crosswalk on the west leg.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, sidewalk coverage is limited in the surrounding vicinity, but connectivity to points of interest is provided.

Napa Junction Road – Sidewalk is provided on the south side of the street between SR 29 and about 100 feet west of Theresa Avenue, but there are large gaps in sidewalk coverage on the north side of Napa Junction Road.

Theresa Avenue – Continuous sidewalk is provided on the west side of Theresa Avenue from Eucalyptus Drive to Napa Junction Road. No sidewalk is provided on the east side of the street.

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Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Bicyclists ride in the roadway and/or on sidewalks along all streets within the project study area as there are no existing dedicated bike facilities, though there are plans to provide numerous facilities in the vicinity including Class I trails and Class II bike lanes. Table 1 summarizes the planned bicycle facilities in the project vicinity, as contained in the *Napa Countywide Bicycle Plan*, Napa Valley Transportation Authority, 2019.

Table 1 – Planned Bicycle Facilities Summary

Facility	Class	Length (miles)	Begin Point	End Point
Bay Area Ridge Trail	I	0.80	Wetlands Edge Rd	Theresa Ave
Vine Trail	I	1.06	Donaldson Way	Paoli Rd
Napa Junction Rd	II	0.35	Theresa Ave	End of Roadway
Lombard Rd	II	0.31	End of Roadway	Napa Junction Rd
Theresa Ave	II	0.30	Napa Junction Rd	Eucalyptus Dr

Source: *Napa Countywide Bicycle Plan*, Napa Valley Transportation Authority, 2019

Transit Facilities

The American Canyon Transit (VINE) provides fixed route bus service in American Canyon. ACT has two morning and afternoon routes that stop at American Canyon City Hall, which would be approximately 0.20 miles from the project site upon the extension of Napa Junction Road. The route that stops at City Hall provides loop service to destinations throughout the City.

Two bicycles can be carried on most VINE buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on VINE buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. VINE Paratransit is designed to serve the needs of individuals with disabilities within City of American Canyon and the greater City of American Canyon area.

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Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), 6th Edition, Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Levels of Service for the intersection of Napa Junction Road/Lombard Road, which is stop-controlled on the side-street approach, were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual approaches together with the weighted overall average delay for the intersection.

The remaining two study intersections have stop signs on all approaches and were analyzed using the "All-Way Stop-Controlled" Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole and then related to a Level of Service.

The ranges of delay associated with the various levels of service are indicated in Table 2.

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Table 2 – Intersection Level of Service Criteria		
LOS	**Two-Way Stop-Controlled**	**All-Way Stop-Controlled**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach and wait for vehicle to clear from one or more approaches prior to entering the intersection.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 35 to 50 seconds. Longer queues are encountered on more than one approach to the intersection.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 50 seconds. Drivers enter long queues on all approaches.

Reference: *Highway Capacity Manual,* 6th Edition, Transportation Research Board, 2018

Traffic Operation Standards

City of American Canyon

The *City of American Canyon General Plan Circulation Element* specifies minimum level-of-service standards for all streets and intersections in the City's jurisdiction. In section 4.1.6, the City establishes the following performance standards for acceptable LOS:

Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak hours where possible for as long as possible. However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or VMT planned for in the Land Use Element of the General Plan.

The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy:

- State Route 29 through the City
- American Canyon Road from SR 29 to Flosden Road-Newell Drive
- Flosden Road south of American Canyon Road

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected on May 29, 2019 during typical traffic conditions while the Napa Junction Magnet Elementary School was in session. It is noted that because this school will be closed in the Fall of 2020 and the students moved

to a new school on Eucalyptus Drive, trips associated with movements to and from the school were eliminated from the counts to reflect the pre-project Existing Conditions.

Intersection Levels of Service

Under Existing Conditions, all intersections operate acceptably during both peak periods. A summary of the intersection level of service calculations is contained in Table 3, and copies of the Level of Service calculations for all evaluated scenarios are provided in Appendix A. The Existing traffic volumes are shown in Figure 2.

Table 3 – Existing Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Napa Junction Rd/Theresa Ave	9.9	A	17.6	C
2. Napa Junction Rd/Lombard Rd	2.0	A	0.8	A
Southbound (Lombard Rd) Approach	*11.9*	*B*	*14.2*	*B*
3. Eucalyptus Dr/Theresa Ave	10.3	B	13.6	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Future Conditions

Future peak hour volumes were developed based on projections contained in the build-out analysis that was prepared for the *Napa Junction III Transportation Impact Analysis Report*; this scenario represents cumulative traffic conditions that would be expected upon build-out of the land uses identified in the *City of American Canyon General Plan*. Although some of the anticipated development included in this previous effort may already be complete and occupied, to provide a conservative estimate of future operations, the incremental increase in trips associated with build-out of the City of American Canyon under its current General Plan was added to existing volumes in order to determine Future operating conditions without the project.

Because the west side of SR 29 is nearly already built out, so would be expected to experience considerably less of an increase in traffic compared to either SR 29 or the northeast part of the City, a growth rate of one-percent per year was used to develop future peak hour volumes for the study intersections, all of which are located in the west part of the City that is nearly fully developed.

Intersection Levels of Service

Under the anticipated Future volumes, the study intersections are expected to operate acceptably during both peak hours. Future volumes are shown in Figure 3 and operating conditions are summarized in Table 4.

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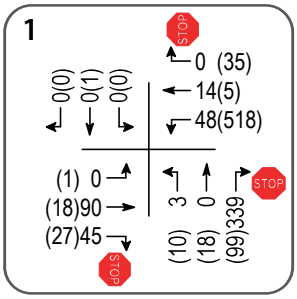

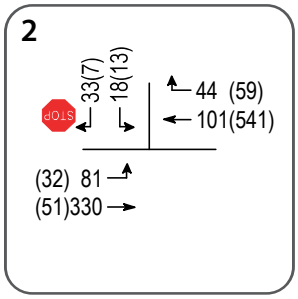

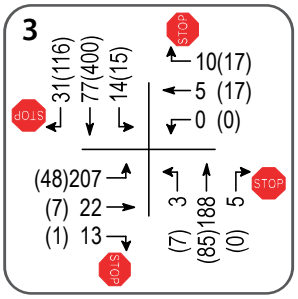

LEGEND

- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 2 – Existing Traffic Volumes

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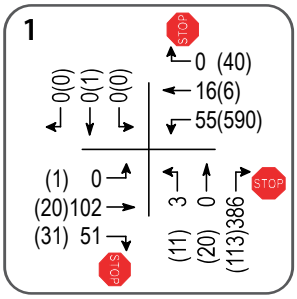

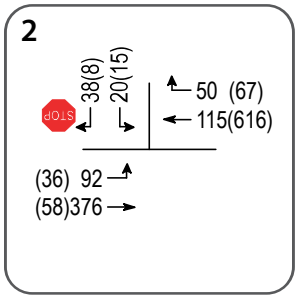

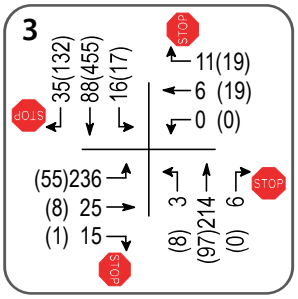

LEGEND

- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 3 – Future Traffic Volumes

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Table 4 – Future Peak Hour Intersection Levels of Service					
Study Intersection ***Approach***		**AM Peak**		**PM Peak**	
		Delay	**LOS**	**Delay**	**LOS**
1.	Napa Junction Rd/Theresa Ave	9.4	A	19.8	C
2.	Napa Junction Rd/Lombard Rd	2.0	A	0.9	A
	Southbound (Lombard Rd) Approach	*11.2*	*B*	*14.7*	*B*
3.	Theresa Ave/Eucalyptus Dr	10.2	B	14.9	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

It should be noted that the average delays under Future Conditions are lower than Existing Conditions for all intersections during the a.m. peak hour. This is because a peak hour factor (PHF) of 0.80 was used in the Existing Conditions scenario to reflect morning traffic generated by Napa Junction Magnet Elementary School while a PHF of 1.0 was used for the Future Conditions scenario as volumes are generally expected to "flatten out" as volumes increase over time and because the traffic associated with the elementary school that caused the low PHF will be going to a different site. The difference between these factors results in analysis volumes (or those derived from application of the PHF) that are higher for Existing Conditions than Future Conditions; therefore, the average delays are lower even though the base Future volumes are higher than the base Existing volumes.

Project Description

The proposed project includes multifamily housing to be located near the terminus of Napa Junction Road in the City of American Canyon. As proposed, the project includes 291 one-, two-, and three-bedroom housing units. The project would be accessed from two driveways on an existing segment of Napa Junction Road west of Hess Road. As part of the project, a new segment of Napa Junction Road would be constructed resulting in a continuous section of roadway running between SR 29 and the existing terminus west of the site. The proposed project site plan is shown in Figure 4.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017 for "Multifamily Housing (Mid-Rise)" (LU #221) since the residential buildings would be three stories tall. Based on application of these rates, the proposed project would be expected to result in 1,583 daily trips on average, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour; these results are shown in Table 5.

Table 5 – Trip Generation Summary											
Land Use	**Units**	**Daily**		**AM Peak Hour**				**PM Peak Hour**			
		Rate	**Trips**	**Rate**	**Trips**	**In**	**Out**	**Rate**	**Trips**	**In**	**Out**
Multifamily Housing (Mid-Rise)	291 du	5.44	1583	0.36	105	27	78	0.44	128	78	50

Note: du = dwelling unit

Trip Distribution

The pattern used to allocate new project trips to the street network was determined based on familiarity with the area and surrounding region as well as likely origins and destinations for residents of the project. It is noted that,



Source: WHA Architects 05/2020 aca022.ai 7/20

Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 4 – Site Plan

as discussed with staff, the distribution of trips along Theresa Drive is higher during the evening peak hour than the morning consistent with existing travel patterns. The applied distribution assumptions and resulting trips are shown in Table 6. Project traffic volumes and trip distribution assumptions are shown in Figure 5.

Table 6 – Trip Distribution Assumptions

Route	AM Peak Hour		PM Peak Hour	
	Percent	Trips	Percent	Trips
To/from North on SR 29	50%	53	55%	71
To/from South on SR 29	30%	31	5%	6
To/From South on Theresa Dr	20%	21	40%	51
TOTAL	**100%**	**105**	**100%**	**128**

Intersection Operation

Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to continue operating at an acceptable LOS during each peak hour. These results are summarized in Table 7 and Existing plus Project traffic volumes are shown in Figure 6.

Table 7 – Existing and Existing plus Project Peak Hour Intersection Levels of Service

	Study Intersection *Approach*	Existing Conditions				Existing plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Napa Junction Rd/Theresa Ave	9.9	A	17.6	C	10.5	B	22.7	C
2.	Napa Junction Rd/Lombard Rd	2.0	A	0.8	A	1.5	A	0.7	A
	Southbound (Lombard Rd) Approach	11.9	B	14.2	B	*12.1*	*B*	*15.1*	*C*
3.	Eucalyptus Dr/Theresa Ave	10.3	B	13.6	B	10.5	B	14.5	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

It should be noted that with the addition of project traffic, average delay at the intersection of Napa Junction Road/Lombard Road decreases slightly during each peak hour. While this is counter-intuitive, this condition occurs when trips are added to movements that are currently underutilized or have delays that are below the intersection average, resulting in a better balance between approaches and lower overall average delay. The proposed project would add traffic solely to the eastbound and westbound through movements at this location, which have virtually no delay, so are below the average for the intersection as a whole, resulting in a slight reduction in the overall average delay. The conclusion could incorrectly be drawn that operation would improve with the project based on this data alone; however, it is more appropriate to conclude that project trips are expected to make use of excess capacity, so drivers will experience little, if any, change in conditions as a result of the project.

Finding – The study intersections are expected to continue operating acceptably upon the addition of project-generated traffic to Existing volumes.

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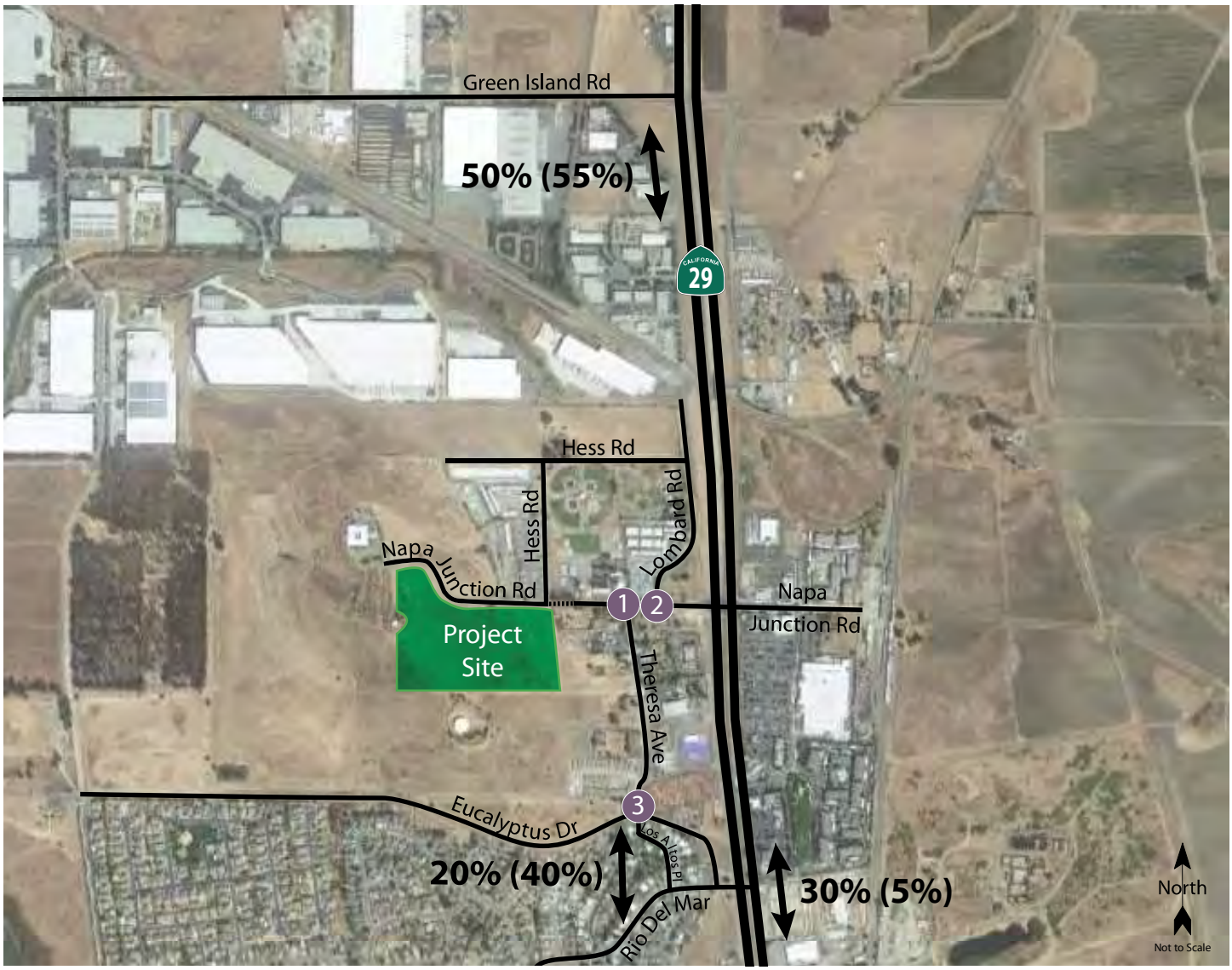

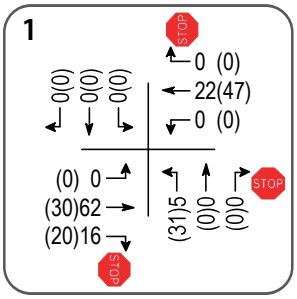

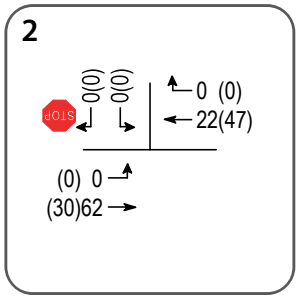

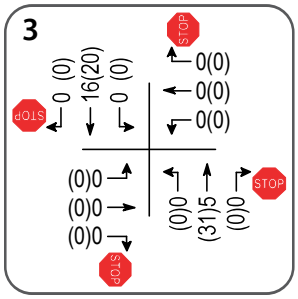

LEGEND

- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume
- % Trip Distribution

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 5 – Project Traffic Volumes and Trip Distribution

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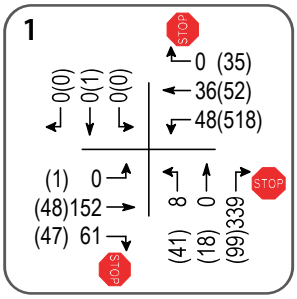

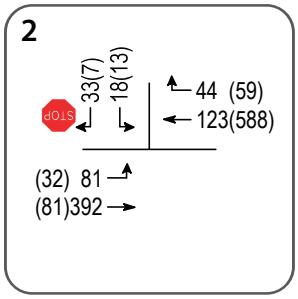

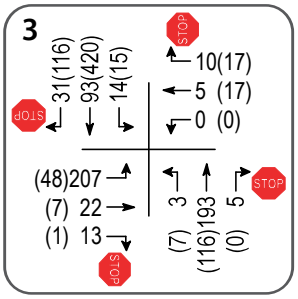

LEGEND

- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 6 – Existing plus Project Traffic Volumes

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Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated Future volumes, the study intersections are expected to continue operating acceptably during both peak hours. The Future plus Project operating conditions are summarized in Table 8 and shown in Figure 7.

Table 8 – Future and Future plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*		Future Conditions				Future plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Napa Junction Rd/Theresa Ave	9.4	A	19.8	C	10.2	B	26.8	D
2.	Napa Junction Rd/Lombard Rd	2.0	A	0.9	A	1.8	A	0.8	A
	Southbound (Lombard Rd) Approach	*11.2*	*B*	*14.7*	*B*	*11.8*	*B*	*15.7*	*C*
3.	Eucalyptus Dr/Theresa Ave	10.2	B	14.9	B	10.3	B	15.9	C

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Although not included in the study area of this analysis, the section of SR 29 near Napa Junction Road has been documented in other analyses as operating unacceptably under Existing Conditions and is expected to worsen by the Future Condition horizon year of 2040. The *City of American Canyon – Broadway District Specific Plan Draft EIR*, First Carbon Solutions, 2017 states that there are future plans for SR 29 to have three travel lanes in each direction through American Canyon. As required by the City, the project should pay a proportional share fee toward the cost of this planned future infrastructure improvement. The proposed project would be expected to add 77 new trips to SR 29 during the critical evening peak hour. Consequently, the project should pay a fee toward the cost of the planned improvements to SR 29 based on the City's fee schedule.

Finding – The study intersections are expected to continue operating acceptably with project traffic added to Future volumes.

Recommendation – As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29.

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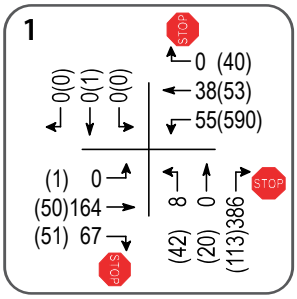

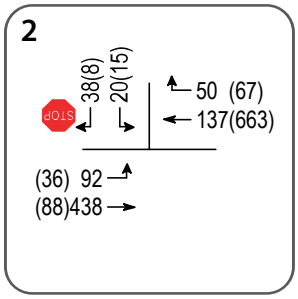

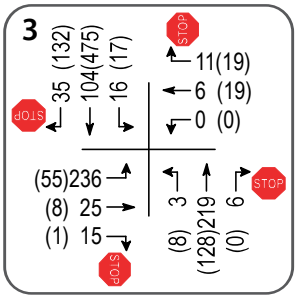

LEGEND

- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 7 – Future plus Project Traffic Volumes

W-Trans

Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied for determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project will be the basis for determining impacts once this new metric is fully vetted and adopted. The City of American Canyon has not yet established thresholds of significance related to VMT, and as of the date of the preparation of this report, the Napa County travel demand model was not yet available for VMT analysis. As a result, the project-related VMT impacts were qualitatively assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018.

The project site is within a walkable distance to commercial, residential, civic, and school land uses, being less than one-quarter mile from Eagle's Nest Preschool, Calvary Baptist Church, and the City of American Canyon City Hall. Also, within that distance is a bus stop at the intersection of SR 29/Napa Junction Road for Vine Transit Route 11, which serves the Vallejo Ferry Terminal. Within one-half mile of the project are a Walmart and other retail businesses. Given the general rural nature of the land use pattern throughout Napa County, it is reasonable to expect the project to have a VMT that is below the countywide average per capita based on the proximity of the project site to other land uses and connectivity to public transit.

To minimize the potential for the project to have an impact on VMT, transportation demand management (TDM) measures can be implemented to further reduce the need for vehicle travel by residents of the proposed project. The VMT associated with a development project is influenced by numerous factors, including proximity to other land uses. The publication *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010 includes a review of TDM strategies that can be expected to reduce VMT in comparison with typical development practices in the area. The TDM measures described below are potential measures that would be expected to reduce VMT and are recommended for the proposed project.

Transportation Demand Management (TDM) Measures

The following section describes the recommended resident TDM program. It should be noted that although the great majority of VMT reduction can be achieved by focusing on residents alone, some TDM measures can be used by guests or visitors and can contribute in reducing impacts. Note that the measures below are supported by the Guaranteed Ride Home (GRH) program operated by Napa Valley Transportation Authority (NVTA) as part of its Vcommute platform. The GRH program helps incentivize use of alternative transportation modes for workers or college students by providing free transportation in the event of a family emergency, bicycle theft, or other circumstance which may be problematic in terms of getting home if they are relying on an alternative mode.

Unbundled Parking

Most suburban multi-family residential dwellings are built with parking spaces dedicated to a specific unit. This guarantees reserved parking for its residents, but it also incentivizes the developer to "hide" the cost of parking as part of the unit's rent or sale price and therefore residents are charged for parking whether they own vehicles or not. In addition, many parking spaces go unused in this scenario. Unbundled parking occurs when developers charge for parking separately from the price of the dwelling unit so renters and buyers can choose to opt in or out. This encourages a development with fewer parking spaces being needed to meet demand.

Transit Benefits

Transit Pass program

Vine Transit operates local and express bus service near the project site, covering the area from Napa to regional destinations including the Vallejo Ferry Terminal and the El Cerrito Del Norte BART Station. Vine Transit offers adult ride passes ranging from $29 to $120 per month. The residential management organization can purchase transit passes in bulk for all residents with the understanding that not all will choose to take transit. This encourages residents to use transit and allows the transit provider some comfort that new demand will not be overwhelming. Given the large number of passes that would need to be purchased, Vine Transit may offer a group discount.

Bicycle Benefits

Bicycle Parking and Maintenance Tools

The provision of both short-term and long-term bicycle parking is important. Secure long-term parking (e.g. bike lockers) is a critical component in encouraging residents to bike to nearby employment or recreation destinations; long-term parking areas can also be provisioned with simple tools kept on-site such as a pump and tire patches. Short-term parking (e.g. bike racks) can be used by residents or visitors and is generally an inexpensive way to accommodate travelers.

Tele-Work/Compressed Schedules

There are various terms used to describe non-standard working hours, but they all involve decreasing the number of vehicle trips to and from work. Telework (i.e. working from home) and compressed schedules (i.e. working more than eight hours each day and shortening the work week) are two of the most commonly employed. They are both effective at reducing vehicle trips to work and particularly so during peak commute hours, but it is uncertain whether they decrease the overall number of vehicle trips.

Ride-matching Program

Carpooling is one of the most common and cost-effective alternative modes of transportation and one which commuters can adopt part-time. There are numerous benefits to ridesharing. Carpooling can reduce peak-period vehicle trips and increase commuters' travel choices. It reduces congestion, road and parking facility costs and pollution emissions. Carpooling tends to have the lowest cost per passenger-mile of any motorized mode of transportation, since it makes use of a vehicle seat that would otherwise be empty. Carpooling also provides the consumer financial savings by decreasing fuel and parking costs.

The greatest barrier to carpooling is often simply being able to identify and travel with other nearby commuters. Fortunately, there are many services that can assist in pairing individuals within the same community. The most basic publicly available service is 511.org's free ride-matching service.

Education, Outreach and Marketing

Transportation Coordinator

The presence of a part-time staff person dedicated to overseeing and managing the resident and visitor TDM program will be very helpful in ensuring the ongoing success of these programs. This does not need to be a distinct position but can be a role that is integrated into the on-site manager. The duties can include:

- Create and distribute resident transportation information welcome packets
- Maintain and update the transportation information kiosk board

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- Distribute Napa Bicycle Coalition maps
- Monitor bicycle parking to ensure that there is sufficient space
- Assist in selling or distributing transit passes
- Market the TDM program and transit service
- Advertise the unbundled parking program
- Promote 511.org's ride-matching program

Welcome Packet for New Residents

New residents should be provided with a welcome packet containing relevant transportation information. The packet could include maps and information from Vine Transit, the Napa County Bicycle Coalition and material regarding 511.org ride-matching services.

Monitor Performance

It is important to continually monitor the performance of a TDM program and adjust measures as necessary to ensure its success. The resident management organization should conduct mode split and vehicle miles traveled (VMT) surveys each year both to determine if adjustments are needed and to use as marketing material. Resident satisfaction surveys are also an effective way of ensuring a quality TDM program.

Finding – The project could reasonably be expected to have a less-than-significant transportation impact on vehicle miles traveled with implementation of appropriate TDM measures.

Recommendation – The project should incorporate TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.

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Alternative Modes

Pedestrian Facilities

Given the proximity of the project site to City Hall, transit, and the commercial uses on the east side of SR 29, it is reasonable to assume that some residents will want to walk, bicycle, and/or use transit for trips from and to the project site. Sidewalks do not currently exist along the project frontage on Napa Junction Road so it is recommended that one be installed along the entirety of the project frontage. Additionally, a sidewalk or paved pathway should be provided on the new section of Napa Junction Road between the project site and the existing sidewalk about 100 feet west of the school crossing. With these improvements, the project site would be connected to the surrounding pedestrian network.

Finding – Pedestrian facilities serving the project site are not currently adequate.

Recommendation – The proposed project should include construction of sidewalk along the project frontage and a connection to the existing sidewalk on the south side of Napa Junction Road near the school crossing.

Bicycle Facilities

Shared use of minor streets and sidewalks in the area provide adequate access for bicyclists, though due to the steep slope of the section of Napa Junction Road that provides access to the site bicycle trips are expected to be minimal.

Bicycle Storage

The *American Canyon Municipal Code*, Chapter 19.21.050, bicycle parking does not identify standards for residential uses. The proposed project site plan does not include bicycle parking spaces though it is anticipated that residents would have space to store their bicycles either in the dwelling units or other on-site spaces.

Finding – Bicycle facilities serving the project site are generally adequate, though space should be provided for bicycles to be stored on-site.

Recommendation – Space for bicycle storage should be provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks.

Transit

Existing transit routes are adequate to accommodate any project-generated transit trips that may occur. With the Napa Junction Road connection, the project site would be within acceptable walking distance of the transit stop at City Hall and this connection would be adequate upon provision of a sidewalk.

Finding – Transit facilities serving the project site will be adequate with the completion of a sidewalk connection.

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Access and Circulation

Site Access

The project site would be accessible from two new connections to Napa Junction Road, one approximately 200 feet west of Hess Road and the other from the cul-de-sac at the western terminus of the roadway. With the project, a new section of Napa Junction Road would be constructed between the two disconnected segments east and west of Hess Road.

Emergency Access

An emergency vehicle access connection would link the two parcels so that residents of one parcel would be able to use the other parcel's connection to Napa Junction Road should their driveway be compromised in an emergency situation. All interior drive aisles and parking stalls should be designed to comply with City design standards and on-site circulation is therefore expected to function acceptably for emergency response vehicles. It should also be noted that the new connection of Napa Junction Road would result in a more direct route to the project site from SR 29 and other areas of the City so emergency response times to the section of Napa Junction Road west of Hess Road would be improved over existing conditions wherein vehicles have to loop around the little league fields using Lombard Road and Hess Road.

Finding – Access for emergency vehicles is expected to be adequate.

Recommendation – The parking lot and drive aisles should be designed to comply with City design standards.

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CEQA Checklist

This section details discussion and results of the CEQA checklist for potential transportation/traffic impacts. The results are contained in Table 9 below and a discussion of each criterion follows.

Table 9 – XVII. TRANSPORTATION/TRAFFIC

Would the Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		X		
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?		X		
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Discussion of Results

a. Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

According to the *City of American Canyon General Plan*, numerous objectives, policies and programs have been established supporting the need for all modes of travel to be accommodated by the transportation system. This is demonstrated through General Plan Guiding Policies 1.6, 1.9, 1.11, 2.1, and 3.1

- **Policy 1.6 Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak hours where possible and as long as possible.** The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy: State Route 29 through the City, American Canyon Road from SR 29 to Flosden Road-Newell Drive, and Flosden Road south of American Canyon Road.
- **Policy 1.9 Use of existing facilities.** Make efficient use of existing transportation facilities and improve these facilities as necessary in accordance with the Circulation Map.
- **Policy 1.11 Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by City residents.
- **Policy 2.1 Promote walking and bicycling.** Promote walking and bike riding for transportation,
- recreation, and improvement of public and environmental health.
- **Policy 3.1 Promote safe, efficient, and convenient public transportation.** Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

Roadway Facilities

The proposed project would not cause any study intersections to operate below the City's standard of LOS D. The project's roadway impacts would therefore be *less than significant*, and no mitigation measures are required.

Pedestrian Facilities

The proposed project includes pedestrian connectivity infrastructure on-site. The community loop trail and pedestrian paths provide access to all housing units and promote walking, though the provision of a sidewalk along the project frontage with Napa Junction Road is not identified on the site plan. This would restrict pedestrian access to the surrounding civic and commercial uses to the east and would be considered a *significant* impact. Therefore, as mitigation it is recommended that the project include constructing a sidewalk along the project frontage on Napa Junction Road and a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. With these mitigation measures, pedestrian impacts would be reduced to *less than significant.*

Bicycle Facilities

Shared use of minor streets provides adequate access for bicyclists, though due to the steep slope of the section of Napa Junction Road that provides access to the site bicycle trips are expected to be minimal. In addition, future bicycle facilities near the project site have been identified in City and regional plans, which would improve future circulation for bicyclists. Therefore, bicycle impacts would be *less than significant.*

Transit Facilities

The American Canyon Transit (VINE) provides fixed route bus service in American Canyon. ACT has two morning and afternoon routes that stop at American Canyon City Hall, approximately 0.20 miles from the project site. Existing service is expected to be adequate to accommodate demand and transit impacts would therefore be *less than significant* upon implementation of the pedestrian facility measures identified above.

b. Would the Project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

CEQA Guidelines §15064.3, Subdivision (b) indicates that land use projects would have a significant impact if the project resulted in vehicle miles traveled (VMT) exceeding an applicable threshold of significance. It further notes that if existing models or methods are not available to estimate the VMT for the project being considered, a lead agency may analyze the project's VMT qualitatively. The City of American Canyon currently has no thresholds of significance related to VMT, and as of the date of the analysis, a regional travel demand model for Napa County is under development but not yet available for VMT analysis so the project was assessed qualitatively and TDM measures were recommended that would be expected to reduce any potential VMT impact to *less than significant*.

Given the general rural nature of the land use pattern throughout Napa County, it is reasonable to expect the project to have a VMT that is below the countywide average per capita based on the proximity of the project site to surrounding commercial and civic land uses and connectivity to public transit. To minimize the potential for the project to have an impact on VMT, the following transportation demand management (TDM) measures are recommended.

- Unbundled Parking
- Free Transit Passes
- Secure Bicycle Parking and Maintenance Tools

- Tele-Work/Compressed Schedules
- Carpooling and Ride-matching Program
- Transportation Coordinator
- Welcome Packet for New Residents
- Monitoring of Program Performance

c. *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

As part of the project, a new segment of Napa Junction Road would be constructed resulting in a continuous section of roadway running between SR 29 and the existing terminus west of the project site. The project itself as well as the new segment of roadway would be designed and constructed to meet currently applicable codes and requirements, so would not be expected to result in any increased hazards. The project is therefore expected to have a *less-than-significant* impact regarding geometric design features or incompatible uses.

d. *Would the Project result in inadequate emergency access?*

The project site would have adequate emergency access and would improve emergency access and response times to the section of Napa Junction Road west of Hess Road with the provision of a new street connection; therefore, the project would result in a *less-than-significant* and in fact beneficial impact related to emergency access.

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Conclusions and Recommendations

Conclusions

- The proposed project would be expected to generate 1,583 daily trips on average, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour.
- Under Existing Conditions all study intersections operate acceptably and they are expected to continue doing so upon the addition of project-related traffic.
- Under the anticipated Future volumes, the study intersections are expected to operate acceptably without or with the addition of project-related traffic.
- The project would be expected to have a *less-than-significant* transportation impact on vehicle miles traveled (VMT) with implementation of TDM measures.
- The shared use of minor streets along with the planned facilities outlined in the *Napa Countywide Bicycle Plan* would provide adequate access for bicyclists, though the project site plan does not identify the provision of bike parking.
- Pedestrian facilities serving the project site are not currently adequate.
- Transit facilities serving the project site are adequate.
- Access for emergency response vehicles is expected to be adequate and response times would be improved over existing conditions.

Recommendations

- As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29.
- The project should incorporate TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.
- The project should include constructing a sidewalk along the project frontage on Napa Junction Road and a making connection to the existing sidewalk on the south side of street near the school crossing.
- Secure bicycle storage should be provided, if not already planned as part of on-site amenities.

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Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Transportation Planner	Barry Bergman, AICP, Brian Canepa
Associate Engineer	Cameron Nye, EIT
Assistant Engineer	Kimberly Tellez
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Editing/Formatting	Hannah Yung-Boxdell
Quality Control	Dalene J. Whitlock, PE, PTOE

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VINE Transit, http://www.ridethevine.com

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Appendix A

Intersection Level of Service Calculations

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Intersection Level Of Service Report

Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.471

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	3	0	339	0	0	0	0	90	45	48	14	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	339	0	0	0	0	90	45	48	14	0
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	106	0	0	0	0	28	14	15	4	0
Total Analysis Volume [veh/h]	4	0	424	0	0	0	0	113	56	60	18	0
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	908	715	755	687
Degree of Utilization, x	0.47	0.00	0.22	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.57	0.00	0.86	0.38
95th-Percentile Queue Length [ft]	64.15	0.00	21.40	9.56
Approach Delay [s/veh]	10.45	0.00	9.14	8.91
Approach LOS	B	A	A	A
Intersection Delay [s/veh]	9.95			
Intersection LOS	A			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.069

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	18	33	81	330	101	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	33	81	330	101	44
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	10	25	103	32	14
Total Analysis Volume [veh/h]	23	41	101	413	126	55
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.05	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.54	9.23	7.78	0.00	0.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.14	0.23	0.23	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.50	3.61	5.85	5.85	0.00	0.00
d_A, Approach Delay [s/veh]	11.86		1.53		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.04					
Intersection LOS	C					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	55	1	4	22	9	60	6	4	0	1	3
Total Analysis Volume [veh/h]	3	219	6	16	90	36	241	26	15	0	6	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	733	733	716	737
Degree of Utilization, x	0.31	0.19	0.39	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.33	0.71	1.88	0.08
95th-Percentile Queue Length [ft]	33.15	17.85	47.09	1.88
Approach Delay [s/veh]	10.11	9.09	11.26	8.01
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.32			
Intersection LOS	B			

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Intersection Level Of Service Report

Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.760

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	10	18	99	0	1	0	1	18	27	518	5	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	18	99	0	1	0	1	18	27	518	5	35
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	27	0	0	0	0	5	7	141	1	10
Total Analysis Volume [veh/h]	11	20	108	0	1	0	1	20	29	563	5	38
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	715	629	773	797
Degree of Utilization, x	0.19	0.00	0.06	0.76

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.72	0.00	0.21	7.29
95th-Percentile Queue Length [ft]	17.92	0.12	5.17	182.28
Approach Delay [s/veh]	9.25	8.74	7.98	20.33
Approach LOS	A	A	A	C
Intersection Delay [s/veh]	17.60			
Intersection LOS	C			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	13	7	32	51	541	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	7	32	51	541	59
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	9	14	147	16
Total Analysis Volume [veh/h]	14	8	35	55	588	64
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.20	12.50	9.00	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.05	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.97	1.25	2.92	2.92	0.00	0.00
d_A, Approach Delay [s/veh]	14.22		3.50		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.82					
Intersection LOS	C					

6110

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	23	0	4	108	31	13	2	0	0	5	5
Total Analysis Volume [veh/h]	8	91	0	16	430	125	52	8	1	0	18	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	746	856	638	688
Degree of Utilization, x	0.13	0.67	0.10	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.46	5.24	0.32	0.17
95th-Percentile Queue Length [ft]	11.41	131.04	7.90	4.13
Approach Delay [s/veh]	8.56	15.21	9.24	8.52
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	13.56			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.421

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	3	0	386	0	0	0	0	102	51	55	16	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	386	0	0	0	0	102	51	55	16	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	97	0	0	0	0	26	13	14	4	0
Total Analysis Volume [veh/h]	3	0	386	0	0	0	0	102	51	55	16	0
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	925	734	773	704
Degree of Utilization, x	0.42	0.00	0.20	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.11	0.00	0.73	0.34
95th-Percentile Queue Length [ft]	52.84	0.00	18.33	8.38
Approach Delay [s/veh]	9.70	0.00	8.80	8.69
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.36			
Intersection LOS	A			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	20	38	92	376	115	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	38	92	376	115	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	10	23	94	29	13
Total Analysis Volume [veh/h]	20	38	92	376	115	50
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.04	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.22	9.14	7.72	0.00	0.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.13	0.21	0.21	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.24	3.27	5.22	5.22	0.00	0.00
d_A, Approach Delay [s/veh]	11.24		1.52		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.97					
Intersection LOS	C					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.383

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	54	2	4	22	9	59	6	4	0	2	3
Total Analysis Volume [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	738	737	720	740
Degree of Utilization, x	0.30	0.19	0.38	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.28	0.69	1.81	0.07
95th-Percentile Queue Length [ft]	31.88	17.26	45.17	1.76
Approach Delay [s/veh]	9.98	9.01	11.08	7.98
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	10.19			
Intersection LOS	B			

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Version 7.00-08

Intersection Level Of Service Report

Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.802

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	11	20	113	0	1	0	1	20	31	590	6	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	20	113	0	1	0	1	20	31	590	6	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	28	0	0	0	0	5	8	148	2	10
Total Analysis Volume [veh/h]	11	20	113	0	1	0	1	20	31	590	6	40
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	705	618	765	794
Degree of Utilization, x	0.20	0.00	0.07	0.80

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.76	0.00	0.22	8.48
95th-Percentile Queue Length [ft]	19.06	0.12	5.45	211.99
Approach Delay [s/veh]	9.42	8.84	8.05	23.17
Approach LOS	A	A	A	C
Intersection Delay [s/veh]	19.83			
Intersection LOS	C			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	15	8	36	58	616	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	8	36	58	616	67
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	9	15	154	17
Total Analysis Volume [veh/h]	15	8	36	58	616	67
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.77	12.80	9.12	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.05	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.36	1.30	3.09	3.09	0.00	0.00
d_A, Approach Delay [s/veh]	14.74		3.49		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	C					

6116

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.711

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	24	0	4	114	33	14	2	0	0	5	5
Total Analysis Volume [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	737	850	626	675
Degree of Utilization, x	0.14	0.71	0.10	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.50	6.14	0.34	0.18
95th-Percentile Queue Length [ft]	12.39	153.48	8.49	4.47
Approach Delay [s/veh]	8.70	16.91	9.40	8.66
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	14.87			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	3	0	339	0	0	0	0	90	45	48	14	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	62	16	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	0	339	0	0	0	0	152	61	48	36	0
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	106	0	0	0	0	48	19	15	11	0
Total Analysis Volume [veh/h]	10	0	424	0	0	0	0	190	76	60	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	837	659	730	662
Degree of Utilization, x	0.52	0.00	0.36	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.05	0.00	1.67	0.56
95th-Percentile Queue Length [ft]	76.22	0.00	41.82	14.02
Approach Delay [s/veh]	11.84	0.00	10.74	9.46
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	11.17			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.080

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	18	33	81	330	101	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	62	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	33	81	392	123	44
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	10	25	123	38	14
Total Analysis Volume [veh/h]	23	41	101	490	154	55
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.05	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.59	9.39	7.86	0.00	0.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.26	0.15	0.24	0.24	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.46	3.74	6.00	6.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.70		1.34		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.86					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.399

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	16	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	193	5	14	93	31	207	22	13	0	5	10
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	56	1	4	27	9	60	6	4	0	1	3
Total Analysis Volume [veh/h]	3	224	6	16	108	36	241	26	15	0	6	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	728	728	707	726
Degree of Utilization, x	0.32	0.22	0.40	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.38	0.84	1.92	0.08
95th-Percentile Queue Length [ft]	34.54	20.88	47.98	1.91
Approach Delay [s/veh]	10.26	9.33	11.42	8.09
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.46			
Intersection LOS	B			

Generated with PTV VISTRO

Version 7.00-08

Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	23.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.862

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	10	18	99	0	1	0	1	18	27	518	5	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	0	0	0	30	20	0	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	18	99	0	1	0	1	48	47	518	52	35
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	5	27	0	0	0	0	13	13	141	14	10
Total Analysis Volume [veh/h]	45	20	108	0	1	0	1	52	51	563	57	38
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	658	584	725	763
Degree of Utilization, x	0.26	0.00	0.14	0.86

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.05	0.01	0.50	10.45
95th-Percentile Queue Length [ft]	26.31	0.13	12.48	261.25
Approach Delay [s/veh]	10.41	9.17	8.79	29.53
Approach LOS	B	A	A	D
Intersection Delay [s/veh]	23.67			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	13	7	32	51	541	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	30	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	7	32	81	588	59
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	9	22	160	16
Total Analysis Volume [veh/h]	14	8	35	88	639	64
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.52	13.03	9.19	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.05	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.35	1.34	3.05	3.05	0.00	0.00
d_A, Approach Delay [s/veh]	15.25		2.61		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.77					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	20	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	116	0	15	420	116	48	7	1	0	17	17
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	31	0	4	113	31	13	2	0	0	5	5
Total Analysis Volume [veh/h]	8	125	0	16	452	125	52	8	1	0	18	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	741	845	623	670
Degree of Utilization, x	0.18	0.70	0.10	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.65	5.93	0.32	0.17
95th-Percentile Queue Length [ft]	16.27	148.37	8.11	4.25
Approach Delay [s/veh]	8.92	16.62	9.41	8.68
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	14.49			
Intersection LOS	B			

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Intersection Level Of Service Report

Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	3	0	386	0	0	0	0	102	51	55	16	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	62	16	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	0	386	0	0	0	0	164	67	55	38	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	97	0	0	0	0	41	17	14	10	0
Total Analysis Volume [veh/h]	8	0	386	0	0	0	0	164	67	55	38	0
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	865	688	753	685
Degree of Utilization, x	0.46	0.00	0.31	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.41	0.00	1.30	0.47
95th-Percentile Queue Length [ft]	60.27	0.00	32.57	11.70
Approach Delay [s/veh]	10.60	0.00	9.89	9.08
Approach LOS	B	A	A	A
Intersection Delay [s/veh]	10.17			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	20	38	92	376	115	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	62	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	38	92	438	137	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	10	23	110	34	13
Total Analysis Volume [veh/h]	20	38	92	438	137	50
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.04	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.60	9.26	7.78	0.00	0.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.13	0.21	0.21	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.81	3.37	5.32	5.32	0.00	0.00
d_A, Approach Delay [s/veh]	11.79		1.35		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.81					
Intersection LOS	C					

6125

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	16	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	219	6	16	104	35	236	25	15	0	6	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	55	2	4	26	9	59	6	4	0	2	3
Total Analysis Volume [veh/h]	3	219	6	16	104	35	236	25	15	0	6	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	733	733	712	731
Degree of Utilization, x	0.31	0.21	0.39	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.33	0.80	1.84	0.07
95th-Percentile Queue Length [ft]	33.18	19.89	45.94	1.79
Approach Delay [s/veh]	10.12	9.22	11.22	8.05
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.31			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	27.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.897

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	11	20	113	0	1	0	1	20	31	590	6	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	0	0	0	30	20	0	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	20	113	0	1	0	1	50	51	590	53	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	5	28	0	0	0	0	13	13	148	13	10
Total Analysis Volume [veh/h]	42	20	113	0	1	0	1	50	51	590	53	40
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	652	577	720	762
Degree of Utilization, x	0.27	0.00	0.14	0.90

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.08	0.01	0.49	11.82
95th-Percentile Queue Length [ft]	27.00	0.13	12.31	295.58
Approach Delay [s/veh]	10.53	9.25	8.83	33.95
Approach LOS	B	A	A	D
Intersection Delay [s/veh]	26.99			
Intersection LOS	D			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Lombard Rd		Napa Junction Rd			
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd			
Base Volume Input [veh/h]	15	8	36	58	616	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	30	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	8	36	88	663	67
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	9	22	166	17
Total Analysis Volume [veh/h]	15	8	36	88	663	67
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.05	13.31	9.30	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.06	0.13	0.13	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.75	1.38	3.22	3.22	0.00	0.00
d_A, Approach Delay [s/veh]	15.75		2.70		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.79					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.743

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	20	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	128	0	17	475	132	55	8	1	0	19	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	32	0	4	119	33	14	2	0	0	5	5
Total Analysis Volume [veh/h]	8	128	0	17	475	132	55	8	1	0	19	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	732	841	613	659
Degree of Utilization, x	0.19	0.74	0.10	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.68	6.90	0.35	0.18
95th-Percentile Queue Length [ft]	16.96	172.38	8.70	4.58
Approach Delay [s/veh]	9.04	18.55	9.56	8.80
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	15.95			
Intersection LOS	C			

APPENDIX H

TRAFFIC IMPACT STUDY (2021)

Traffic Impact Study
for the Oat Hill Multi-Family Housing Project



Prepared for the City of American Canyon

Submitted by
W-Trans

February 4, 2021

W-Trans

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Executive Summary

The proposed Oat Hill Multi-Family project would include construction of 291 housing units near the terminus of Napa Junction Road in the City of American Canyon. The project would be expected to generate an average of 1,583 new trips per day, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour.

The project would be expected to have a *less-than-significant* transportation impact on vehicle miles traveled (VMT) with implementation of TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.

The study area for the operational analysis includes the intersections of Napa Junction Road/Theresa Avenue, Napa Junction Road/Lombard Road, Eucalyptus Drive/Theresa Avenue, and SR 29/Napa Junction Road. Analysis indicates that these intersections operate acceptably under Existing Conditions and would continue to do so under Future Conditions and upon the addition of project-related traffic volumes. While SR 29/Napa Junction Road would operate at LOS F under Future Conditions without or with the project, this operation was considered acceptable since the intersection is exempt from the City's LOS standard and Caltrans has no operational standard. As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29 to address cumulative effects of project traffic.

As proposed, the project site would be accessible from two new connections to Napa Junction Road, one approximately 200 feet west of Hess Road and the other from the cul-de-sac at the western terminus of the roadway. With the project, a new section of Napa Junction Road would be constructed between the two disconnected segments east and west of Hess Road. All interior drive aisles and parking stalls as well as the new section of roadway should be designed to comply with City design standards and on-site circulation and site access is therefore expected to function acceptably for emergency response vehicles. The new connection of Napa Junction Road would result in a more direct route to the project site from SR 29 and other areas of the City so emergency response times to the section of Napa Junction Road west of Hess Road would be improved over existing conditions wherein vehicles have to loop around the little league fields using Lombard Road and Hess Road.

Access for pedestrians is not currently adequate as a sidewalk is missing along the project frontage with Napa Junction Road. The project would include construction of sidewalk along the project frontage and it is recommended that a connection be made to the existing sidewalk on the south side of Napa Junction Road near the school crossing. Transit facilities serving the site will be adequate with completion of the sidewalk connection so that a dedicated path of travel is provided between the site and the transit stops near City Hall. Bicycle facilities serving the project site are generally adequate, though space should be provided for bicycles to be stored on-site.

Introduction

This report presents an analysis of the potential traffic impacts that would be associated with development of a proposed multifamily housing project to be located at the terminus of Napa Junction Road in the City of American Canyon. The traffic study was completed in accordance with the criteria established by the City of American Canyon, reflects a scope of work approved by City staff, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential traffic impacts of a proposed project, and any associated improvements that would be required in order to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other policies. Impacts relative to access for pedestrians, bicyclists, and to transit are addressed in the context of the CEQA criteria. Consistent with SB 743, the project's transportation impacts were analyzed using VMT. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on the study intersections.

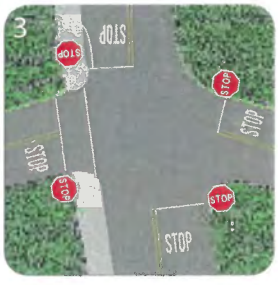
Project Profile

The proposed project includes multifamily housing to be located near the terminus of Napa Junction Road in the City of American Canyon. As proposed, the project includes 291 one-, two-, and three-bedroom units. As part of the project, the two existing segments of Napa Junction Road east and west of Hess Road would be connected near the southwest corner of the Napa Junction Magnet Elementary School site. The project would be accessed from two new driveways on Napa Junction Road to the west of Hess Road. The location of the project site is shown in Figure 1.











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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 1 – Study Area and Existing Lane Configurations

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Transportation Setting

Operational Analysis

Study Area and Periods

The study area, which was selected in consultation with City staff, consists of the section of Napa Junction Road providing access to the project site and the project access points as well as the following intersections:

1. Napa Junction Road/Theresa Avenue
2. Napa Junction Road/Lombard Road
3. Eucalyptus Drive/Theresa Avenue
4. SR 29/Napa Junction Road

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

Napa Junction Road/Theresa Avenue is an all-way stop-controlled four-legged intersection with the Napa Junction Magnet Elementary School's driveway being slightly offset from the intersection as the north leg. There is a crosswalk on the south leg and a marked crossing on Napa Junction Road approximately 100 feet west of the center of the intersection.

Napa Junction Road/Lombard Road is a tee intersection with stop control on the southbound Lombard Road approach. There are no crosswalks.

Eucalyptus Drive/Theresa Avenue is an all-way stop-controlled intersection with a crosswalk on the west leg.

SR 29/Napa Junction Road is a four-legged signalized intersection. Each approach has protected left-turn phasing. There are crosswalks on the east and south legs.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, sidewalk coverage is limited in the surrounding vicinity, but connectivity to points of interest is provided.

Napa Junction Road – Sidewalk is provided on the south side of the street between SR 29 and about 100 feet west of Theresa Avenue, but there are large gaps in sidewalk coverage on the north side of Napa Junction Road.

Theresa Avenue – Continuous sidewalk is provided on the west side of Theresa Avenue from Eucalyptus Drive to Napa Junction Road. No sidewalk is provided on the east side of the street.

Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Bicyclists ride in the roadway and/or on sidewalks along all streets within the project study area as there are no existing dedicated bike facilities, though there are plans to provide numerous facilities in the vicinity including Class I trails and Class II bike lanes. Table 1 summarizes the planned bicycle facilities in the project vicinity, as contained in the *Napa Countywide Bicycle Plan*, Napa Valley Transportation Authority, 2019.

Table 1 – Planned Bicycle Facilities Summary

Facility	Class	Length (miles)	Begin Point	End Point
Bay Area Ridge Trail	I	0.80	Wetlands Edge Rd	Theresa Ave
Vine Trail	I	1.06	Donaldson Way	Paoli Rd
Napa Junction Rd	II	0.35	Theresa Ave	End of Roadway
Lombard Rd	II	0.31	End of Roadway	Napa Junction Rd
Theresa Ave	II	0.30	Napa Junction Rd	Eucalyptus Dr

Source: *Napa Countywide Bicycle Plan*, Napa Valley Transportation Authority, 2019

Transit Facilities

The American Canyon Transit (VINE) provides fixed route bus service in American Canyon. ACT has two morning and afternoon routes that stop at American Canyon City Hall, which would be approximately 0.20 miles from the project site upon the extension of Napa Junction Road. The route that stops at City Hall provides loop service to destinations throughout the City.

Two bicycles can be carried on most VINE buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on VINE buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. VINE Paratransit is designed to serve the needs of individuals with disabilities within City of American Canyon and the greater City of American Canyon area.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), 6th Edition, Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Levels of Service for the intersection of Napa Junction Road/Lombard Road, which is stop-controlled on the side-street approach, were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual approaches together with the weighted overall average delay for the intersection.

The study intersections that have stop signs on all approaches and were analyzed using the "All-Way Stop-Controlled" Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole and then related to a Level of Service.

The study intersection of SR 29/Napa Junction Road was evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using signal timing obtained from Caltrans.

The ranges of delay associated with the various levels of service are indicated in Table 2.

Table 2 – Intersection Level of Service Criteria			
LOS	**Two-Way Stop-Controlled**	**All-Way Stop-Controlled**	**Signalized**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach and wait for vehicle to clear from one or more approaches prior to entering the intersection.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 35 to 50 seconds. Longer queues are encountered on more than one approach to the intersection.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop, and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 50 seconds. Drivers enter long queues on all approaches.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway Capacity Manual*, 6th Edition, Transportation Research Board, 2018

Traffic Operation Standards

City of American Canyon

The *City of American Canyon General Plan Circulation Element* specifies minimum level-of-service standards for all streets and intersections in the City's jurisdiction. In section 4.1.6, the City establishes the following performance standards for acceptable LOS:

Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak hours where possible for as long as possible. However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or VMT planned for in the Land Use Element of the General Plan.

The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy:

- State Route 29 through the City
- American Canyon Road from SR 29 to Flosden Road-Newell Drive
- Flosden Road south of American Canyon Road

Caltrans

The study intersection of SR 29/Napa Junction Road is located on the State Transportation Network (STN) and is therefore under jurisdiction of Caltrans, though Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The new *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT).

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected on May 29, 2019 during typical traffic conditions while the Napa Junction Magnet Elementary School was in session. It is noted that because this school will be closed in the Fall of 2020 and the students moved to a new school on Eucalyptus Drive, trips associated with movements to and from the school were eliminated from the counts to reflect the pre-project Existing Conditions.

Intersection Levels of Service

Under Existing Conditions, all intersections operate acceptably during both peak periods. A summary of the intersection level of service calculations is contained in Table 3, and copies of the Level of Service calculations for all evaluated scenarios are provided in Appendix A. The Existing traffic volumes are shown in Figure 2.

Table 3 – Existing Peak Hour Intersection Levels of Service

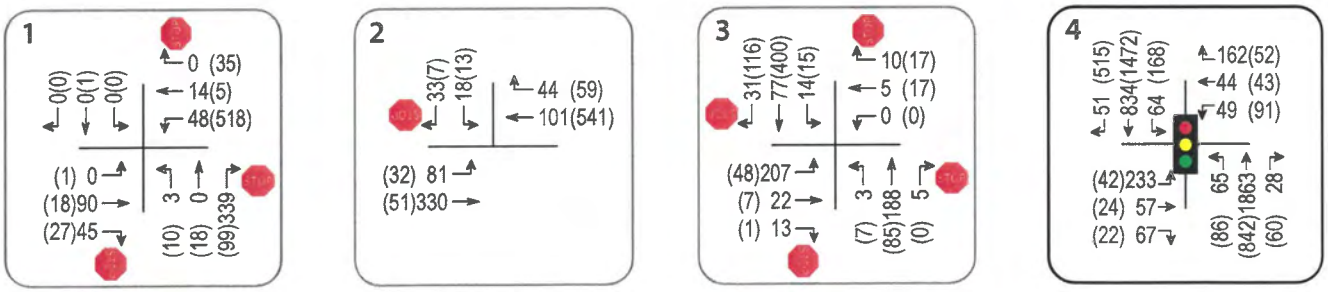
Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Napa Junction Rd/Theresa Ave	9.9	A	17.6	C
2. Napa Junction Rd/Lombard Rd	2.0	A	0.8	A
Southbound (Lombard Rd) Approach	*11.9*	*B*	*14.2*	*B*
3. Eucalyptus Dr/Theresa Ave	10.3	B	13.6	B
4. SR 29/Napa Junction Rd	42.5	D	30.2	C

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Future Conditions

Future peak hour volumes for the intersection of SR 29/Napa Junction Road were developed based on projections contained in the build-out analysis that was prepared for the *Napa Junction III Transportation Impact Analysis Report*; this scenario represents cumulative traffic conditions that would be expected upon build-out of the land uses identified in the *City of American Canyon General Plan*. Although some of the anticipated development included in this previous effort may already be complete and occupied, to provide a conservative estimate of





LEGEND
- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 2 – Existing Traffic Volumes

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future operations, the incremental increase in trips associated with build-out of the City of American Canyon under its current General Plan was added to existing volumes in order to determine Future operating conditions without the project.

Because the west side of SR 29 is nearly already built out, so would be expected to experience considerably less of an increase in traffic compared to either SR 29 or the northeast part of the City, a growth rate of one-percent per year was used to develop future peak hour volumes for the remaining three study intersections, all of which are located in the west part of the City that is nearly fully developed.

Intersection Levels of Service

Under the anticipated Future volumes, the study intersections are expected to operate at LOS C or better during both peak hours, except for SR 29/Napa Junction Road. Future volumes are shown in Figure 3 and operating conditions are summarized in Table 4.

Table 4 – Future Peak Hour Intersection Levels of Service

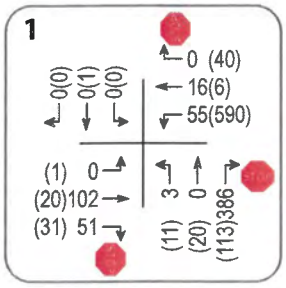
Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Napa Junction Rd/Theresa Ave	9.4	A	19.8	C
2. Napa Junction Rd/Lombard Rd	2.0	A	0.9	A
Southbound (Lombard Rd) Approach	*11.2*	*B*	*14.7*	*B*
3. Theresa Ave/Eucalyptus Dr	10.2	B	14.9	B
4. SR 29/Napa Junction Rd	157.6	F	83.7	F

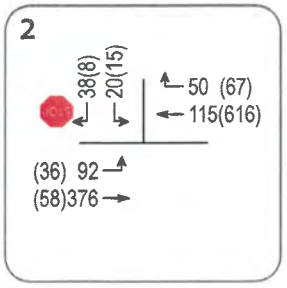
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

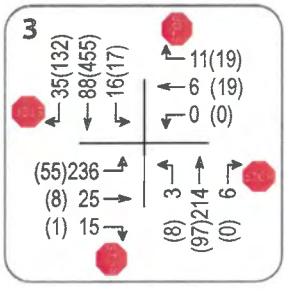
It should be noted that the average delays under Future Conditions are lower than Existing Conditions for all intersections during the a.m. peak hour, except for SR 29/Napa Junction Road. This is because a peak hour factor (PHF) of 0.80 was used in the Existing Conditions scenario to reflect morning traffic generated by Napa Junction Magnet Elementary School while a PHF of 1.0 was used for the Future Conditions scenario as volumes are generally expected to "flatten out" as volumes increase over time and because the traffic associated with the elementary school that caused the low PHF will be going to a different site. The difference between these factors results in analysis volumes (or those derived from application of the PHF) that are higher for Existing Conditions than Future Conditions; therefore, the average delays are lower even though the base Future volumes are higher than the base Existing volumes.

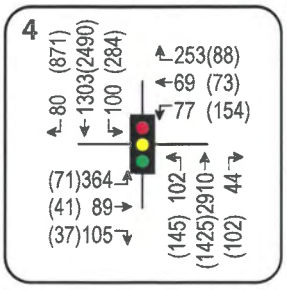
While the intersection of SR 29/Napa Junction Road is projected to operate at LOS F during each peak hour, this operation was considered acceptable since SR 29 is exempt from the City's LOS standard. The *City of American Canyon – Broadway District Specific Plan Draft EIR*, First Carbon Solutions, 2017, states that there are future plans for SR 29 to have three through lanes in each direction through American Canyon. Because funding has not been identified for this capacity enhancement, it was conservatively assumed that the current configuration with only two through lanes in each direction would remain, and this configuration was used for the analysis. The EIR did not include an analysis of future 2040 conditions; however, under near-term projected volumes, even with the additional lanes SR 29/Napa Junction Road is still projected to operate at LOS F.











LEGEND
- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 3 – Future Traffic Volumes

W-Trans

Project Description

The proposed project includes multifamily housing to be located near the terminus of Napa Junction Road in the City of American Canyon. As proposed, the project includes 291 one-, two-, and three-bedroom housing units. The project would be accessed from two driveways on an existing segment of Napa Junction Road west of Hess Road. As part of the project, a new segment of Napa Junction Road would be constructed resulting in a continuous section of roadway running between SR 29 and the existing terminus west of the site. The proposed project site plan is shown in Figure 4.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017 for "Multifamily Housing (Mid-Rise)" (LU #221) since the residential buildings would be three stories tall. Based on application of these rates, the proposed project would be expected to result in 1,583 daily trips on average, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour; these results are shown in Table 5.

Table 5 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Multifamily Housing (Mid-Rise)	291 du	5.44	1583	0.36	105	27	78	0.44	128	78	50

Note: du = dwelling unit

Trip Distribution

The pattern used to allocate new project trips to the street network was determined based on familiarity with the area and surrounding region as well as likely origins and destinations for residents of the project. It is noted that, as discussed with staff, the distribution of trips along Theresa Drive is higher during the evening peak hour than the morning consistent with existing travel patterns. The applied distribution assumptions and resulting trips are shown in Table 6. Project traffic volumes and trip distribution assumptions are shown in Figure 5.

Table 6 – Trip Distribution Assumptions

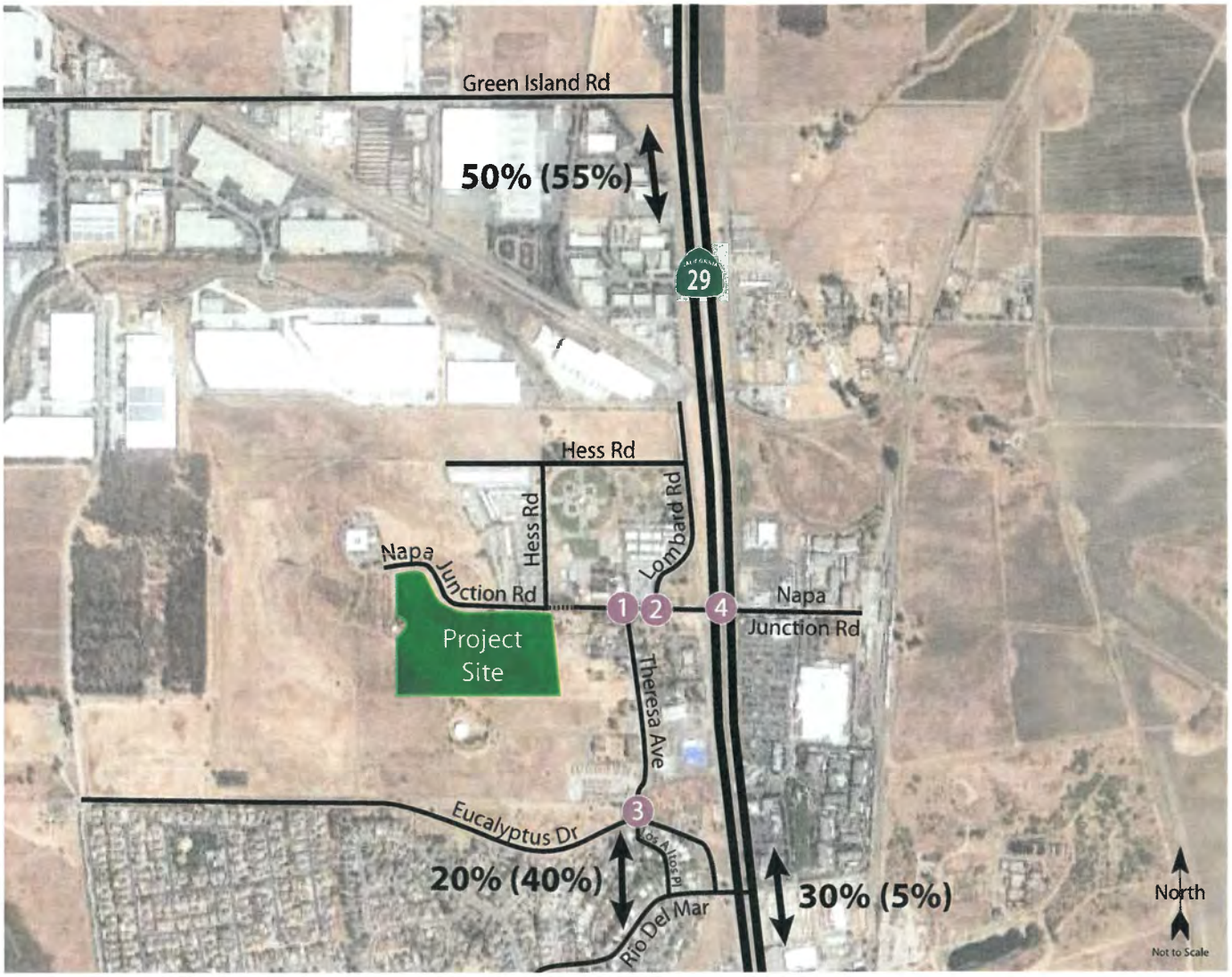
Route	AM Peak Hour		PM Peak Hour	
	Percent	Trips	Percent	Trips
To/from North on SR 29	50%	53	55%	71
To/from South on SR 29	30%	31	5%	6
To/From South on Theresa Dr	20%	21	40%	51
TOTAL	**100%**	**105**	**100%**	**128**

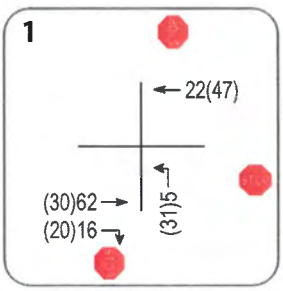


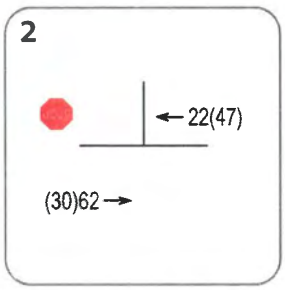
Source: WHA Architects 02/2021 aca022.ai 2/21

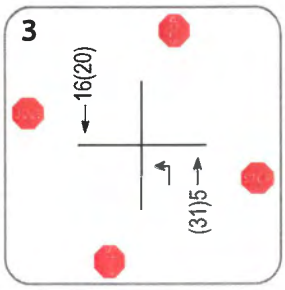
Traffic Impact Study for the Oat Hill Multi-Family Housing Project

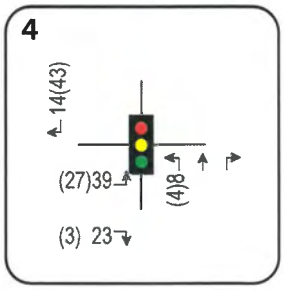
Figure 4 – Site Plan

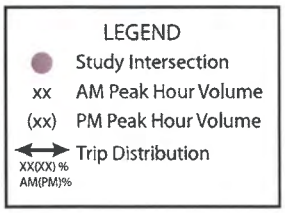












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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 5 – Project Traffic Volumes and Trip Distribution

Intersection Operation

Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to continue operating at an acceptable LOS during each peak hour. These results are summarized in Table 7 and Existing plus Project traffic volumes are shown in Figure 6.

Table 7 – Existing and Existing plus Project Peak Hour Intersection Levels of Service

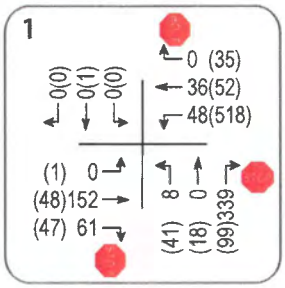
Study Intersection *Approach*	Existing Conditions				Existing plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Napa Junction Rd/Theresa Ave	9.9	A	17.6	C	10.5	B	22.7	C
2. Napa Junction Rd/Lombard Rd	2.0	A	0.8	A	1.5	A	0.7	A
Southbound (Lombard Rd) Approach	11.9	B	14.2	B	*12.1*	*B*	*15.1*	*C*
3. Eucalyptus Dr/Theresa Ave	10.3	B	13.6	B	10.5	B	14.5	B
4. SR 29/Napa Junction Rd	42.5	D	30.2	C	50.4	D	30.7	C

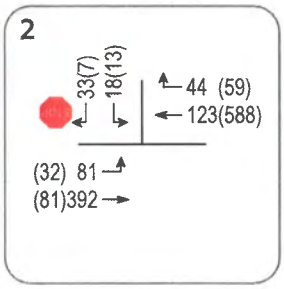
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

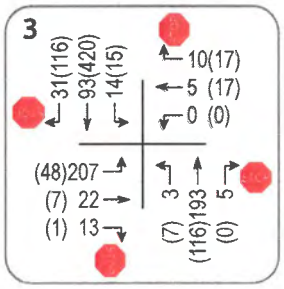
It should be noted that with the addition of project traffic, average delay at the intersection of Napa Junction Road/Lombard Road decreases slightly during each peak hour. While this is counter-intuitive, this condition occurs when trips are added to movements that are currently underutilized or have delays that are below the intersection average, resulting in a better balance between approaches and lower overall average delay. The proposed project would add traffic solely to the eastbound and westbound through movements at this location, which have virtually no delay, so are below the average for the intersection as a whole, resulting in a slight reduction in the overall average delay. The conclusion could incorrectly be drawn that operation would improve with the project based on this data alone; however, it is more appropriate to conclude that project trips are expected to make use of excess capacity, so drivers will experience little, if any, change in conditions as a result of the project.

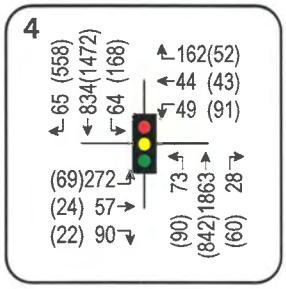
Finding – The study intersections are expected to continue operating acceptably upon the addition of project-generated traffic to Existing volumes.











LEGEND
- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 6 – Existing plus Project Traffic Volumes

W-Trans

Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated Future volumes, the study intersections are expected to continue operating at LOS D or better during both peak hours, except for SR 29/Napa Junction Road which would continue to operate at LOS F. The Future plus Project operating conditions are summarized in Table 8 and shown in Figure 7.

Table 8 – Future and Future plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions				Future plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Napa Junction Rd/Theresa Ave	9.4	A	19.8	C	10.2	B	26.8	D
2. Napa Junction Rd/Lombard Rd	2.0	A	0.9	A	1.8	A	0.8	A
Southbound (Lombard Rd) Approach	*11.2*	*B*	*14.7*	*B*	*11.8*	*B*	*15.7*	*C*
3. Eucalyptus Dr/Theresa Ave	10.2	B	14.9	B	10.3	B	15.9	C
4. SR 29/Napa Junction Rd	157.6	F	83.7	F	167.0	F	86.6	F

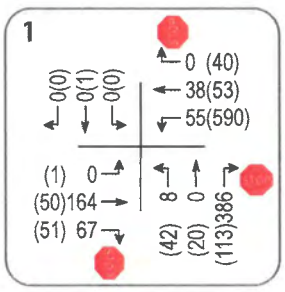
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

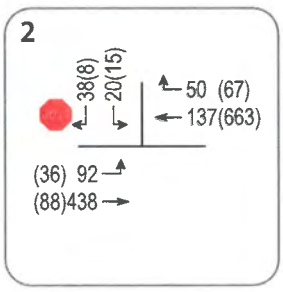
As mentioned previously, there are future plans for SR 29 to have three travel lanes in each direction through American Canyon. As required by the City, the project should pay a proportional share fee toward the cost of this planned future infrastructure improvement. The proposed project would be expected to add 77 new trips to SR 29 during the critical evening peak hour. Consequently, the project should pay a fee toward the cost of the planned improvements to SR 29 based on the City's fee schedule.

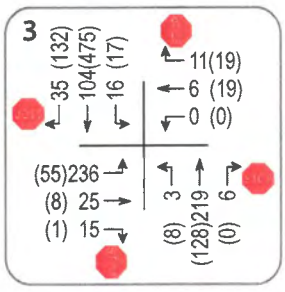
Finding – The study intersections that have an applicable LOS standard would be expected to continue operating acceptably; SR 29/Napa Junction Road would continue to operate at LOS F, though the project's effect would be considered acceptable since SR 29 is exempt from the City's LOS standard.

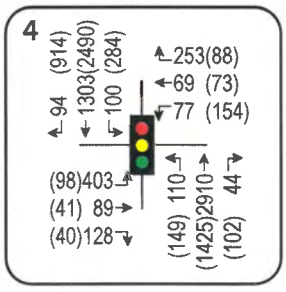
Recommendation – As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29.











LEGEND
- Study Intersection
- xx AM Peak Hour Volume
- (xx) PM Peak Hour Volume

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Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Figure 7 – Future plus Project Traffic Volumes

W-Trans

Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied for determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project will be the basis for determining impacts once this new metric is fully vetted and adopted. The City of American Canyon has not yet established thresholds of significance related to VMT, and as of the date of the preparation of this report, the Napa County travel demand model was not yet available for VMT analysis. As a result, the project related VMT impacts were qualitatively assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018.

The project site is within a walkable distance to commercial, residential, civic, and school land uses, being less than one-quarter mile from Eagle's Nest Preschool, Calvary Baptist Church, and the City of American Canyon City Hall. Also, within that distance is a bus stop at the intersection of SR 29/Napa Junction Road for Vine Transit Route 11, which serves the Vallejo Ferry Terminal. Within one-half mile of the project are a Walmart and other retail businesses. Given the general rural nature of the land use pattern throughout Napa County, it is reasonable to expect the project to have a VMT that is below the countywide average per capita based on the proximity of the project site to other land uses and connectivity to public transit.

To minimize the potential for the project to have an impact on VMT, transportation demand management (TDM) measures can be implemented to further reduce the need for vehicle travel by residents of the proposed project. The VMT associated with a development project is influenced by numerous factors, including proximity to other land uses. The publication *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010 includes a review of TDM strategies that can be expected to reduce VMT in comparison with typical development practices in the area. The TDM measures described below are potential measures that would be expected to reduce VMT and are recommended for the proposed project.

Transportation Demand Management (TDM) Measures

The following section describes the recommended resident TDM program. It should be noted that although the great majority of VMT reduction can be achieved by focusing on residents alone, some TDM measures can be used by guests or visitors and can contribute in reducing impacts. Note that the measures below are supported by the Guaranteed Ride Home (GRH) program operated by Napa Valley Transportation Authority (NVTA) as part of its Vcommute platform. The GRH program helps incentivize use of alternative transportation modes for workers or college students by providing free transportation in the event of a family emergency, bicycle theft, or other circumstance which may be problematic in terms of getting home if they are relying on an alternative mode.

Unbundled Parking

Most suburban multi-family residential dwellings are built with parking spaces dedicated to a specific unit. This guarantees reserved parking for its residents, but it also incentivizes the developer to "hide" the cost of parking as part of the unit's rent or sale price and therefore residents are charged for parking whether they own vehicles or not. In addition, many parking spaces go unused in this scenario. Unbundled parking occurs when developers charge for parking separately from the price of the dwelling unit so renters and buyers can choose to opt in or out. This encourages a development with fewer parking spaces being needed to meet demand.

Transit Benefits

Transit Pass program

Vine Transit operates local and express bus service near the project site, covering the area from Napa to regional destinations including the Vallejo Ferry Terminal and the El Cerrito Del Norte BART Station. Vine Transit offers adult ride passes ranging from $29 to $120 per month. The residential management organization can purchase transit passes in bulk for all residents with the understanding that not all will choose to take transit. This encourages residents to use transit and allows the transit provider some comfort that new demand will not be overwhelming. Given the large number of passes that would need to be purchased, Vine Transit may offer a group discount.

Bicycle Benefits

Bicycle Parking and Maintenance Tools

The provision of both short-term and long-term bicycle parking is important. Secure long-term parking (e.g. bike lockers) is a critical component in encouraging residents to bike to nearby employment or recreation destinations; long-term parking areas can also be provisioned with simple tools kept on-site such as a pump and tire patches. Short-term parking (e.g. bike racks) can be used by residents or visitors and is generally an inexpensive way to accommodate travelers.

Tele-Work/Compressed Schedules

There are various terms used to describe non-standard working hours, but they all involve decreasing the number of vehicle trips to and from work. Telework (i.e. working from home) and compressed schedules (i.e. working more than eight hours each day and shortening the work week) are two of the most commonly employed. They are both effective at reducing vehicle trips to work and particularly so during peak commute hours, but it is uncertain whether they decrease the overall number of vehicle trips.

Ride-matching Program

Carpooling is one of the most common and cost-effective alternative modes of transportation and one which commuters can adopt part-time. There are numerous benefits to ridesharing. Carpooling can reduce peak-period vehicle trips and increase commuters' travel choices. It reduces congestion, road and parking facility costs and pollution emissions. Carpooling tends to have the lowest cost per passenger-mile of any motorized mode of transportation, since it makes use of a vehicle seat that would otherwise be empty. Carpooling also provides the consumer financial savings by decreasing fuel and parking costs.

The greatest barrier to carpooling is often simply being able to identify and travel with other nearby commuters. Fortunately, there are many services that can assist in pairing individuals within the same community. The most basic publicly available service is 511.org's free ride-matching service.

Education, Outreach and Marketing

Transportation Coordinator

The presence of a part-time staff person dedicated to overseeing and managing the resident and visitor TDM program will be very helpful in ensuring the ongoing success of these programs. This does not need to be a distinct position but can be a role that is integrated into the on-site manager. The duties can include:

- Create and distribute resident transportation information welcome packets
- Maintain and update the transportation information kiosk board

- Distribute Napa Bicycle Coalition maps
- Monitor bicycle parking to ensure that there is sufficient space
- Assist in selling or distributing transit passes
- Market the TDM program and transit service
- Advertise the unbundled parking program
- Promote 511.org's ride-matching program

Welcome Packet for New Residents

New residents should be provided with a welcome packet containing relevant transportation information. The packet could include maps and information from Vine Transit, the Napa County Bicycle Coalition and material regarding 511.org ride-matching services.

Monitor Performance

It is important to continually monitor the performance of a TDM program and adjust measures as necessary to ensure its success. The resident management organization should conduct mode split and vehicle miles traveled (VMT) surveys each year both to determine if adjustments are needed and to use as marketing material. Resident satisfaction surveys are also an effective way of ensuring a quality TDM program.

Finding – The project could reasonably be expected to have a less-than-significant transportation impact on vehicle miles traveled with implementation of appropriate TDM measures.

Recommendation – The project should incorporate TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.

Alternative Modes

Pedestrian Facilities

Given the proximity of the project site to City Hall, transit, and the commercial uses on the east side of SR 29, it is reasonable to assume that some residents will want to walk, bicycle, and/or use transit for trips from and to the project site. Sidewalks do not currently exist along the project frontage on Napa Junction Road, though would be constructed as part of the project. Additionally, a sidewalk or paved pathway should be provided on the new section of Napa Junction Road between the project site and the existing sidewalk about 100 feet west of the school crossing. With these improvements, the project site would be connected to the surrounding pedestrian network.

Finding – Pedestrian facilities serving the project site are not currently adequate.

Recommendation – The proposed project should include construction of sidewalk or pathway between the project frontage and the existing sidewalk on the south side of Napa Junction Road near the school crossing.

Bicycle Facilities

Shared use of minor streets and sidewalks in the area provide adequate access for bicyclists, though due to the steep slope of the section of Napa Junction Road that provides access to the site bicycle trips are expected to be minimal.

Bicycle Storage

The *American Canyon Municipal Code*, Chapter 19.21.050, bicycle parking does not identify standards for residential uses. The proposed project site plan does not include bicycle parking spaces though it is anticipated that residents would have space to store their bicycles either in the dwelling units or other on-site spaces.

Finding – Bicycle facilities serving the project site are generally adequate, though space should be provided for bicycles to be stored on-site.

Recommendation – Space for bicycle storage should be provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks.

Transit

Existing transit routes are adequate to accommodate any project-generated transit trips that may occur. With the Napa Junction Road connection, the project site would be within acceptable walking distance of the transit stop at City Hall and this connection would be adequate upon provision of a sidewalk.

Finding – Transit facilities serving the project site will be adequate with the completion of a sidewalk connection.

Access and Circulation

Site Access

The project site would be accessible from two new connections to Napa Junction Road, one approximately 200 feet west of Hess Road and the other from the cul-de-sac at the western terminus of the roadway. With the project, a new section of Napa Junction Road would be constructed between the two disconnected segments east and west of Hess Road.

Emergency Access

An emergency vehicle access connection would link the two parcels so that residents of one parcel would be able to use the other parcel's connection to Napa Junction Road should their driveway be compromised in an emergency situation. All interior drive aisles and parking stalls should be designed to comply with City design standards and on-site circulation is therefore expected to function acceptably for emergency response vehicles. It should also be noted that the new connection of Napa Junction Road would result in a more direct route to the project site from SR 29 and other areas of the City so emergency response times to the section of Napa Junction Road west of Hess Road would be improved over existing conditions wherein vehicles have to loop around the little league fields using Lombard Road and Hess Road.

Finding – Access for emergency vehicles is expected to be adequate.

Recommendation – The parking lot and drive aisles should be designed to comply with City design standards.

CEQA Checklist

This section details discussion and results of the CEQA checklist for potential transportation/traffic impacts. The results are contained in Table 9 below and a discussion of each criterion follows.

Table 9 – XVII. TRANSPORTATION/TRAFFIC				
Would the Project:	**Potentially Significant Impact**	**Less than Significant Impact with Mitigation**	**Less than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?		X		
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?		X		
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Discussion of Results

a. Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

According to the *City of American Canyon General Plan*, numerous objectives, policies, and programs have been established supporting the need for all modes of travel to be accommodated by the transportation system. This is demonstrated through General Plan Guiding Policies 1.6, 1.9, 1.11, 2.1, and 3.1

- **Policy 1.6 Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak hours where possible and as long as possible.** The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy: State Route 29 through the City, American Canyon Road from SR 29 to Flosden Road-Newell Drive, and Flosden Road south of American Canyon Road.
- **Policy 1.9 Use of existing facilities.** Make efficient use of existing transportation facilities and improve these facilities as necessary in accordance with the Circulation Map.
- **Policy 1.11 Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by City residents.
- **Policy 2.1 Promote walking and bicycling.** Promote walking and bike riding for transportation,
- recreation, and improvement of public and environmental health.
- **Policy 3.1 Promote safe, efficient, and convenient public transportation.** Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

Roadway Facilities

The proposed project would not cause any study intersections to which it applies to operate below the City's standard of LOS D. The project's roadway impacts would therefore be *less than significant*, and no mitigation

measures are required. It should be noted that while SR 29/Napa Junction Road would operate at LOS F under Future Conditions without or with the project, this intersection is exempt from the City's LOS standard and Caltrans no longer has an operational standard.

Pedestrian Facilities

The proposed project includes pedestrian connectivity infrastructure on-site, including the provision of sidewalks that would be constructed along the project frontage. The community loop trail and pedestrian paths provide access to all housing units and promote walking, though a sidewalk gap would exist between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. This would restrict pedestrian access to the surrounding civic and commercial uses to the east and would be considered a *significant* impact. Therefore, as mitigation it is recommended that the project include constructing a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk near the elementary school. With this mitigation measure, pedestrian impacts would be reduced to *less than significant.*

Bicycle Facilities

Shared use of minor streets provides adequate access for bicyclists, though due to the steep slope of the section of Napa Junction Road that provides access to the site bicycle trips are expected to be minimal. In addition, future bicycle facilities near the project site have been identified in City and regional plans, which would improve future circulation for bicyclists. Therefore, bicycle impacts would be *less than significant.*

Transit Facilities

The American Canyon Transit (VINE) provides fixed route bus service in American Canyon. ACT has two morning and afternoon routes that stop at American Canyon City Hall, approximately 0.20 miles from the project site. Existing service is expected to be adequate to accommodate demand and transit impacts would therefore be *less than significant* upon implementation of the pedestrian facility measures identified above.

b. Would the Project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

CEQA Guidelines §15064.3, Subdivision (b) indicates that land use projects would have a significant impact if the project resulted in vehicle miles traveled (VMT) exceeding an applicable threshold of significance. It further notes that if existing models or methods are not available to estimate the VMT for the project being considered, a lead agency may analyze the project's VMT qualitatively. The City of American Canyon currently has no thresholds of significance related to VMT, and as of the date of the analysis, a regional travel demand model for Napa County is under development but not yet available for VMT analysis so the project was assessed qualitatively and TDM measures were recommended that would be expected to reduce any potential VMT impact to *less than significant.*

Given the general rural nature of the land use pattern throughout Napa County, it is reasonable to expect the project to have a VMT that is below the countywide average per capita based on the proximity of the project site to surrounding commercial and civic land uses and connectivity to public transit. To minimize the potential for the project to have an impact on VMT, the following transportation demand management (TDM) measures are recommended.

- Unbundled Parking
- Free Transit Passes
- Secure Bicycle Parking and Maintenance Tools
- Tele-Work/Compressed Schedules
- Carpooling and Ride-matching Program
- Transportation Coordinator
- Welcome Packet for New Residents

- Monitoring of Program Performance

c. *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

As part of the project, a new segment of Napa Junction Road would be constructed resulting in a continuous section of roadway running between SR 29 and the existing terminus west of the project site. The project itself as well as the new segment of roadway would be designed and constructed to meet currently applicable codes and requirements, so would not be expected to result in any increased hazards. The project is therefore expected to have a *less-than-significant* impact regarding geometric design features or incompatible uses.

d. *Would the Project result in inadequate emergency access?*

The project site would have adequate emergency access and would improve emergency access and response times to the section of Napa Junction Road west of Hess Road with the provision of a new street connection; therefore, the project would result in a *less-than-significant* and in fact beneficial impact related to emergency access.

Conclusions and Recommendations

Conclusions

- The proposed project would be expected to generate 1,583 daily trips on average, including 105 trips during the weekday a.m. peak hour and 128 trips during the p.m. peak hour.
- Under Existing Conditions all study intersections operate acceptably and they are expected to continue doing so upon the addition of project-related traffic.
- Under the anticipated Future volumes, the study intersections are expected to operate acceptably without or with the addition of project-related traffic, though SR 29/Napa Junction Road would operate at LOS F which was considered acceptable since SR 29 is exempt from the City's LOS policy.
- The project would be expected to have a *less-than-significant* transportation impact on vehicle miles traveled (VMT) with implementation of TDM measures.
- The shared use of minor streets along with the planned facilities outlined in the *Napa Countywide Bicycle Plan* would provide adequate access for bicyclists, though the project site plan does not identify the provision of bike parking.
- Pedestrian facilities serving the project site are not currently adequate, though would be improved with the provision of a sidewalk along the project frontage.
- Transit facilities serving the project site are adequate.
- Access for emergency response vehicles is expected to be adequate and response times would be improved over existing conditions.

Recommendations

- As required by the City, the project should pay a fee toward the cost of the planned future improvements to SR 29.
- The project should incorporate TDM measures identified in this report such as unbundled parking, transit passes, secure bicycle parking, and educational materials.
- The project should include constructing a sidewalk or pedestrian path along the south side of Napa Junction Road to connect the project site to the existing section of sidewalk near the school crossing.
- Secure bicycle storage should be provided, if not already planned as part of on-site amenities.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
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Quality Control	Dalene J. Whitlock, PE, PTOE

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Appendix A

Intersection Level of Service Calculations

W-Trans

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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.411

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]										00		
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	0	339	0	0	0	0	0	0	48	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	339	0	0	0	0	0	0	48	0	0
Peak Hour Factor	1.0000	0.8000	0.8000	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000	0.8000	1.0000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	106	0	0	0	0	0	0	15	0	0
Total Analysis Volume [veh/h]	0	0	424	0	0	0	0	0	0	60	0	0
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1031	811	748	731
Degree of Utilization, x	0.41	0.00	0.00	0.08

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.04	0.00	0.00	0.27
95th-Percentile Queue Length [ft]	51.01	0.00	0.00	6.68
Approach Delay [s/veh]	8.91	0.00	0.00	8.36
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.84			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	33	81	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	33	81	0	0	0
Peak Hour Factor	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	25	0	0	0
Total Analysis Volume [veh/h]	0	41	101	0	0	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.06			
d_M, Delay for Movement [s/veh]		8.45	7.37			
Movement LOS		A	A			
95th-Percentile Queue Length [veh/ln]		0.12	0.20			
95th-Percentile Queue Length [ft/ln]		2.94	4.97			
d_A, Approach Delay [s/veh]	8.45		7.37			
Approach LOS	A		A			
d_I, Intersection Delay [s/veh]	7.68					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	55	1	4	22	9	60	6	4	0	1	3
Total Analysis Volume [veh/h]	3	219	6	16	90	36	241	26	15	0	6	12
Pedestrian Volume [ped/h]							0					

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	733	733	716	737
Degree of Utilization, x	0.31	0.19	0.39	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.33	0.71	1.88	0.08
95th-Percentile Queue Length [ft]	33.15	17.85	47.09	1.88
Approach Delay [s/veh]	10.11	9.09	11.26	8.01
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.32			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	42.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.754

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	65	1863	28	64	834	51	233	57	67	49	44	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	65	1863	28	64	834	51	233	57	67	49	44	162
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	480	7	16	215	13	60	15	17	13	11	42
Total Analysis Volume [veh/h]	67	1921	29	66	860	53	240	59	69	51	45	167
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street [		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street [		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume (bicycles/h)		0			0			0			0	

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		19	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	25		17	26		19	20		18	20	
Vehicle Extension [s]	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	161	161	161	161	161	161	161	161	161	161	161
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]							0.00				
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	0.00	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	12	96	96	11	97	97	17	15	12	20	20
g / C, Green / Cycle	0.08	0.60	0.60	0.07	0.60	0.60	0.10	0.09	0.07	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.04	0.54	0.02	0.04	0.24	0.03	0.14	0.07	0.01	0.02	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1714	1708	3459	1870	1589
c, Capacity [veh/h]	137	2123	948	126	2145	957	226	159	251	232	197
d1, Uniform Delay [s]	71.17	28.44	13.34	72.06	16.76	13.15	76.16	71.48	70.16	63.18	68.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.46	0.25	0.11	0.11	0.42
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	1.67	0.01	3.32	0.12	0.02	74.42	19.28	0.39	0.40	29.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.90	0.03	0.52	0.40	0.06	1.06	0.81	0.20	0.19	0.85
d, Delay for Lane Group [s/veh]	73.87	30.11	13.35	75.38	16.88	13.17	150.58	90.76	70.55	63.58	98.70
Lane Group LOS	E	C	B	E	B	B	F	F	E	E	F
Critical Lane Group	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	2.69	29.68	0.42	2.68	7.82	0.76	14.36	6.09	1.01	1.70	8.39
50th-Percentile Queue Length [ft/ln]	67.29	742.03	10.42	67.11	195.41	18.97	358.97	152.14	25.27	42.41	209.82
95th-Percentile Queue Length [veh/ln]	4.85	38.62	0.75	4.83	12.40	1.37	21.10	10.13	1.82	3.05	13.14
95th-Percentile Queue Length [ft/ln]	121.13	965.40	18.75	120.79	310.04	34.14	527.49	253.28	45.48	76.33	328.60

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Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	73.87	30.11	13.35	75.38	16.88	13.17	150.58	90.76	90.76	70.55	63.58	98.70
Movement LOS	E	C	B	E	B	B	F	F	F	E	E	F
d_A, Approach Delay [s/veh]		31.32			20.62			129.77			87.23	
Approach LOS		C			C			F			F	
d_I, Intersection Delay [s/veh]	42.48											
Intersection LOS	D											
Intersection V/C	0.754											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	46.37			46.37
l_p,int, Pedestrian LOS Score for Intersection	3.357			2.392
Crosswalk LOS	C			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	331	349	278	278
d_b, Bicycle Delay [s]	38.31	37.48	40.76	40.76
l_b,int, Bicycle LOS Score for Intersection	3.224	2.367	2.167	1.994
Bicycle LOS	C	B	B	A

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.737

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	18	99	0	1	0	0	0	0	518	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	18	99	0	1	0	0	0	0	518	0	35
Peak Hour Factor	1.0000	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	5	27	0	0	0	0	0	0	141	0	10
Total Analysis Volume [veh/h]	0	20	108	0	1	0	0	0	0	563	0	38
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	740	646	730	815
Degree of Utilization, x	0.17	0.00	0.00	0.74

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.62	0.00	0.00	6.73
95th-Percentile Queue Length [ft]	15.55	0.12	0.00	168.23
Approach Delay [s/veh]	8.88	8.58	0.00	18.73
Approach LOS	A	A	A	C
Intersection Delay [s/veh]	16.99			
Intersection LOS	C			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	7	32	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	32	0	0	0
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	9	0	0	0
Total Analysis Volume [veh/h]	0	8	35	0	0	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]						
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median						

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.02			
d_M, Delay for Movement [s/veh]		8.34	7.27			
Movement LOS		A	A			
95th-Percentile Queue Length [veh/ln]		0.02	0.07			
95th-Percentile Queue Length [ft/ln]		0.56	1.65			
d_A, Approach Delay [s/veh]	8.34		7.27			
Approach LOS	A		A			
d_I, Intersection Delay [s/veh]	7.47					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	23	0	4	108	31	13	2	0	0	5	5
Total Analysis Volume [veh/h]	8	91	0	16	430	125	52	8	1	0	18	18
Pedestrian Volume [ped/h]								0				

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	746	856	638	688
Degree of Utilization, x	0.13	0.67	0.10	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.46	5.24	0.32	0.17
95th-Percentile Queue Length [ft]	11.41	131.04	7.90	4.13
Approach Delay [s/veh]	8.56	15.21	9.24	8.52
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	13.56			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.492

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	86	842	60	168	1472	515	42	24	22	91	43	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	86	842	60	168	1472	515	42	24	22	91	43	52
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	219	16	44	383	134	11	6	6	24	11	14
Total Analysis Volume [veh/h]	90	877	63	175	1533	536	44	25	23	95	45	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		30	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	25		17	26		19	49		18	50	
Vehicle Extension [s]	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Walk [s]		5			5			5			5	
Pedestrian Clearance [s]		10			10			10			10	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	122	122	122	122	122	122	122	122	122	122	122
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]											
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	2.70	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	12	62	62	15	59	59	11	16	12	14	14
g / C, Green / Cycle	0.10	0.51	0.51	0.12	0.49	0.49	0.09	0.13	0.10	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.05	0.25	0.04	0.10	0.43	0.34	0.02	0.03	0.03	0.02	0.03
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1724	3459	1870	1589
c, Capacity [veh/h]	181	1801	804	213	1737	775	159	228	354	222	189
d1, Uniform Delay [s]	51.82	19.77	15.51	52.41	28.09	24.14	51.86	47.25	50.51	48.51	49.01
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.15	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.10	0.20	0.04	7.68	1.64	1.51	0.94	0.46	0.40	0.44	0.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.50	0.49	0.08	0.82	0.88	0.69	0.28	0.21	0.27	0.20	0.29
d, Delay for Lane Group [s/veh]	53.93	19.97	15.55	60.09	29.73	25.65	52.79	47.70	50.91	48.95	49.83
Lane Group LOS	D	B	B	E	C	C	D	D	D	D	D
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.61	7.45	0.84	5.46	18.33	11.10	1.31	1.35	1.36	1.27	1.55
50th-Percentile Queue Length [ft/ln]	65.18	186.26	21.09	136.44	458.25	277.54	32.81	33.70	34.07	31.74	38.73
95th-Percentile Queue Length [veh/ln]	4.69	11.93	1.52	9.29	25.35	16.57	2.36	2.43	2.45	2.29	2.79
95th-Percentile Queue Length [ft/ln]	117.32	298.16	37.95	232.22	633.79	414.14	59.06	60.66	61.33	57.14	69.72

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Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.93	19.97	15.55	60.09	29.73	25.65	52.79	47.70	47.70	50.91	48.95	49.83
Movement LOS	D	B	B	E	C	C	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	22.67			31.12			50.14			50.16		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.20											
Intersection LOS	C											
Intersection V/C	0.492											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	46.37			46.37
I_p,int, Pedestrian LOS Score for Intersection	3.263			2.400
Crosswalk LOS	C			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	331	349	805	824
d_b, Bicycle Delay [s]	38.31	37.48	19.62	19.03
I_b,int, Bicycle LOS Score for Intersection	2.409	3.411	1.711	1.880
Bicycle LOS	B	C	A	A

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.373

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]							100.00					
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	0	386	0	0	0	0	0	0	55	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	386	0	0	0	0	0	0	55	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	97	0	0	0	0	0	0	14	0	0
Total Analysis Volume [veh/h]	0	0	386	0	0	0	0	0	0	55	0	0
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1036	820	761	742
Degree of Utilization, x	0.37	0.00	0.00	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.75	0.00	0.00	0.24
95th-Percentile Queue Length [ft]	43.63	0.00	0.00	5.99
Approach Delay [s/veh]	8.53	0.00	0.00	8.24
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.49			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	38	92	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	92	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	23	0	0	0
Total Analysis Volume [veh/h]	0	38	92	0	0	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.06			
d_M, Delay for Movement [s/veh]		8.44	7.35			
Movement LOS		A	A			
95th-Percentile Queue Length [veh/ln]		0.11	0.18			
95th-Percentile Queue Length [ft/ln]		2.72	4.50			
d_A, Approach Delay [s/veh]	8.44		7.35			
Approach LOS	A		A			
d_I, Intersection Delay [s/veh]	7.67					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.383

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]		00.00				00.00						
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	54	2	4	22	9	59	6	4	0	2	3
Total Analysis Volume [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Pedestrian Volume [ped/h]							0					

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	738	737	720	740
Degree of Utilization, x	0.30	0.19	0.38	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.28	0.69	1.81	0.07
95th-Percentile Queue Length [ft]	31.88	17.26	45.17	1.76
Approach Delay [s/veh]	9.98	9.01	11.08	7.98
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	10.19			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	157.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.093

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	102	2910	44	100	1303	80	364	89	105	77	69	253
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	102	2910	44	100	1303	80	364	89	105	77	69	253
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	728	11	25	326	20	91	22	26	19	17	63
Total Analysis Volume [veh/h]	102	2910	44	100	1303	80	364	89	105	77	69	253
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street [		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street [		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	134
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		30	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	41		17	42		21	54		54	21	
Vehicle Extension [s]	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	166	166	166	166	166	166	166	166	166	166	166
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]							0.00				
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	0.00	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	13	100	100	12	101	101	17	15	13	20	20
g / C, Green / Cycle	0.08	0.60	0.60	0.07	0.61	0.61	0.10	0.09	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.06	0.82	0.03	0.06	0.37	0.05	0.21	0.11	0.02	0.04	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1721	1707	3459	1870	1589
c, Capacity [veh/h]	138	2142	956	128	2163	965	229	154	263	222	189
d1, Uniform Delay [s]	74.91	33.07	13.55	75.78	20.18	13.47	80.26	75.51	72.47	66.91	73.14
k, delay calibration	0.05	0.18	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.40	162.52	0.01	3.90	0.10	0.01	284.23	157.89	0.23	0.29	183.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	1.36	0.05	0.78	0.60	0.08	1.59	1.26	0.29	0.31	1.34
d, Delay for Lane Group [s/veh]	78.32	195.60	13.56	79.67	20.28	13.49	364.49	233.39	72.70	67.20	256.89
Lane Group LOS	E	F	B	E	C	B	F	F	E	E	F
Critical Lane Group	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	4.30	86.91	0.65	4.25	14.49	1.19	28.27	13.43	1.57	2.72	17.74
50th-Percentile Queue Length [ft/ln]	107.49	2172.6	16.28	106.24	362.31	29.73	706.76	335.70	39.32	68.09	443.60
95th-Percentile Queue Length [veh/ln]	7.70	127.62	1.17	7.63	20.74	2.14	43.26	21.09	2.83	4.90	27.57
95th-Percentile Queue Length [ft/ln]	192.50	3190.5	29.31	190.76	518.39	53.52	1081.41	527.27	70.78	122.57	689.34

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Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	78.32	195.60	13.56	79.67	20.28	13.49	364.49	233.39	233.39	72.70	67.20	256.89
Movement LOS	E	F	B	E	C	B	F	F	F	E	E	F
d_A, Approach Delay [s/veh]	189.06			23.92			318.91			188.54		
Approach LOS	F			C			F			F		
d_I, Intersection Delay [s/veh]	157.65											
Intersection LOS	F											
Intersection V/C	1.093											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	58.30			58.30
I_p,int, Pedestrian LOS Score for Intersection	3.826			2.443
Crosswalk LOS	D			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	510	525	736	243
d_b, Bicycle Delay [s]	37.16	36.42	26.77	51.69
I_b,int, Bicycle LOS Score for Intersection	4.081	2.783	2.480	2.218
Bicycle LOS	D	C	B	B

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.776

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	20	113	0	1	0	0	0	0	590	0	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	20	113	0	1	0	0	0	0	590	0	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	5	28	0	0	0	0	0	0	148	0	10
Total Analysis Volume [veh/h]	0	20	113	0	1	0	0	0	0	590	0	40
Pedestrian Volume [ped/h]	0											

W-Trans

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	730	636	722	812
Degree of Utilization, x	0.18	0.00	0.00	0.78

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.66	0.00	0.00	7.75
95th-Percentile Queue Length [ft]	16.57	0.12	0.00	193.73
Approach Delay [s/veh]	9.03	8.67	0.00	20.97
Approach LOS	A	A	A	C
Intersection Delay [s/veh]	18.88			
Intersection LOS	C			

Scenario 4: 4 PM Future
Oat Hill Multi-Family Housing TIS
W-Trans
W-Trans

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	8	36	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	36	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	9	0	0	0
Total Analysis Volume [veh/h]	0	8	36	0	0	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.02			
d_M, Delay for Movement [s/veh]		8.34	7.27			
Movement LOS		A	A			
95th-Percentile Queue Length [veh/ln]		0.02	0.07			
95th-Percentile Queue Length [ft/ln]		0.56	1.70			
d_A, Approach Delay [s/veh]	8.34		7.27			
Approach LOS	A		A			
d_I, Intersection Delay [s/veh]	7.46					
Intersection LOS	A					

Scenario 4: 4 PM Future
Oat Hill Multi-Family Housing TIS
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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.711

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	24	0	4	114	33	14	2	0	0	5	5
Total Analysis Volume [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Pedestrian Volume [ped/h]							0					

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	737	850	626	675
Degree of Utilization, x	0.14	0.71	0.10	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.50	6.14	0.34	0.18
95th-Percentile Queue Length [ft]	12.39	153.48	8.49	4.47
Approach Delay [s/veh]	8.70	16.91	9.40	8.66
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	14.87			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	83.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.894

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	145	1425	102	284	2490	871	71	41	37	154	73	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	145	1425	102	284	2490	871	71	41	37	154	73	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	356	26	71	623	218	18	10	9	39	18	22
Total Analysis Volume [veh/h]	145	1425	102	284	2490	871	71	41	37	154	73	88
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	162
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		30	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7	0.0	3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	48	41		23	66		19	54		48	25	
Vehicle Extension [s]	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]		0										
Detector Length [ft]		0						0				
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Scenario 4: 4 PM Future
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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	162	162	162	162	162	162	162	162	162	162	162
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]				0.00							
l2, Clearance Lost Time [s]	2.70	4.80	4.80	0.00	4.80	4.80	2.70	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	13	100	100	18	95	95	13	15	13	15	15
g / C, Green / Cycle	0.08	0.62	0.62	0.11	0.59	0.59	0.08	0.09	0.08	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.08	0.40	0.06	0.18	0.70	0.55	0.04	0.05	0.04	0.04	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1612	3560	1589	1781	1726	3459	1870	1589
c, Capacity [veh/h]	143	2200	982	239	2094	935	148	155	277	173	147
d1, Uniform Delay [s]	74.52	19.72	12.64	85.55	33.36	30.39	70.95	70.30	71.74	69.41	70.61
k, delay calibration	0.04	0.50	0.50	0.38	0.50	0.50	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	25.21	1.49	0.21	112.45	90.09	16.91	0.90	0.94	0.65	0.60	1.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.02	0.65	0.10	1.19	1.19	0.93	0.48	0.50	0.56	0.42	0.60
d, Delay for Lane Group [s/veh]	99.74	21.21	12.85	198.00	123.45	47.30	71.84	71.23	72.38	70.01	72.05
Lane Group LOS	F	C	B	F	F	D	E	E	E	E	E
Critical Lane Group	[illegible]	[illegible]	[illegible]	Yes	Yes	No	[illegible]	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	6.80	16.10	1.49	17.41	63.07	32.32	2.89	3.17	3.13	2.91	3.59
50th-Percentile Queue Length [ft/ln]	170.07	402.50	37.33	435.23	1576.6	807.93	72.30	79.24	78.21	72.81	89.86
95th-Percentile Queue Length [veh/ln]	11.14	22.68	2.69	26.04	87.34	41.64	5.21	5.71	5.63	5.24	6.47
95th-Percentile Queue Length [ft/ln]	278.52	567.01	67.20	650.89	2183.5	1041.0	130.15	142.63	140.78	131.05	161.76

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Movement, Approach, & Intersection Results

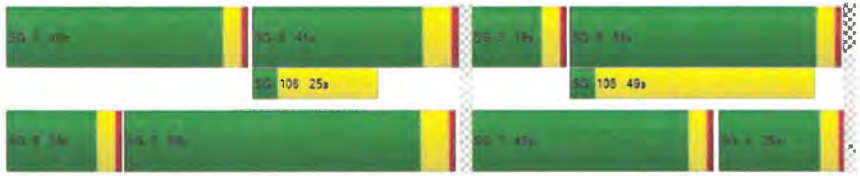
d_M, Delay for Movement [s/veh]	99.74	21.21	12.85	198.00	123.45	47.30	71.84	71.23	71.23	72.38	70.01	72.05
Movement LOS	F	C	B	F	F	D	E	E	E	E	E	E
d_A, Approach Delay [s/veh]		27.51			111.07			71.52			71.74	
Approach LOS		C			F			E			E	
d_I, Intersection Delay [s/veh]	83.74											
Intersection LOS	F											
Intersection V/C	0.894											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	72.25			72.25
I_p,int, Pedestrian LOS Score for Intersection	3.779			2.601
Crosswalk LOS	D			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	731	609	251
d_b, Bicycle Delay [s]	50.41	32.62	39.20	61.97
I_b,int, Bicycle LOS Score for Intersection	2.939	4.567	1.805	2.079
Bicycle LOS	C	E	A	B

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.447

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]							100.00					
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	0	339	0	0	0	0	0	0	48	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	62	16	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	339	0	0	0	0	62	16	48	22	0
Peak Hour Factor	1.0000	0.8000	0.8000	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000	0.8000	1.0000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	106	0	0	0	0	16	4	15	6	0
Total Analysis Volume [veh/h]	5	0	424	0	0	0	0	62	16	60	22	0
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	959	756	750	711
Degree of Utilization, x	0.45	0.00	0.10	0.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.34	0.00	0.35	0.39
95th-Percentile Queue Length [ft]	58.61	0.00	8.68	9.73
Approach Delay [s/veh]	9.75	0.00	8.36	8.72
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.43			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.039

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	33	81	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	62	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	33	81	62	22	0
Peak Hour Factor	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	25	16	6	0
Total Analysis Volume [veh/h]	0	41	101	62	22	0
Pedestrian Volume [ped/h]						

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.06			
d_M, Delay for Movement [s/veh]		8.55	7.41			
Movement LOS		A	A	A	A	
95th-Percentile Queue Length [veh/ln]		0.12	0.20	0.20	0.00	
95th-Percentile Queue Length [ft/ln]		3.03	5.07	5.07	0.00	
d_A, Approach Delay [s/veh]	8.55		4.59		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.86					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.399

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]									00			
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	188	5	14	77	31	207	22	13	0	5	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	16	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	193	5	14	93	31	207	22	13	0	5	10
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	56	1	4	27	9	60	6	4	0	1	3
Total Analysis Volume [veh/h]	3	224	6	16	108	36	241	26	15	0	6	12
Pedestrian Volume [ped/h]							0					

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	728	728	707	726
Degree of Utilization, x	0.32	0.22	0.40	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.38	0.84	1.92	0.08
95th-Percentile Queue Length [ft]	34.54	20.88	47.98	1.91
Approach Delay [s/veh]	10.26	9.33	11.42	8.09
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.46			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	50.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	65	1863	28	64	834	51	233	57	67	49	44	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	14	39	0	23	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	73	1863	28	64	834	65	272	57	90	49	44	162
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	480	7	16	215	17	70	15	23	13	11	42
Total Analysis Volume [veh/h]	75	1921	29	66	860	67	280	59	93	51	45	167
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street [		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street [		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		19	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	25		17	26		19	20		18	20	
Vehicle Extension [s]	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
l1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
l2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	161	161	161	161	**161**	**161**	161	161	161	161	161
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]							0.00				
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	0.00	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	13	96	96	11	97	97	17	15	12	20	20
g / C, Green / Cycle	0.08	0.60	0.60	0.07	0.60	0.60	0.10	**0.09**	0.07	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.04	0.54	0.02	0.04	0.24	0.04	0.16	0.09	**0.01**	0.02	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1713	1688	3459	1870	1589
c, Capacity [veh/h]	139	**2120**	947	126	**2146**	958	226	157	251	233	198
d1, Uniform Delay [s]	71.54	**28.64**	13.43	72.27	**16.77**	13.28	76.01	72.85	70.37	63.30	69.03
k, delay calibration	0.11	0.11	0.11	0.11	**0.11**	0.11	0.50	0.36	**0.11**	0.11	0.43
I, Upstream Filtering Factor	**1.00**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**	1.00	1.00
d2, Incremental Delay [s]	3.25	1.70	0.01	3.35	0.12	0.03	140.02	53.05	**0.40**	0.40	29.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	**0.00**	**0.00**	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.54	0.91	0.03	0.52	0.40	0.07	1.24	0.97	0.20	0.19	0.84
d, Delay for Lane Group [s/veh]	74.79	30.34	13.44	75.62	16.90	13.31	216.03	125.90	70.77	63.70	98.58
Lane Group LOS	E	C	B	E	B	B	F	F	E	E	F
Critical Lane Group	Yes	Yes		No	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.04	29.87	0.42	2.69	7.84	0.97	18.46	8.65	**1.01**	1.70	8.40
50th-Percentile Queue Length [ft/ln]	76.06	**746.77**	10.48	67.32	**195.88**	24.26	461.56	216.30	25.34	42.51	210.00
95th-Percentile Queue Length [veh/ln]	5.48	**38.83**	0.75	4.85	12.43	1.75	27.76	13.48	**1.82**	3.06	13.15
95th-Percentile Queue Length [ft/ln]	136.90	970.86	18.87	121.18	310.64	43.67	694.09	336.90	45.62	76.52	328.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	74.79	30.34	13.44	75.62	16.90	13.31	216.03	125.90	125.90	70.77	63.70	98.58
Movement LOS	E	C	B	E	B	B	F	F	F	E	E	F
d_A, Approach Delay [s/veh]		**31.74**			20.56			184.32			87.22	
Approach LOS		C			C			F			F	
d_I, Intersection Delay [s/veh]	50.43											
Intersection LOS	D											
Intersection V/C	0.773											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	**0.00**			**0.00**
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	46.37			46.37
I_p,int, Pedestrian LOS Score for Intersection	3.366			2.392
Crosswalk LOS	C			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	331	349	278	278
d_b, Bicycle Delay [s]	38.31	37.48	40.76	40.76
I_b,int, Bicycle LOS Score for Intersection	3.230	2.379	2.272	1.994
Bicycle LOS	C	B	B	A

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	21.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.825

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	18	99	0	1	0	0	0	0	518	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	0	0	0	30	20	0	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	18	99	0	1	0	0	30	20	518	47	35
Peak Hour Factor	1.0000	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	5	27	0	0	0	0	8	5	141	12	10
Total Analysis Volume [veh/h]	31	20	108	0	1	0	0	30	20	563	47	38
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	687	610	735	786
Degree of Utilization, x	0.23	0.00	0.07	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.89	0.00	0.22	9.20
95th-Percentile Queue Length [ft]	22.28	0.12	5.46	229.94
Approach Delay [s/veh]	9.81	8.91	8.26	25.20
Approach LOS	A	A	A	D
Intersection Delay [s/veh]	21.34			
Intersection LOS	C			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	7	32	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	30	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	32	30	47	0
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	9	8	12	0
Total Analysis Volume [veh/h]	0	8	35	30	47	0
Pedestrian Volume [ped/h]						

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]						
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median						

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.02			
d_M, Delay for Movement [s/veh]		8.55	7.36			
Movement LOS		A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.0	0.02	0.07	0.07	0.00	
95th-Percentile Queue Length [ft/ln]		0.59	1.72	1.72	0.00	
d_A, Approach Delay [s/veh]	8.55		3.96		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.72					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	7	85	0	15	400	116	48	7	1	0	17	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	20	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	116	0	15	420	116	48	7	1	0	17	17
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	31	0	4	113	31	13	2	0	0	5	5
Total Analysis Volume [veh/h]	8	125	0	16	452	125	52	8	1	0	18	18
Pedestrian Volume [ped/h]								0				

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	741	845	623	670
Degree of Utilization, x	0.18	0.70	0.10	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.65	5.93	0.32	0.17
95th-Percentile Queue Length [ft]	16.27	148.37	8.11	4.25
Approach Delay [s/veh]	8.92	16.62	9.41	8.68
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	14.49			
Intersection LOS	B			

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Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	30.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	86	842	60	168	1472	515	42	24	22	91	43	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	43	27	0	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	90	842	60	168	1472	558	69	24	25	91	43	52
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	219	16	44	383	145	18	6	7	24	11	14
Total Analysis Volume [veh/h]	94	877	63	175	1533	581	72	25	26	95	45	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree	0						0					
v_di, Inbound Pedestrian Volume crossing major street [	0						0					
v_co, Outbound Pedestrian Volume crossing minor stree	0									0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0									0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		19	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	25		17	26		19	20		18	20	
Vehicle Extension [s]	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	121	121	121	121	121	121	121	121	121	121	121
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]											
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	2.70	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	12	61	61	14	59	59	13	14	12	14	14
g / C, Green / Cycle	0.10	0.50	0.50	0.11	0.49	0.49	0.11	0.12	0.10	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.05	0.25	0.04	0.10	0.43	0.37	0.04	0.03	0.03	0.02	0.03
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1716	3459	1870	1589
c, Capacity [veh/h]	183	1785	797	204	1744	779	188	201	357	224	190
d1, Uniform Delay [s]	51.34	19.95	15.66	52.58	27.62	24.79	50.39	48.54	49.99	48.00	48.49
k, delay calibration	0.11	0.11	0.11	0.15	0.11	0.18	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.20	0.21	0.04	12.99	1.57	2.39	1.28	0.66	0.39	0.44	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.49	0.08	0.86	0.88	0.75	0.38	0.25	0.27	0.20	0.28
d, Delay for Lane Group [s/veh]	53.55	20.16	15.70	65.57	29.20	27.18	51.67	49.20	50.38	48.43	49.30
Lane Group LOS	D	C	B	E	C	C	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	2.70	7.46	0.84	5.72	18.02	12.51	2.12	1.45	1.35	1.26	1.53
50th-Percentile Queue Length [ft/ln]	67.51	186.39	21.10	143.08	450.42	312.83	52.98	36.35	33.71	31.41	38.32
95th-Percentile Queue Length [veh/ln]	4.86	11.93	1.52	9.65	24.98	18.31	3.81	2.62	2.43	2.26	2.76
95th-Percentile Queue Length [ft/ln]	121.52	298.34	37.98	241.16	624.44	457.86	95.37	65.42	60.69	56.53	68.97

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Movement, Approach, & Intersection Results

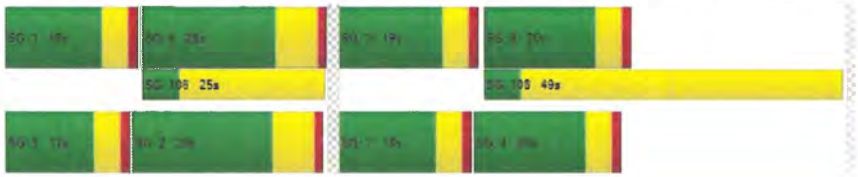
d_M, Delay for Movement [s/veh]	53.55	20.16	15.70	65.57	29.20	27.18	51.67	49.20	49.20	50.38	48.43	49.30
Movement LOS	D	C	B	E	C	C	D	D	D	D	D	D
d_A, Approach Delay [s/veh]		22.92			31.46			50.64			49.63	
Approach LOS		C			C			D			D	
d_I, Intersection Delay [s/veh]	30.65											
Intersection LOS	C											
Intersection V/C	0.599											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	46.37			46.37
I_p,int, Pedestrian LOS Score for Intersection	3.265			2.400
Crosswalk LOS	C			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	331	349	278	278
d_b, Bicycle Delay [s]	38.31	37.48	40.76	40.76
I_b,int, Bicycle LOS Score for Intersection	2.413	3.448	1.763	1.880
Bicycle LOS	B	C	A	A

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.406

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]		0.0	1									
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	0	386	0	0	0	0	0	0	55	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	62	16	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	386	0	0	0	0	62	16	55	22	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	97	0	0	0	0	16	4	14	6	0
Total Analysis Volume [veh/h]	5	0	386	0	0	0	0	62	16	55	22	0
Pedestrian Volume [ped/h]		0										

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	964	765	764	724
Degree of Utilization, x	0.41	0.00	0.10	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.99	0.00	0.34	0.36
95th-Percentile Queue Length [ft]	49.79	0.00	8.49	8.89
Approach Delay [s/veh]	9.26	0.00	8.25	8.57
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.02			
Intersection LOS	A			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00					
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	38	92	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	62	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	92	62	22	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	23	16	6	0
Total Analysis Volume [veh/h]	0	38	92	62	22	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.06			
d_M, Delay for Movement [s/veh]		8.54	7.40			
Movement LOS		A	A	A	A	
95th-Percentile Queue Length [veh/ln]		0.11	0.18	0.18	0.00	
95th-Percentile Queue Length [ft/ln]		2.80	4.59	4.59	0.00	
d_A, Approach Delay [s/veh]	8.54		4.42		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.70					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]									100.00			
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	3	214	6	16	88	35	236	25	15	0	6	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	16	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	219	6	16	104	35	236	25	15	0	6	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	55	2	4	26	9	59	6	4	0	2	3
Total Analysis Volume [veh/h]	3	219	6	16	104	35	236	25	15	0	6	11
Pedestrian Volume [ped/h]								0				

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	733	733	712	731
Degree of Utilization, x	0.31	0.21	0.39	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.33	0.80	1.84	0.07
95th-Percentile Queue Length [ft]	33.18	19.89	45.94	1.79
Approach Delay [s/veh]	10.12	9.22	11.22	8.05
Approach LOS	B	A	B	A
Intersection Delay [s/veh]	10.31			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	167.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.112

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	102	2910	44	100	1303	80	364	89	105	77	69	253
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	14	39	0	23	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	110	2910	44	100	1303	94	403	89	128	77	69	253
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	728	11	25	326	24	101	22	32	19	17	63
Total Analysis Volume [veh/h]	110	2910	44	100	1303	94	403	89	128	77	69	253
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree	0						0					
v_di, Inbound Pedestrian Volume crossing major street [	0						0					
v_co, Outbound Pedestrian Volume crossing minor stree	0									0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0									0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	134
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		30	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	18	41		17	42		21	54		54	21	
Vehicle Extension [s]	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	166	166	166	166	166	166	166	166	166	166	166
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]							0.00				
l2, Clearance Lost Time [s]	2.70	4.80	4.80	2.70	4.80	4.80	0.00	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	13	100	100	12	101	101	17	15	13	20	20
g / C, Green / Cycle	0.08	0.60	0.60	0.07	0.61	0.61	0.10	0.09	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.06	0.82	0.03	0.06	0.37	0.06	0.23	0.13	0.02	0.04	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1721	1694	3459	1870	1589
c, Capacity [veh/h]	139	2141	956	128	2163	966	229	153	263	222	189
d1, Uniform Delay [s]	75.25	33.09	13.57	75.80	20.17	13.60	80.28	75.53	72.49	66.93	73.16
k, delay calibration	0.08	0.18	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.80	162.66	0.01	3.90	0.10	0.02	358.55	222.07	0.23	0.29	183.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	1.36	0.05	0.78	0.60	0.10	1.76	1.42	0.29	0.31	1.34
d, Delay for Lane Group [s/veh]	83.05	195.75	13.57	79.70	20.28	13.61	438.82	297.59	72.72	67.22	257.03
Lane Group LOS	F	F	B	E	C	B	F	F	E	E	F
Critical Lane Group	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	4.82	86.94	0.65	4.25	14.49	1.41	33.00	16.05	1.57	2.72	17.75
50th-Percentile Queue Length [ft/ln]	120.43	2173.5	16.29	106.27	362.31	35.26	824.96	401.24	39.33	68.11	443.71
95th-Percentile Queue Length [veh/ln]	8.42	127.68	1.17	7.63	20.74	2.54	50.68	25.40	2.83	4.90	27.58
95th-Percentile Queue Length [ft/ln]	210.42	3192.0	29.33	190.80	518.40	63.47	1266.90	635.00	70.80	122.60	689.54

Movement, Approach, & Intersection Results

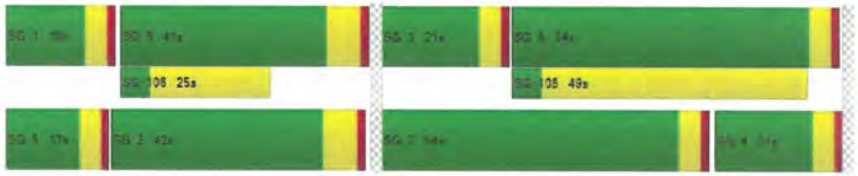
d_M, Delay for Movement [s/veh]	83.05	195.75	13.57	79.70	20.28	13.61	438.82	297.59	297.59	72.72	67.22	257.03
Movement LOS	F	F	B	E	C	B	F	F	F	E	E	F
d_A, Approach Delay [s/veh]		189.09			23.83			389.39			188.64	
Approach LOS		F			C			F			F	
d_I, Intersection Delay [s/veh]	166.98											
Intersection LOS	F											
Intersection V/C	1.112											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	58.30			58.30
l_p,int, Pedestrian LOS Score for Intersection	3.835			2.443
Crosswalk LOS	D			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	510	525	736	243
d_b, Bicycle Delay [s]	37.16	36.42	26.77	51.69
l_b,int, Bicycle LOS Score for Intersection	4.087	2.795	2.583	2.218
Bicycle LOS	D	C	B	B

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection Level Of Service Report
Intersection 1: Napa Junction Rd/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.865

Intersection Setup

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Theresa Ave						Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	0	20	113	0	1	0	0	0	0	590	0	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	0	0	0	30	20	0	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	20	113	0	1	0	0	30	20	590	47	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	5	28	0	0	0	0	8	5	148	12	10
Total Analysis Volume [veh/h]	31	20	113	0	1	0	0	30	20	590	47	40
Pedestrian Volume [ped/h]	0											

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	679	600	726	783
Degree of Utilization, x	0.24	0.00	0.07	0.87

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.94	0.01	0.22	10.66
95th-Percentile Queue Length [ft]	23.58	0.13	5.54	266.53
Approach Delay [s/veh]	9.99	9.01	8.33	29.38
Approach LOS	A	A	A	D
Intersection Delay [s/veh]	24.61			
Intersection LOS	C			

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Intersection Level Of Service Report
Intersection 2: Napa Junction Rd/Lombard Rd

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	75.00				0.0	0.0
Speed [mph]	30.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lombard Rd		Napa Junction Rd		Napa Junction Rd	
Base Volume Input [veh/h]	0	8	36	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	30	47	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	36	30	47	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	9	8	12	0
Total Analysis Volume [veh/h]	0	8	36	30	47	0
Pedestrian Volume [ped/h]						

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Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]			
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median			

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.02			
d_M, Delay for Movement [s/veh]		8.55	7.36			
Movement LOS		A	A	A	A	
95th-Percentile Queue Length [veh/ln]		0.02	0.07	0.07	0.00	
95th-Percentile Queue Length [ft/ln]		0.59	1.77	1.77	0.00	
d_A, Approach Delay [s/veh]	8.55		4.02		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.76					
Intersection LOS	A					

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Intersection Level Of Service Report
Intersection 3: Eucalyptus Dr/Theresa Ave

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.743

Intersection Setup

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0		0	0		0	0		0	0		0
Pocket Length [ft]												
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Theresa Ave			Theresa Ave			Eucalyptus Dr					
Base Volume Input [veh/h]	8	97	0	17	455	132	55	8	1	0	19	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	20	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	128	0	17	475	132	55	8	1	0	19	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	32	0	4	119	33	14	2	0	0	5	5
Total Analysis Volume [veh/h]	8	128	0	17	475	132	55	8	1	0	19	19
Pedestrian Volume [ped/h]							0					

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	732	841	613	659
Degree of Utilization, x	0.19	0.74	0.10	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.68	6.90	0.35	0.18
95th-Percentile Queue Length [ft]	16.96	172.38	8.70	4.58
Approach Delay [s/veh]	9.04	18.55	9.56	8.80
Approach LOS	A	C	A	A
Intersection Delay [s/veh]	15.95			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 4: SR 29/Napa Junction Rd

Control Type:	Signalized	Delay (sec / veh):	86.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.911

Intersection Setup

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1		1	1		1	1		0	1		1
Pocket Length [ft]	400.00		350.00	350.00		350.00	100.00			275.00		150.00
Speed [mph]	55.00			55.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			No			Yes			Yes		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	SR 29			SR 29			Napa Junction Rd			Napa Junction Rd		
Base Volume Input [veh/h]	145	1425	102	284	2490	871	71	41	37	154	73	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	43	27	0	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]			0			0			0			0
Total Hourly Volume [veh/h]	149	1425	102	284	2490	914	98	41	40	154	73	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	356	26	71	623	229	25	10	10	39	18	22
Total Analysis Volume [veh/h]	149	1425	102	284	2490	914	98	41	40	154	73	88
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]												
Local Bus Stopping Rate [/h]			0			0			0			0
v_do, Outbound Pedestrian Volume crossing major stree		0						0				
v_di, Inbound Pedestrian Volume crossing major street [		0						0				
v_co, Outbound Pedestrian Volume crossing minor stree		0									0	
v_ci, Inbound Pedestrian Volume crossing minor street [		0									0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

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Intersection Settings

Located in CBD	No
Signal Coordination Group	
Cycle Length [s]	162
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	1	6		5	2		3	8		7	4	
Auxiliary Signal Groups												
Lead / Lag	Lead			Lead			Lead			Lead		
Minimum Green [s]	13	10		12	10		14	15		13	15	
Maximum Green [s]	16	100		30	70		21	15		16	16	
Amber [s]	3.7	5.8		3.7	5.8		3.7	3.7		3.7	3.7	
All red [s]	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Split [s]	48	41		23	66		19	54		48	25	
Vehicle Extension [s]	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Walk [s]		5			0			5			0	
Pedestrian Clearance [s]		20			0			44			0	
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
I2, Clearance Lost Time [s]	2.7	4.8		2.7	4.8		2.7	2.7		2.7	2.7	
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]												
Detector Length [ft]												
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	162	162	162	162	162	162	162	162	162	162	162
L, Total Lost Time per Cycle [s]	4.70	6.80	6.80	4.70	6.80	6.80	4.70	4.70	4.70	4.70	4.70
l1_p, Permitted Start-Up Lost Time [s]				0.00							
l2, Clearance Lost Time [s]	2.70	4.80	4.80	0.00	4.80	4.80	2.70	2.70	2.70	2.70	2.70
g_i, Effective Green Time [s]	13	100	100	18	95	95	14	15	13	15	15
g / C, Green / Cycle	0.08	0.62	0.62	0.11	0.59	0.59	0.09	0.09	0.08	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.08	0.40	0.06	0.18	0.70	0.58	0.06	0.05	0.04	0.04	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1612	3560	1589	1781	1720	3459	1870	1589
c, Capacity [veh/h]	143	2190	978	239	2084	931	152	155	277	179	152
d1, Uniform Delay [s]	74.52	20.01	12.83	85.55	33.59	32.77	71.70	70.38	71.74	68.98	70.17
k, delay calibration	0.04	0.50	0.50	0.38	0.50	0.50	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	33.54	1.52	0.21	112.38	92.59	25.52	1.69	1.01	0.65	0.56	1.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.04	0.65	0.10	1.19	1.19	0.98	0.64	0.52	0.56	0.41	0.58
d, Delay for Lane Group [s/veh]	108.06	21.53	13.04	197.93	126.18	58.29	73.39	71.39	72.38	69.54	71.47
Lane Group LOS	F	C	B	F	F	E	E	E	E	E	E
Critical Lane Group			No	Yes	Yes	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	7.13	16.26	1.51	17.41	63.56	38.04	4.06	3.30	3.13	2.90	3.58
50th-Percentile Queue Length [ft/ln]	178.37	406.45	37.69	435.18	1588.9	951.01	101.61	82.46	78.21	72.53	89.47
95th-Percentile Queue Length [veh/ln]	11.69	22.87	2.71	26.03	88.24	48.16	7.32	5.94	5.63	5.22	6.44
95th-Percentile Queue Length [ft/ln]	292.22	571.76	67.84	650.79	2205.9	1203.8	182.89	148.42	140.78	130.55	161.04

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Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	108.06	21.53	13.04	197.93	126.18	58.29	73.39	71.39	71.39	72.38	69.54	71.47
Movement LOS	F	C	B	F	F	E	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	28.70			114.88			72.48			71.47		
Approach LOS	C			F			E			E		
d_I, Intersection Delay [s/veh]	86.60											
Intersection LOS	F											
Intersection V/C	0.911											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00			0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00			0.00
d_p, Pedestrian Delay [s]	72.25			72.25
l_p,int, Pedestrian LOS Score for Intersection	3.781			2.601
Crosswalk LOS	D			B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	731	609	251
d_b, Bicycle Delay [s]	50.41	32.62	39.20	61.97
l_b,int, Bicycle LOS Score for Intersection	2.942	4.602	1.855	2.079
Bicycle LOS	C	E	A	B

Sequence

Ring 1	1	6	3	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	5	7	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



6204

Attachment 1, Exhibit A:
ISMND Response to Comments

RESPONSES TO COMMENTS

INTRODUCTION

This Responses to Comments document contains comments received during the public review period of the Oat Hill Project Initial Study/Mitigated Negative Declaration (IS/MND).

According to CEQA Guidelines Sections 15073 and 15074, the lead agency must consider the comments received during consultation and review periods together with the IS/MND. However, unlike with an Environmental Impact Report (EIR), comments received on an IS/MND are not required to be attached to the negative declaration, nor must the lead agency make specific written responses to public comments. Nonetheless, the City of American Canyon, as the lead agency, has chosen to provide responses to those specific public comments that are related to the environmental analysis contained in the IS/MND. Non-environmental comments have been considered by the City as part of the Staff Report.

BACKGROUND

The City of American Canyon used the following methods to solicit public input on the IS/MND: a Notice of Completion of the IS/MND was posted with the State Clearinghouse on February 5, 2021. The IS/MND was distributed to applicable public agencies, responsible agencies, and interested individuals. In addition, electronic copies were available on the City's website, www.cityofamericancanyon.org/home. The public review period ended on March 10, 2021.

LIST OF COMMENTERS

The City of American Canyon received four comment letters during the open comment period on the IS/MND for the proposed project. The comment letters were received from the following representatives and are included in the Responses to Comments section below:

Letter 1 ..... Gregg Erickson, Regional Manager, California Department of Fish and Wildlife
Letter 2 ..... Mark Leong, District Branch Chief, California Department of Transportation
Letter 3 ..... Cassidy Ward
Letter 4 ..... Karen Fritz

RESPONSES TO COMMENTS

The Responses to Comments below includes each comment letter regarding the Oat Hill Project, as well as responses to each comment. Each bracketed comment letter is followed by numbered responses to each bracketed comment. Where revisions to the IS/MND text were made, new text is <u>double underlined</u> and deleted text is ~~struck through~~.

All such revisions to the IS/MND are relatively minor, and do not affect the adequacy of the conclusions presented therein. CEQA Guidelines Section 15073.5 states the following regarding recirculation requirements for negative declarations:

(c) Recirculation is not required under the following circumstances:

(1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.

(2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.

(3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.

(4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

Based on the above, pursuant to CEQA Guidelines Section 15073.5, recirculation of the IS/MND is not warranted.

Letter 1

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

March 1, 2021

Mr. Brent Cooper
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503
bcooper@cityofamericancanyon.org

Subject: Oat Hill Multi-Family Project, Mitigated Negative Declaration, SCH No. 2021020107, Napa County

Dear Mr. Cooper:

The California Department of Fish and Wildlife (CDFW) reviewed the Mitigated Negative Declaration (MND) for the Oat Hill Multi-Family Project (Project) and is submitting the following comments on the MND to inform the City of American Canyon, as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) and is responsible for the conservation, protection, and management of the State's biological resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as a California Endangered Species Act (CESA) Permit, Native Plant Protection Act Permit, Lake and Streambed Alteration (LSA) Agreement, and other provisions of the Fish and Game Code that afford protection to California's (State's) fish and wildlife trust resources.

1-1

PROJECT DESCRIPTION

The proposed Project would develop 291 multi-family residential units on two parcels (Parcels A and B) totaling approximately 20.8 acres. Parcel A would consist of 206 multi-family residential units, a community loop trail, recreation building, outdoor seating area, and a pool. Parcel B would consist of 85 multi-family residential units, a recreation building, a tot lot, and an outdoor lounge and viewing area. Primary access to the site would be provided from an extension of the Napa Junction Road, which would connect to the site through two new driveways.

PROJECT LOCATION AND ENVIRONMENTAL SETTING

The Project site is located immediately southwest of the intersection of Napa Junction Road and Hess Road in the City of American Canyon, Napa County. Approximate Project center coordinates are 38.18418° N, 122.26152° W; and the Assessor's Parcel

Letter 1
Cont'd

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1-1 Cont'd

Numbers are 058-380-008 and 058-320-001. The Project site is undeveloped and consists of annual grassland habitat with some shrubs and trees, including eucalyptus and pine. Elevations range from 80 to 185 feet above mean sea level. Surrounding land consists of annual grassland habitat to the south and west, industrial businesses and recreational vehicle storage to the north, a light industrial building to the northwest, Napa Junction Magnet Elementary School to the northeast, and single-family residences to the east.

COMMENTS AND RECOMMENDATIONS

Swainson's hawk (*Buteo swainsoni*)

CDFW is concerned with Mitigation Measures IV-1 and IV-2, and recommends the following revisions to reduce potential impacts to Swainson's hawk, a CESA listed as threatened species, to less-than-significant (added language in ***bold italics***, deleted language in ~~strikethrough~~):

1-2

IV-1. Prior to project initiation, pre-construction surveys shall be conducted ***by a qualified biologist*** *within a* ~~*quarter*~~***0.5****-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods* ***prior to starting Project activities****. The survey period timing and methodology shall be conducted in accordance with* ~~*CDFW's*~~ ***the Swainson's Hawk Technical Advisory Committee's*** *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (****2000****~~CDFG 1994~~), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to* ***CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to*** *the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within* ~~*0.25*~~ ***0.5****-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required.*

IV-2. If Swainson's hawks are found to be nesting on the project site or within ~~*0.25*~~ ***0.5****-mile of the project site,* ***the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5 miles of the Project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities*** ~~*consultation with CDFW shall be required. The size of the nest protection buffer shall be determined*~~

Letter 1 Cont'd

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1-2 Cont'd

~~*during consultation with CDFW, but at a minimum, shall be a 300 foot non-disturbance buffer around the nest site.*~~

Western burrowing owl (*Athene cunicularia*)

Mitigation Measure IV-3 in the MND would not reduce potential impacts to burrowing owl, a California Species of Special Concern, to less-than-significant because conducting a single survey within 14 days of the start of Project activities would be unlikely to detect burrowing owls. Burrowing owls may use the Project site and adjacent habitat for foraging, overwintering, and/or nesting habitat.

CDFW recommends that Mitigation Measure IV-3 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~):

1-3

IV-3. Prior to initiation of ground disturbance, a ***qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the Project area. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.*** ~~*pre-construction survey shall be performed within 14 days of construction activities. The pre-construction survey shall occur regardless of the time of year, as burrowing owls may use the project site during the non-nesting season. The survey shall be performed according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012).*~~ *A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site* ***or adjacent to the site where they may be disturbed*** *during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting* ***and wintering*** *habitat are not required.*

Mitigation Measure IV-4 would not reduce impacts to a less-than-significant impact because passive relocation is not an adequate avoidance, minimization, and mitigation measure. CDFW recommends that Mitigation Measure IV-4 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~):

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Letter 1
Cont'd

1-3
Cont'd

IV-4. If ~~occupied burrows are encountered on site, the species shall not be disturbed during the nesting season (February 1 through August 31) until juveniles from the occupied burrows are foraging independently and capable of independent survival.~~

~~If occupied burrows are encountered on site during the non-nesting season (1 September to 31 January), and owls must be moved away from the disturbance area, passive relocation techniques shall be used rather than trapping, according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012). Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are vacant. At least 1 week shall be allowed to verify that the burrows are vacant and allow the owls to acclimate to alternate burrows. Burrowing owls shall not be excluded from burrows unless a Burrowing Owl Exclusion Plan is developed and approved by the applicable local CDFW office.~~ **burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site specific conditions:**

- ***From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.***
- ***From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.***
- ***No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.***

If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

Letter 1 Cont'd

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1-3 Cont'd

If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

Nesting Birds and Raptors

Mitigation Measure IV-5 would not reduce impacts to a level of less-than-significant because migratory birds and raptors could nest on the site prior to March 1. Furthermore, the survey should be conducted as close to the start of Project activities as possible, to avoid having birds and/or raptors nest on the Project site between the survey and start of work. CDFW recommends that Mitigation Measure IV-5 be revised as follows (added language in ***bold italics***, deleted language in ~~strikethrough~~):

1-4

*IV-5. If project activities must be conducted during the nesting season (~~March~~ **February 15** and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within **7**~~14~~ days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and **within a minimum 500 feet of all Project areas,** ~~surrounding vicinity~~ to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site **or within a minimum of 500 feet** during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.*

If active nests of ~~native~~ nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. ***The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or***

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Letter 1 Cont'd

Mr. Brent Cooper
City of American Canyon
March 1, 2021
Page 6

1-4 Cont'd

raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission. ~~*and shall vary based on species, nest location, existing visual buffers, noise levels, and other factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. The exclusion zone size shall be reduced from established levels by a qualified biologist if nest monitoring findings indicate that project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.*~~

FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

1-5

CDFW appreciates the opportunity to provide comments on the MND for the proposed Project and is available to meet with you to further discuss our concerns. If you have any questions, please contact Mr. Garrett Allen, Environmental Scientist, at Garrett.Allen@wildlife.ca.gov; or Ms. Melanie Day, Acting Senior Environmental Scientist (Supervisory), at Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Gregg Erickson
BE74D4C98C604EA...
Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse No. 2021020107

LETTER 1: GREGG ERICKSON, REGIONAL MANAGER CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Response to Comment 1-1

The comment is an introductory statement which briefly describes the project location and project components, and does not address the adequacy of the IS/MND.

Response to Comment 1-2

In response to the comment, Mitigation Measure IV-1 and Mitigation Measure IV-2 on page 53 of the IS/MND are hereby revised as follows:

IV-1. *Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a ~~quarter~~ 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with ~~CDFW's~~ the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000 ~~CDFG 1994~~), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within ~~0.25~~ 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required.*

IV-2. *If Swainson's hawks are found to be nesting on the project site or within ~~0.25~~ 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities. ~~consultation with CDFW shall be required. The size of the nest protection buffer shall be determined during consultation with CDFW, but at a minimum, shall be a 300-foot non-disturbance buffer around the nest site.~~*

The above changes are for clarification purposes only and do not alter the analysis or conclusions of the IS/MND.

Response to Comment 1-3

In response to the comment, Mitigation Measure IV-3 and Mitigation Measure IV-4 on pages 53 and 54 of the IS/MND are hereby revised as follows:

IV-3. *Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. ~~a pre-construction survey shall be performed within 14 days of construction activities. The pre-construction survey shall occur regardless of the time of year, as burrowing owls may use the project site during the non-nesting season. The survey shall be performed according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012).~~ A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.*

IV-4. *If ~~occupied burrows are encountered on site, the species shall not be disturbed during the nesting season (February 1 through August 31) until juveniles from the occupied burrows are foraging independently and capable of independent survival.~~*

~~If occupied burrows are encountered on-site during the non-nesting season (1 September to 31 January), and owls must be moved away from the disturbance area, passive relocation techniques shall be used rather than trapping, according to the standards set forth by the Staff Report for Burrowing Owl Mitigation (CDFW 2012). Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are vacant. At least 1 week shall be allowed to verify that the burrows are vacant and allow the owls to acclimate to alternate burrows. Burrowing owls shall not be excluded from burrows unless a Burrowing Owl Exclusion Plan is developed and approved by the applicable local CDFW office.~~ burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:

- *From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.*

- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.*
- *No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.*

If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

The above changes are for clarification purposes only and do not alter the analysis or conclusions of the IS/MND.

Response to Comment 1-4

In response to the comment, Mitigation Measure IV-5 on page 54 of the IS/MND is hereby revised as follows:

IV-5. *If project activities must be conducted during the nesting season (~~March~~ February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 7~~14~~ days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, ~~surrounding vicinity~~ to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys,*

further avoidance and minimization measures for nesting bird habitat are not required.

If active nests of ~~native~~ nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission. ~~and shall vary based on species, nest location, existing visual buffers, noise levels, and other factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. The exclusion zone size shall be reduced from established levels by a qualified biologist if nest monitoring findings indicate that project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.~~

The above changes are for clarification purposes only and do not alter the analysis or conclusions of the IS/MND.

Response to Comment 1-5

The comment is a concluding statement and does not address the adequacy of the IS/MND.

Letter 2

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

March 10, 2021

SCH #: 2021020107
GTS #: 04-NAP-2021-00229
GTS ID: 21911
Co/Rt/Pm: NAP/29/1.997

William He, AICP, Associate Planner
City of American Canyon Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Re: Oat Hill Multi-Family Project – Initial Study/Mitigated Negative Declaration (IS/MND)

Dear William He:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the February 2021 Draft IS/MND.

2-1

Project Understanding
The proposed project would develop a multifamily residential community of 291 multi-family residential units and construct a community loop trail, outdoor seating area, pool and on-site as well as off-site parking spaces. A new sidewalk would be constructed along the project frontage of Napa Junction Road. This project is located within close vicinity of State Route (SR)-29.

2-2

Travel Impact Analysis
With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans uses Vehicle Miles Travelled (VMT) to assess Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide. Caltrans commends the lead agency in proposing mitigation measures to reduce the project's potentially significant VMT impact to a less-than-significant level. The proposed

Letter 2
Cont'd

2-2 Cont'd mitigation measures identified in the IS/MND should be documented with annual monitoring reports to demonstrate effectiveness.

2-3 In addition, the SR-29/Napa Junction Road intersection was not considered in the group of intersections analyzed in the Traffic Impact Study (TIS). Please explain why this intersection was not included as part of the TIS.

Construction-Related Impacts

2-4 Project work that requires movement of oversized or excessive load vehicles on state roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits. Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to SR-29.

Lead Agency

2-5 As the Lead Agency, the City of American Canyon is responsible for all project mitigation, including any needed improvements to SR-29. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Encroachment Permit

2-6 Please be advised that any permanent work or temporary traffic control that encroaches onto the State Right of Way (ROW) requires a Caltrans-issued encroachment permit. If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating the State ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to D4Permits@dot.ca.gov.

Letter 2
Cont'd

2-6 Cont'd

To download the permit application and to obtain more information on all required documentation, visit https://dot.ca.gov/programs/traffic-operations/ep/applications.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Yunsheng Luo at Yunsheng.Luo@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please contact LDIGR-D4@dot.ca.gov.

2-7

Sincerely,

MARK LEONG
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

LETTER 2: MARK LEONG, DISTRICT BRANCH CHIEF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Response to Comment 2-1
The comment is an introductory statement which briefly describes the project components, and does not address the adequacy of the IS/MND.

Response to Comment 2-2
As noted in the comment, the potential vehicle miles travelled (VMT) impact is reduced to a less-than-significant level with mitigation. The request for annual monitoring will be considered by the City. However, monitoring would not change the adequacy of the analysis, mitigation, or conclusions presented in the IS/MND. The comment has been forwarded to the decision-makers for their consideration.

Response to Comment 2-3
The comment does not specifically address the adequacy of the IS/MND; however, a Memorandum of Assumptions for the Oat Hill Apartment Project was prepared for the proposed project on June 19, 2020 outlining the proposed study area of the Traffic Impact Analysis (TIA). The study area proposed in the memorandum did not include the Napa Junction Road/SR-29 intersection. City staff confirmed the scope and approach of the memorandum as consistent with Institute of Transportation Engineers (ITE) standards and City requirements. Therefore, the TIA did not include the Napa Junction Road/SR-29 intersection.

Subsequent to publication of the IS/MND, a final TIA for the proposed project was prepared which included a Level of Service (LOS) analysis of the Napa Junction Road/SR 29 intersection (see Attachment A). As noted in the final TIA, the Napa Junction Road/SR 29 intersection would operate at LOS F under Future Conditions with or without the proposed project. This operation was considered acceptable because the Napa Junction Road/SR 29 intersection is exempt from the City's LOS standard, and the California Department of Transportation (Caltrans) does not provide an operational standard. Therefore, the findings of the final TIA would not change the adequacy of the analysis, mitigation, or conclusions presented in the IS/MND.

Response to Comment 2-4
The comment does not address the adequacy of the IS/MND, but has been forwarded to the applicant and they are aware of the Caltrans requirement.

Response to Comment 2-5
The comment does not specifically address the adequacy of the IS/MND. However, it should be noted that page 112 of the IS/MND describes several multimodal improvements to SR 29 and parallel capacity improvements that would take place throughout the City of American Canyon to further improve circulation along the SR 29 corridor. As noted in the IS/MND and mandated by the City, the project applicant would be required to pay a proportional share fee toward the cost of planned future infrastructure improvement to the SR 29 corridor.

Response to Comment 2-6
The comment presents information regarding encroachment permit requirements, but does not address the adequacy of the IS/MND. The comment has been forwarded to the applicant and they are aware of the Caltrans requirement.

Response to Comment 2-7

The comment is a concluding statement and does not address the adequacy of the IS/MND.

Letter 3

Proposed Oat Hill Multi- Family Project

March 11, 2021

City of American Canyon City Council
4381 Broadway Street, Suite 201
American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

3-1 I have recently reviewed Mr. Hess' proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As the property owner at 100 Napa Junction Road, we would like to express our support for the proposed project. Thank you for your consideration.

Respectfully submitted,

Cassidy Ward

Cassidy Ward

LETTER 3: CASSIDY WARD

Response to Comment 3-1

The comment expresses support for the proposed project, but does not address the adequacy of the IS/MND. The comment has been forwarded to the decision-makers for their consideration.

Letter 4

From: Karen Fritz <gmafritz@comcast.net>
Date: March 10, 2021 at 5:33:50 PM PST
To: twong@cityofamericancanyon.org
Subject: Oat Hiil

HI Tammy,

This is one concern about this development, on page 103 it states that there is no impact on our schools. I think this should be reevaluated because currently our Middle school is severely overcrowded. I believe there is somewhere around 400 kids over the amount the school was built for currently. I was told at one time that parents had to staggered start times for their children due to over crowding. When we are not dealing with a pandemic many parents have to alter their work times to accommodate the school. Not everyone has the luxury to do that.

4-1

Traffic is another problem with this. More housing means more traffic not sure how anyone can say it doesn't.

4-2

Thank you
Karen Fritz

LETTER 4: KAREN FRITZ

Response to Comment 4-1

As noted on page 104 of the IS/MND, the Napa Valley Unified School District (NVUSD) reports that the district's enrollment numbers have been steadily declining over the last decade and are anticipated to continue dropping. Furthermore, the project applicant would be required to pay the current residential development fee of $4.08 per square foot for dwelling units, which would go toward the cost of improvements and/or upgrades to school facilities, including American Canyon Middle School. According to Government Code Section 65995 et. seq. and Education Code Section 17620 et. seq., payment of applicable development fees is sufficient under CEQA to reduce impacts associated with an increase in students from the proposed project.

Response to Comment 4-2

The TIA prepared for the proposed project determined that the proposed project would generate approximately 1,583 daily vehicle trips, including 105 AM peak hour and 128 PM peak hour trips. Although the proposed project would generate an increase in traffic, the addition of project traffic would slightly decrease average peak hour delay at the Napa Junction Road/Lombard Road intersection. As noted in the IS/MND, while a reduction in peak hour delay appears counterintuitive in light of the addition of project traffic, this reduction in delay occurs when trips are added to underutilized movements or when current delays are below the intersection average, thus resulting in a better balance between approaches and lower overall average delay. The proposed project would add traffic solely to the eastbound and westbound through movements at this location, rather than the southbound through movements. The eastbound and westbound approaches do not have delays and are therefore below average for the intersection as a whole, which results in a slight reduction in the overall average delay. Project trips are expected to make use of excess capacity; thus, motorists would experience little, if any, change in conditions as a result of the proposed project. In addition, all of the study intersections analyzed as part of the TIA (which included the intersections of Napa Junction Road/Theresa Avenue; Napa Junction Road/Lombard Road; and Eucalyptus Drive/Theresa Avenue), were found to operate at an acceptable Level of Service (LOS) under Future Plus Project Conditions.

Attachment A
Traffic Impact Study for the Oat Hill Multi-Family Housing Project

Oat Hill Multi-Family Project
Mitigation Monitoring and Reporting Program

March 2021

The California Environmental Quality Act (CEQA) and CEQA Guidelines require Lead Agencies to adopt a program for monitoring the mitigation measures required to avoid the significant environmental impacts of a project. The Mitigation Monitoring and Reporting Program (MMRP) ensures that mitigation measures imposed by the City are completed at the appropriate time in the development process.

The mitigation measures identified in the Initial Study/Mitigated Negative Declaration for the Oat Hill Multi-Family Project are listed in the MMRP along with the party responsible for monitoring implementation of the mitigation measure, the milestones for implementation and monitoring, and a sign-off that the mitigation measure has been implemented.

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT			
Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
Aesthetics			
I-1. Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.	Prior to issuance of building permits	City of American Canyon Community Development Department	
Air Quality			
III-3. Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.	Prior to issuance of a grading permit	City of American Canyon Community Development Department	
Biological Resources			
Swainson's Hawk *IV-1. Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community*	Prior to the initiation of ground disturbance	CDFW City of American Canyon Community Development Department	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT			
Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required. *IV-2. If Swainson's hawks are found to be nesting on the project site or within 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.*	After pre-construction surveys listed in Mitigation Measure IV-1 above are completed, and Swainson's hawk nests are detected	CDFW	
Burrowing Owl *IV-3. Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization*	Prior to the initiation of ground disturbance	City of American Canyon Community Development Department	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT				
	Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
	measures for burrowing owl nesting and wintering habitat are not required.			
IV-4.	*If burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:* • *From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.* • *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.* • *No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.* *If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.* *If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be*	After preconstruction surveys, if burrowing owls are detected	City of American Canyon Community Development Department CDFW	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT			
Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).			
White-tailed Kite, Northern Harrier, and Common Nesting Birds *IV-5. If project activities must be conducted during the nesting season (February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 7 days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.* *If active nests of nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not*	Within 7 days prior to vegetation removal or initial ground disturbance	City of American Canyon Community Development Department CFDW	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT				
	Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
	cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission.			
	Cultural Resources			
V-1.	*Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.*	Prior to the issuance of a grading permit	City of American Canyon Community Development Department	
V-2.	*If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD*	During ground-disturbing activities	Napa County Coroner Native American Heritage Commission Professional Archeologist	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT				
	Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
	will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.			
	Geology and Soils			
VII-1.	*Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.*	Prior to approval of any building permits	City of American Canyon Engineering Division	
VII-2.	*Implement Mitigation Measure VII-1.*	See Mitigation Measure VII-1	See Mitigation Measure VII-1	
VII-3.	*Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:*	Prior to the issuance of a grading permit	City of American Canyon Community Development Department	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT			
Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
• *Hydro-seeding;* • *Placement of erosion control measures within drainage ways and ahead of drop inlets;* • *The temporary lining (during construction activities) of drop inlets with "filter fabric";* • *The placement of straw wattles along slope contours;* • *Use of a designated equipment and vehicle "wash-out" location;* • *Use of siltation fences;* • *Use of on-site rock/gravel road at construction access points; and* • *Use of sediment basins and dust palliatives*			
VII-4. Implement Mitigation Measure VII-1.	See Mitigation Measure VII-1	See Mitigation Measure VII-1	
VII-5. Implement Mitigation Measures V-1 and V-2.	See Mitigation Measures V-1 and V-2	See Mitigation Measures V-1 and V-2	
Greenhouse Gas Emissions			

VIII-1. Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:
 	
• *Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.*
• *Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.*
• *One of the following options is required:*
  • *A4.203.1.2.1 − Roof deck insulation or ducts in conditioned space.*
  • *A4.203.1.2.2 − High performance walls.*
	Prior to the issuance of building permits	City of American Canyon Community Development Department	

MITIGATION MONITORING AND REPORTING PROGRAM OAT HILL MULTI-FAMILY PROJECT			
Mitigation Measure	**Implementation Schedule**	**Monitoring Agency**	**Sign-Off**
• *A4.203.1.2.3 − HERS-verified compact hot water distribution system.* • *A4.203.1.2.4 − HERS-verified drain water heat recovery.* • *Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.* • *Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.*			
Noise			
XIII-1. Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment: • *Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily; Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations;* • *Equipment engine shrouds shall be closed during equipment operation;* • *When not in use, motorized construction equipment shall not be left idling for more than five minutes; and* • *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.*	Prior to the approval of grading permits	City of American Canyon Community Development Department	

Transportation			
XVII-1. Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.	Prior to approval of Improvement Plans and issuance of grading permits	City of American Canyon Public Works Department City Engineer	
XVII-2. Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS: • *Unbundled Parking;* • *Free Transit Passes;* • *Secure Bicycle Parking and Maintenance Tools;* • *Tele-Work/Compressed Schedules;* • *Carpooling and Ride-Matching Program;* • *Transportation Coordinator;* • *Welcome Packet for New Residents; and* • *Monitoring of Program Performance.* *Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.*	Prior to the first residential occupancy	City of American Canyon Community Development Department	
Tribal Cultural Resources			
XVIII-1. Implement Mitigation Measures V-1 and V-2.	See Mitigation Measures V-1 and V-2	See Mitigation Measures V-1 and V-2	

Utilities and Service Systems			
XIX-1. The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water: • *Reducing existing potable water demands on-site;* • *Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;* • *Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or* • *Purchasing new water supplies from other water providers.*	Prior to the issuance of a building permit	City of American Canyon Department of Public Works	
XIX-2. The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.	During project design and construction	City of American Canyon Engineering Division	
XIX -3. At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect, to the extent they are not subject to applicable fee credits, to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.	At the time of issuance of building permits	City of American Canyon Engineering Division	
XIX-4. The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.	Monthly	City of American Canyon Department of Public Works	
XIX-5. Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.	Prior to the issuance of building permits	City of American Canyon Community Development Department	

XIX-6.	*Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.*	At the time of authorization for additional water use, if additional project water is required	City of American Canyon Engineering Division	

XIX-7.	*Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures, such as, but not limited to:*
	• *Drought-resistant vegetation;*
	• *Irrigation systems employing the following features:*
	  • *drip irrigation;*
	  • *low-precipitation-rate sprinklers;*
	  • *bubbler/soaker systems;*
	  • *programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);*
	• *Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;*
	• *Conservative sprinkler spacings that minimize overspray onto paved surfaces;*
	• *Hydrozones that keep plants with similar water needs in the same irrigation zone;*
	• *Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and*
	• *Organic topdressing in non-turf areas to decrease evaporation and increase water retention.*
		Prior to the issuance of building permits	City of American Canyon Community Development Department	

COVID-19 Hazards			
XXI-1. The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.	Prior to the issuance of grading permits	City of American Canyon Community Development Department	

Attachment 1, Exhibit C: Affordable Housing In-Lieu Fee Analysis

MEMORANDUM

To: Richard W. Hess

From: Darin Smith and Snow Zhu

Subject: In-Lieu Fee Analysis for Oat Hill Apartments; EPS #211013

Date: February 9, 2021

The Economics of Land Use

Economic & Planning Systems, Inc. (EPS) has been requested by Richard W. Hess (Client/Developer) to provide a peer review of the Inclusionary Housing Analysis submitted by the Client on January 8, 2021 to the City of American Canyon (City) as part of the submittal process for the Oat Hill Apartments Project (Project).

The Project as proposed includes 291 units, ranging from one-bedroom to three-bedroom. According to the City's Municipal Code 19.28.040, 15 percent of the project's units are required to be affordable (44 units). Alternatives to satisfying the requirement, including the payment of an in-lieu nexus fee, are outlined in the City's Municipal Code 19.28.050.

This memorandum provides a summary of EPS's peer review findings regarding the financial impact of complying with the City's inclusionary housing requirements with on-site affordable units versus paying the in-lieu fee. EPS includes an evaluation of key assumptions, comparable market data, and a yield-on-cost analysis as part of the review.

Key Findings

- The cost and revenue assumptions provided in the Developer's Inclusionary Housing Analysis are reasonable and comparable to current market conditions, based on EPS research and industry experience.

- A return-on-cost analysis conducted by EPS finds that the Project faces feasibility challenges but is much more feasible and likely to attract investor interest through payment of the in-lieu affordable housing fee rather than constructing the required number of on-site inclusionary housing units.

Economic & Planning Systems, Inc.
1330 Broadway
Suite 450
Oakland, CA 94612
510 841 9190 tel

Oakland
Sacramento
Denver
Los Angeles

www.epsys.com

Summary of Developer Assumptions

Development Cost

The Developer has indicated an all-in development cost of $435 per net building square foot. EPS assumes this figure reflect hard costs (labor and materials), soft costs (design, financing, fees, etc.), and land acquisition costs. In EPS's recent experience, the all-in cost of $435 per square foot used by the Developer appears reasonable for a wood frame multifamily project with surface parking (no podium or underground parking). EPS has consulted on similar projects in the Bay Area with all-in costs higher than the $435 per square foot estimate provided by the Developer. A higher construction cost would increase the overall costs associated with building the Project and potentially result in a less feasible project. EPS agrees that the $435 per square foot cost estimate is a reasonable and even aggressive assumption to use but notes that construction costs tend to increase over time.

Vacancy Rate

The Developer assumes a 5 percent vacancy rate which EPS has found to be a standard assumption for multifamily buildings similar to the Project. There are cases where the vacancy rate may be higher; for example, when a project is newly constructed. Indeed, American Canyon's current apartment supply has a significantly higher vacancy rate, reflecting a current economic downturn as well as relatively recent construction that has not yet stabilized. In taking a long-term view, EPS concludes that a 5 percent vacancy rate is a reasonable assumption for the Project at stabilization.

Operating Expenses

The Developer estimates annual operating expenses to be $10,500 per unit which is within the same range as EPS's estimates. EPS typically assumes operating expenses as 35 percent of gross revenue. Applying this methodology to the Developer's assumptions on gross revenue per market-rate unit results in an annual operating expense of approximately $11,000 per unit. EPS's results are slightly higher but within the same range as the Developer's assumption of $10,500 per unit. Accordingly, EPS concludes that these operating expense assumptions are reasonable and perhaps aggressive.

Affordable Rents

EPS reviewed the City of American Canyon and County of Napa's affordable housing definitions and rent limits. The definitions compiled by EPS as shown in **Table 1** are the same as those provided in the Developer's analysis. Additionally, the affordable housing rent limits on **Table 2** from the 2020 County of Napa Annual Income Limits and Affordable Rental Limits match the Developer's rent assumptions.

Table 1 Affordable Housing Income Definitions

Income Category	Percentage Required[1]	Definition[1]	Income Level Used in Analysis[2]
Very Low	5%	≤ 50% AMI	50%
Low	5%	> 50% and ≤ 80% AMI	65%
Moderate	5%	> 80 and ≤ 120% AMI	100%
Total	**15%**		

[1] As defined by City of American Canyon Municipal Code 19.28.040.

[2] For Very Low, the maximum income limit is used in the analysis. For Low and Moderate, the midpoint of the income range is used.

Source: City of American Canyon; Napa County; Economic & Planning Systems, Inc.

Table 2 Napa County Affordable Housing Rent Limits (2020)

Unit Size	Very Low	Low	Moderate
1-Bedroom	$1,084	$1,415	$2,184
2-Bedroom	$1,219	$1,592	$2,458
3-Bedroom	$1,354	$1,768	$2,730

Source: City of American Canyon; Napa County; Economic & Planning Systems, Inc.

Market-Rate Rents

EPS researched market rents for recently constructed multifamily buildings in the area surrounding the City. Rents for each unit size are within the same range as the comparable rents used in the Developer's analysis. As shown on **Table 3**, rents have been stable in the past few years. Thus, EPS concludes that the rent assumptions used in the Developer's analysis are representative of market rate rents in the area.

Table 3 Market-Rate Rent Comparisons

	EPS Market Research			Developer Analysis[1]
Unit Size	2019	2020	Jan. 2021	Jan. 2021
1-Bedroom	$2,266	$2,265	$2,208	$2,275
2-Bedroom	$2,705	$2,719	$2,640	$2,719
3-Bedroom	$3,156	$3,211	$3,206	$3,073

[1] Average market rents provided on Page 4 of Oat Hill Apartments Inclusionary Housing Analysis (January 8, 2021).

Source: CoStar; Richard Hess; Economic & Planning Systems, Inc.

Capitalization Rate

The Developer assumes a capitalization rate of 4.5 percent when calculating affordable housing values. The value is calculated by dividing the annual Net Operating Income (NOI) of the unit – total achievable rents less vacancy losses and operating expenses – by the capitalization rate. For example, a building yielding an NOI of $1.0 million would be worth $10 million if a 10 percent capitalization rate is applied, and $20 million if a 5 percent capitalization rate applies. In EPS's opinion, 4.5 percent is an aggressive capitalization rate to apply to multifamily projects in Napa County, as it is lower than is reported for the Northern California markets in a national survey of capitalization rates prepared by Integra Realty Resources in 2021. That source suggests that the capitalization rates for suburban multifamily development are 4.75 percent in the San Francisco market area, 6.00 percent in Oakland, and 6.50 percent in Sacramento. Using any of these higher published capitalization rates would lower the value of the Project's affordable housing units, relative to the Developer's analysis.

Developer Analysis Conclusions

Using the assumptions described, the Developer calculates a "loss in value" of $8.2 million to illustrate the infeasibility of constructing affordable housing units on-site. EPS agrees that the value of the affordable units is likely to fall short of the costs of those same units by a magnitude of at least $8.2 million, and possibly greater if a higher capitalization rate were applied, as appears to be justified.

EPS Return-on-Cost Analysis

In the case of this Project, as with many others subject to inclusionary requirements throughout California, the cost of producing an affordable housing unit is greater than the revenue it brings in. However, this result does not necessarily mean that the entire project is infeasible. Most projects that provide inclusionary affordable units would make a similar claim regarding the lower value of and implicit subsidy for the affordable units, yet many proceed to financing and development nonetheless because the value of the market-rate units can offset that implicit subsidy for affordable units.

To more broadly evaluate the Project's feasibility, EPS has conducted a return-on-cost analysis for constructing the Project with payment of the in-lieu affordable housing fee versus building on-site inclusionary housing. Using the assumptions verified in the prior section, EPS calculated the total costs associated with Project construction as well as the net operating income (NOI), taking into account operating costs and vacancy. These factors determine the "return-on-cost," calculated as the amount of net operating income in a stabilized year of operation as a percentage of the total costs of the project.

Return-on-cost is a standard metric used by developers and investors to determine whether the expected financial returns on a new development project are worth the risks inherent in new construction, including the potential for cost overruns and market downturns. The return-on-cost expectations also account for alternative investment opportunities, such as purchasing an existing residential project that has already been constructed and is producing revenue. The Terner Center at UC Berkeley has published an analysis of housing development economics that concludes that "a minimum spread of between 1.0 percent and 1.5 percent (between capitalization rates and return-on-cost rates) is needed in the (Bay Area)." Applying this premium "spread" to the capitalization rates published by Integra Realty Resources would suggest that the minimum return-on-cost metric for suburban multifamily in Northern California would be 5.75 percent to

indicate project feasibility (4.75 percent capitalization rate in the San Francisco market plus 1.00 percent "minimum spread").

As shown on **Tables 4 and 5,** the resulting return-on-cost for the Project is estimated to be 4.7 percent when on-site inclusionary housing is constructed and 5.1 percent when the in-lieu fee option is made available and the fee costs are added to the development costs. Both of these return metrics fall short of what might be expected for projects to proceed. Though a 4.7 percent return-on-cost may appear very close to 5.1 percent, it actually reflects a roughly 8 percent difference in the financial returns – more than enough to shift a project from feasible to infeasible in the perspective of investors.

Put another way, the annual net operating income of the Project is roughly $500,000 more if the Developer pays the in-lieu fees and rents all units at market rates, compared to the NOI with 44 income-restricted units. This difference would remain and likely grow over the 55-year period of the affordability restrictions, resulting in a cumulative difference of roughly $27 million in revenues over the period.

EPS concludes that, while the Project appears to face some feasibility challenges in either case, the Project is much more likely to be considered feasible by investors if it is allowed to pay the in-lieu fees rather than providing on-site affordable units. The City will need to consider whether the Project is meritorious enough for policy reasons to justify an action to enhance its feasibility, including whether receipt of the in-lieu fees may yield advantages that exceed the provision of on-site units, such as the ability to leverage other funds to deliver more affordable units and/or lower price points.

Table 4 Project with On-Site Inclusionary Housing

Category	Assumptions		Amount
Construction Cost			
Market Rate Units			
Number of Units	247	units	
Average Unit Size	905	sq.ft.	
Total Construction Cost (Market Rate)	$435	per sq.ft.	$97,237,725
Affordable Units			
Number of Units	44	units	
Average Unit Size	905	sq.ft.	
Total Construction Cost (Affordable)	$435	per sq.ft	$17,321,700
In-Lieu Fee			N/A
Total Costs	291	units	**$114,559,425**
NOI			
Affordable Units Annual Rent	44	units @ $1739 avg.	$918,300
Market Rate Units Annual Rent	247	units @ $2690 avg.	$7,972,000
Total Annual Rent	291	units	$8,890,300
Annual Operating Expenses	$10,500	per unit	($3,055,500)
Vacancy	5%		($444,515)
Net Operating Income			**$5,390,285**
Return-On-Cost			**4.7%**

Source: City of American Canyon; Napa County; Richard W. Hess; Economic & Planning Systems, Inc.

Table 5 Project with Only Market-Rate Units (and In-Lieu Fee)

Category	Assumptions		Amount
Construction Cost			
Market Rate Units			
Number of Units	291	units	
Average Unit Size	905	sq.ft.	
Total Construction Cost (Market Rate)	$435	per sq.ft.	$114,559,425
Affordable Units			
Number of Units			N/A
Average Unit Size			N/A
Total Construction Cost (Affordable)			N/A
In-Lieu Fee	$3.75	per gross sq.ft.	$987,581
Total Costs	291	units	**$115,547,006**
NOI			
Affordable Units Annual Rent			N/A
Market Rate Units Annual Rent	291	units @ $2690 avg.	$9,391,500
Total Annual Rent			$9,391,500
Annual Operating Expenses	$10,500	per unit	($3,055,500)
Vacancy	5%		($469,575)
Net Operating Income			**$5,866,425**
Return-On-Cost			**5.1%**

Source: City of American Canyon; Napa County; Richard Hess; Economic & Planning Systems, Inc.

Attachment 1, Exhibit D:
Public Outreach Letters

RH Hess Development Co.

P.O. Box 3438
Napa, CA 94558

707.255.8075 Fax: 707.255.2118

October 5, 2020

Hi Mr. Williams,

My name is Rick Hess. My family has owned “Oat Hill” since 1978. For the last 40 years we have operated our construction company together with the RV Park on a portion of our approximately 40 acres of land. Our properties are accessed off Lombard Rd. to Hess Rd. which turns into Napa Junction Rd. as it goes up Oat Hill. We have been working with the City of American Canyon since 2004 to develop our properties into a Residential Development. In January of this year the City Council adopted a “Resolution” which determined that 30 of our approximate 40 acres highest and best use was for Residential Development.

We have recently submitted our Application to the City to construct 206 units of Condominiums on the top 13 acres together with 85 units of Condominiums on the bottom 7 acres of the South side of the hill relative to Napa Junction Road. It is anticipated that Napa Junction Rd. would be improved and connected through the school owned property and would provide direct access from highway 29 straight up the hill.

The Development will provide much needed housing in the City of American Canyon at a time when housing options are limited in the city and Statewide. The Development will provide great views for its residents as well as a walking trail and public lookouts so that the citizens of American Canyon can enjoy breathtaking views of Mt. Tamalpais, the Wetlands, up the Napa Valley, and on a clear day even buildings in San Francisco. I have enclosed a Photo Simulation of what it will look like once the project is complete. Please review and call me with any questions you may have.

If you support the development of this property, I would appreciate you signing the enclosed “Letter of Support” and return in the self-address, stamped envelope provided. I look forward to hearing from you.

Thank you for your time and consideration,

Rick Hess
925-487-1052

Proposed Oat Hill Multi- Family Project

October 5, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently reviewed Mr. Hess' proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at property APN #058-040-020 in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

David Williams



17-Plex
Color Scheme #3

12-Plex
Color Scheme #2

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

August 10, 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2

ARCHITECTURE

Recreation Building: Floor Plan A1
Recreation Building: Elevations A2
12 Plex | Building Plan.....A3
12 Plex | Building Plan.....A4
12 Plex | Building Elevations.....A5
17 Plex | Building Plan.....A6
17 Plex | Building Plan.....A7
17 Plex | Building Elevations.....A8
Unit Plans | Plan 1.....A9
Unit Plans | Plan 1X.....A10
Unit Plans | Plan 2.....A11
Unit Plans | Plan 3.....A12
Unit Plans | Plan 4.....A13
Unit Plans | Plan 5.....A14
Unit Plans | Plan 6.....A15
Trash Enclosure & Carport Sample.....A16
Exterior Color & Materials | Lighting Fixture.....A17

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

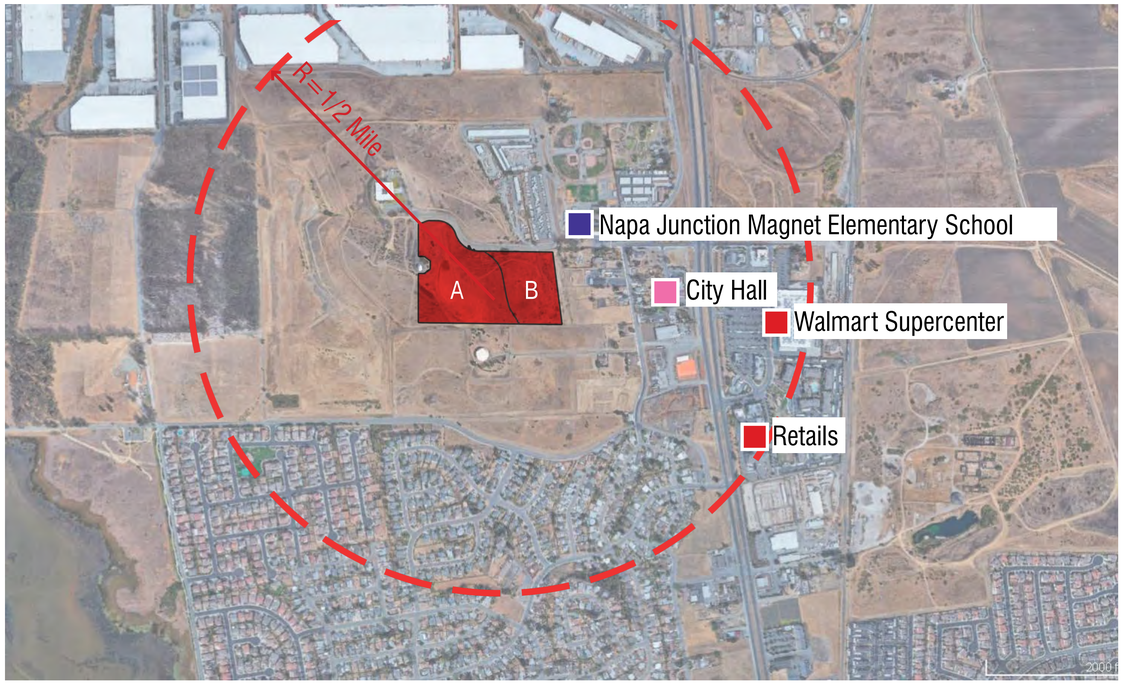
ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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ORANGE COUNTY . LOS ANGELES . BAY AREA



Project Summary

Parcel A

Gross Site Area: ± 13.6 Acres

Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 15.1 DU per Gross Acre

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 454 On-site & Off-site Spaces

431 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 225 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF



KEY MAP
N.T.S

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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Project Summary

Parcel B

Gross Site Area: ± 7.2 Acres

Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

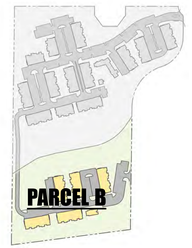
Density: 11.8 DU per Gross Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 182 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 97 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF



KEY MAP
N.T.S

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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VIEW SIM 1

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY

AMERICAN CANYON, CALIFORNIA

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VIEW SIM 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY

AMERICAN CANYON, CALIFORNIA

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ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

Proposed Oat Hill Multi- Family Project

September 18, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently met with Mr. Hess to discuss the proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 300 Hess Road in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

Fran Lemos

Fran Lemos

Proposed Oat Hill Multi- Family Project

October 5, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently reviewed with Mr. Hess' proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 160 Theresa Ave in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

John Comyns

Proposed Oat Hill Multi- Family Project

September 18, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently met with Mr. Hess to discuss the proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 125 Lombard in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

John (Jack) Mayer

Proposed Oat Hill Multi- Family Project

September 18, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently met with Mr. Hess to discuss the proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 285 Napa Junction Rd. in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

Dorothy Slaybaugh

Delbert Slaybaugh

Proposed Oat Hill Multi- Family Project

September 18, 2020

City of American Canyon City Council

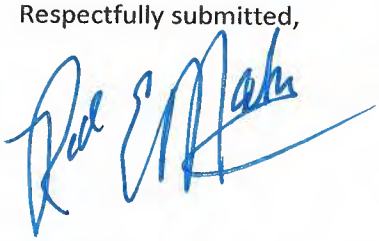
4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently met with Mr. Hess to discuss the proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 4545 Hess Rd. in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,



Rod Mayer

Proposed Oat Hill Multi- Family Project

September 18, 2020

City of American Canyon City Council

4381 Broadway Street, Suite 201

American Canyon, Ca. 94503

Mayor, Vice Mayor and City Councilmembers,

I have recently met with Mr. Hess to discuss the proposed Multi-Family development to be located off Napa Junction Road at Oat Hill. As a nearby property owner located at 185 Lombard in American Canyon, I would like to express my support for the proposed project. Thank you for your consideration.

Respectfully submitted,

Spencer Marshall

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PC RESOLUTION NO. 2021-05

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVE A GENERAL PLAN AMENDMENT TO CONVERT A VACANT 13.6-ACRE PARCEL (PARCEL A) ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD FROM LIGHT INDUSTRIAL WITH SPECIALTY COMMERCIAL OVERLAY (CS) AND ESTATE RESIDENTIAL (RE) TO HIGH DENSITY RESIDENTIAL (RH-1), ASSESSOR'S PARCEL NUMBER 058-380-008 (FILE NO. PL20-0024)

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 206 dwelling units on approximately 13.6 acres on the east side of Oat Hill south of Napa Junction Road APN 058-380-008 (File No. PL20-0024); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to create 206 dwelling units on 13.6 acres located at Oat Hill with access from Napa Junction Road, Assessor's Parcel Number 058-380-008 (File No. PL20-0025); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, the RH Development Company has represented that it will use its best efforts to facilitate the actual construction of affordable housing units within the City; and

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), a Mitigated Negative Declaration (MND) report was prepared for the Oat Hill Project, which included the proposed Tentative Subdivision Map, having analyzed the actions contemplated by the MND and includes required mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP); and

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WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on March 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal and to submit comments.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of American Canyon, having considered all the evidence, including any submitted by member of the public, hereby recommends the City Council of the City of American Canyon approve the General Plan Amendment for Oat Hill Parcel-A Project from Industrial with a Specialty Commercial Overlay (CS) and Estate Residential (RE) to High Density Residential (RH-1), (PL20-0024) based on the findings and depicted on Exhibit A and attached hereto.

SECTION 1. Find, based on the following evidence and as required by State Law on General Plan Amendments:

a. The proposed amendment is deemed to be in the public interest.

   The State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) recognize there is a critical shortage of residential housing for all levels of affordability in California. These agencies will soon establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area. In light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries. The Oat Hill multifamily residential project will contribute to accommodating the City's anticipated RHNA obligation.

b. The proposed amendment is consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

   Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

   • *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*

   • *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*

   • *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

   The project satisfies the following Land Use Element policies:

   • *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to*

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exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

• Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A portion of Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses. As noted in the Napa County Airport Terminal Area Redevelopment IS/MND, substantial evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. The project is also subject to an avigation easement, which is included in the Project Approvals.

c. The potential impacts of the proposed amendment in the land use designation have been assessed and have been determined not to be detrimental to the public health, safety, or welfare.

The proposed General Plan Amendment has been evaluated in a Mitigated Negative Declaration (SCH# 2021020107). The report evaluated the project consistent with the California Environmental Quality Act and concluded the project will result in no significant impacts to the environment. Furthermore, the project is subject to conditions of approval and engineering design standards that will ensure safe site preparation, infrastructure and utilities as well as applicable current Building and Fire codes for emergency access and structural improvements.

With respect to the portion of Parcel A located in Napa County Airport Compatibility Zone "D", as noted in the Napa County Airport Terminal Area Redevelopment IS/MND, substantial evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D.

d. The proposed amendment has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

The proposed General Plan Amendment has been evaluated in a Mitigated Negative Declaration (SCH# 2021020107). The report evaluated the project consistent with the California Environmental Quality Act and concluded the project will result in no significant impacts to the environment.

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PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25TH day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
285D50133D93421...
William D. Ross, City Attorney

EXHIBIT A

Amendment to the General Plan Land Use Element Map

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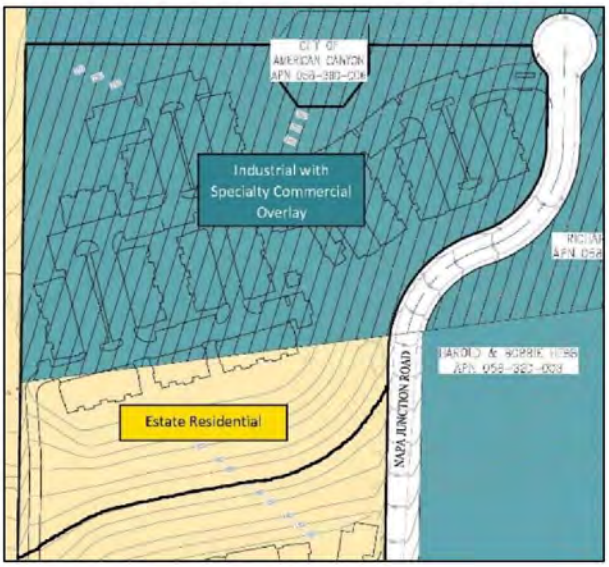
EXHIBIT A

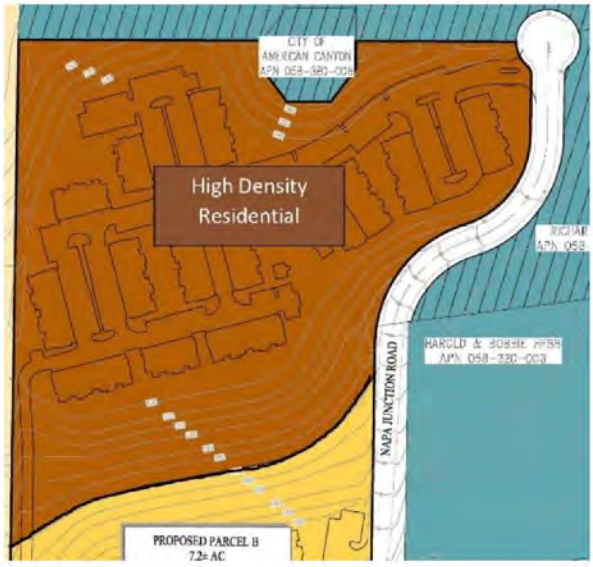
Parcel A Amendment to the General Plan Land Use Element Map

(PL20-0024)

Existing General Plan Parcel A



Proposed General Plan Parcel A



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PC RESOLUTION NO. 2021-06

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, APPROVE A CHANGE TO THE ZONING MAP TO CONVERT A VACANT 13.6-ACRE PARCEL ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD (PARCEL A) FROM LIGHT INDUSTRIAL WITH SPECIALTY COMMERCIAL OVERLAY (LI:CS) AND ESTATE RESIDENTIAL (RE) TO HIGH DENSITY RESIDENTIAL (RH-1), ASSESSOR'S PARCEL NUMBER 058-380-008 (FILE NO. PL20-0024)

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, on August 14, 2020, Oat Hill Properties, II, LLC (Rick Hess) submitted a General Plan Amendment and Zone Change application to allow 206 dwelling units on approximately 13.6 acres on the east side of Oat Hill south of Napa Junction Road (APN 058-380-008 and portion of 058-320-001) (File No. PL20-0024); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to create 206 dwelling units on 13.6 acres located at Oat Hill (Parcel A) with access from Napa Junction Road, (APN 058-380-008 and portion of 058-320-001) (File No. PL20-0025); and

WHEREAS, an application was filed by RH Hess Development for a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), a Mitigated Negative Declaration (MND) report was prepared for the Oat Hill Multifamily Project, which included the proposed Zone Change application, having analyzed the actions contemplated by the MND and includes required mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP); and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on March 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal and to submit comments.

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SECTION 1. **FINDINGS.** Based on the following evidence and as required by Zoning Ordinance Section 19.48.040 C, the Planning Commission recommends the City Council finds that:

a. The amendment is consistent with the goals and policies of the general plan.

Because there is a critical shortage of residential housing for all levels of affordability in California, the Oat Hill Multi-Family Residential project will help provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

- *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*
- *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*
- *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

The project satisfies the following Land Use Element policies:

- *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.*
- *Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A portion of Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses. As noted in the Napa County Airport Terminal Area Redevelopment IS/MND, substantial evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D.*

b. The amendment is consistent with the purposes of this title, as set forth in Chapter 19.01, Authority, Purposes and Effects of the Zoning Ordinance.

The amendment is consistent with the purpose of the Zoning Ordinance to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare

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as the project represents a logical extension of residential uses within the adjacent Broadway District Specific Plan. The amendment also meets design and development guidelines and standards of the General Plan.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of American Canyon, having considered all the evidence, including any submitted by member of the public, hereby recommends the City Council of the City of American Canyon approve the Zone Change for Oat Hill (Parcel A) from Light Industrial with a Specialty Commercial Overlay (LI:CS) and Residential Estate (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001) (File No. PL20-0024) as depicted in Exhibit A attached hereto.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25TH day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
285D50133D93421...
William D. Ross, City Attorney

EXHIBIT A

Amendment to the Zoning Map

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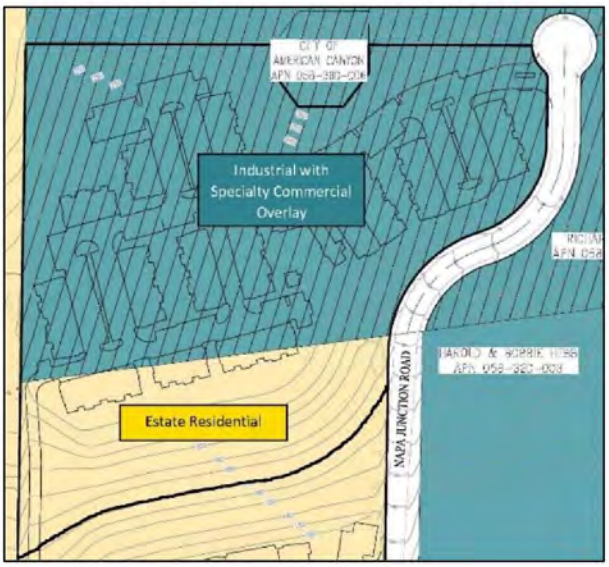
EXHIBIT A

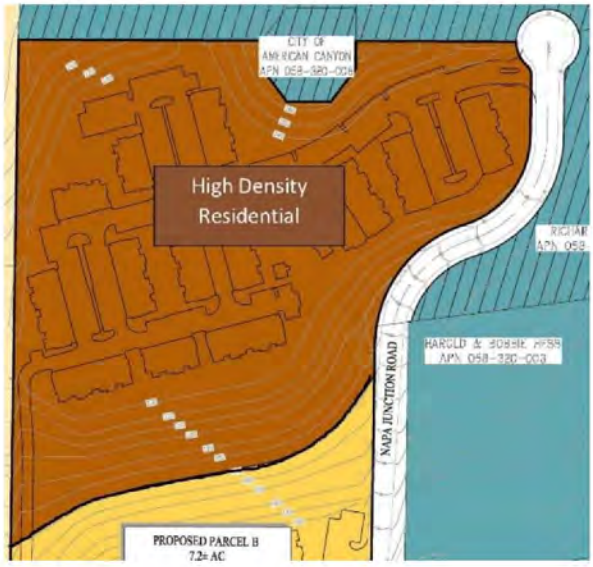
Parcel A Amendment to the Zoning Map

(PL20-0024)

Existing Zoning Parcel A



Proposed Zoning Parcel A



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PC RESOLUTION 2021-07

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON RECOMMEND THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVE A TENTATIVE SUBDIVISION MAP TO PERMIT THE FUTURE SUBDIVISION OF THE OAT HILL PARCEL A BUILDINGS INTO 206 CONDOMINIUM UNITS AT THE VACANT 13.6-ACRE PARCEL LOCATED ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD, APN 058-380-008 (FILE NO. PL20-0025)

WHEREAS, on August 14, 2020, RH Hess Development Company submitted an application for a Tentative Map for Condominium Purposes to permit the subdivision of 13 buildings into 206 separate ownership units on a 13.6-acre parcel in the High Density Residential (RH-1) zoning district at APN 058-380-008 (File no. PL20-0025); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 206 dwelling units on approximately 13.6 acres on the east side of Oat Hill south of Napa Junction Road APN 058-380-008 (File No. PL20-0024); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, pursuant to the California Environmental Quality Act, an Initial Study was prepared for the project which concluded that no significant adverse environmental impacts would occur as a result of the project, and a Mitigated Negative Declaration was prepared; and

WHEREAS, the proposed map is consistent with the City of American Canyon General Plan and the Municipal Code; and

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WHEREAS, a duly-noticed public hearing held on March 25, 2021, the Planning Commission recommended to the City Council to adopt the Initial Study and Mitigated Negative Declaration for the Oat Hill Project; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision; and

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission recommends to the City Council of the City of American Canyon approval of a Tentative Subdivision Map for Parcel A (PL20-0025) based on the findings contained in Section 1, and the conditions of approval contained in Section 2.

SECTION 1: Tentative Parcel Map Findings

A. The Oat Hill Project requires the following findings for the Tentative Map. As stated in Chapter 18.20.055 ACMC, the Planning Commission shall not approve a tentative parcel map if it makes any of the following findings:

1. That the design or improvement of the proposed subdivision is not consistent with the city's general plan or its elements or any other applicable plans;

   The proposed Tentative Parcel is consistent with the General Plan, and the lot sizes meet the minimum parcel size in the High Density Residential (RH-1) zoning district.

   Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

   - *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*

   - *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*

   - *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

   The project satisfies the following Land Use Element policies:

   - *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property*

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ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

- *Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A portion of Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses. As noted in the Napa County Airport Terminal Area Redevelopment IS/MND, substantial evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. The project is also subject to an avigation easement, which is included in the Project Approvals.*

2. That the site is not physically suitable for the type of development proposed;

The site will be graded so that it is flat and physically suited for the residential buildings. The tentative subdivision map has been evaluated in a Mitigated Negative Declaration (SCH# 2021020107). The report evaluated the project consistent with the California Environmental Quality Act and concluded the project will result in no significant impacts to the environment. Furthermore, the project is subject to conditions of approval and engineering design standards that will ensure safe site preparation, infrastructure and utilities as well as applicable current Building and Fire codes for emergency access and structural improvements.

3. That the site is not physically suitable for the proposed density of development proposed;

The site will be changed from Light Industrial with Specialty Commercial (LI:CS) and Residential Estate (RE) to High Density Residential (RH) through a General Plan Amendment and Zone Change. The proposed 206 units on 13.6-acre equates to a density of 15.1 dwelling units per acre, which complies with the RH-1 zone.

4. That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat;

The Initial Study/Mitigated Negative Declaration concludes that no unavoidable significant impacts to the environment will occur as long as mitigation measures are incorporated. Mitigation measures are included to address potential impacts to burrowing owls, Swainson's hawk, tree or ground nesting raptors, and nesting passerine birds. The applicant conducted a biological resource study and no wetland areas were identified.

5. That the design of the subdivision or the type of improvements is likely to cause serious public health problems;

No evidence of serious public health problems has been identified.

6. That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed

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subdivision. In this connection, the Planning Commission may approve a tentative parcel map if it finds that alternate easements, for access or for use, will be provided and that these will be substantially equivalent to one previously acquired by the public.

No conflicts to public easements have been identified.

7. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction and no authority is granted to the Planning Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.

Not applicable to the Oat Hill Project.

8. That the discharge of waste water, including sewage and stormwater runoff, from the proposed subdivision would result in a violation of existing water quality requirements prescribed by the regional water quality control board.

The site will be served by public sewer. Stormwater detention facilities are provided to meet City and Regional Water Quality Control Board standards.

SECTION 2. CONDITIONS OF APPROVAL

General

1. The Tentative Subdivision Map approval is granted for development of 206 dwelling units on 13 apartment buildings on a 13.6-acre parcel in the High Density Residential (RH) zoning district. The site will be supported with 451 parking spaces and approximately 94,000 square feet of landscaping at the vacant parcel, APN 058-380-008 (file no. PL20-0025), which shall be substantially shown on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit A includes the following:
    a. Architectural Plans prepared by William Hezmalhalch Architects (WHA) from San Ramon, CA, consisting of 20 sheets showing the proposed building elevations, floor plans, and roof plans, dated October 19, 2020.
    b. Site Plans prepared by Carlson, Barbee, and Gibson (CBG) from San Ramon, CA, consisting of 7 sheets showing the site plan, preliminary grading and drainage plan, and cross sections, dated February of 2021.
    c. Landscaping Plans prepared by Vander Toolen Associates from Sacramento, CA, consisting of 6 sheets showing the proposed landscaping plans, dated October of 2020.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or

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other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project. The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. Appeal. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $703. This approval is also subject to return of the "Applicant Confirmation of Conditions of Approval" form signed by the property owner. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on April 5, 2021.

4. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

5. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

6. Expiration of this Approval. If no construction permits have been issued and construction commenced within one year of the date upon which this approval is final, the approval shall become null and void and of no effect. An extension of time may be granted by the Community

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Development Director upon the written request by a responsible party before the expiration of the one-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval being made.

7. All plans submitted for review and approval and all development shall be in substantial conformance with the approved exhibits, except where modified by a condition of approval. The Community Development Director or designee may approve minor changes to the project as approved by the Planning Commission on the plans submitted for the construction permits with a determination that the changes are in substantial compliance with the representation of the project as reviewed by the Planning Commission and City Council, that the proposed change will be in compliance with the required development standards, and the change will not materially affect adjacent private or public property.

8. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Tentative Subdivision Map, under the title "Tentative Subdivsion Map Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

Planning

9. All new roof top equipment is required to be screened. The parapet shall be opaque and equal in height of the top of the rooftop mechanical equipment.

10. All ground mounted air conditioning and heating equipment facing Napa Junction Road shall be screened. The screen shall be made of wood and painted to be weather resistant.

11. Prior to the issuance of the site improvement plan, the applicant shall identify 10 bicycle parking spots for Parcel A. The bicycle parking spots shall be evenly distributed amongst the buildings.

12. The subdivision ordinance requires new projects to dedicate parkland on the basis of 5 acres per 1,000 population (ACMC Chapter 18.44). Based on the current project proposal of 206 dwelling units @ 3.49 persons per unit, the project generates a population of 719 people. This equates to a park dedication standard of 3.595 acres. The Subdivision Ordinance has provisions for a combination of park dedication and payment of a fee in-lieu of park dedication.

13. Prior to the issuance of the first building permit, the applicant is required to pay all applicable impact fees. For your information, the following table identifies the fees and their rates. Please note that the City fees are subject to change and the applicant is required to pay the updated fee at the time of building permit issuance. The applicant is required to pay Fire Mitigation fees separately at the Fire District.

Fee	Rate	Calculation	Cost
Affordable Housing Nexus	$3.82 per SF	286,554 SF per plans	$ 1,094,636.28
Parks and Recreation Fee	$5806.38 per unit	206 units per plans	$ 1,196,114.28
Civic Facility Fee	$1685.61 per unit	206 units per plans	$ 347,235.66

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General Plan Update Fee	$89.59 per unit	206 units per plans	$ 18,455.54
Traffic Impact Fee	$618.18 per trip	1121 trips per traffic report	$ 692,979.78
Water Capacity Fee (Estimated)	$11,599 per unit plus $26.25 per gpd	206 units per plans plus clubhouse/pool and irrigation demand in gpd	$2,410,919.00
Wastewater Capacity Fee (Estimated)	$6,952.00 per unit plus $35.66 per gpd	206 units per plans plus clubhouse/pool demand in gpd	$1,446,733.00
		Impact Fees Subtotal	**$ 7,207,073.54**

14. Prior to the issuance of the first building permit, the applicant shall provide proof of payment or exemption for Napa Valley Unified School District (NVUSD) developer fees. For more information, see their website here: https://www.nvusd.k12.ca.us/developerfees .

15. Prior to the issuance of the first building permit or the recordation of the final map, whichever occurs first, an Avigation Easement shall be recorded. The Avigation Easement shall cover all portions of the property and include:
    a. Right-of-flight at any altitude above an easement surface elevation, established based on either Part 77 of the Federal Aviation Regulations or FAA Terminal Instrument Procedures Standards (TERPS), whichever is controlling (glide slope in approach is the controlling factor).
    b. Right to cause noise, vibration, fumes, dust, and fuel particle emissions.
    c. Right to prevent erection or growth of all objects above the easement surface.
    d. Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

16. Prior to the Certificate of Occupancy, the applicant shall complete the public access trail that meanders from the site entry, traversing all the identified look-out points, and reaches the northwest side of the site.

Landscaping

17. The applicant shall agree to a licensing agreement that requires them to maintain the landscaping within the right-of-way along the project frontage. Prior to final inspection of the building permit, the applicant shall amend their facilities operation and maintenance plan (O&M plan) to include this activity.

18. Prior to the issuance of the Building Permit, the applicant shall submit a final landscaping plan. The landscape plan shall comply with the requirements of the California Government Code 65591 et. seq. known as the Water Conservation in Landscaping Act as set out in the model water efficient landscape ordinance adopted by the California Department of Water Resources and amended in 2015. All plant material shall be served by a city-approved automatic irrigation system.

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19. Prior to the issuance of a certificate of occupancy, all landscaping shall be completed and the project's landscape architect shall provide a written certification that all plant materials have been installed in accordance with the approved landscape plan.

20. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

21. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

22. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site's vision triangles.

Building and Safety

23. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

24. Prior to the issuance of a certificate of occupancy, the applicant shall submit a letter of certification to the Building Official from the project architect and civil engineer certifying that all improvements have been constructed in accordance with the approved building plans. Determination of consistency shall be subject to the review and approval of the Building Official.

25. Site Improvement plans shall show slopes of all sidewalks and walkways and paths of travel to use site facilities including trash/recycling facilities. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

26. Recycling of Construction and Demolition Debris: Prior to issuance of a building permit the applicant shall submit a plan for the diversion of at least 70 percent of the debris from the building demolition and construction. The plan shall include the qualified recycler that will be used, the methods of managing diversion of construction materials on site, and the proposed documentation that will be submitted to confirm that the diversion goal has been met.

Fire District

General Fire District Conditions

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27. In accordance with the standard mitigation measures and conditions of approval set forth by the City of American Canyon, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

28. Buildings in excess of two stories shall pay Aerial Apparatus mitigation fees prior to the issuance of any building permits. (see current Standard Fees and Chares adopted by resolution).

29. The project will require an annual fire and life-safety inspection under the "R (Residential) Occupancy Inspection Program". The R Occupancy Inspection Program has been developed to allow Fire District to meet requirements set forth by the State of California. The California Health and Safety Code, Section 13146.2 (a) mandates that inspections be completed at all "R occupancies" annually. California Health and Safety Code Section 13146.2 (b) provides the Fire District legal authority to charge property owners to recover reasonable costs for providing these inspections.

30. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, City of American Canyon standards and Nationally Recognized Standards.

31. There shall be no deferred submittals for fire protection equipment and related utilities. Fire protection plans shall not be attached to or bound with the building plan submittal package. This includes but is not limited to Automatic Fire Sprinkler, Fire Alarm, Fixed Fire Protection and Civil plans.

32. All Fire related underground piping and fire appurtenances shall be shown on the Civil plan submittal. In addition to the Civil plan submittal, at least (1) plan set under separate cover shall be submitted to American Canyon Building Division for routing to the American Canyon Fire Protection District detailing all underground piping and related fire appurtenances including but not limited to underground piping, underground sweep detail, underground trench details showing depth of burial, type of backfill, manufacturer's specifications of piping, valves joints, fittings and calculated size and locations of thrust blocks, hydrants locations (designate public or private), gate shut-off valves, PIV's, FDC's, fire pumps, fire pump and/or riser rooms.

33. Underground utility contractor, architect and fire sprinkler contractor shall coordinate the location of risers and control valves prior to the issuance of a building permit.

34. Fire District plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

Fire Protection

35. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code. Applicant shall demonstrate on plan submittal; square footage of each building on plan and provide the required fire flow information. Applicant shall demonstrate that the number and spacing of onsite fire hydrants meets with requirements

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of the California Fire Code. ***See sample below regarding fire flow and hydrant detail information needed.***

BUILDING FIRE FLOW REQUIREMENTS – CFC TABLES B105.2 & B105.1(2)
INFORMATION BELOW IS A SAMPLE AND FOR REFERENCE ONLY

Table B105.1(2) – Building size = 129, 600 square feet
Construction type = Type IIA
FF = 5,250 gpm at 20 psi
Duration = 4 hours

Table B105.2 – Fire sprinkler allowance = - 50%
5,250 – 2,625 = 2,625 gpm
FF = 2,625 gpm @ 20 psi
Duration = 2 hours

Table CC105.1 – Approximate number of hydrants = 3
Average spacing = 400 feet + 25% allowable increase = 500
Maximum distance from street or frontage = 225 feet = 50% allowable increase = 337.5

36. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the City of Napa and the applicable National Fire Protection Association Standard.

37. The fire protection equipment shall be located within an interior room having an approved exterior access door or in an exterior enclosure attached to the building, specifically, for the purpose of housing such equipment.

38. The City of American Canyon requires that a fire hydrant be in service within 250 feet of the furthest point of construction prior to the stockpiling of combustible materials for the beginning of construction.

39. Fire District Connections (FDC) shall be located not more than 100 ft. from the nearest fire hydrant.

Fire District Access

40. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the City of American Canyon and the applicable Public Works Standard.

41. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13' 6". They shall have an all-weather paved surface capable of supporting a GVW of 71,000 pounds.

42. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction. Fire apparatus access shall be provided to within 150 feet of the most remote portions of all building from an approved exterior route. If this cannot be achieved fire apparatus turn arounds will be needed.

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43. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Vertical traffic calming in the form of speed pumps, humps or dips are prohibited along fire access roads without prior approval of the fire Code Official. The minimum width and clearances established in Section 503.2.1 shall be maintained at all times.

44. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

45. Where applicable improvement plan submittals for permit shall include locations of fire lane red curbing and fire lane signage. Please refer to and include City Public Works Standard FP-2A & 2B with plan submittals for permitting.

Public Works General Conditions of Approval

46. The Applicant shall be responsible for all City plan check, map check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

47. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

48. All new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

49. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

50. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

51. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall include an analysis of the capacity of existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

52. A final detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the Bay

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Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ). It is the City's discretion whether to accept alternative treatment facilities other than bioretention.

53. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved, the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

54. A Final Map, as defined in the Subdivision Map Act, shall be prepared by a licensed surveyor or civil engineer. The Final Map shall show all parcels, rights-of-way, and easement(s), and shall be submitted to the City Engineer for review. The Final Map shall be in substantial conformance with the approved Tentative Map and all applicable conditions of approval. The Final Map is not valid until it has been approved by the City and recorded. Closure calculations shall be provided at the time of initial Final Map submittal. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the Final Map shall be directly verifiable by information shown on the closure calculation printout. The point(s) of beginning shall be clearly defined. All lot acreages shall be shown on the Final Map and shall be verifiable from information shown on the closure calculation printout. A current title report (within past 30 days) shall be submitted at the time of initial Final Map submittal.

55. Subject to the terms of Condition 56, the Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

56. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity. A good faith offer includes identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and a bonafide offer to pay this amount at the close of escrow.

57. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval of the City's Public Works Department. Please be aware that this is separate submittal from the building permit application. The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall

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be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

58. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

59. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

60. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire District, Napa County Department of Environmental Services or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

61. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

62. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

63. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

64. Prior to placing the final lift of asphalt, all public storm drains and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

65. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

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66. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

67. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended), the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

68. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water sources. The Applicant shall provide verification that an outside source of construction water, e.g., recycled water, has been established and will be available for the duration of the project construction.

69. The development shall comply with the City's Zero Water Footprint policy.

70. All landscaping irrigation systems shall include an ET/SMART controller.

Public Works Special Conditions of Approval

71. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary civil plans titled "Design Review Oat Hill Multi-Family – Parcel A" prepared by Carson, Barbee & Gibson Civil Engineers, dated February 2021 (Preliminary Plans), except as modified by these conditions.

72. Improvement Plans shall be tied to the State of California coordinate system.

73. The Applicant shall design and construct all of the Public Improvements as generally described below and in accordance with the project's Fee Credit/Fee Reimbursement Agreement, as applicable.

    a. Napa Junction Road Improvements:

        i. Construct an approximately 300-foot segment of Napa Junction Road between the Hess Road/Napa Junction Road intersection and the existing roadway fronting Napa Junction Magnet Elementary School. The preliminary roadway shall have a curb-to-curb with of 40-feet with 5-foot wide (includes curb width) attached sidewalks on both sides. The final roadway section shall be as determined by the City Engineer. The extent of the roadway construction may be extended as necessary to meet City roadway geometric standards.

        ii. Construct a new 5-foot wide (includes curb width) attached sidewalk along the south side of Napa Junction Road between the east end of the new road segment

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described above to the existing sidewalk approximately 100-feet west of Theresa Avenue.

iii. Construct a new 5-foot wide attached sidewalk along the south side of Napa Junction Road between its intersection with Hess Road and the west end of Parcel A's frontage.

iv. The cost of these improvements will qualify for a credit against the project's Traffic Impact Fee.

b. Water Main Replacement in Napa Junction Road:
Replace approximately 590 linear feet of the existing 6-inch water main in Napa Junction Road with a new 12-inch water main between the intersection with Theresa Avenue to the intersection with Hess Road, connecting to the existing water mains in those intersections. The cost of these improvements will qualify for a credit against the project's Water Capacity Fee.

c. Sanitary Sewer Main Replacement in Napa Junction Road and Theresa Avenue:
Replace approximately 1,800 linear feet of the existing 6-inch sanitary sewer mains in Napa Junction Road between Hess Road and Theresa Avenue and in Theresa Avenue from Napa Junction Road to a point approximately 1,200 linear feet south thereof with new 8-inch and 10-inch sanitary sewer mains. The Engineer of Record shall conduct a capacity analysis for the new sanitary sewers to determine where it should upsize from 8-inch to 10-inch. The cost of these improvements will qualify for a credit against the project's Wastewater Capacity Fee.

d. Recycled Water Main in Lombard Road and Hess Road:
Install approximately 1,300 linear feet of a new 8-inch recycled water main in Lombard Road between the cul-de-sac at its northern terminus and Hess Drive and in Hess Drive between Lombard Road and the Little League fields. This recycled water main will be assumed to provide a sufficient potable water demand offset to comply with the City's Zero Water Footprint policy for both the Oat Hill Parcel A and Oat Hill Parcel B projects.

e. Fire Flow Demand:
Install public water system improvements sufficient to meet the domestic and fire flow demands of the project. Although the Preliminary Plans show a private onsite water pump station, Public Works and the American Canyon Fire Protection District do not support this due to concerns over the ongoing maintenance of a private pump station.

The Engineer of Record shall conduct further analysis to determine whether domestic and fire flow requirements could be met by creating a looped water connection (connecting to both the 12" and 16" water mains) or by upgrading the City's existing Oat Hill Pump Station that feeds Oat Hill Tank #2 from Oat Hill Tank #1. In the event that this is determined to be infeasible, then the Applicant shall install a public water pump station onsite at a location close to the public right of way or at a location as otherwise approved by the City Engineer.

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Note that the Tentative Map for Oat Hill Parcel B is subject to conditions of approval to construct the same Public Improvement described above, except 73.e. In the event that any of those public improvements are constructed in conjunction with the development of Oat Hill Parcel B prior to the development of Oat Hill Parcel A, then the corresponding condition of approval for Oat Hill Parcel A will be considered to have been met.

74. The Applicant shall construct all of the on-site private drive isles, parking spaces, walks, water, recycled water, sanitary sewer, storm drainage and stormwater quality and landscaping **"Private Improvements"** generally shown on the Preliminary Plans and more specifically described below. All private drive isles, parking spaces, walks, water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

    a. Storm Drain Facilities:
    Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The storm drains and detention facilities shall be substantially consistent with the Preliminary Plans. However, the sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.

    b. Stormwater Quality Facilities:
    Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. Runoff from all roof drains shall be conveyed to the onsite stormwater treatment facilities.

    c. Emergency Vehicle Access Road
    Construct a 20-foot wide paved vehicle road on Oat Hill Parcel A and across Oat Hill Parcel B connecting to Napa Junction Road.

75. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:
    a. Submit the City's "Improvement Plan Checklist".

    b. Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.

    c. Provide the following:
        i. Public Street Repair Plan
        ii. Utility Plan and Joint Trench Plan
        iii. Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
        iv. Drainage Report
        v. Post-Construction Stormwater Control Plan (SWCP)

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vi. Geotechnical Report
vii. Construction Traffic Control Plan.

d. Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed areas of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

76. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:

a. Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

b. Subject to the terms of Condition 56, acquire the public right-of-way and all rights of entry and/or temporary and permanent easements necessary for the construction of the Napa Junction Road improvements described above. Applicant shall prepare the legal descriptions, plats and deeds and submit them to the City for review. The location of all such rights on the Plans.

c. Record a City approved lot line adjustment between Oat Hill Parcel A and Oat Hill Parcel B as shown on the Tentative Map and Preliminary Plans.

d. Furnish proof that all permits that may be required by the California Department of Fish & Game, State and Regional Water Quality Control Board, US Army Corps of Engineers and any other regulatory agencies with jurisdiction over the proposed construction have been obtained.

e. Complete and submit the City's Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.

f. Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

77. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:

a. Pay off all current account balances with the City of American Canyon.

b. Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.

c. Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), and/or the Contractor provides the following:

i. Six (6) full-size bond copies of the approved Improvement Plans for the City's use.

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ii. One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
iii. One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
iv. Electronic copies of Improvement Plans and SWPPP

78. Prior to RECORDATION OF THE FINAL MAP, the Applicant shall:

a. Construct all of the Public and Private Improvements to the satisfaction of the City. Alternatively, the Applicant may enter into a Subdivision Improvement Agreement with the City agreeing to complete all of the Public and Private Improvements prior to Occupancy of the first unit. Such an Agreement will require the Applicant to provide bonds, proof of workers compensation insurance, and general liability insurance in the forms and amounts as deemed satisfactory to the City.

b. Establish a Homeowner's Association (HOA) in accordance with State law with recorded Codes, Covenants, & Restrictions (CC&Rs) that are satisfactory to the City Engineer and City Attorney to provide long-term and ongoing maintenance of all of the Private Improvements identified above. Specifically, the HOA will be responsible for the long-term and ongoing maintenance of the private streets, sidewalks, streetlights, domestic water facilities including the water booster pump station, sewers, storm drain facilities and stormwater quality facilities within the limits of the subdivision. The City will have enforcement authority over the HOA's maintenance obligations and the obligation to review and approved proposed changes amendments to the CC&R's. The CC&R's shall require the HOA to create and maintain a separate maintenance reserve fund in the amount of a percentage of the cost of constructing the HOA maintained improvements listed above. Said percentage will be determined by the City prior to recordation of the CC&Rs.

c. Establish a Shared Maintenance Agreement or such similar agreement between the owners of Oat Hill Parcel A and Oat Hill Parcel B for the long term and ongoing maintenance and operation of all shared private improvements. Specifically, the parcel owners shall be responsible for the ongoing maintenance and operation of all onsite stormwater quality facilities, shared storm drains and the shared emergency vehicle access road. The Shared Maintenance Agreement shall be prepared to run with the land of each parcel. The Shared Maintenance Agreement shall be submitted to the City for review and approval prior to recordation.

d. Generally, in substantial conformance with that which is shown on the approved Tentative Map, convey all easements and dedications, public and private, for the construction, use and/or maintenance of roads or other access, drainage facilities, utilities and post-construction storm water management facilities on the Final Map or by separate instruments. All dedications to the City shall be irrevocable offers of dedication. Specific public conveyances include:
    i. A public utility easement (PUE) 5-foot in width along the south side of Napa Junction Road across the frontage of Oat Hill Parcel A.
    ii. A strip of public street right-of-way of varying width and having an area of approximately 4,150 square feet as shown on the Tentative Map for Condominium Purposes Oat Hill Multi-family Parcel B.

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e. Furnish documentation that the existing PG&E pole line easements (Book 1061 Page 114 and Book 1355 Page 779 O.R.) have been quit claimed.

f. Obtain all necessary easements over Oat Hill Parcel B including easements for emergency vehicle access and storm water conveyance and detention facilities through recorded separate instruments.

g. Furnish proof of the payment of the mapping service fee as required by Napa County Board of Supervisors Resolution No. 92-119.

79. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:

a. Pay all account balances and current City and American Canyon Fire Protection District fees (Mitigation and Capacity) shown in Condition 13.

80. Prior to ACCEPTANCE OF IMPROVEMENTS, the Applicant shall:

a. Restore all adjacent off-site road surfaces to pre-project conditions.

b. Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.

c. Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital AutoCAD (.dwg) and (.pdf) format (void of any AutoCAD block formats preventing full editing capabilities of the drawings), compatible with the City's current version, and tied to the NAD83 (California Zone 2, feet) coordinate system.

d. Provide a letter stating that all of the Developer's Conditions of Approval have been met.

e. Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

f. Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

Oat Hill Parcel A – Mitigation Measures

The following are the applicable mitigation measures from the certified Mitigated Negative Declaration report. The following mitigation measures shall be complied with in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP) by the City Council.

81. **AES I-1.** Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not

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illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.

82. **AQ III-3.** Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.

83. **BIO IV-1.** Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required

84. **BIO IV-2.** If Swainson's hawks are found to be nesting on the project site or within 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

85. **BIO IV-3.** Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.

86. **BIO IV-4.** If burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff

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Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:

- From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
- From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
- No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

87. **BIO IV-5.** If project activities must be conducted during the nesting season (February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 714 days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.

If active nests of native nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird

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and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission.

88. **CUL V-1.** Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.

89. **CUL V-2.** If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

90. **GEO VII-1, VII-2, VII-4, and VII-5**. Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.

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91. **GEO VII-3.** Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:
    a. Hydro-seeding;
    b. Placement of erosion control measures within drainage ways and ahead of drop inlets;
    c. The temporary lining (during construction activities) of drop inlets with "filter fabric";
    d. The placement of straw wattles along slope contours;
    e. Use of a designated equipment and vehicle "wash-out" location;
    f. Use of siltation fences;
    g. Use of on-site rock/gravel road at construction access points; and
    h. Use of sediment basins and dust palliatives.

92. **GHG VIII-1.** Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:
    a. Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.
    b. Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.
    c. One of the following options is required:
        i. A4.203.1.2.1 – Roof deck insulation or ducts in conditioned space.
        ii. A4.203.1.2.2 – High performance walls.
        iii. A4.203.1.2.3 – HERS-verified compact hot water distribution system.
        iv. A4.203.1.2.4 – HERS-verified drain water heat recovery.
    d. Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.
    e. Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.

93. **NOI XIII-1.** Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:
    a. Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;
    b. Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations;
    c. Equipment engine shrouds shall be closed during equipment operation;
    d. When not in use, motorized construction equipment shall not be left idling for more than five minutes; and

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e. Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

94. **TRANS XVII-1.** Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.

95. **TRANS XVII-2.** Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS:
    a. Unbundled Parking;
    b. Free Transit Passes;
    c. Secure Bicycle Parking and Maintenance Tools;
    d. Tele-Work/Compressed Schedules;
    e. Carpooling and Ride-Matching Program;
    f. Transportation Coordinator;
    g. Welcome Packet for New Residents; and
    h. Monitoring of Program Performance.

    Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.

96. **UTIL XIX-1.** The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water:
    a. Reducing existing potable water demands on-site;
    b. Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;
    c. Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or
    d. Purchasing new water supplies from other water providers.

    Compliance with the Zero Water Footprint Policy shall be ensured by submission of a "Will-Serve" Water Application to the City's Public Works Department for review and approval. Project plans shall demonstrate the applicant's inclusion of the selected wet-water offsets.

97. **UTIL XIX-2.** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.

98. **UTIL XIX-3.** At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect, to the extent they are not subject to applicable fee

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credits, to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.

99. **UTIL XIX-4.** The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.

100. **UTIL XIX-5.** Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.

101. **UTIL XIX-6.** Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.

102. **UTIL XIX-7.** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation
measures, such as, but not limited to:

a. Drought-resistant vegetation;
b. Irrigation systems employing the following features:
    i. drip irrigation;
    ii. low-precipitation-rate sprinklers;
    iii. bubbler/soaker systems;
    iv. programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);
    v. Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;
    vi. Conservative sprinkler spacings that minimize overspray onto paved surfaces; and
    vii. Hydrozones that keep plants with similar water needs in the same irrigation zone
c. Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and
d. Organic topdressing in non-turf areas to decrease evaporation and increase water retention.

103. **COVID19 XXI-1.** The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for

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potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

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Tyrone Navarro 4/8/2021
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Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
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Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
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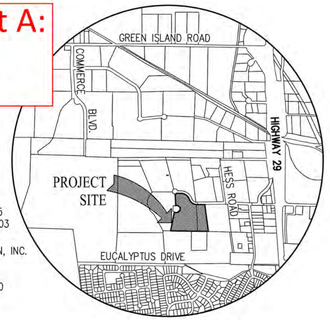
William D. Ross, City Attorney

EXHIBITS
A. Confirmation of Conditions of Approval
B. Project Plans

Attachment 4, Exhibit A: Tentative Map Plans



VICINITY MAP
NOT TO SCALE

GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES II, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5	ASSESSORS PARCEL NO.	058-380-008 & 058-320-001 (PORTION)
6.	SITE AREA:	13.6± ACRES
7.	LOTS:	1
8.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	COMMERCIAL SPECIALTY (CS) RESIDENTIAL HIGH (RH-1)
9.	EXISTING ZONING: PROPOSED ZONING:	LIGHT INDUSTRIAL (LS) RESIDENTIAL HIGH (RH)
10.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
11.	DWELLING UNITS:	206
12.	SITE DENSITY:	15.1 DU/AC
13.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET
14.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
15.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
16.	UTILITIES:	
	WATER:	CITY OF AMERICAN CANYON
	SEWER:	CITY OF AMERICAN CANYON
	STORM DRAIN:	CITY OF AMERICAN CANYON
	GAS & ELECTRIC:	PG&E
	TELEPHONE:	PACIFIC BELL
17.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
18.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.
19.	RECIPROCAL EASEMENT:	PRIOR TO THE RECORDATION OF THE FINAL MAP ALL RECIPROCAL EASEMENTS REQUIRED ON PARCEL B MUST BE RECORDED IN FAVOR OF PARCEL A OR THE FINAL MAPS MUST BE RECORDED CONCURRENTLY

LINE TABLE		
NO	BEARING	LENGTH
L1	N89°56'54"W	50.00'
L2	N53°10'54"E	75.00'
L3	N00°03'06"E	80.00'
L4	N53°04'42"W	75.00'
L5	N89°56'54"W	49.50'

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	58.00'	49°45'18"	50.37'
C2	20.00'	49°49'11"	17.39'

LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- PROPOSED RETAINING WALL
- 210 — 10' CONTOUR
- COVERED PARKING
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

TENTATIVE MAP FOR CONDOMINIUM PURPOSES

OAT HILL MULTI-FAMILY

PARCEL A - LLA 2020-____

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1"=50' DATE: FEBRUARY 2021

0 50 100 150

cbg CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

SAN RAMON ▪ (925) 866-0322
SACRAMENTO ▪ (916) 375-1877
WWW.CBANDG.COM

JOB NO.: 1305-050

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PC RESOLUTION 2021-08

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVE A DESIGN PERMIT FOR THE OAT HILL MULTI-FAMILY PROJECT (PARCEL A), CONSISTING OF 206 MULTI-FAMILY DWELLING UNITS, A RECREATION BUILDING WITH LEASING OFFICE, 451 PARKING SPACES, AND APPROXIMATELY 94,000 SQUARE FEET OF LANDSCAPING AT THE VACANT 13.6-ACRE PARCEL LOCATED ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD, APN 058-380-008 (FILE NO. PL20-0022)

WHEREAS, a Design Permit application was filed by Rick Hess Development Company for 206 dwelling units, a recreation building with leasing office, 451 parking spaces, and approximately 94,000 square feet of landscaping at the vacant 13.6-acre parcel located on the northern terminus of Napa Junction Road, APN 058-380-008 (File No. PL20-0022); and

WHEREAS, on August 14, 2020, Oat Hill Properties, II, LLC submitted a General Plan Amendment and Zone Change application to allow 206 dwelling units on approximately 13.6 acres on the east side of Oat Hill south of Napa Junction Road (APN 058-380-008 and portion of 058-320-001) (File No. PL20-0024); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to create 206 dwelling units on 13.6 acres located at Oat Hill (Parcel A) with access from Napa Junction Road, (APN 058-380-008 and portion of 058-320-001) (File No. PL20-0025); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, the Planning Commission adopted Resolution 2021-XX recommending the City Council of the City of American Canyon approve a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the project; and

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WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision; and

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission recommends the City Council approval of a Design Permit for the Oat Hill Project Parcel A (PL20-0025) based on the findings contained in Section 1, and the conditions of approval contained in Section 2.

SECTION 1: Design Permit Findings

A. The Oat Hill Project requires the following findings for the Design Permit. As stated in Chapter 19.41.050 ACMC, approval of a design permit application may be granted by the appropriate decision making authority only if all of the following findings are made:

1. The project complies with all applicable provisions of this title and any applicable approvals granted for the project by any decision making authority.

The project complies with all applicable provisions of this title.

2. The project and its design comply with any applicable design guidelines.

The project complies with all design guidelines and criteria of the High Density Residential (RH-1) zoning district.

3. The project and its design comply with all applicable general plan policies.

The project proposes a General Plan Amendment and Zone Change to convert the parcel from Light Industrial with Specialty Commercial (LI:CS) to High Density Residential (RH-1). The proposed use is consistent with the RH-1 designation in the General Plan in that multifamily residential uses are permitted by right.

Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

- *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*

- *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*

- *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

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The project satisfies the following Land Use Element policies:

- *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.*

- *Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A portion of Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses. As noted in the Napa County Airport Terminal Area Redevelopment IS/MND, substantial evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. The project is also subject to an avigation easement, which is included in the Project Approvals.*

4. The project complies with applicable policies of the Napa County Airport land use compatibility plan.

Three buildings (Building #K, L, and M) are within Zone D as described in the Napa County Airport Land Use Compatibility Plan (ALUCP), which consists of 51 residential units. The applicant conducted a peer-reviewed noise study, prepared by Saxelby Acoustics (Sept 10, 2020) and concluded that the Oat Hill project would not conflict with the noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. As an added precaution and a condition of approval, the applicant will agree to record an avigation easement in favor of the Napa County Airport to indemnify them from noise complaints. The applicant also scheduled to file an application with the Napa County Airport Land Use Commission (ALUC) to request approval of their project in Zone D.

5. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.

The project proposes high quality residential buildings that enhances the landscape of Oat Hill. The applicant conducted viewing studies to ensure the residential buildings take advantage of the view sheds from Oat Hill and are also providing a new public walking trail with the project. The applicant also provided photo simulations that show the residential buildings blend in harmoniously with the Oat Hill setting.

6. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.

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The project design complies to the RH-1 design standards and is compatible to existing development.

7. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.

The design of the residential buildings is high quality and avoids excessive variety and repetition. They feature a hip roof, articulated entrances, functional balconies, separations in color, and recessed windows. The site also takes advantage of landscaping in the setbacks, common areas, and parking areas.

8. The proposed design promotes a harmonious transition in terms of scale and character between areas of different general plan land use designations and zoning districts.

The Oat Hill project provides an appropriate transition between lower density housing, located to the south and west of Oat Hill, and commercial and retail uses surrounding Highway 29. The development of housing on Oat Hill also would be compatible with the Broadway Specific Plan (BDSP). Although Parcels A and B are not within the boundaries of the BDSP, that plan designates land adjacent to the parcels as "Medium Density Residential," which permits 12 units/acre and is intended to foster a high-density residential community that is compatible with the existing older single-family residences in this area. Re-designating Parcels A and B to RH-1 and RM would allow for residential densities similar to those permitted in the Medium Density Residential area of the Broadway Plan, and it would further establish a residential community that is compatible with surrounding uses.

9. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

The site will be graded for safe and adequate on-site circulation. A new section of Napa Junction Road would be constructed between two disconnected segments east and west of Hess Road. The new roadway and pedestrian connections would result in a more direct route to the project site from SR 29 and other areas of the City.

B. The Oat Hill Project requires the following additional findings related to design. General Plan Land Use Policy 1.8.4 requires that multi-family residential projects be designed to convey a high level of quality and distinctive neighborhood character in conformance with the following:

1. Treatment of building elevations to convey the visual character of individual units rather than a singular building mass and volume.

The building elevation is separated by three complimentary colors and supporting accents. The building has functional balconies, recessed windows, and defined main entries that reduce the building mass and volume.

2. Location of the elevation of the first occupiable floor at or in proximity to the predominant grade elevation, limiting the visibility of subterranean parking facilities from the street frontage.

The first floor of each building is accessible from ground level and parking facilities are accessible from the street level. The site will have clearly marked accessible paths of travel.

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3. Inclusion of separate and well-defined entries to convey the visual character of individual identity for each residential unit, which may be developed as seen from exterior facades, interior courtyards, and/or common areas.

The buildings have defined entries that convey individual identity. Each building has two main entries that are recessed and doors facing the front elevation are painted in a light leather brown color. The covered garages of the units are hidden in the rear.

4. Siting and design of parking areas and facilities to be integrated with and not dominate the architectural character of the structure.

The site parking areas are integrated with the buildings and open spaces. The site is also facilitated with landscaping in the setbacks so that parking is not the dominant architectural feature.

5. Use of an adequate setback along the street frontage containing landscape, which provides physical and visual continuity with abutting sidewalks.

The applicant provided a preliminary landscaping plan that identified landscaped setbacks for street frontages. The landscaping consists of native trees, shrubs, and groundcover that will be supported with drip irrigation systems. The final landscaping plan shall comply with the City water efficient landscaping ordinance.

6. Provision of useable and functional private open spaces, including ground level patios where appropriate or enclosed balconies of adequate size for use.

The buildings include ground level patios and enclosed balconies with a minimum depth of 6 feet, which is consistent with medium density residential buildings in the neighboring Broadway District Specific Plan area.

7. Provides of sense of openness and unit separation while providing attractive locations for functional activities such as children's outdoor play, preferably within sight of each residential unit.

The site includes functional activity areas such as a courtyard between Buildings K and L, a courtyard between Buildings E and F, a picnic area north of Building A, a swimming pool and recreation building at the site center, and a community loop walkway.

SECTION 2. CONDITIONS OF APPROVAL

General

1. The Design Permit approval is granted for development of 206 dwelling units on 13 multi-family buildings on a 13.6-acre parcel in the High Density Residential (RH) zoning district. The site will be supported with 451 parking spaces and approximately 94,000 square feet of landscaping at the vacant parcel, APN 058-380-008 (File No. PL20-0022), which shall be substantially shown on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit A includes the following:
    a. Architectural Plans prepared by William Hezmalhalch Architects (WHA) from San Ramon, CA, consisting of 20 sheets showing the proposed building elevations, floor plans, and roof plans, dated October 19, 2020.

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b. Site Plans prepared by Carlson, Barbee, and Gibson (CBG) from San Ramon, CA, consisting of 7 sheets showing the site plan, preliminary grading and drainage plan, and cross sections, dated February of 2021.
c. Landscaping Plans prepared by Vander Toolen Associates from Sacramento, CA, consisting of 6 sheets showing the proposed landscaping plans, dated October of 2020.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

   The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

   The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project. The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

   In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. Appeal. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $703. This approval is also subject to return of the "Applicant Confirmation of Conditions of

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Approval" form signed by the property owner. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on April 5, 2021.

4. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

5. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

6. Expiration of this Approval. If no construction permits have been issued and construction commenced within one year of the date upon which this approval is final, the approval shall become null and void and of no effect. An extension of time may be granted by the Community Development Director upon the written request by a responsible party before the expiration of the one-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval being made.

7. All plans submitted for review and approval and all development shall be in substantial conformance with the approved exhibits, except where modified by a condition of approval. The Community Development Director or designee may approve minor changes to the project as approved by the Planning Commission on the plans submitted for the construction permits with a determination that the changes are in substantial compliance with the representation of the project as reviewed by the Planning Commission and City Council, that the proposed change will be in compliance with the required development standards, and the change will not materially affect adjacent private or public property.

8. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Design Permit, under the title "Design Permit Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

Planning

9. All new roof top equipment is required to be screened. The parapet shall be opaque and equal in height of the top of the rooftop mechanical equipment.

10. All ground mounted air conditioning and heating equipment facing Napa Junction Road shall be screened. The screen shall be made of wood and painted or stained to be weather resistant.

11. Prior to the issuance of the site improvement plan, the applicant shall identify 10 bicycle parking spots for Parcel A. The bicycle parking spots shall be evenly distributed amongst the buildings.

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12. The subdivision ordinance requires new projects to dedicate parkland on the basis of 5 acres per 1,000 population (ACMC Chapter 18.44). Based on the current project proposal of 206 dwelling units @ 3.49 persons per unit, the project generates a population of 719 people. This equates to a park dedication standard of 3.595 acres. The Subdivision Ordinance has provisions for a combination of park dedication and payment of a fee in-lieu of park dedication.

13. Prior to the issuance of the first building permit, the applicant is required to pay all applicable impact fees. For your information, the following table identifies the fees and their rates. Please note that the City fees are subject to change and the applicant is required to pay the updated fee at the time of building permit issuance. The applicant is required to pay Fire Mitigation fees separately at the Fire District.

Fee	Rate	Calculation	Cost
Affordable Housing Nexus	$3.82 per SF	286,554 SF per plans	$ 1,094,636.28
Parks and Recreation Fee	$5806.38 per unit	206 units per plans	$ 1,196,114.28
Civic Facility Fee	$1685.61 per unit	206 units per plans	$ 347,235.66
General Plan Update Fee	$89.59 per unit	206 units per plans	$ 18,455.54
Traffic Impact Fee	$618.18 per trip	1121 trips per traffic report	$ 692,979.78
Water Capacity Fee (Estimated)	$11,599 per unit plus $26.25 per gpd	206 units per plans plus clubhouse/pool and irrigation demand in gpd	$2,410,919.00
Wastewater Capacity Fee (Estimated)	$6,952.00 per unit plus $35.66 per gpd	206 units per plans plus clubhouse/pool demand in gpd	$1,446,733.00
		Impact Fees Subtotal	**$ 7,207,073.54**

14. Prior to the issuance of the first building permit, the applicant shall provide proof of payment or exemption for Napa Valley Unified School District (NVUSD) developer fees. For more information, see their website here: https://www.nvusd.k12.ca.us/developerfees .

15. Prior to the issuance of the first building permit or the recordation of the final map, whichever occurs first, an Avigation Easement shall be recorded. The Avigation Easement shall cover all portions of the property and include:
    a. Right-of-flight at any altitude above an easement surface elevation, established based on either Part 77 of the Federal Aviation Regulations or FAA Terminal Instrument Procedures Standards (TERPS), whichever is controlling (glide slope in approach is the controlling factor).
    b. Right to cause noise, vibration, fumes, dust, and fuel particle emissions.
    c. Right to prevent erection or growth of all objects above the easement surface.
    d. Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

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16. Prior to the Certificate of Occupancy, the applicant shall complete the public access trail that meanders from the site entry, traversing all the identified look-out points, and reaches the northwest side of the site.

Landscaping

17. The applicant shall agree to a licensing agreement that requires them to maintain the landscaping within the right-of-way along the project frontage. Prior to final inspection of the building permit, the applicant shall amend their facilities operation and maintenance plan (O&M plan) to include this activity.

18. Prior to the issuance of the Building Permit, the applicant shall submit a final landscaping plan. The landscape plan shall comply with the requirements of the California Government Code 65591 et. seq. known as the Water Conservation in Landscaping Act as set out in the model water efficient landscape ordinance adopted by the California Department of Water Resources and amended in 2015. All plant material shall be served by a city-approved automatic irrigation system.

19. Prior to the issuance of a certificate of occupancy, all landscaping shall be completed and the project's landscape architect shall provide a written certification that all plant materials have been installed in accordance with the approved landscape plan.

20. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

21. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

22. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site's vision triangles.

Building and Safety

23. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

24. Prior to the issuance of a certificate of occupancy, the applicant shall submit a letter of certification to the Building Official from the project architect and civil engineer certifying that all improvements have been constructed in accordance with the approved building plans. Determination of consistency shall be subject to the review and approval of the Building Official.

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25. Site Improvement plans shall show slopes of all sidewalks and walkways and paths of travel to use site facilities including trash/recycling facilities. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

26. Recycling of Construction and Demolition Debris: Prior to issuance of a building permit the applicant shall submit a plan for the diversion of at least 70 percent of the debris from the building demolition and construction. The plan shall include the qualified recycler that will be used, the methods of managing diversion of construction materials on site, and the proposed documentation that will be submitted to confirm that the diversion goal has been met.

Fire District

General Fire District Conditions

27. In accordance with the standard mitigation measures and conditions of approval set forth by the City of American Canyon, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

28. Buildings in excess of two stories shall pay Aerial Apparatus mitigation fees prior to the issuance of any building permits. (see current Standard Fees and Chares adopted by resolution).

29. The project will require an annual fire and life-safety inspection under the "R (Residential) Occupancy Inspection Program". The R Occupancy Inspection Program has been developed to allow Fire District to meet requirements set forth by the State of California. The California Health and Safety Code, Section 13146.2 (a) mandates that inspections be completed at all "R occupancies" annually. California Health and Safety Code Section 13146.2 (b) provides the Fire District legal authority to charge property owners to recover reasonable costs for providing these inspections.

30. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, City of American Canyon standards and Nationally Recognized Standards.

31. There shall be no deferred submittals for fire protection equipment and related utilities. Fire protection plans shall not be attached to or bound with the building plan submittal package. This includes but is not limited to Automatic Fire Sprinkler, Fire Alarm, Fixed Fire Protection and Civil plans.

32. All Fire related underground piping and fire appurtenances shall be shown on the Civil plan submittal. In addition to the Civil plan submittal, at least (1) plan set under separate cover shall be submitted to American Canyon Building Division for routing to the American Canyon Fire Protection District detailing all underground piping and related fire appurtenances including but not limited to underground piping, underground sweep detail, underground trench details showing depth of burial, type of backfill, manufacturer's specifications of piping, valves joints, fittings and calculated size and locations of thrust blocks, hydrants locations (designate public or private), gate shut-off valves, PIV's, FDC's, fire pumps, fire pump and/or riser rooms.

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33. Underground utility contractor, architect and fire sprinkler contractor shall coordinate the location of risers and control valves prior to the issuance of a building permit.

34. Fire District plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

Fire Protection

35. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code. Applicant shall demonstrate on plan submittal; square footage of each building on plan and provide the required fire flow information. Applicant shall demonstrate that the number and spacing of onsite fire hydrants meets with requirements of the California Fire Code. ***See sample below regarding fire flow and hydrant detail information needed***.

BUILDING FIRE FLOW REQUIREMENTS – CFC TABLES B105.2 & B105.1(2)
INFORMATION BELOW IS A SAMPLE AND FOR REFERENCE ONLY

Table B105.1(2) – Building size = 129, 600 square feet
Construction type = Type IIA
FF = 5,250 gpm at 20 psi
Duration = 4 hours

Table B105.2 – Fire sprinkler allowance = - 50%
5,250 – 2,625 = 2,625 gpm
FF = 2,625 gpm @ 20 psi
Duration = 2 hours

Table CC105.1 – Approximate number of hydrants = 3
Average spacing = 400 feet + 25% allowable increase = 500
Maximum distance from street or frontage = 225 feet = 50% allowable increase = 337.5

36. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the City of Napa and the applicable National Fire Protection Association Standard.

37. The fire protection equipment shall be located within an interior room having an approved exterior access door or in an exterior enclosure attached to the building, specifically, for the purpose of housing such equipment.

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38. The City of American Canyon requires that a fire hydrant be in service within 250 feet of the furthest point of construction prior to the stockpiling of combustible materials for the beginning of construction.

39. Fire District Connections (FDC) shall be located not more than 100 ft. from the nearest fire hydrant.

Fire District Access

40. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the City of American Canyon and the applicable Public Works Standard.

41. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13' 6". They shall have an all-weather paved surface capable of supporting a GVW of 71,000 pounds.

42. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction. Fire apparatus access shall be provided to within 150 feet of the most remote portions of all building from an approved exterior route. If this cannot be achieved fire apparatus turn arounds will be needed.

43. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Vertical traffic calming in the form of speed pumps, humps or dips are prohibited along fire access roads without prior approval of the fire Code Official. The minimum width and clearances established in Section 503.2.1 shall be maintained at all times.

44. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

45. Where applicable improvement plan submittals for permit shall include locations of fire lane red curbing and fire lane signage. Please refer to and include City Public Works Standard FP-2A & 2B with plan submittals for permitting.

Public Works General Conditions of Approval

46. The Applicant shall be responsible for all City plan check, map check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

47. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

48. All new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

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49. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

50. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

51. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall include an analysis of the capacity of existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

52. A final detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ). It is the City's discretion whether to accept alternative treatment facilities other than bioretention.

53. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved, the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

54. A Final Map, as defined in the Subdivision Map Act, shall be prepared by a licensed surveyor or civil engineer. The Final Map shall show all parcels, rights-of-way, and easement(s), and shall be submitted to the City Engineer for review. The Final Map shall be in substantial conformance with the approved Tentative Map and all applicable conditions of approval. The Final Map is not valid until it has been approved by the City and recorded. Closure calculations shall be provided at the time of initial Final Map submittal. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the Final Map shall be directly verifiable by information shown on the closure calculation printout. The point(s) of beginning shall be clearly defined. All lot acreages shall be shown on the Final Map and shall be verifiable from information shown on the closure calculation printout. A current title report (within past 30 days) shall be submitted at the time of initial Final Map submittal.

55. Subject to the terms of Condition 56, the Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

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56. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity. A good faith offer includes identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and a bonafide offer to pay this amount at the close of escrow.

57. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval of the City's Public Works Department. Please be aware that this is separate submittal from the building permit application. The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

58. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

59. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

60. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire District, Napa County Department of Environmental Services or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

61. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

62. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant

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changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

63. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

64. Prior to placing the final lift of asphalt, all public storm drains and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

65. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

66. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

67. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended), the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

68. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water sources. The Applicant shall provide verification that an outside source of construction water, e.g., recycled water, has been established and will be available for the duration of the project construction.

69. The development shall comply with the City's Zero Water Footprint policy.

70. All landscaping irrigation systems shall include an ET/SMART controller.

Public Works Special Conditions of Approval

71. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary civil plans titled "Design Review Oat Hill Multi-Family – Parcel A" prepared by Carson, Barbee & Gibson Civil Engineers, dated February 2021 (Preliminary Plans), except as modified by these conditions.

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72. Improvement Plans shall be tied to the State of California coordinate system.

73. The Applicant shall design and construct all of the Public Improvements as generally described below and in accordance with the project's Fee Credit/ Fee Reimbursement Agreement, as applicable.

    a. Napa Junction Road Improvements:
        i. Construct an approximately 300-foot segment of Napa Junction Road between the Hess Road/Napa Junction Road intersection and the existing roadway fronting Napa Junction Magnet Elementary School. The preliminary roadway shall have a curb-to-curb with of 40-feet with 5-foot wide (includes curb width) attached sidewalks on both sides. The final roadway section shall be as determined by the City Engineer. The extent of the roadway construction may be extended as necessary to meet City roadway geometric standards.

        ii. Construct a new 5-foot wide (includes curb width) attached sidewalk along the south side of Napa Junction Road between the east end of the new road segment described above to the existing sidewalk approximately 100-feet west of Theresa Avenue.

        iii. Construct a new 5-foot wide attached sidewalk along the south side of Napa Junction Road between its intersection with Hess Road and the west end of Parcel A's frontage.

        iv. The cost of these improvements will qualify for a credit against the project's Traffic Impact Fee.

    b. Water Main Replacement in Napa Junction Road:
    Replace approximately 590 linear feet of the existing 6-inch water main in Napa Junction Road with a new 12-inch water main between the intersection with Theresa Avenue to the intersection with Hess Road, connecting to the existing water mains in those intersections. The cost of these improvements will qualify for a credit against the project's Water Capacity Fee.

    c. Sanitary Sewer Main Replacement in Napa Junction Road and Theresa Avenue:
    Replace approximately 1,800 linear feet of the existing 6-inch sanitary sewer mains in Napa Junction Road between Hess Road and Theresa Avenue and in Theresa Avenue from Napa Junction Road to a point approximately 1,200 linear feet south thereof with new 8-inch and 10-inch sanitary sewer mains. The Engineer of Record shall conduct a capacity analysis for the new sanitary sewers to determine where it should upsize from 8-inch to 10-inch. The cost of these improvements will qualify for a credit against the project's Wastewater Capacity Fee.

    d. Recycled Water Main in Lombard Road and Hess Road:
    Install approximately 1,300 linear feet of a new 8-inch recycled water main in Lombard Road between the cul-de-sac at its northern terminus and Hess Drive and in Hess Drive between Lombard Road and the Little League fields. This recycled water main will be

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assumed to provide a sufficient potable water demand offset to comply with the City's Zero Water Footprint policy for both the Oat Hill Parcel A and Oat Hill Parcel B projects.

e. Fire Flow Demand:
Install public water system improvements sufficient to meet the domestic and fire flow demands of the project. Although the Preliminary Plans show a private onsite water pump station, Public Works and the American Canyon Fire Protection District do not support this due to concerns over the ongoing maintenance of a private pump station.

The Engineer of Record shall conduct further analysis to determine whether domestic and fire flow requirements could be met by creating a looped water connection (connecting to both the 12" and 16" water mains) or by upgrading the City's existing Oat Hill Pump Station that feeds Oat Hill Tank #2 from Oat Hill Tank #1. In the event that this is determined to be infeasible, then the Applicant shall install a public water pump station onsite at a location close to the public right of way or at a location as otherwise approved by the City Engineer.

Note that the Tentative Map for Oat Hill Parcel B is subject to conditions of approval to construct the same Public Improvement described above, except 73.e. In the event that any of those public improvements are constructed in conjunction with the development of Oat Hill Parcel B prior to the development of Oat Hill Parcel A, then the corresponding condition of approval for Oat Hill Parcel A will be considered to have been met.

74. The Applicant shall construct all of the on-site private drive isles, parking spaces, walks, water, recycled water, sanitary sewer, storm drainage and stormwater quality and landscaping **"Private Improvements"** generally shown on the Preliminary Plans and more specifically described below. All private drive isles, parking spaces, walks, water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

a. Storm Drain Facilities:
Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The storm drains and detention facilities shall be substantially consistent with the Preliminary Plans. However, the sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.

b. Stormwater Quality Facilities:
Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. Runoff from all roof drains shall be conveyed to the onsite stormwater treatment facilities.

c. Emergency Vehicle Access Road

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Construct a 20-foot wide paved vehicle road on Oat Hill Parcel A and across Oat Hill Parcel B connecting to Napa Junction Road.

75. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:
    a. Submit the City's "Improvement Plan Checklist".

    b. Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.

    c. Provide the following:
        i. Public Street Repair Plan
        ii. Utility Plan and Joint Trench Plan
        iii. Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
        iv. Drainage Report
        v. Post-Construction Stormwater Control Plan (SWCP)
        vi. Geotechnical Report
        vii. Construction Traffic Control Plan.

    d. Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed areas of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

76. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:

    a. Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

    b. Subject to the terms of Condition 56, acquire the public right-of-way and all rights of entry and/or temporary and permanent easements necessary for the construction of the Napa Junction Road improvements described above. Applicant shall prepare the legal descriptions, plats and deeds and submit them to the City for review. The location of all such rights on the Plans.

    c. Record a City approved lot line adjustment between Oat Hill Parcel A and Oat Hill Parcel B as shown on the Tentative Map and Preliminary Plans.

    d. Furnish proof that all permits that may be required by the California Department of Fish & Game, State and Regional Water Quality Control Board, US Army Corps of Engineers and any other regulatory agencies with jurisdiction over the proposed construction have been obtained.

    e. Complete and submit the City's Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.

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f. Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

77. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:

a. Pay off all current account balances with the City of American Canyon.

b. Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.

c. Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), and/or the Contractor provides the following:

i. Six (6) full-size bond copies of the approved Improvement Plans for the City's use.
ii. One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
iii. One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
iv. Electronic copies of Improvement Plans and SWPPP

78. Prior to RECORDATION OF THE FINAL MAP, the Applicant shall:

a. Construct all of the Public and Private Improvements to the satisfaction of the City. Alternatively, the Applicant may enter into a Subdivision Improvement Agreement with the City agreeing to complete all of the Public and Private Improvements prior to Occupancy of the first unit. Such an Agreement will require the Applicant to provide bonds, proof of workers compensation insurance, and general liability insurance in the forms and amounts as deemed satisfactory to the City.

b. Establish a Homeowner's Association (HOA) in accordance with State law with recorded Codes, Covenants, & Restrictions (CC&Rs) that are satisfactory to the City Engineer and City Attorney to provide long-term and ongoing maintenance of all of the Private Improvements identified above. Specifically, the HOA will be responsible for the long-term and ongoing maintenance of the private streets, sidewalks, streetlights, domestic water facilities including the water booster pump station, sewers, storm drain facilities and stormwater quality facilities within the limits of the subdivision. The City will have enforcement authority over the HOA's maintenance obligations and the obligation to review and approved proposed changes amendments to the CC&R's. The CC&R's shall require the HOA to create and maintain a separate maintenance reserve fund in the amount of a percentage of the cost of constructing the HOA maintained improvements listed above. Said percentage will be determined by the City prior to recordation of the CC&Rs.

c. Establish a Shared Maintenance Agreement or such similar agreement between the owners of Oat Hill Parcel A and Oat Hill Parcel B for the long term and ongoing maintenance and operation of all shared private improvements. Specifically, the parcel

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owners shall be responsible for the ongoing maintenance and operation of all onsite stormwater quality facilities, shared storm drains and the shared emergency vehicle access road. The Shared Maintenance Agreement shall be prepared to run with the land of each parcel. The Shared Maintenance Agreement shall be submitted to the City for review and approval prior to recordation.

d. Generally, in substantial conformance with that which is shown on the approved Tentative Map, convey all easements and dedications, public and private, for the construction, use and/or maintenance of roads or other access, drainage facilities, utilities and post-construction storm water management facilities on the Final Map or by separate instruments. All dedications to the City shall be irrevocable offers of dedication. Specific public conveyances include:
    i. A public utility easement (PUE) 5-foot in width along the south side of Napa Junction Road across the frontage of Oat Hill Parcel A.
    ii. A strip of public street right-of-way of varying width and having an area of approximately 4,150 square feet as shown on the Tentative Map for Condominium Purposes Oat Hill Multi-family Parcel B.

e. Furnish documentation that the existing PG&E pole line easements (Book 1061 Page 114 and Book 1355 Page 779 O.R.) have been quit claimed.

f. Obtain all necessary easements over Oat Hill Parcel B including easements for emergency vehicle access and storm water conveyance and detention facilities through recorded separate instruments.

g. Furnish proof of the payment of the mapping service fee as required by Napa County Board of Supervisors Resolution No. 92-119.

79. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:

a. Pay all account balances and current City and American Canyon Fire Protection District fees (Mitigation and Capacity) shown in Condition 13.

80. Prior to ACCEPTANCE OF IMPROVEMENTS, the Applicant shall:

a. Restore all adjacent off-site road surfaces to pre-project conditions.

b. Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.

c. Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital AutoCAD (.dwg) and (.pdf) format (void of any AutoCAD block formats preventing full editing capabilities of the drawings), compatible with the City's current version, and tied to the NAD83 (California Zone 2, feet) coordinate system.

d. Provide a letter stating that all of the Developer's Conditions of Approval have been met.

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e. Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

f. Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

Oat Hill Parcel A – Mitigation Measures

The following are the applicable mitigation measures from the certified Mitigated Negative Declaration report. The following mitigation measures shall be complied with in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP) by the City Council.

81. **AES I-1.** Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.

82. **AQ III-3.** Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.

83. **BIO IV-1.** Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required

84. **BIO IV-2.** If Swainson's hawks are found to be nesting on the project site or within 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

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85. **BIO IV-3.** Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.

86. **BIO IV-4.** If burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:

    - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

    If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

    If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

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87. **BIO IV-5.** If project activities must be conducted during the nesting season (February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 714 days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.

    If active nests of native nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission.

88. **CUL V-1.** Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.

89. **CUL V-2.** If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified

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archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

90. **GEO VII-1, VII-2, VII-4, and VII-5**. Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.

91. **GEO VII-3.** Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:
    a. Hydro-seeding;
    b. Placement of erosion control measures within drainage ways and ahead of drop inlets;
    c. The temporary lining (during construction activities) of drop inlets with "filter fabric";
    d. The placement of straw wattles along slope contours;
    e. Use of a designated equipment and vehicle "wash-out" location;
    f. Use of siltation fences;
    g. Use of on-site rock/gravel road at construction access points; and
    h. Use of sediment basins and dust palliatives.

92. **GHG VIII-1.** Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:
    a. Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.
    b. Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.
    c. One of the following options is required:
        i. A4.203.1.2.1 – Roof deck insulation or ducts in conditioned space.
        ii. A4.203.1.2.2 – High performance walls.
        iii. A4.203.1.2.3 – HERS-verified compact hot water distribution system.
        iv. A4.203.1.2.4 – HERS-verified drain water heat recovery.
    d. Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24,

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Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.

e. Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.

93. **NOI XIII-1.** Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:
    a. Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;
    b. Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations;
    c. Equipment engine shrouds shall be closed during equipment operation;
    d. When not in use, motorized construction equipment shall not be left idling for more than five minutes; and
    e. Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

94. **TRANS XVII-1.** Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.

95. **TRANS XVII-2.** Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS:
    a. Unbundled Parking;
    b. Free Transit Passes;
    c. Secure Bicycle Parking and Maintenance Tools;
    d. Tele-Work/Compressed Schedules;
    e. Carpooling and Ride-Matching Program;
    f. Transportation Coordinator;
    g. Welcome Packet for New Residents; and
    h. Monitoring of Program Performance.

    Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.

96. **UTIL XIX-1.** The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water:
    a. Reducing existing potable water demands on-site;

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b. Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;
c. Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or
d. Purchasing new water supplies from other water providers.

Compliance with the Zero Water Footprint Policy shall be ensured by submission of a "Will-Serve" Water Application to the City's Public Works Department for review and approval. Project plans shall demonstrate the applicant's inclusion of the selected wet-water offsets.

97. **UTIL XIX-2.** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.

98. **UTIL XIX-3.** At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect, to the extent they are not subject to applicable fee credits, to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.

99. **UTIL XIX-4.** The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.

100. **UTIL XIX-5.** Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.

101. **UTIL XIX-6.** Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.

102. **UTIL XIX-7.** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation
measures, such as, but not limited to:

a. Drought-resistant vegetation;
b. Irrigation systems employing the following features:
    i. drip irrigation;
    ii. low-precipitation-rate sprinklers;
    iii. bubbler/soaker systems;

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iv. programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);
v. Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;
vi. Conservative sprinkler spacings that minimize overspray onto paved surfaces; and
vii. Hydrozones that keep plants with similar water needs in the same irrigation zone

c. Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and
d. Organic topdressing in non-turf areas to decrease evaporation and increase water retention.

103. **COVID19 XXI-1.** The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
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Tyrone Navarro, Chair

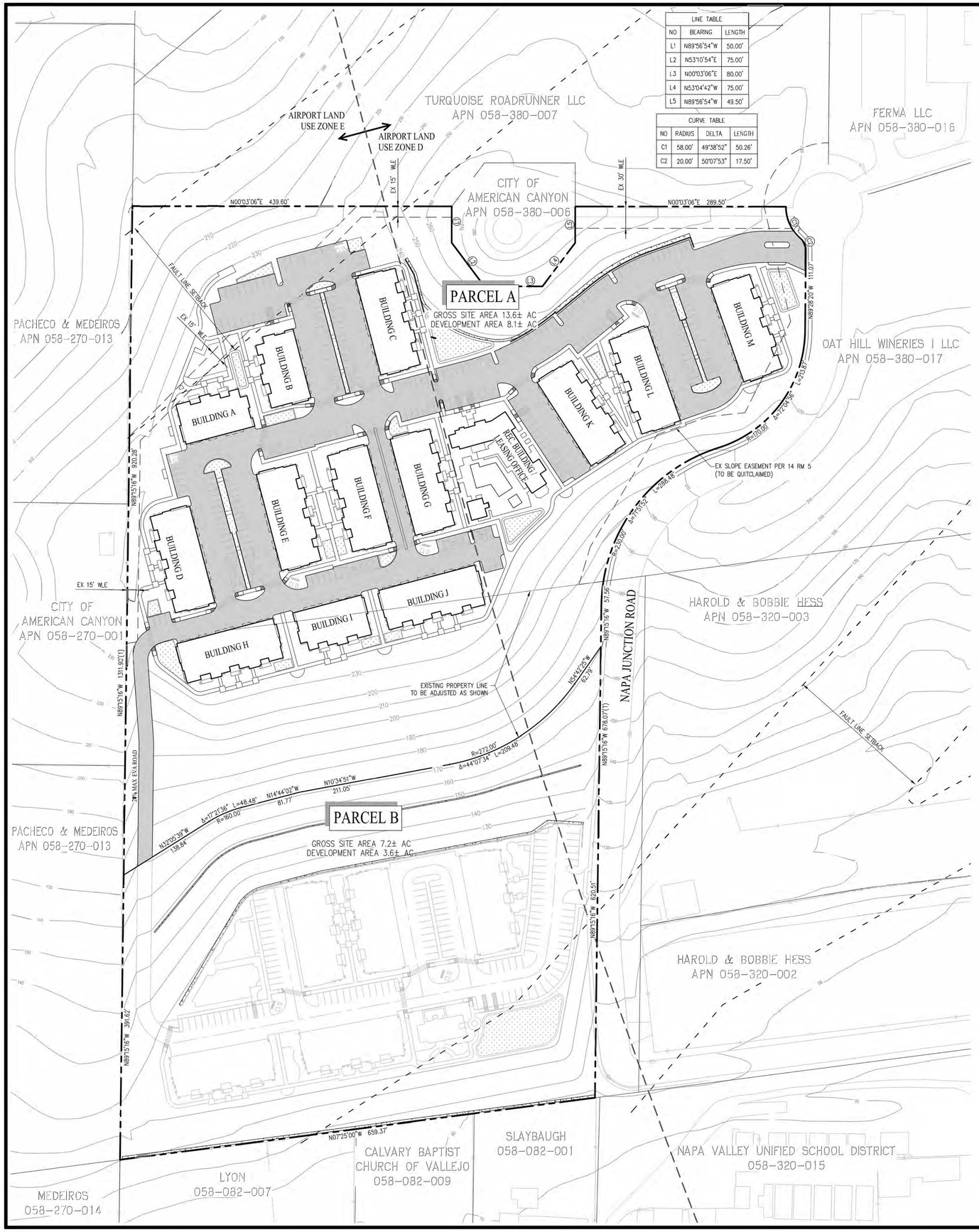
ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
285D50133D93421...
William D. Ross, City Attorney

EXHIBITS
A. Project Plans



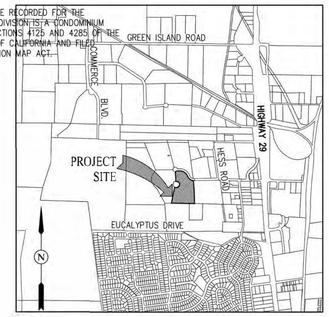
LINE TABLE		
NO	BEARING	LENGTH
L1	N89°56'54"W	50.00'
L2	N53°10'54"E	75.00'
L3	N00°03'06"E	80.00'
L4	N53°04'42"W	75.00'
L5	N89°56'54"W	49.50'

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	58.00'	49°38'52"	50.26'
C2	20.00'	50°07'53"	17.50'

GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES II, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5.	ARCHITECT:	WILLIAM HEZMALHALCH ARCHITECTS 6111 BOLLINGER CANYON ROAD, SUITE 495 SAN RAMON, CA 94583 PHONE: (925) 463-1700
6.	LANDSCAPE ARCHITECT:	VANDERTOOLEN ASSOCIATES 855 BORDEAUX WAY, SUITE 240 NAPA, CA 94558 PHONE: (707) 224-2299
7	ASSESSORS PARCEL NO.	058-380-008 & 058-320-001 (PORTION)
8.	SITE AREA:	13.6± ACRES
9.	LOTS:	1
10.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	COMMERCIAL SPECIALTY (CS) RESIDENTIAL HIGH (RH-1)
11.	EXISTING ZONING: PROPOSED ZONING:	LIGHT INDUSTRIAL (LS) RESIDENTIAL HIGH (RH)
12.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
13.	DWELLING UNITS:	206
14.	SITE DENSITY:	15.1 DU/AC
15.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET (NGVD29) NAVD88 = NGVD29 + 2.4
16.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
17.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
18.	UTILITIES: WATER: SEWER: STORM DRAIN: GAS & ELECTRIC: TELEPHONE:	 CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON PG&E PACIFIC BELL
19.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
20.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.

Exhibit A: Design Permit Plans



VICINITY MAP
NOT TO SCALE

RH ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	13.6 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM FLOOR AREA RATIO	50 %	17%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

DEVELOPMENT AREA SUMMARY - 13.6± ACRES

(AFTER LOT LINE ADJUSTMENT)

BUILDING FOOTPRINT:	97,930± SF	2.24± AC
PARKING/ASPHALT:	138,146± SF	3.17± AC
SIDEWALK/OTHER CONCRETE:	30,469± SF	0.70± AC
TRASH ENCLOSURE	1,290± SF	0.03± AC
LANDSCAPED AREA:*	94,923± SF	2.17± AC
WATER QUALITY BASIN (OFF-SITE):	N/A	N/A
OPEN SPACE:	229,421± SF	5.28± AC
TOTAL:	592,179± SF	13.6± AC
TOTAL IMPERVIOUS AREAS:	267,835± SF	6.15± AC
BUILDING COVERAGE:	17%	
*REQUIRED LANDSCAPED AREA (10% OF PARKING/ASPHALT AREA):	13,814 SF	0.31 AC

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- 11 — LOT NUMBER
- FF 23.0 — FINISHED FLOOR ELEVATION
- 210 — 10' CONTOUR
- (6C) — PARKING COUNT
- COVERED PARKING
- 100' — LOT DIMENSION
- 12" SD — STORM DRAIN AND CATCH BASIN
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W-PU — PUBLIC WATER MAIN AND VALVE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- PR JT — JOINT TRENCH
- LATERAL SERVICE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

C	COMPACT
DDCV	DOUBLE DETECTOR CHECK VALVE
EVA	EMERGENCY VEHICLE ACCESS
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SEWER CLEAN OUT
TE	TRASH ENCLOSURE
WLE	WATER LINE EASEMENT

EXISTING

- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- EX 30" SD — STORM DRAIN AND CATCH BASIN
- UTILITY POLE
- FIRE HYDRANT

SHEET INDEX

1 PROJECT OVERVIEW
2 TECHNICAL SITE PLAN
3 PRELIMINARY GRADING & DRAINAGE PLAN
4 PRELIMINARY UTILITY PLAN
5 STREET SECTIONS & TRUCK TURNING PLAN
6 GRADING CROSS SECTIONS
7 PRELIMINARY STORMWATER CONTROL PLAN

DESIGN REVIEW

PROJECT OVERVIEW

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 60' DATE: FEBRUARY 2021

0 60 120 180

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SHEET NO. C-1 OF 7 SHEETS

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LINE TABLE		
NO	BEARING	LENGTH
L1	N89°56'54"W	50.00'
L2	N53°10'54"E	75.00'
L3	N00°03'06"E	80.00'
L4	N53°04'42"W	75.00'
L5	N89°56'54"W	49.50'

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	58.00'	49°38'52"	50.26'
C2	20.00'	50°07'53"	17.50'

LEGEND

- PROPOSED BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- BUILDING L — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- (14) — PARKING COUNT
- C — COMPACT PARKING STALL
- PROPOSED ON STREET PARKING
- COVERED PARKING
- TRASH ENCLOSURE
- 100' — LOT DIMENSION
- EV — ZERO EMISSIONS VEHICLE CHARGING STALL
- ACCESSIBLE PARKING (CALTRANS STD PLAN A90A)
- VAN — VAN ACCESSIBLE STALL

RH ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	13.6 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/ REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM FLOOR AREA RATIO	50 %	17%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

UNIT SUMMARY			
	UNITS	BLDGS	TOTAL UNITS
12-UNIT BLDG	12	3	36
17-UNIT BLDG	17	10	170
TOTAL		13	206

PARKING SUMMARY - REQUIRED						
UNIT TYPE	QTY	RATIO	COVERED PARKING REQUIRED	OPEN PARKING REQUIRED	GUEST PARKING REQUIRED	TOTAL REQUIRED
1 BED	52	1 COVERED SPACE, PLUS 0.5 UNCOVERED SPACES	52	26	13	91
2 BED	108	1 COVERED SPACE, PLUS 1 UNCOVERED SPACE, PLUS 1 GUEST SPACE PER 4 UNITS	108	108	27	243
3 BED	46		46	46	12	104
TOTALS	206		206	180	52	438

PARKING SUMMARY - PROVIDED				
GARAGE	CARPORTS	HEAD IN	OFF SITE	TOTAL
157	49	222	23	451

PARKING NOTES:
7 TOTAL ADA PARKING STALLS PROVIDED (1 VAN)
7 TOTAL ELECTRIC VEHICLE STALLS PROVED

DESIGN REVIEW

TECHNICAL SITE PLAN

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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C-2
OF 7 SHEETS

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LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- FF 237.0 — FINISHED FLOOR ELEVATION
- P 236.0 — PAD ELEVATION
- BUILDING G — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- CUT-FILL LINE
- 12" SD — STORM DRAIN, CATCH BASIN AND MANHOLE
- EX 30" SD — STORM DRAIN, CATCH BASIN AND MANHOLE

FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT

EARTHWORK SUMMARY

DESCRIPTION	CUT (C.Y.)	FILL (C.Y.)
ROUGH GRADING	15,000	15,000

EARTHWORK NOTES:

1. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH UTILITY CONTRACTOR TO DETERMINE STREET UNDERCUT AND TO BALANCE SITE AS NEEDED. UTILITY CONTRACTOR TO DETERMINE ANTICIPATED SPOILS BASED ON CONSTRUCTION METHOD.
2. CONTRACTOR TO DETERMINE EARTHWORK QUANTITIES AND SHALL NOTIFY ENGINEER AND OWNER PRIOR TO STARTING CONSTRUCTION.
3. ADDITIONAL MATERIALS MAY BE REQUIRED TO BALANCE.
4. EARTHWORK QUANTITIES DO NOT INCLUDE ANY REMEDIAL GRADING AND/OR OVER-EXCAVATION THAT MAY BE NECESSARY.
5. EARTHWORK QUANTITIES ASSUME THAT SITE WILL BE PREVIOUSLY MASS GRADED.

NOTES:

1. ALL STREET ELEVATIONS ARE PAVEMENT GRADES UNLESS NOTED OTHERWISE.
2. ALL EXISTING TREES AND/OR VEGETATION WITHIN GRADING LIMITS TO BE REMOVED.
3. THE ROOF DRAINS WILL DISCHARGE EITHER DIRECTLY TO A PAVED SURFACE OR TO THRU-THE-CURB DRAINS. FINAL ROOF DRAIN LOCATIONS TO BE DETERMINED WITH FINAL DESIGN.
4. DRIVE ISLES WILL HAVE A CROSS SLOPE BETWEEN 1% AND 4%.
5. THE PROJECT IS NOT LOCATED WITHIN A FEMA FLOODPLAIN.
6. SEE SHEET C-6 FOR GRADING CROSS SECTIONS

DESIGN REVIEW

PRELIMINARY GRADING & DRAINAGE PLAN

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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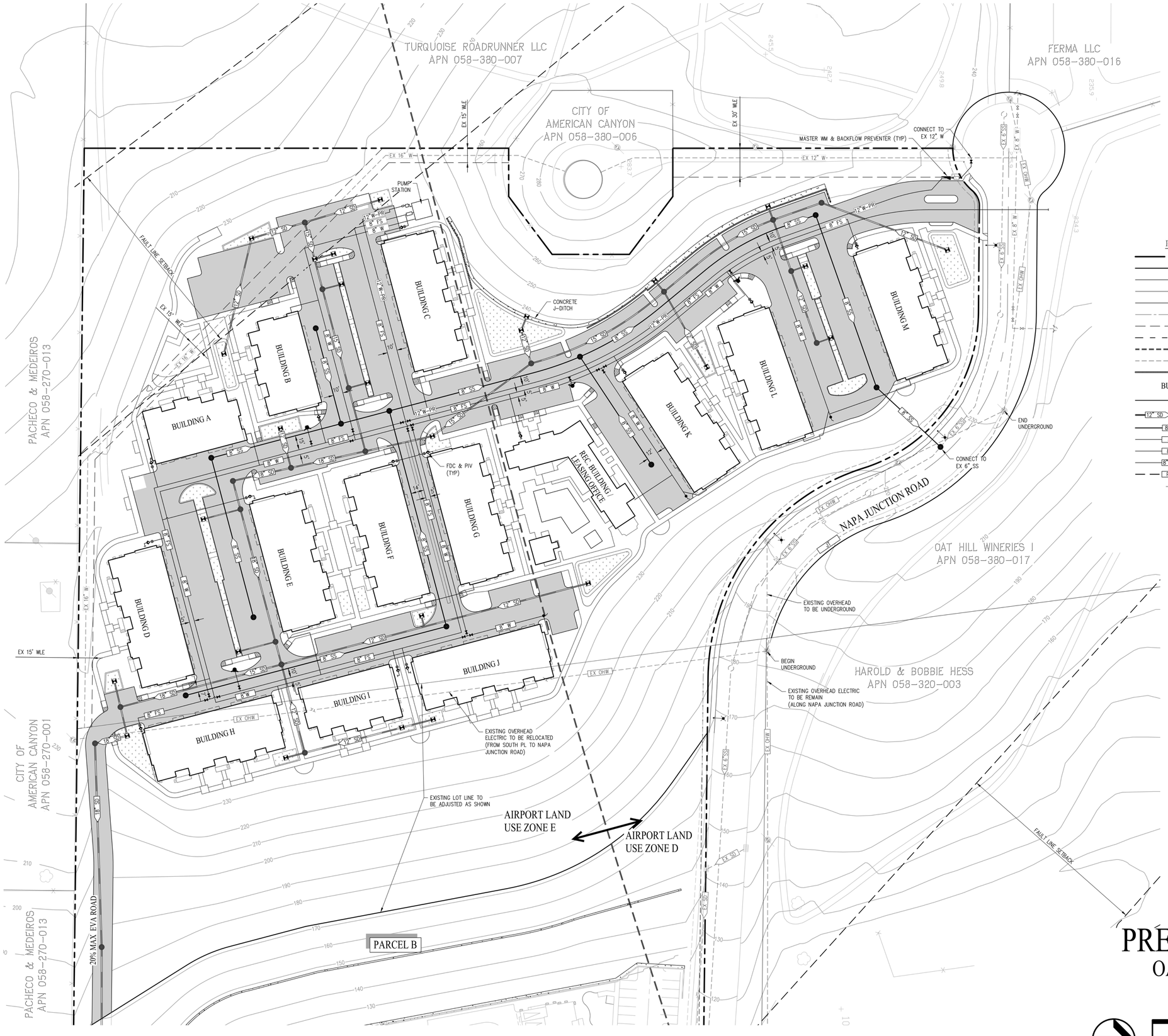

NOTES:

1. ELECTRIC, TELEPHONE, AND CABLE SERVICE WILL BE PROVIDED FROM EXISTING FACILITIES ON NAPA JUNCTION ROAD. FINAL POINTS OF CONNECTION TO BE DETERMINED AT FINAL DESIGN.
2. EXISTING OVERHEAD LINES ON NAPA JUNCTION ROAD WILL REMAIN.
3. PROPOSED SANITARY SEWER MANHOLE CONNECTION ON NAPA JUNCTION ROAD MAY INCORPORATE A DROP STRUCTURE TO BE DETAILED ON THE CONSTRUCTION PLANS.

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP/TOE OF SLOPE
- PROPOSED RETAINING WALL
- BUILDING L — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- 12" SD — STORM DRAIN, CATCH BASIN & MANHOLE
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- 8" W-PR — PRIVATE PUMP SUPPLY WATER MAIN AND VALVE
- PR JT — JOINT TRENCH
- LATERAL SERVICE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- PIV
- FDC

DDCV	DOUBLE DETECTOR CHECK VALVE
FDC	FIRE DEPARTMENT CONNECTION
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SERVICE CLEAN OUT
WLE	WATER LINE EASEMENT

EXISTING

- EX 30" SD — STORM DRAIN, CATCH BASIN & MANHOLE
- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- UTILITY POLE
- FIRE HYDRANT
- 210 — EXISTING 10' CONTOUR
- 210 — PROPOSED 10' CONTOUR

DESIGN REVIEW

PRELIMINARY UTILITY PLAN

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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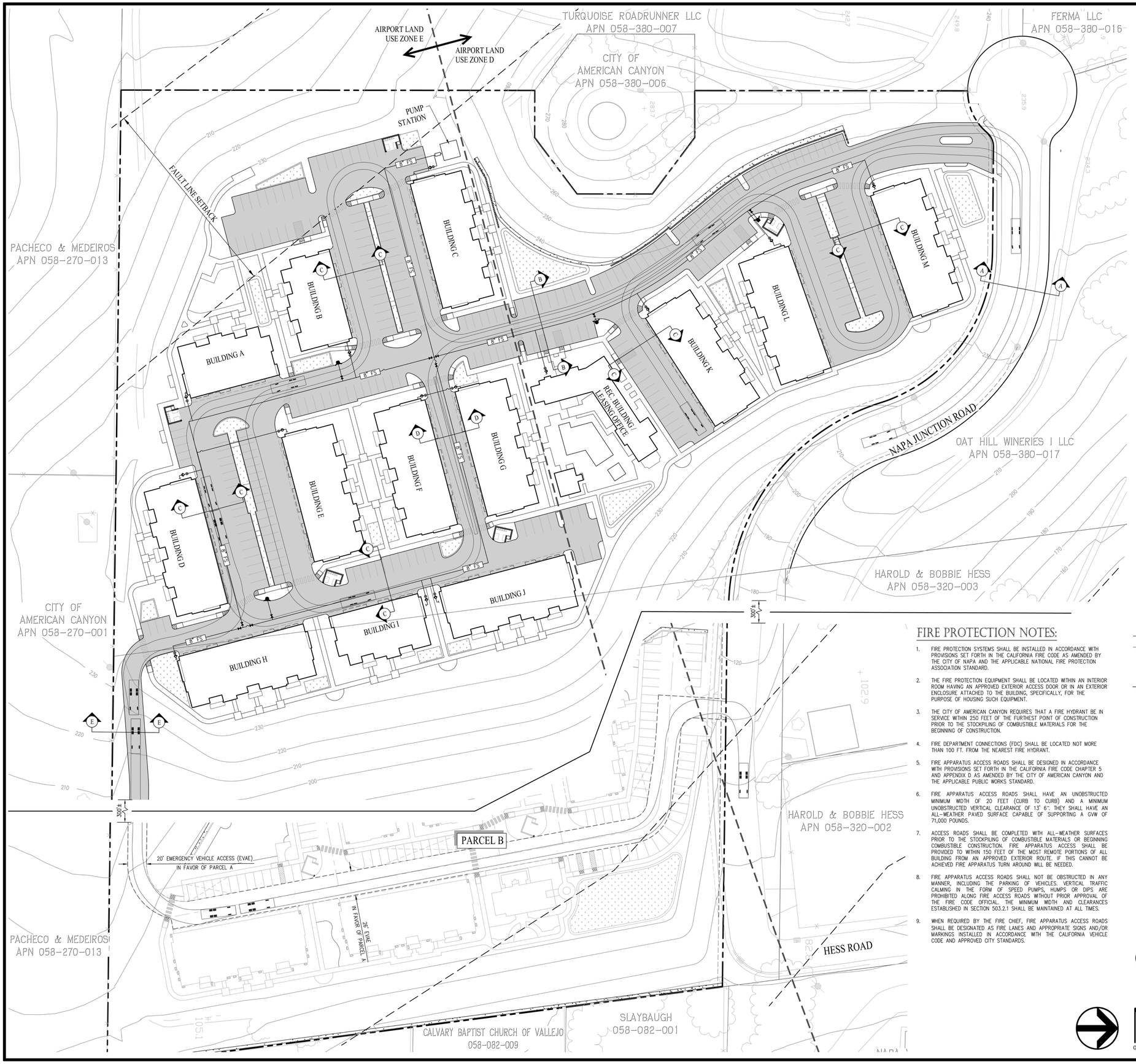
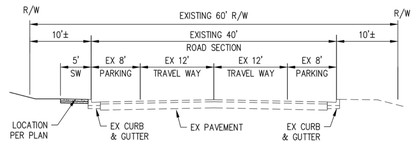
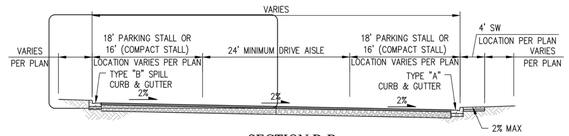


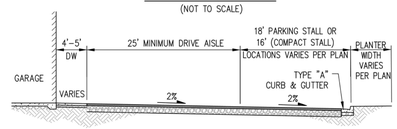
PROJECT SITE



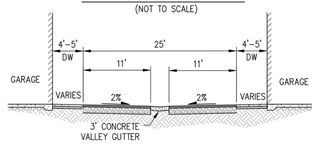
SECTION A-A
EXISTING NAPA JUNCTION ROAD
(NOT TO SCALE)



SECTION B-B
MAIN DRIVE AISLE
(NOT TO SCALE)



SECTION C-C
BUIDLING DRIVE AISLE
(NOT TO SCALE)



SECTION D-D
BUIDLING DRIVE AISLE
(NOT TO SCALE)

SECTION E-E
16' EVA ROAD
(NOT TO SCALE)

LEGEND

- FRONT TIRE PATH OF TRAVEL
- REAR TIRE PATH OF TRAVEL
- TRASH ENCLOSURE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- FIRE HYDRANT

FIRE PROTECTION NOTES:

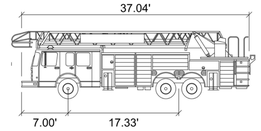
1. FIRE PROTECTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE AS AMENDED BY THE CITY OF NAPA AND THE APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD.
2. THE FIRE PROTECTION EQUIPMENT SHALL BE LOCATED WITHIN AN INTERIOR ROOM HAVING AN APPROVED EXTERIOR ACCESS DOOR OR IN AN EXTERIOR ENCLOSURE ATTACHED TO THE BUILDING, SPECIFICALLY, FOR THE PURPOSE OF HOUSING SUCH EQUIPMENT.
3. THE CITY OF AMERICAN CANYON REQUIRES THAT A FIRE HYDRANT BE IN SERVICE WITHIN 250 FEET OF THE FURTHEST POINT OF CONSTRUCTION PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS FOR THE BEGINNING OF CONSTRUCTION.
4. FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE LOCATED NOT MORE THAN 100 FT. FROM THE NEAREST FIRE HYDRANT.
5. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE CHAPTER 5 AND APPENDIX D AS AMENDED BY THE CITY OF AMERICAN CANYON AND THE APPLICABLE PUBLIC WORKS STANDARD.
6. FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED MINIMUM WIDTH OF 20 FEET (CURB TO CURB) AND A MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF 13' 6". THEY SHALL HAVE AN ALL-WEATHER PAVED SURFACE CAPABLE OF SUPPORTING A GVW OF 71,000 POUNDS.
7. ACCESS ROADS SHALL BE COMPLETED WITH ALL-WEATHER SURFACES PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS OR BEGINNING COMBUSTIBLE CONSTRUCTION. FIRE APPARATUS ACCESS SHALL BE PROVIDED TO WITHIN 150 FEET OF THE MOST REMOTE PORTIONS OF ALL BUILDING FROM AN APPROVED EXTERIOR ROUTE. IF THIS CANNOT BE ACHIEVED FIRE APPARATUS TURN AROUND WILL BE NEEDED.
8. FIRE APPARATUS ACCESS ROADS SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING THE PARKING OF VEHICLES. VERTICAL TRAFFIC CALMING IN THE FORM OF SPEED PUMPS, HUMPS OR DIPS ARE PROHIBITED ALONG FIRE ACCESS ROADS WITHOUT PRIOR APPROVAL OF THE FIRE CODE OFFICIAL. THE MINIMUM WIDTH AND CLEARANCES ESTABLISHED IN SECTION 503.2.1 SHALL BE MAINTAINED AT ALL TIMES.
9. WHEN REQUIRED BY THE FIRE CHIEF, FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNATED AS FIRE LANES AND APPROPRIATE SIGNS AND/OR MARKINGS INSTALLED IN ACCORDANCE WITH THE CALIFORNIA VEHICLE CODE AND APPROVED CITY STANDARDS.

FIRE FLOW NOTES:

1.	BUILDING CONSTRUCTION TYPE:	TYPE VA
2.	MAXIMUM BUILDING SQUARE FOOTAGE:	23,712 SF
3.	REQUIRED FIRE FLOW PER CFC, APPENDIX B: FULLY SPRINKLERED*:	2,750 GPM 1,500 GPM
4.	AVAILABLE FIRE FLOW AT PROJECT SITE:	TBD
5.	MINIMUM NUMBER OF HYDRANTS:	1
6.	AVERAGE HYDRANT SPACING:	500 FEET

7. PROJECT TO PROVIDE INCREASED NUMBER OF FIRE SPRINKLER HEADS OR OTHER APPROVED ALTERNATIVE.

* CANNOT BE REDUCED TO LESS THAN 1,500 GPM



AMERICAN LA FRANCE 75'AERIAL

Width	: 10.00'
Track	: 8.50'
Lock to Lock Time	: 6.00'
Steering Angle	: 45.00

TRUCK DIMENSIONS
DETAIL NOT TO SCALE

DESIGN REVIEW
STREET SECTIONS & TRUCK TURNING PLAN
OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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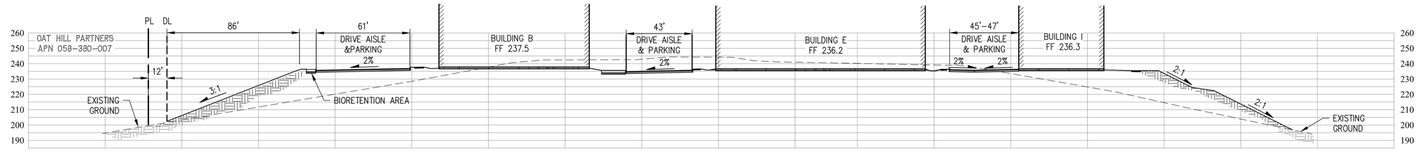


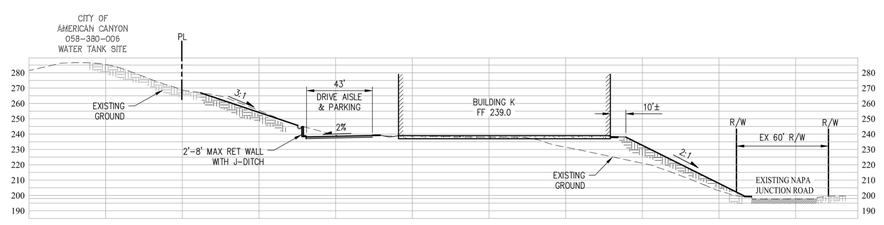
SECTION A-A

SCALE: 1" = 40'



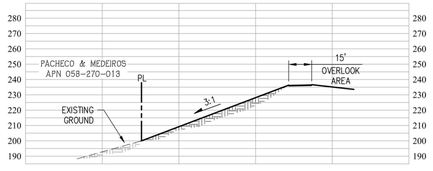
SECTION B-B

SCALE: 1" = 40'



SECTION C-C

SCALE: 1" = 40'



SECTION D-D

SCALE: 1" = 40'

NOTES:

1. SECTION LOCATIONS ARE SHOWN ON SHEET C-3

DESIGN REVIEW

GRADING CROSS SECTIONS

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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C-6
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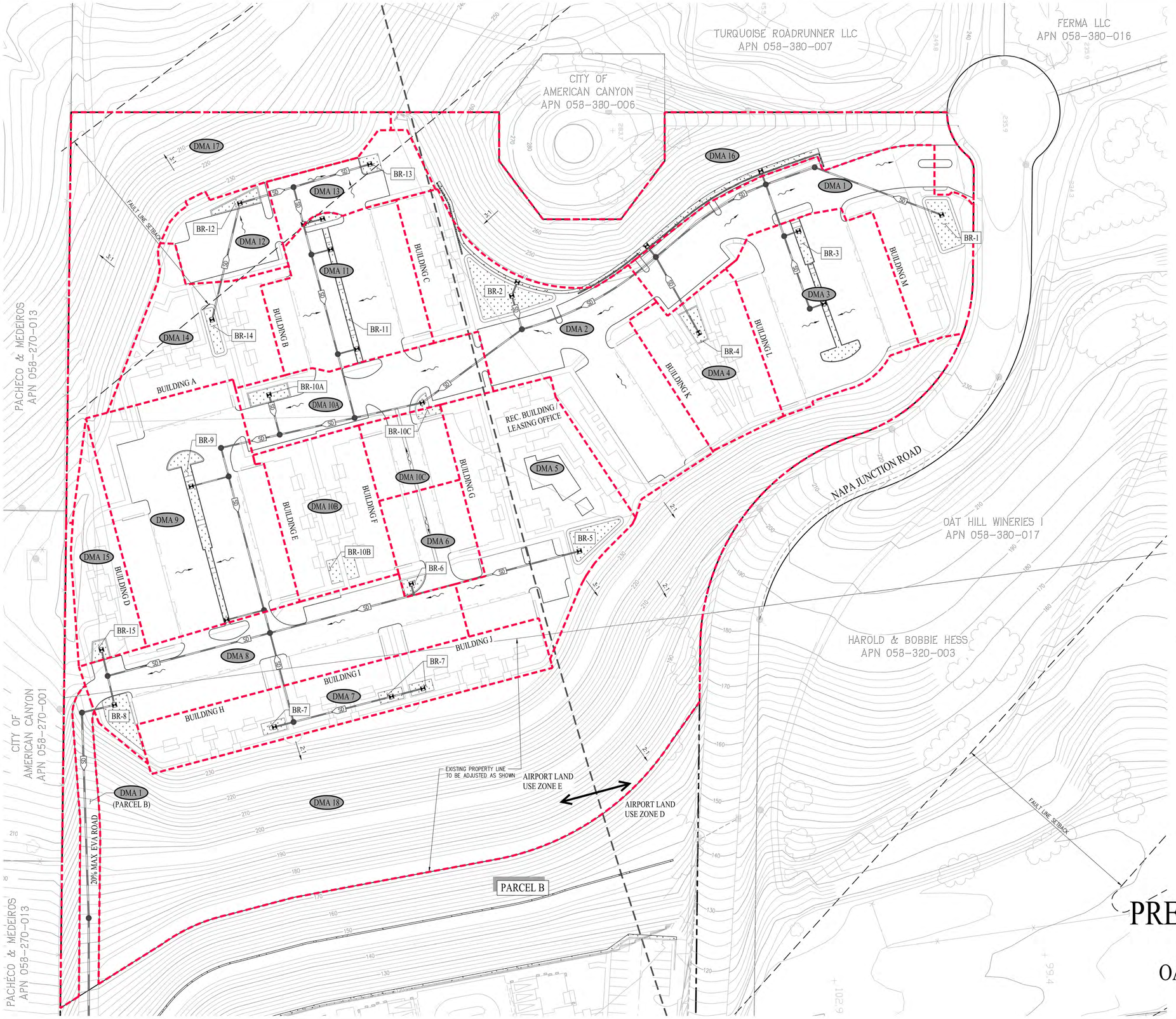


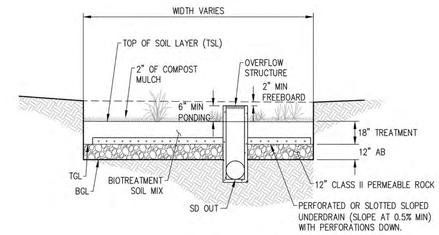
LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- DRAINAGE AREA BOUNDARY
- BIORETETION AREA
- DMA 1 — DRAINAGE MANAGEMENT AREA
- BR-1 — BIORETENTION AREA
- SD — PROPOSED STORM DRAIN

DRAINAGE MANAGEMENT AREA (DMA)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	DRAINAGE AREA (SF)	REQUIRED TREATMENT AREA (SF)	PROVIDED TREATMENT AREA (SF)	TREATMENT TYPE
DMA 1	22,718	7,560	30,278	939	1,146	BIORETENTION
DMA 2	29,698	10,080	39,778	1228	2,266	BIORETENTION
DMA 3	24,712	2,200	26,912	997	1,244	BIORETENTION
DMA 4	10,580	4,673	15,253	442	537	BIORETENTION
DMA 5	22,033	11,350	33,383	927	988	BIORETENTION
DMA 6	7,795	1,005	8,800	316	316	BIORETENTION
DMA 7	14,957	7,623	22,580	629	876	BIORETENTION
DMA 8	25,645	4,278	29,923	1043	1,177	BIORETENTION
DMA 9	33,553	5,230	38,783	1363	1,477	BIORETENTION
DMA 10A	14,484	2,142	16,626	588	588	BIORETENTION
DMA 10B	10,280	6,127	16,407	436	588	BIORETENTION
DMA 10C	6,205	695	6,900	251	251	BIORETENTION
DMA 11	20,057	1,826	21,883	810	927	BIORETENTION
DMA 12	6,984	2,372	9,356	289	494	BIORETENTION
DMA 13	6,463	2,868	9,331	270	336	BIORETENTION
DMA 14	8,562	8,688	17,250	377	476	BIORETENTION
DMA 15	4,136	6,246	10,382	190	302	BIORETENTION
DMA 16	–	42,364	42,364	–	–	SELF-TREATING
DMA 17	–	42,685	42,685	–	–	SELF-TREATING
DMA 18	–	147,133	147,133	–	–	SELF-TREATING

NOTES

- VALUES IN THE TABLE ABOVE ARE ESTIMATED BASED UPON THE AVAILABLE INFORMATION AT THE TIME OF THIS MAP.
- REQUIRED TREATMENT AREAS CALCULATED USING THE 4% RULE WITH A FACTOR OF 1.0 FOR IMPERVIOUS AREAS AND 0.1 FOR PERVIOUS AREAS (NAPA COUNTY IMP SIZING TOOL).



BIORETENTION AREA

DESIGN REVIEW
PRELIMINARY STORMWATER CONTROL PLAN
OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINGKO	24"BOX	MOD
	LAGERSTROEMIA X `ARAPAHO`	ARAPAHO CRAPE MYRTLE	24"BOX	LOW
	LAGERSTROEMIA X `ZUNI`	ZUNI CRAPE MYRTLE	24"BOX	LOW
	PISTACIA CHINENSIS `KEITH DAVEY`	KEITH DAVEY CHINESE PISTACHE	24"BOX	LOW
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	V. LOW
	QUERCUS DOUGLASII	BLUE OAK	24"BOX	V. LOW
	QUERCUS LOBATA	VALLEY OAK	24"BOX	LOW

CONCEPTUAL SHRUB PALETTE

BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
PROTOTYPICAL LANDSCAPE PALETTE			
ACHILEA MILLEFOLIUM	COMMON YARROW	1 GAL.	LOW
ANIGOZANTHOS HYBRID	KANGAROO PAW	1 GAL.	LOW
ARCTOSTAPHYLOS SPP.	MANZANITA	1 GAL.	LOW
CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
DIETES BICOLOR	FORTNIGHT LILY	5 GAL.	LOW
ELYMUS C. 'CANYON PRINCE'	WILD RYE	1 GAL.	LOW
ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL.	MOD
EUONYMUS JAPONICUS	JAPANESE SPINDLE	1 GAL.	LOW
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	MOD
GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	5 GAL.	LOW
GREVILLEA NOELLII	GREVILLEA	1 GAL.	LOW
HELIANTHEMUM NUMMULARIUM	SUN ROSE	1 GAL.	MOD
KNIPHOFIA UVARIA	TORCHLILY	1 GAL.	LOW
MUHLENBERGIA RIGENS	DEER GRASS	5 GAL.	LOW
MYRTUS C. 'COMPACTA'	DWARF MYRTLE	5 GAL.	LOW
MYOPORUM P. 'PROSTRATUM'	MYOPORUM	1 GAL.	LOW
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	1 GAL.	LOW
PENNISETUM ORIENTALE	ORIENTAL FOUNTAIN GRASS	1 GAL.	LOW
PHORMIUM TENAX	NEW ZEALAND FLAX	5 GAL.	LOW
PRUNUS C. 'COMPACTA'	CAROLINA CHERRY	5 GAL.	LOW
SALVIA GREGGII	AUTUMN SAGE	1 GAL.	LOW
SALVIA LEUCANTHA	MEXICAN BUSH SAGE	5 GAL.	LOW
TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL.	LOW
VERBENA PERUVIANA	PERUVIAN VERBENA	1 GAL.	LOW
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
ZAUSCHNERIA CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL.	LOW

TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

Attachment 5, Exhibit A: Landscaping Plans

PARCEL 'A' ENTRY PILASTERS W/ OVERHEAD TRELLIS

BIO-RETENTION AREA PER CIVIL, TYP.

ORNAMENTAL ACCENT TREES, TYP.

PROPOSED COVERED PARKING STALLS, TYP.

PARKING SHADE TREES

PROPOSED SIDEWALK AT NAPA JUNCTION ROAD PER CIVIL

PARCEL 'A' COMMUNITY RECREATION AND POOL AREA. SEE SHEET L-4

COMMUNITY LOOP WALKWAY

NAPA JUNCTION ROAD

RETAINING WALL PER CIVIL

NATIVE OAK PLANTING ON UPSLOPE

PROPOSED PUMP STATION

PARCEL 'B' ENTRY PILASTERS W/ OVERHEAD TRELLIS

OPEN PLAY COMMON SPACE TURF AREA

PRIVATE UNIT PATIO AREA W/ GATE & ENHANCED PAVING, TYP.

UNIT ENTRY NODE W/ ENHANCED PAVING, TYP.

TYPICAL WALKWAY OVERLOOK PLAZA W/ BENCH SEATING

NATIVE OAK PLANTING ON UPSLOPE

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

RETAINING WALL PER CIVIL

BUILDING COURTYARD W/ OPEN PLAY TURF AREA

PUBLIC OVERLOOK AREA W/ BENCH SEATING. SEE SHEET L-4

OPEN PLAY COMMON SPACE TURF AREA W/ PICNIC TABLE

GUARD RAIL FENCE AT TOP OF SLOPE WHERE REQUIRED

E.V.A ACCESS ROAD

SINGLE ARM GATE AT E.V.A ACCESS ROAD

SINGLE ARM GATE AT E.V.A ACCESS ROAD

NATIVE OAK PLANTING ON UPSLOPE

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION AREA PER CIVIL, TYP.

PARCEL 'B' COMMUNITY RECREATION AND OUTDOOR PLAZA AREA. SEE SHEET L-4

GUARD RAIL FENCE AT TOP OF SLOPE WHERE REQUIRED

PRIVATE UNIT PATIO AREA W/ GATE & ENHANCED PAVING, TYP.

UNIT ENTRY NODE W/ ENHANCED PAVING, TYP.

BUILDING COURTYARD W/ OPEN PLAY TURF AREA

OPEN PLAY COMMON SPACE TURF AREAS

TYPICAL WALKWAY OVERLOOK PLAZA W/ BENCH SEATING

COMMUNITY LOOP WALKWAY

FENCED PET PARK AREA W/ DOUBLE GATED ENTRY

OVERALL LANDSCAPE SITE PLAN

RH HESS DEVELOPMENT

3423 BROADWAY, SUITE D-5
AMERICAN CANYON, CA 94503
707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

OVERALL PLAN
CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

vanderToolen Associates
2295 Gateway Oaks Dr.
Suite 125
Sacramento, CA 95833

tel: 707.224.2299
www.vandertoolen.com

0' 25' 50' 100'

SCALE: 1" = 50'-0"

NORTH

L-1

Project No. 04320

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CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINGKO	24"BOX	MOD
	LAGERSTROEMIA X `ARAPAHO`	ARAPAHO CRAPE MYRTLE	24"BOX	LOW
	LAGERSTROEMIA X `ZUNI`	ZUNI CRAPE MYRTLE	24"BOX	LOW
	PISTACIA CHINENSIS `KEITH DAVEY`	KEITH DAVEY CHINESE PISTACHE	24"BOX	LOW
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	V. LOW
	QUERCUS DOUGLASII	BLUE OAK	24"BOX	V. LOW
	QUERCUS LOBATA	VALLEY OAK	24"BOX	LOW

TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

MAILBOX LEGEND

(A) PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

CONCEPTUAL SHRUB PALETTE

BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
PROTOTYPICAL LANDSCAPE PALETTE			
ACHILEA MILLEFOLIUM	COMMON YARROW	1 GAL.	LOW
ANIGOZANTHOS HYBRID	KANGAROO PAW	1 GAL.	LOW
ARCTOSTAPHYLOS SPP.	MANZANITA	1 GAL.	LOW
CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
DIETES BICOLOR	FORTNIGHT LILY	5 GAL.	LOW
ELYMUS C. 'CANYON PRINCE'	WILD RYE	1 GAL.	LOW
ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL.	MOD
EUONYMUS JAPONICUS	JAPANESE SPINDLE	1 GAL.	LOW
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	MOD
GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	5 GAL.	LOW
GREVILLEA NOELLII	GREVILLEA	1 GAL.	LOW
HELIANTHEMUM NUMMULARIUM	SUN ROSE	1 GAL.	MOD
KNIPHOFIA UVARIA	TORCHLILY	1 GAL.	LOW
MUHLENBERGIA RIGENS	DEER GRASS	5 GAL.	LOW
MYRTUS C. 'COMPACTA'	DWARF MYRTLE	5 GAL.	LOW
MYOPORUM P. 'PROSTRATUM'	MYOPORUM	1 GAL.	LOW
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	1 GAL.	LOW
PENNISETUM ORIENTALE	ORIENTAL FOUNTAIN GRASS	1 GAL.	LOW
PHORMIUM TENAX	NEW ZEALAND FLAX	5 GAL.	LOW
PRUNUS C. 'COMPACTA'	CAROLINA CHERRY	5 GAL.	LOW
SALVIA GREGGII	AUTUMN SAGE	1 GAL.	LOW
SALVIA LEUCANTHA	MEXICAN BUSH SAGE	5 GAL.	LOW
TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL.	LOW
VERBENA PERUVIANA	PERUVIAN VERBENA	1 GAL.	LOW
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
ZAUSCHNERIA CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL.	LOW

REFER TO SHEET L-4 FOR PARCEL A PUBLIC OVERLOOK AREA ENLARGEMENT

PUBLIC OVERLOOK AREA W/ BENCH SEATING

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

PROPOSED PUMP STATION

EXISTING WATER TANK

TYP. UNIT SHADE TREE

NATIVE OAK PLANTING ON UPSLOPE

RETAINING WALL PER CIVIL

DECORATIVE ENTRY PILASTERS W/ OVERHEAD TRELLIS AND ORNAMENTAL PLANTINGS

COMMUNITY LOOP WALKWAY

OPEN PLAY COMMON SPACE TURF AREA W/ PICNIC TABLE

GUARD RAIL FENCE AT TOP OF SLOPE WHERE REQUIRED

COMMUNITY LOOP WALKWAY

BENCH SEATING AREA

PARKING SHADE TREES

SHRUB PLANTING AREA, TYP.

BUILDING COURTYARD W/ OPEN PLAY TURF AREA

ACCENT SHADE TREES

PROPOSED COVERED PARKING STALLS, TYP.

BICYCLE PARKING AREA TYPICAL

COLUMNAR SCREEN TREES AT SIDE OF BUILDING

UNIT ENTRY NODE W/ ENHANCED PAVING, TYP.

ORNAMENTAL ACCENT TREES, TYP.

BIO-RETENTION AREA PER CIVIL, TYP.

PROPOSED COVERED PARKING STALLS, TYP.

NAPA JUNCTION ROAD

PARKING SHADE TREES

BICYCLE PARKING AREA TYPICAL

PROPOSED SIDEWALK AT NAPA JUNCTION ROAD PER CIVIL

BIO-RETENTION AREA PER CIVIL, TYP.

COMMUNITY LOOP WALKWAY

REFER TO SHEET L-4 FOR PARCEL A RECREATIONAL BUILDING AND POOL AREA ENLARGEMENT

PUBLIC OVERLOOK PLAZA W/ BENCH SEATING

E.V.A ACCESS ROAD

SINGLE ARM GATE AT E.V.A ACCESS ROAD

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

TYPICAL WALKWAY OVERLOOK PLAZA W/ BENCH SEATING

ORNAMENTAL ACCENT TREES, TYP.

SHRUB PLANTING AREA, TYP.

PRIVATE UNIT PATIO AREA W/ GATE & ENHANCED PAVING, TYP.

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707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

PARCEL A ENLARGEMENT

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

vanderToolen Associates
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Sacramento, CA 95833
tel: 707.224.2299
www.vandertoolen.com

0' 20' 40' 80'
SCALE: 1" = 40'-0"
NORTH

L-2
Project No. 04320

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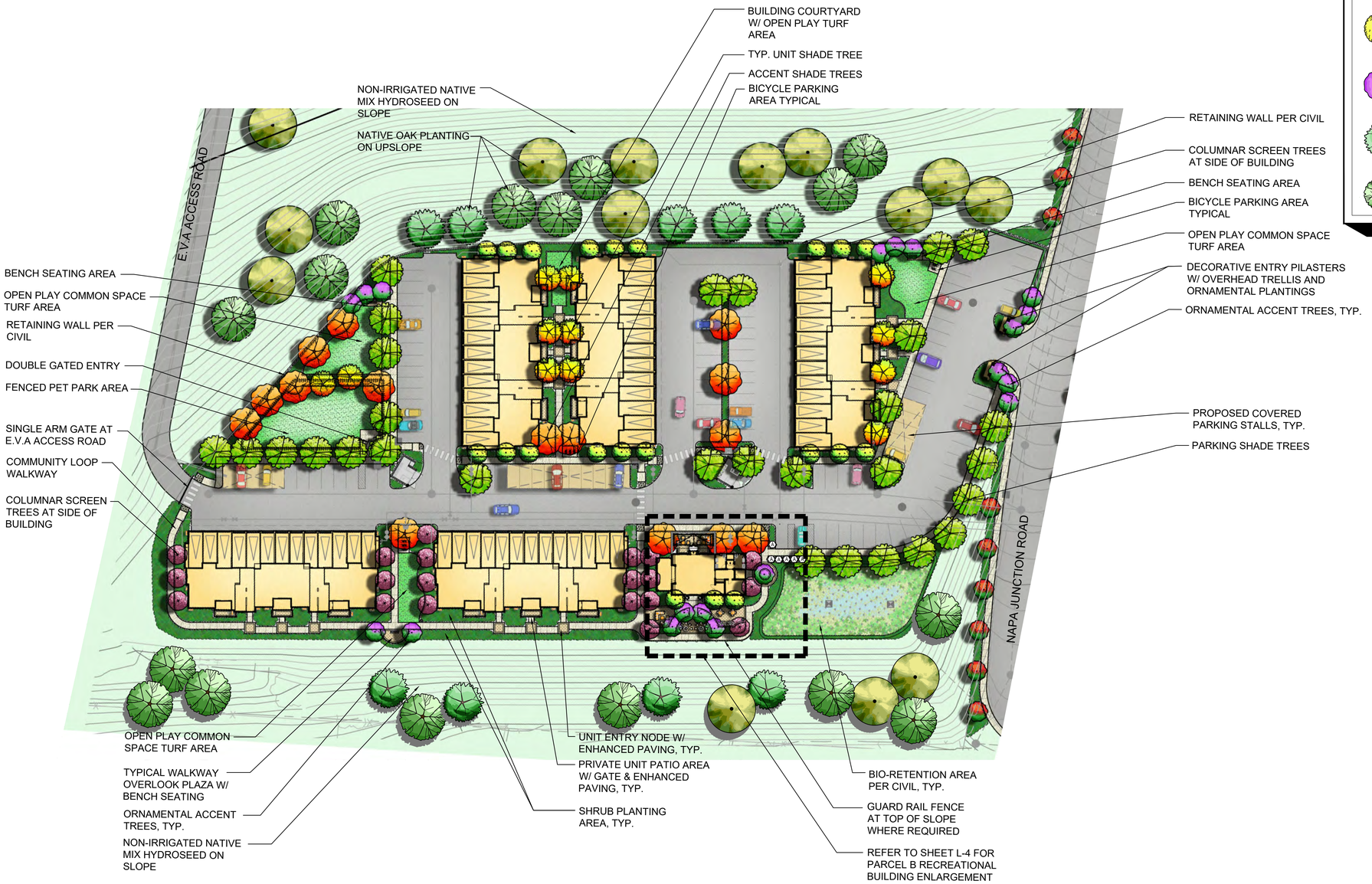

CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINGKO	24"BOX	MOD
	LAGERSTROEMIA X `ARAPAHO`	ARAPAHO CRAPE MYRTLE	24"BOX	LOW
	LAGERSTROEMIA X `ZUNI`	ZUNI CRAPE MYRTLE	24"BOX	LOW
	PISTACIA CHINENSIS `KEITH DAVEY`	KEITH DAVEY CHINESE PISTACHE	24"BOX	LOW
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	V. LOW
	QUERCUS DOUGLASII	BLUE OAK	24"BOX	V. LOW
	QUERCUS LOBATA	VALLEY OAK	24"BOX	LOW

CONCEPTUAL SHRUB PALETTE

	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	PROTOTYPICAL LANDSCAPE PALETTE			
	ACHILEA MILLEFOLIUM	COMMON YARROW	1 GAL.	LOW
	ANIGOZANTHOS HYBRID	KANGAROO PAW	1 GAL.	LOW
	ARCTOSTAPHYLOS SPP.	MANZANITA	1 GAL.	LOW
	CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
	CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
	CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
	CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
	DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
	DIETES BICOLOR	FORTNIGHT LILY	5 GAL.	LOW
	ELYMUS C. 'CANYON PRINCE'	WILD RYE	1 GAL.	LOW
	ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL.	MOD
	EUONYMUS JAPONICUS	JAPANESE SPINDLE	1 GAL.	LOW
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	MOD
	GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	5 GAL.	LOW
	GREVILLEA NOELLII	GREVILLEA	1 GAL.	LOW
	HELIANTHEMUM NUMMULARIUM	SUN ROSE	1 GAL.	MOD
	KNIPHOFIA UVARIA	TORCHLILY	1 GAL.	LOW
	MUHLENBERGIA RIGENS	DEER GRASS	5 GAL.	LOW
	MYRTUS C. 'COMPACTA'	DWARF MYRTLE	5 GAL.	LOW
	MYOPORUM P. 'PROSTRATUM'	MYOPORUM	1 GAL.	LOW
	NASSELLA PULCHRA	PURPLE NEEDLEGRASS	1 GAL.	LOW
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	SALVIA GREGGII	AUTUMN SAGE	1 GAL.	LOW
	SALVIA LEUCANTHA	MEXICAN BUSH SAGE	5 GAL.	LOW
	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL.	LOW
	VERBENA PERUVIANA	PERUVIAN VERBENA	1 GAL.	LOW
	XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
	ZAUSCHNERIA CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL.	LOW

TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

MAILBOX LEGEND

(A) PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

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OAT HILL MULTI- FAMILY

American Canyon, California

PARCEL B ENLARGEMENT

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OCTOBER 2020

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0' 20' 40' 80'
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NORTH

L-3
Project No. 04320

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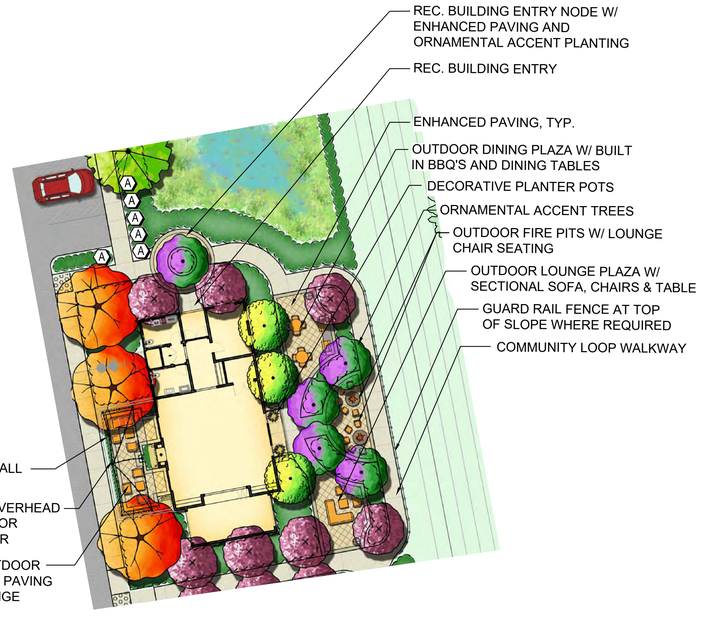

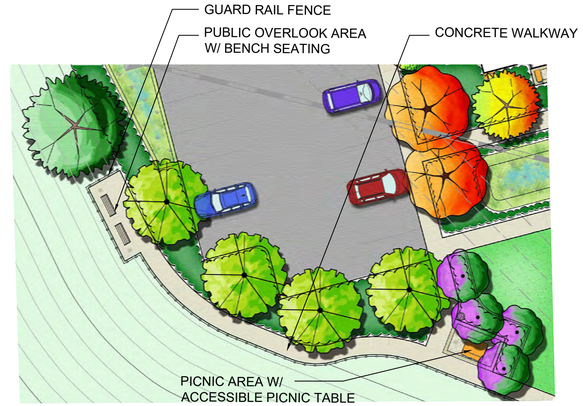

PARCEL A RECREATIONAL BUILDING AND POOL AREA

PARCEL B RECREATIONAL BUILDING

PARCEL A PUBLIC OVERLOOK AREA

MAILBOX LEGEND

Ⓐ PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

- TURF
- NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE
- BIO-RETENTION

CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINGKO	24"BOX	MOD
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BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
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CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
DIETES BICOLOR	FORTNIGHT LILY	5 GAL.	LOW
ELYMUS C. 'CANYON PRINCE'	WILD RYE	1 GAL.	LOW
ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL.	MOD
EUONYMUS JAPONICUS	JAPANESE SPINDLE	1 GAL.	LOW
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	MOD
GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	5 GAL.	LOW
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MYOPORUM P. 'PROSTRATUM'	MYOPORUM	1 GAL.	LOW
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	1 GAL.	LOW
PENNISETUM ORIENTALE	ORIENTAL FOUNTAIN GRASS	1 GAL.	LOW
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707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

RECREATIONAL BUILDING & PUBLIC OVERLOOK ENLARGEMENTS

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

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SCALE: 1" = 20'-0" (0' 10' 20' 40')

NORTH

L-4

Project No. 04320

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COMMUNITY ENTRY PILASTER & OVERHEAD TRELLIS FEATURE



OVERLOOK PLAZA WITH BENCH SEATING



OPEN TURF SPACE RECREATION



OPEN TURF SPACE RECREATION



FENCED IN OFF LEASH DOG PARK



PARCEL 'A' RECREATION BUILDING POOL



PARCEL 'A' RECREATION BUILDING JACUZZI SPA



PARCEL 'A' RECREATION BUILDING OPEN/COVERED FITNESS ROOM TURF AREA



PARCEL 'A' POOL AREA COVERED DAY BED



PARCEL 'A' POOL AREA CHAISE LOUNGE CHAIR



PARCEL 'A' POOL AREA OUTDOOR DINING TABLE



PARCEL 'B' RECREATION BUILDING OUTDOOR FIREPITS WITH LOUNGE SEATING



PARCEL 'B' RECREATION BUILDING BUILT IN BBQ PLAZA



PARCEL 'B' RECREATION BUILDING LOUNGE PLAZA SEATING



PARCEL 'B' RECREATION BUILDING OUTDOOR MULTI-PURPOSE ROOM OVERHEAD LIGHTS & SEATING



PARCEL 'B' RECREATION BUILDING OUTDOOR MULTI-PURPOSE ROOM WALL TRELLIS WITH VINES



METAL DOG PARK FENCE



METAL POOL FENCE



TOP OF SLOPE GUARD RAIL FENCE



DOUBLE GATED DOG PARK ENTRY



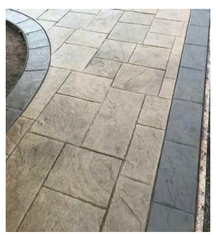
SITE BENCH SEATING



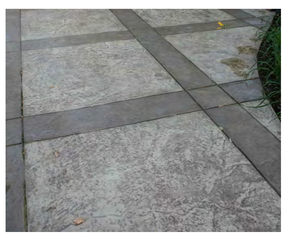
SITE TRASH RECEPTACLE



SITE CONCRETE PICNIC TABLE



ENHANCED STAMPED & COLORED CONCRETE PAVING



COLORED CONCRETE BANDS

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OAT HILL MULTI- FAMILY

American Canyon, California

CONCEPT LIFESTYLE IMAGERY

CONCEPTUAL LANDSCAPE PLAN
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TREES



ACER BUERGERIANUM -
TRIDENT MAPLE



ACER RUBRUM 'RED SUNSET' -
RED SUNSET MAPLE



ACER PLATANOIDES 'CRIMSON SENTRY' -
CRIMSON SENTRY MAPLE



GINKGO BILOBA 'PRINCETON SENTRY' -
MAIDENHAIR TREE



LAGERSTROEMIA x 'ZUNI' -
ZUNI CRAPE MYRTLE



LAGERSTROEMIA x 'ARAPAHO' -
ARAPAHO CRAPE MYRTLE



PISTACIA CHINENSIS 'KEITH DAVEY'-
KEITH DAVEY CHINESE PISTACHE



QUERCUS AGRIFOLIA -
COAST LIVE OAK



QUERCUS DOUGLASII -
BLUE OAK



QUERCUS LOBATA -
VALLEY OAK

SHRUBS AND GROUNDCOVER



ACHILLEA MILLEFOLIUM -
COMMON YARROW



ANIGOZANTHOS HYBRID -
KANGAROO PAW



ARCTOSTAPHYLOS SPP. -
HOOKER'S MANZANITA



CALLISTEMON VIMINALIS 'BETTER JOHN' -
DWARF WEEPING BOTTLE BRUSH



CAREX TUMULICOLA -
BERKELEY SEDGE



CEANOTHUS SPP. -
CALIFORNIA LILAC



CISTUS SPP. -
ROCK ROSE



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DWARF MYRTLE



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MYOPORUM



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PURPLE NEEDLEGRASS



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AUTUMN SAGE



SALVIA LEUCANTHA-
MEXICAN BUSH SAGE



TEUCRIUM CHAMAEDRYS -
GERMANDER



VERBENA PERUVIANA-
PERUVIAN VERBENA



XYLOSMA CONGESTUM 'COMPACTA' -
COMPACT XYLOSMA



ZAUSCHNERIA CALIFORNICA -
CALIFORNIA FUSCHIA

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OAT HILL MULTI- FAMILY

American Canyon, California

CONCEPT PLANT IMAGERY

CONCEPTUAL LANDSCAPE PLAN
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L-6

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Attachment 5, Exhibit A:
Architectural Plans



17-Plex
Color Scheme #3

12-Plex
Color Scheme #2

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

October 19, 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2

ARCHITECTURE

Recreation Building: Floor Plan A1
Recreation Building: Elevations A2
12 Plex | Building Plan.....A3
12 Plex | Building Plan.....A4
12 Plex | Building Elevations.....A5
17 Plex | Building Plan.....A6
17 Plex | Building Plan.....A7
17 Plex | Building Elevations.....A8
Unit Plans | Plan 1.....A9
Unit Plans | Plan 1X.....A10
Unit Plans | Plan 2.....A11
Unit Plans | Plan 3.....A12
Unit Plans | Plan 4.....A13
Unit Plans | Plan 5.....A14
Unit Plans | Plan 6.....A15
Trash Enclosure & Carport Sample A16
Exterior Color & Materials | Lighting Fixture A17

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

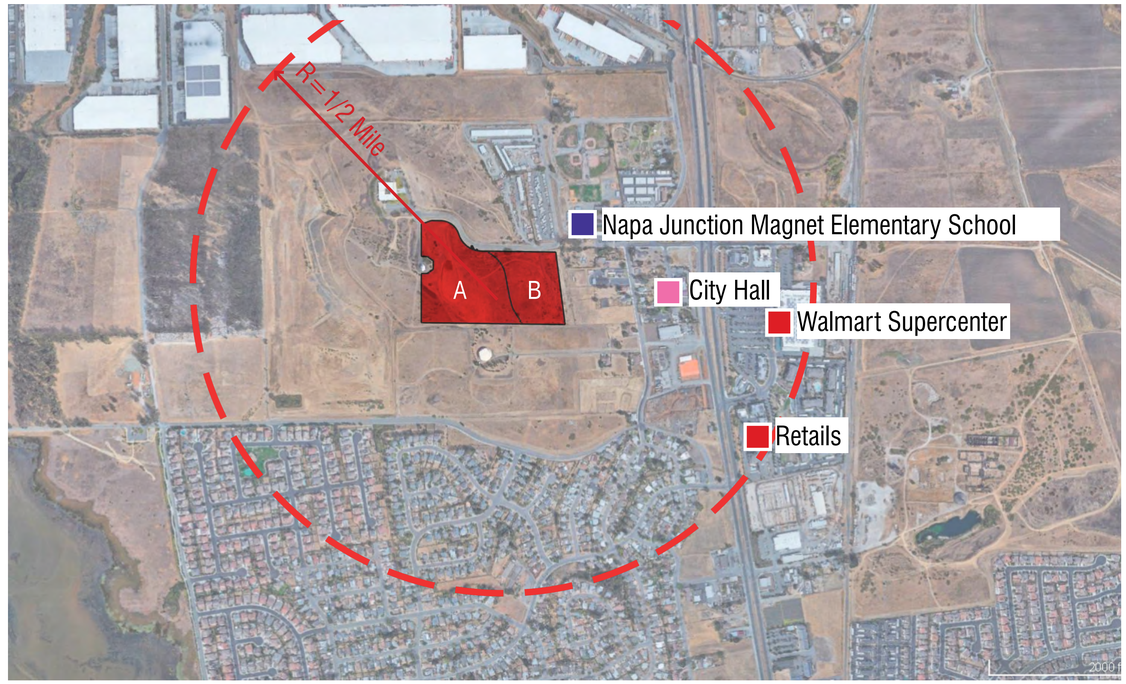
ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



Project Summary

Parcel A

Gross Site Area: ± 13.6 Acres

Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 15.1 DU per Gross Acre

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces
- 5 Handicapped + 2 Van Required

Provided: 454 On-site & Off-site Spaces

431 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 225 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 52,245 SF
- Hillside Slope Area: 140,718 SF



KEY MAP
N.T.S

Notes:
1. Site plan must be reviewed by planning, building, and fire departments for code compliance.
2. Base information per civil engineer.
3. Civil engineer to verify all setbacks and grading information
4. Please refer to landscape plan for final landscape details.
5. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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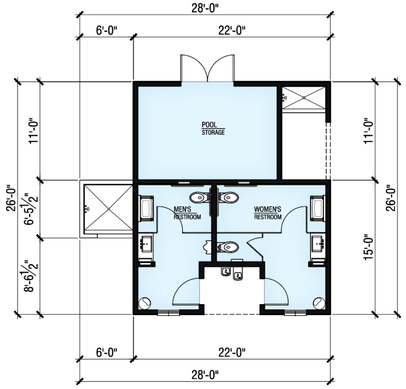
ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

6339

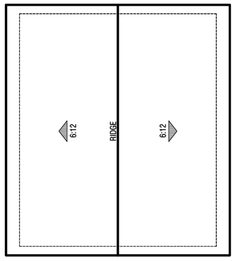
PLAN KEY: Pool Building

611 SF



Pool Building Floor Plan: Parcel A

611 SF Total



Pool Building Roof Plan: Parcel A

Recreation Building Floor Plan: Parcel A

3,335 SF Total

Recreation Building Roof Plan: Parcel A

PLAN KEY: Recreation Building

- Conditioned Space: 3,335 SF
- Entry Porch: 96 SF
- Covered Patio & Porch: 1,175 SF
- Covered Outdoor Fitness: 384 SF

RECREATION BUILDING FLOOR PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A1

0 4 8 16

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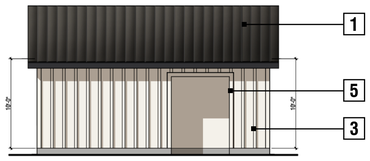
6340



Recreation Building Right



Pool Building Right



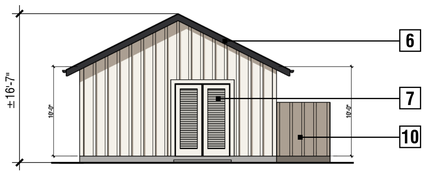
Recreation Building Left



Pool Building Left



Recreation Building Rear



Pool Building Rear



Recreation Building Front



Pool Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem
9. Fiber Cement Louvered Panels
10. Shower Enclosure

RECREATION BUILDING ELEVATIONS

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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6341



Second Floor



First Floor

Note: 8'-6" Ceiling at Garages

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-Plex Total Building Area: 16,478 SF
(Includes all covered areas on all three levels)

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A3

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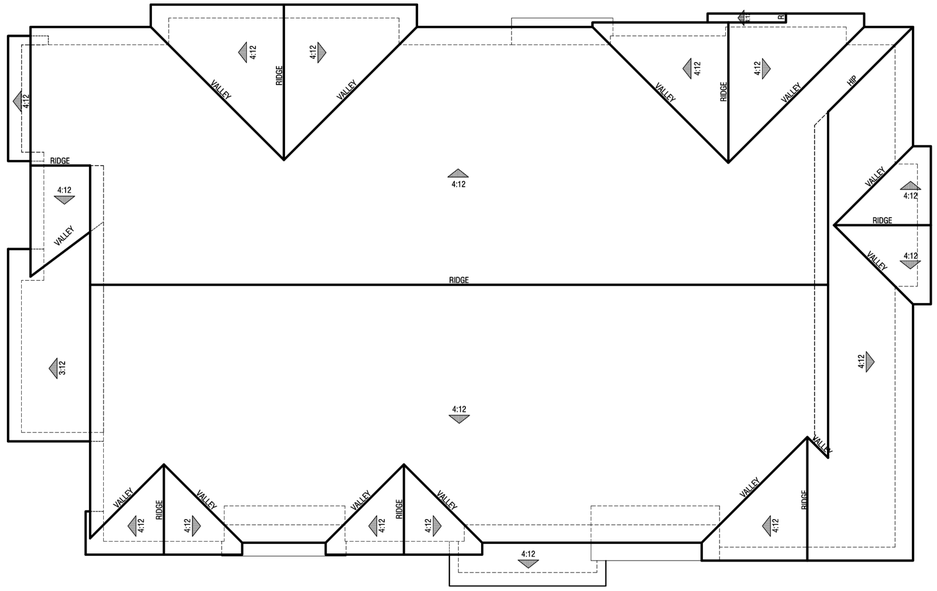

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #2

1. Concrete Slate Roofing - *Eagle, Sierra Madre*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A17

12-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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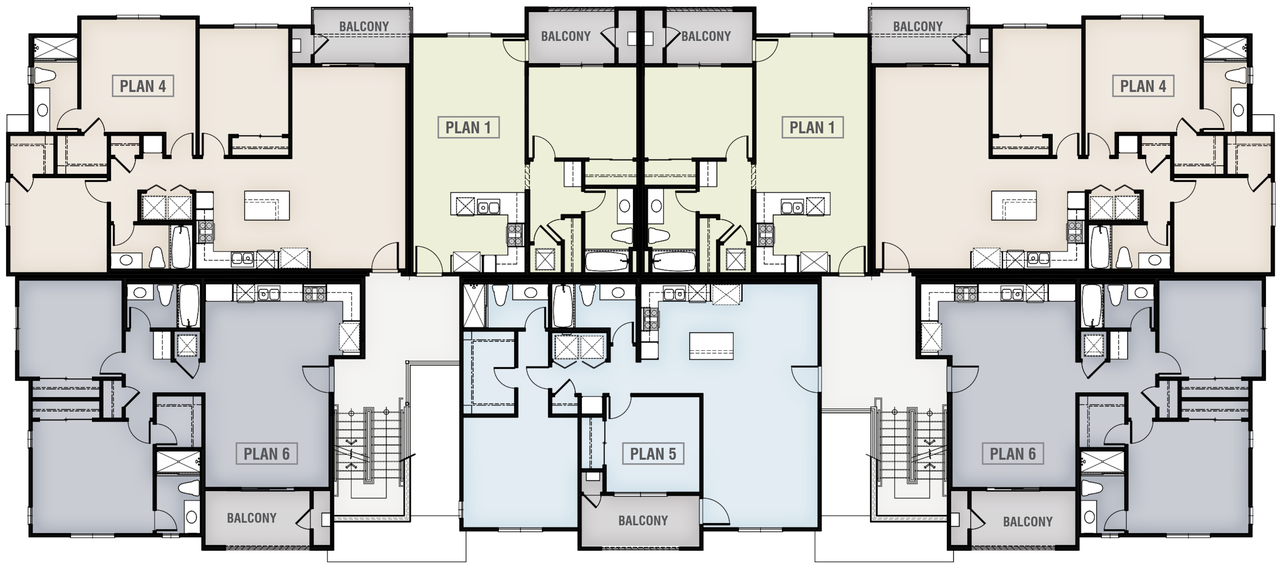
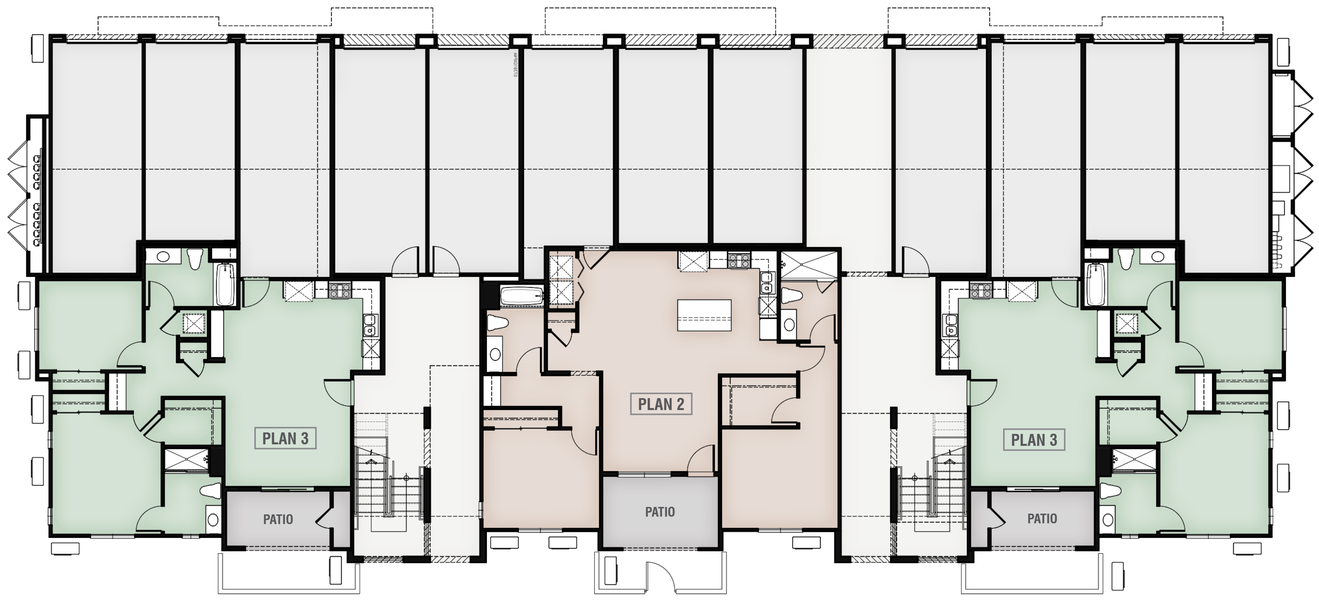
6344



Second Floor



First Floor

Note: 8'-6" Ceiling at Garages

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-Plex Total Building Area: 23,712 SF
(Includes all covered areas on all three levels)

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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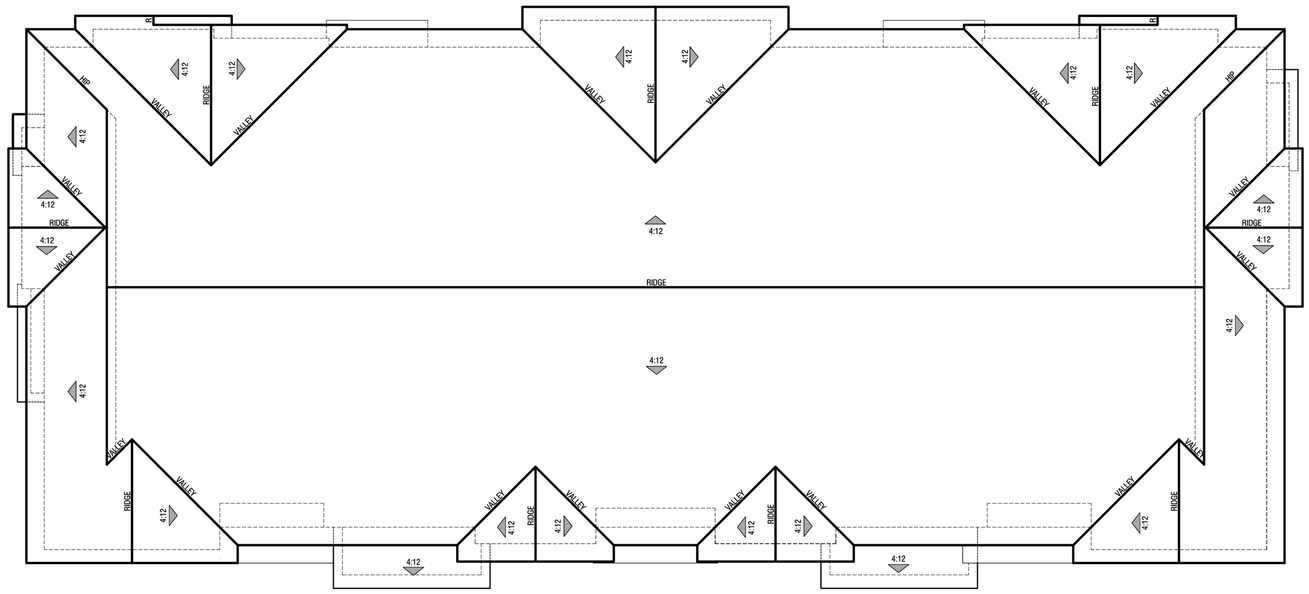

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A17

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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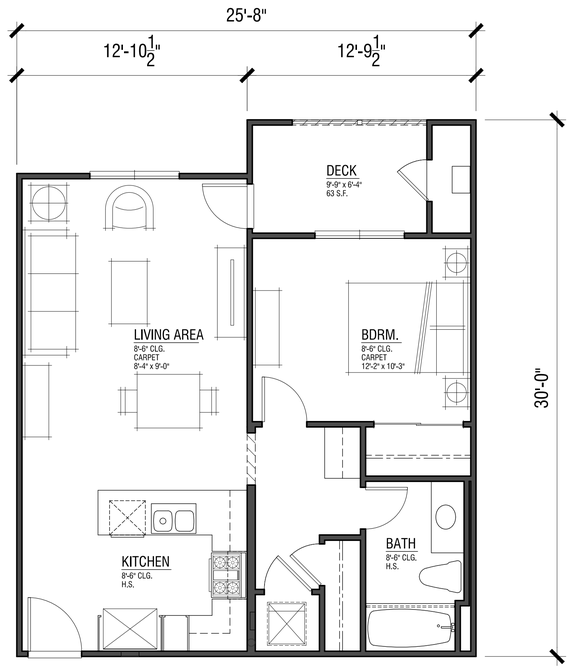

Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

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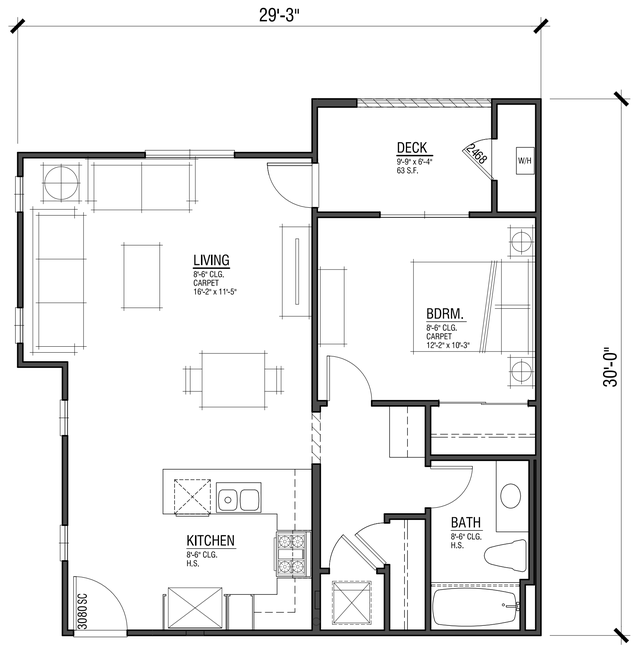

Plan 1X
672 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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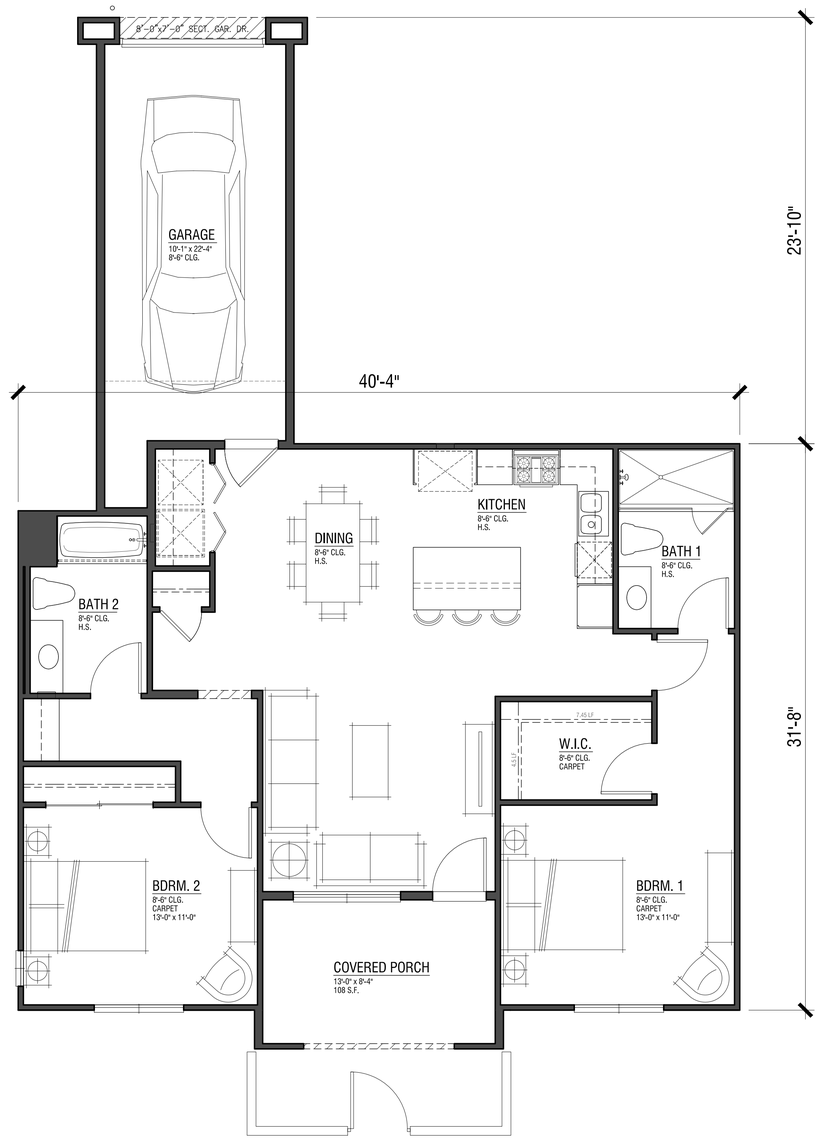

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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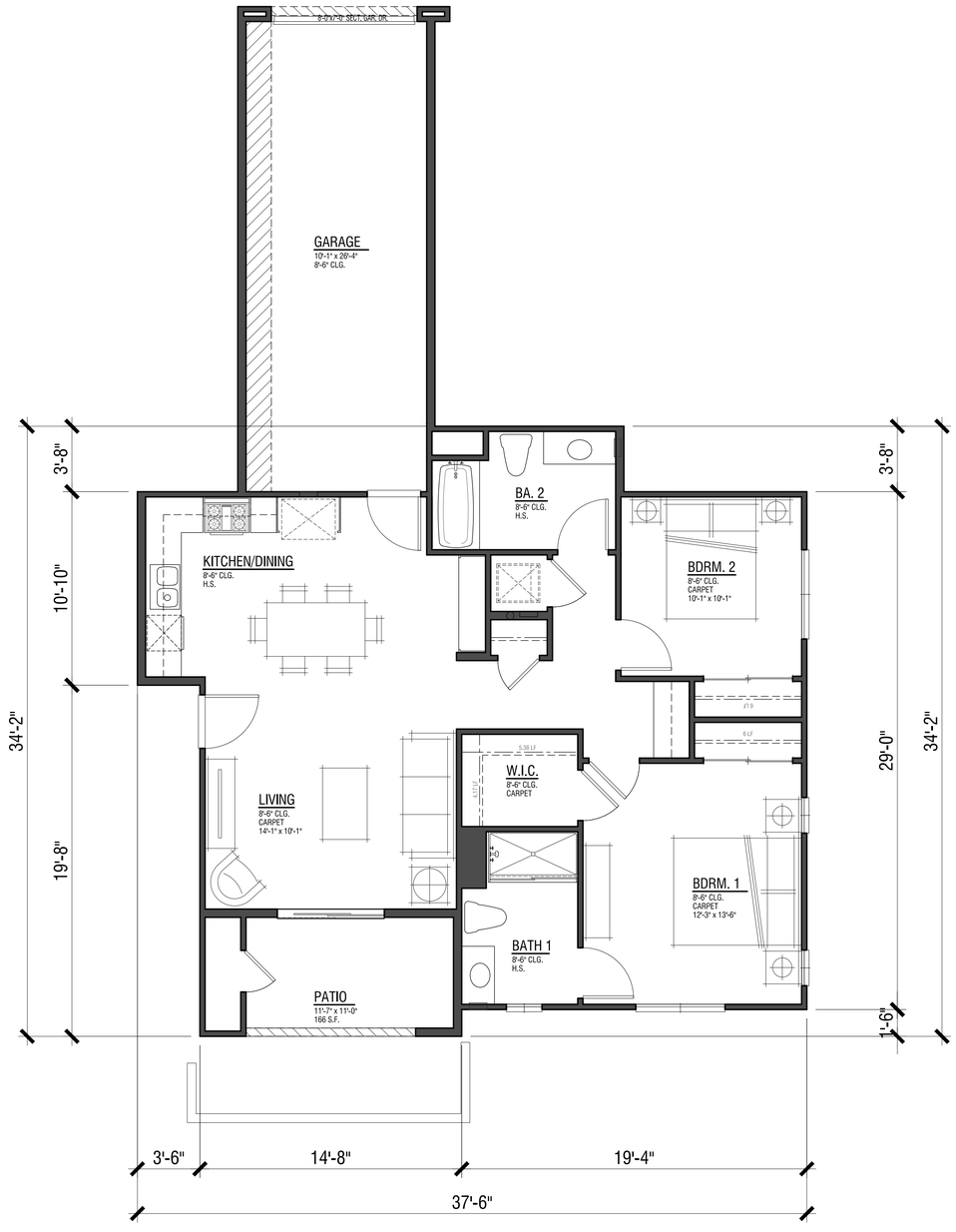

Plan 3
932 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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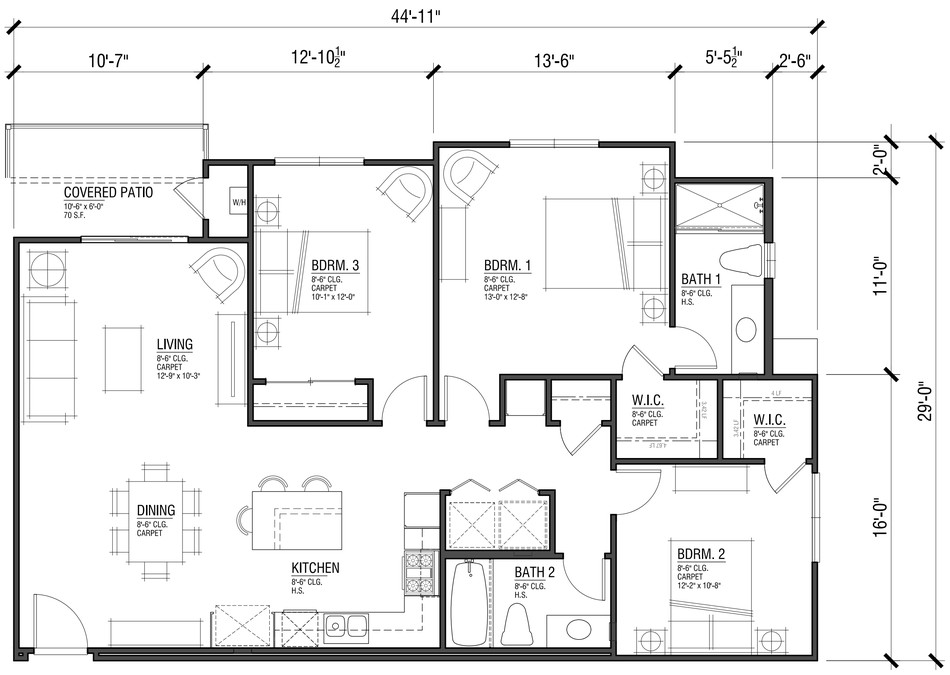

Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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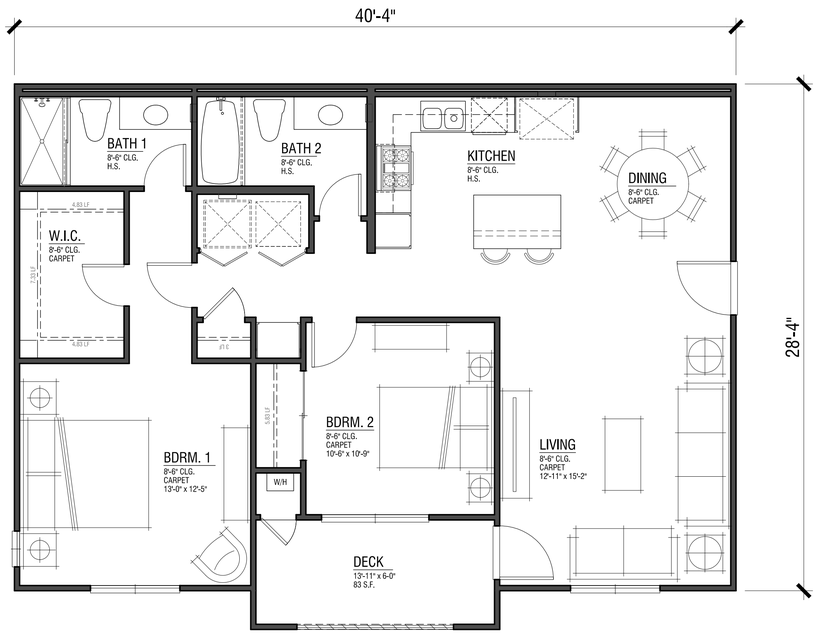

Plan 5
1,024 SF
2 Bdrm | 2 Bath

UNIT PLANS| Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A14

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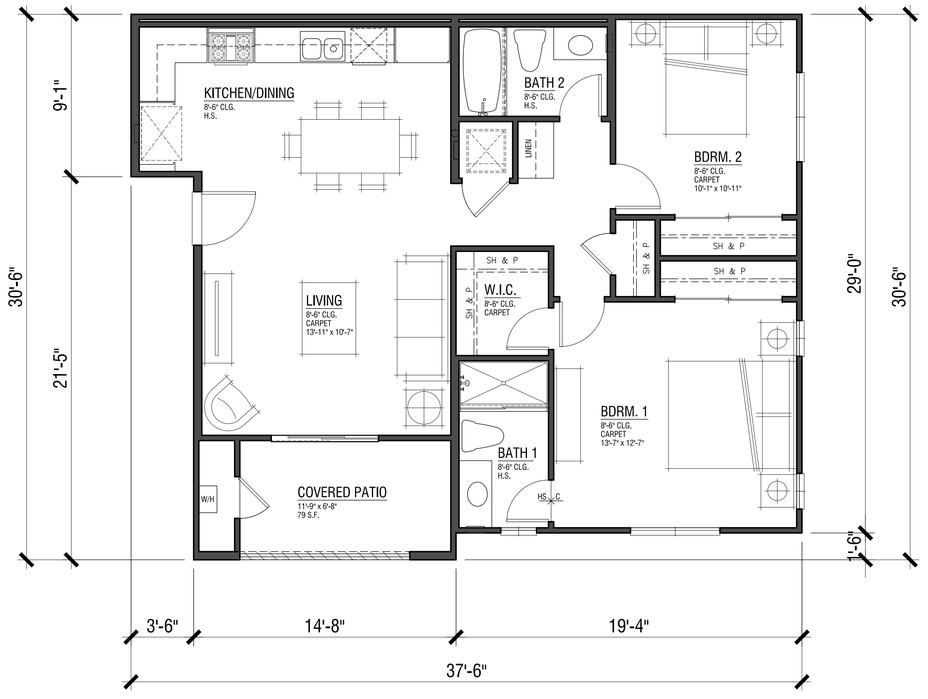

Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 6

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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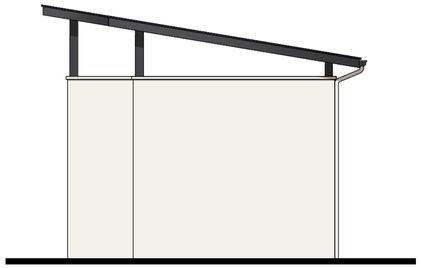
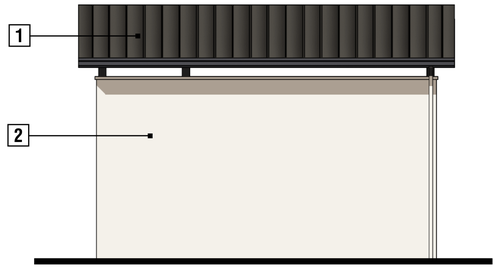
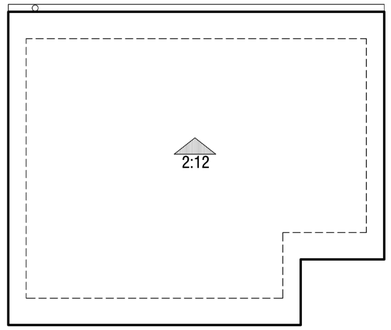


Trash Enclosure Left



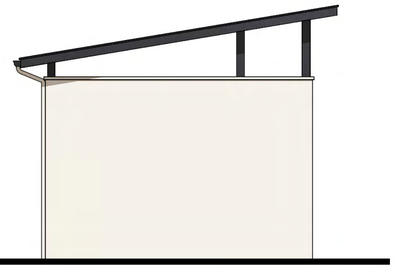
Trash Enclosure Front



Trash Enclosure
Roof Plan



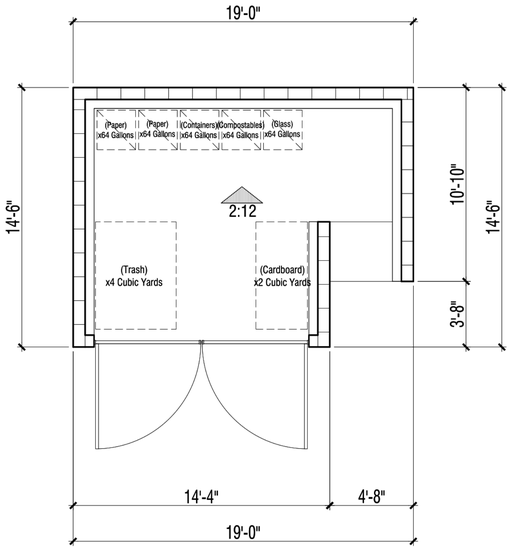
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A16

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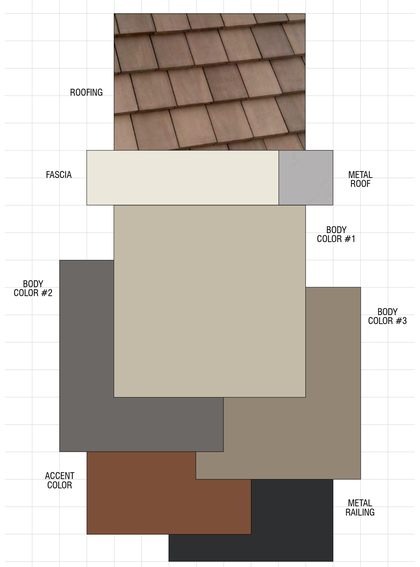
Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Corie Rath (925) 463-1700

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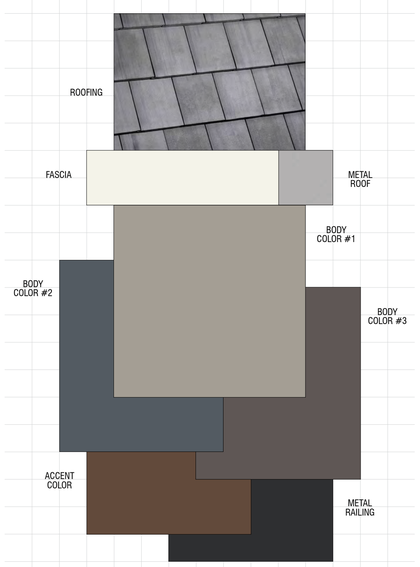
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
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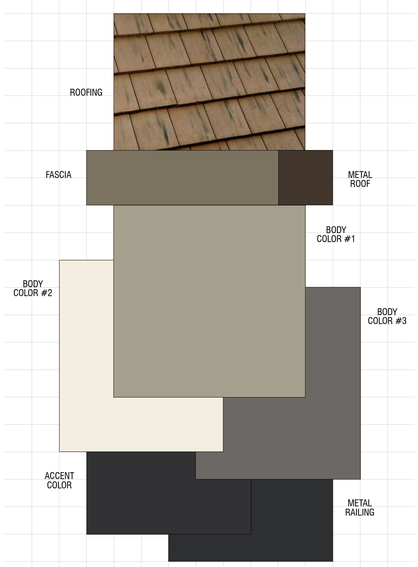
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Corie Rath (925) 463-1700

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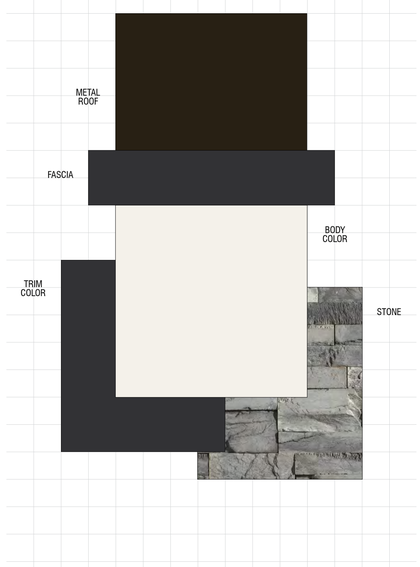
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to):* Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Corie Rath (925) 463-1700

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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PC RESOLUTION NO. 2021-09

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, APPROVE A GENERAL PLAN AMENDMENT TO CONVERT A VACANT 7.2-ACRE PARCEL (PARCEL B) ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD FROM ESTATE RESIDENTIAL (RE) TO MEDIUM DENSITY RESIDENTIAL (RM), ASSESSOR'S PARCEL NUMBER 058-320-001 (FILE NO. PL20-0026)

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 85 dwelling units on approximately 7.2 acres on the east side of Oat Hill south of Napa Junction Road APN 058-320-001 (File No. PL20-0026); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to create 85 dwelling units on 7.2 acres located at Oat Hill with access from Napa Junction Road, Assessor's Parcel Number 058-320-001 (File No. PL20-0027); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, the RH Development Company has represented that it will use its best efforts to facilitate the actual construction of affordable housing units within the City; and

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), a Mitigated Negative Declaration (MND) report was prepared for the Oat Hill Project, which included the proposed Tentative Subdivision Map, having analyzed the actions contemplated by the MND and includes required mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP); and

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WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on March 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal and to submit comments.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of American Canyon, having considered all the evidence, including any submitted by member of the public, hereby recommends the City Council of the City of American Canyon approve the General Plan Amendment for the Oat Hill Multi-Family Project (Parcel B) from Estate Residential (RE) to Medium Density Residential (RM) (PL20-0026) based on the findings and depicted on Exhibit A and attached hereto.

SECTION 1. Find, based on the following evidence and as required by State Law on General Plan Amendments:

a. The proposed amendment is deemed to be in the public interest.

The State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) recognize there is a critical shortage of residential housing for all levels of affordability in California. These agencies will soon establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area. In light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries. The Oat Hill multifamily residential project will contribute to accommodating the City's anticipated RHNA obligation.

b. The proposed amendment is consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

- *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*

- *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*

- *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

The project satisfies the following Land Use Element policies:

- *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their*

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environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

• Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A small portion of the northwest corner of Parcel B is located in Napa County Airport Compatibility Zone "D". The remaining property is located in Zone "E". Zone E permits multifamily development with approval of an avigation easement. The project approval requires an avigation easement. Therefore, there is no potential inconsistency between the General Plan Amendment and the Napa County Airport Compatibility Land Use Plan.

c. The potential impacts of the proposed amendment in the land use designation have been assessed and have been determined not to be detrimental to the public health, safety, or welfare.

The proposed General Plan Amendment has been evaluated in a Mitigated Negative Declaration (SCH# 2021020107). The report evaluated the project consistent with the California Environmental Quality Act and concluded the project will result in no significant impacts to the environment. Furthermore, the project is subject to conditions of approval and engineering design standards that will ensure safe site preparation, infrastructure and utilities as well as applicable current Building and Fire codes for emergency access and structural improvements.

With respect to the small northwest corner of Parcel B located in Napa County Airport Compatibility Zone "D, the remaining property is located in Zone "E". Zone E permits multifamily development with approval of an avigation easement. The project approval requires an avigation easement. Therefore, there is no potential inconsistency between the General Plan Amendment and the Napa County Airport Compatibility Land Use Plan.

d. The proposed amendment has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

The proposed General Plan Amendment has been evaluated in a Mitigated Negative Declaration (SCH# 2021020107). The report evaluated the project consistent with the California Environmental Quality Act and concluded the project will result in no significant impacts to the environment.

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PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25TH day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
285D50133D93421...
William D. Ross, City Attorney

EXHIBIT A

Amendment to the General Plan Land Use Element Map

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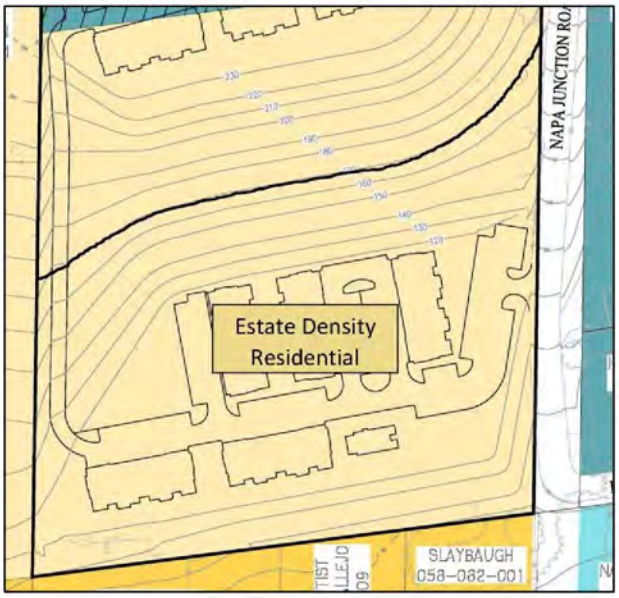
EXHIBIT A

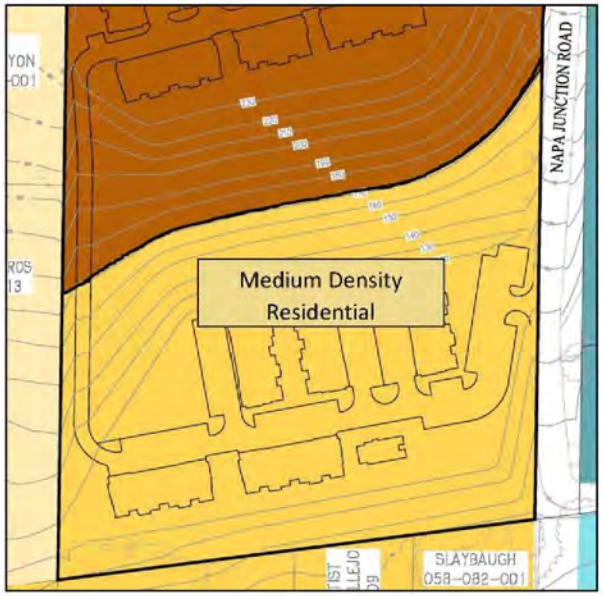
Parcel B Amendment to the General Plan Land Use Element Map

(PL20-0026)

Existing General Plan Parcel B



Proposed General Plan Parcel B



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PC RESOLUTION NO. 2021-10

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, APPROVE A CHANGE TO THE ZONING MAP TO CONVERT THE VACANT 7.2-ACRE PARCEL AT ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD (PARCEL B) FROM ESTATE RESIDENTIAL (RE) TO MEDIUM DENSITY RESIDENTIAL (RM), ASSESSOR'S PARCEL NUMBER 058-320-001 (FILE NO. PL20-0026)

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 85 dwelling units on approximately 7.2 acres on the east side of Oat Hill south of Napa Junction Road APN 058-320-001 (File No. PL20-0026); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to create 85 dwelling units on 7.2 acres located at Oat Hill with access from Napa Junction Road, Assessor's Parcel Number 058-320-001 (File No. PL20-0027); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), a Mitigated Negative Declaration (MND) report was prepared for the Oat Hill Multifamily Project, which includes the proposed Zone Change application, having analyzed the actions contemplated by the MND and includes required mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP); and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on March 25, 2021 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal and to submit comments.

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NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of American Canyon, having considered all the evidence, including any submitted by member of the public, hereby recommends the City Council of the City of American Canyon approve the Zone Change for Oat Hill Multi-Family Project (Parcel B) from Estate Residential (RE) to Medium Density Residential (RM) (PL20-0026) as depicted in Exhibit A and attached hereto.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25TH day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
13CB67295336491...
Tyrone Navarro, Chair

ATTEST:

DocuSigned by:
Nicolle Jones 4/8/2021
C302EF67A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:

DocuSigned by:
William D. Ross 4/8/2021
285D50133D934Z1...
William D. Ross, City Attorney

EXHIBIT A

Amendment to the General Plan Land Use Element Map

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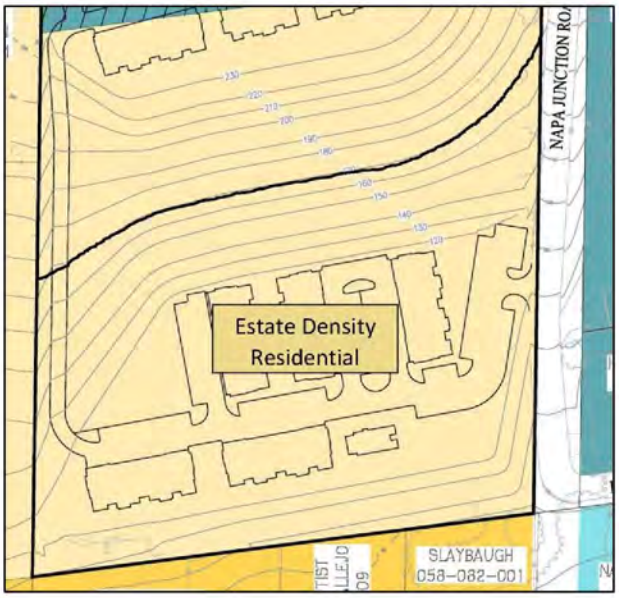
EXHIBIT A

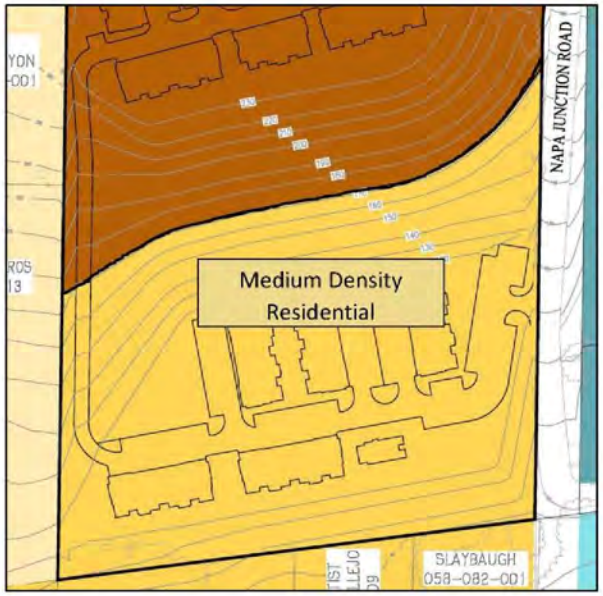
Parcel B Amendment to the Zoning Map

(PL20-0026)

Existing Zoning Parcel B



Proposed Zoning Parcel B



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PC RESOLUTION 2021-11

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON RECOMMENDING THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVE A TENTATIVE SUBDIVISION MAP TO PERMIT THE SUBDIVISION OF OAT HILL PARCEL B INTO 85 CONDOMINIUM UNITS ON A 7.2-ACRE PARCEL LOCATED ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD, APN 058-320-001 (FILE NO. PL20-0027)

WHEREAS, on August 14, 2020, RH Hess Development Company submitted an application for a Tentative Map for Condominium Purposes to permit the subdivision of 5 buildings into 85 separate ownership units on a 7.2-acre parcel in the Medium Density Residential (RM) zoning district at APN 058-320-001 (File no. PL20-0027); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 85 dwelling units on approximately 7.2 acres on the east side of Oat Hill south of Napa Junction Road, APN 058-320-001 (File No. PL20-0026); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

WHEREAS, pursuant to the California Environmental Quality Act, an Initial Study was prepared for the project which concluded that no significant adverse environmental impacts would occur as a result of the project, and a Mitigated Negative Declaration was prepared; and

WHEREAS, the proposed map is consistent with the City of American Canyon General Plan and the Municipal Code; and

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WHEREAS, a duly-noticed public hearing held on March 25, 2021, the Planning Commission recommended to the City Council to adopt the Initial Study and Mitigated Negative Declaration for the Oat Hill Project; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision; and

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission recommends to the City Council of the City of American Canyon approval of a Tentative Subdivision Map (PL20-0027) based on the findings contained in Section 1, and the conditions of approval contained in Section 2.

SECTION 1: Tentative Parcel Map Findings

A. The Oat Hill Project requires the following findings for the Tentative Map. As stated in Chapter 18.20.055 ACMC, the Planning Commission shall not approve a tentative parcel map if it makes any of the following findings:

1. That the design or improvement of the proposed subdivision is not consistent with the city's general plan or its elements or any other applicable plans;

The proposed Tentative Parcel is consistent with the General Plan, and the lot sizes meet the minimum parcel size in the Medium Density Residential (RM) zoning district.

Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

- *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*
- *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*
- *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

The project satisfies the following Land Use Element policies:

- *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.*
- *Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A small portion of the northwest corner of*

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Parcel B is located in Napa County Airport Compatibility Zone "D". The remaining property is located in Zone "E". Zone E permits multifamily development with approval of an avigation easement. The project approval requires an avigation easement. Therefore, there is no potential inconsistency between the General Plan Amendment and the Napa County Airport Compatibility Land Use Plan.

2. That the site is not physically suitable for the type of development proposed;

The site will be graded so that it is flat and physically suited for the residential buildings.

3. That the site is not physically suitable for the proposed density of development proposed;

The site will be changed from Residential Estate (RE) to Medium Density Residential (RM) through a General Plan Amendment and Zone Change. The proposed 85 units on 7.2-acre equates to a density of 11.8 dwelling units per acre, which complies with the RM zone.

4. That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat;

The Initial Study/Mitigated Negative Declaration concludes that no unavoidable significant impacts to the environment will occur as long as mitigation measures are incorporated. Mitigation measures are included to address potential impacts to burrowing owls, Swainson's hawk, tree or ground nesting raptors, and nesting passerine birds. The applicant conducted a biological resource study and no wetland areas were identified.

5. That the design of the subdivision or the type of improvements is likely to cause serious public health problems;

No evidence of serious public health problems has been identified.

6. That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision. In this connection, the Planning Commission may approve a tentative parcel map if it finds that alternate easements, for access or for use, will be provided and that these will be substantially equivalent to one previously acquired by the public.

No conflicts to public easements have been identified.

7. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction and no authority is granted to the Planning Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.

Not applicable to the Oat Hill Project.

8. That the discharge of waste water, including sewage and stormwater runoff, from the proposed subdivision would result in a violation of existing water quality requirements prescribed by the regional water quality control board.

The site will be served by public sewer. Stormwater detention facilities are provided to meet City and Regional Water Quality Control Board standards.

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SECTION 2. CONDITIONS OF APPROVAL

General

1. The Tentative Subdivision Map approval is granted for development of 85 dwelling units on 5 apartment buildings on a 7.2-acre parcel in the Medium Density Residential (RM) zoning district. The site will be supported with 183 parking spaces and approximately 94,000 square feet of landscaping at the vacant parcel, APN 058-320-001 (file no. PL20-0023), which shall be substantially shown on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit A includes the following:
    a. Architectural Plans prepared by William Hezmalhalch Architects (WHA) from San Ramon, CA, consisting of 20 sheets showing the proposed building elevations, floor plans, and roof plans, dated October 19, 2020.
    b. Site Plans prepared by Carlson, Barbee, and Gibson (CBG) from San Ramon, CA, consisting of 7 sheets showing the site plan, preliminary grading and drainage plan, and cross sections, dated February of 2021.
    c. Landscaping Plans prepared by Vander Toolen Associates from Sacramento, CA, consisting of 6 sheets showing the proposed landscaping plans, dated October of 2020.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

    The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

    The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project. The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or

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proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. Appeal. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $703. This approval is also subject to return of the "Applicant Confirmation of Conditions of Approval" form signed by the property owner. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on April 5, 2021.

4. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

5. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

6. Expiration of this Approval. If no construction permits have been issued and construction commenced within one year of the date upon which this approval is final, the approval shall become null and void and of no effect. An extension of time may be granted by the Community Development Director upon the written request by a responsible party before the expiration of the one-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval being made.

7. All plans submitted for review and approval and all development shall be in substantial conformance with the approved exhibits, except where modified by a condition of approval. The Community Development Director or designee may approve minor changes to the project as approved by the Planning Commission on the plans submitted for the construction permits with a determination that the changes are in substantial compliance with the representation of the project as reviewed by the Planning Commission and City Council, that the proposed change will be in compliance with the required development standards, and the change will not materially affect adjacent private or public property.

8. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Tentative Subdivision Map, under the title "Tentative Subdivision Map Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

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Planning

9. All new roof top equipment is required to be screened. The parapet shall be opaque and equal in height of the top of the rooftop mechanical equipment.

10. All ground mounted air conditioning and heating equipment facing Napa Junction Road shall be screened. The screen shall be made of wood and painted to be weather resistant.

11. Prior to the issuance of the site improvement plan, the applicant shall identify 10 bicycle parking spots for Parcel B. The bicycle parking spots shall be evenly distributed amongst the buildings.

12. The subdivision ordinance requires new projects to dedicate parkland on the basis of 5 acres per 1,000 population (ACMC Chapter 18.44). Based on the current project proposal of 85 dwelling units @ 3.49 persons per unit, the project generates a population of 297 people. This equates to a park dedication standard of 1.48 acres. The Subdivision Ordinance has provisions for a combination of park dedication and payment of a fee in-lieu of park dedication.

13. Prior to the issuance of the first building permit, the applicant is required to pay all applicable impact fees. For your information, the following table identifies the fees and their rates. Please note that the City fees are subject to change and the applicant is required to pay the updated fee at the time of building permit issuance. The applicant is required to pay Fire Mitigation fees separately at the Fire District.

Parcel B Fee	Rate	Calculation	Cost
Affordable Housing Nexus	$3.82 per SF	118,560 SF per plans	$ 452,899.20
Parks and Recreation Fee	$5806.38 per unit	85 units per plans	$ 493,542.30
Civic Facility Fee	$1685.61 per unit	85 units per plans	$ 143,276.85
General Plan Update Fee	$89.59 per unit	85 units per plans	$ 7,615.15
Traffic Impact Fee	$618.18 per trip	462 trips estimated	$ 285,599.16
Water Capacity Fee (Estimated)	$11,599 per unit plus $26.25 per gpd	85 units per plans plus irrigation demand in gpd	$985,915.00
Wastewater Capacity Fee (Estimated)	$6,952.00 per unit	85 units per plans	$590,920.00
		Impact Fees Subtotal	**$ 2,959,767.66**

14. Prior to the issuance of the first building permit, the applicant shall provide proof of payment or exemption for Napa Valley Unified School District (NVUSD) developer fees. For more information, see their website here: https://www.nvusd.k12.ca.us/developerfees .

15. Prior to the issuance of the first building permit or the recordation of the final map, whichever occurs first, an Avigation Easement shall be recorded. The Avigation Easement shall cover all portions of the property and include:
    a. Right-of-flight at any altitude above an easement surface elevation, established based on either Part 77 of the Federal Aviation Regulations or FAA Terminal Instrument Procedures

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Standards (TERPS), whichever is controlling (glide slope in approach is the controlling factor).

b. Right to cause noise, vibration, fumes, dust, and fuel particle emissions.
c. Right to prevent erection or growth of all objects above the easement surface.
d. Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

16. Prior to the Certificate of Occupancy, the applicant shall complete the public access trail that meanders from the site entry, traversing all the identified look-out points, and reaches the northwest side of the site.

Landscaping

17. The applicant shall agree to a licensing agreement that requires them to maintain the landscaping within the right-of-way along the project frontage. Prior to final inspection of the building permit, the applicant shall amend their facilities operation and maintenance plan (O&M plan) to include this activity.

18. Prior to the issuance of the Building Permit, the applicant shall submit a final landscaping plan. The landscape plan shall comply with the requirements of the California Government Code 65591 et. seq. known as the Water Conservation in Landscaping Act as set out in the model water efficient landscape ordinance adopted by the California Department of Water Resources and amended in 2015. All plant material shall be served by a city-approved automatic irrigation system.

19. Prior to the issuance of a certificate of occupancy, all landscaping shall be completed and the project's landscape architect shall provide a written certification that all plant materials have been installed in accordance with the approved landscape plan.

20. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

21. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

22. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site's vision triangles.

Building and Safety

23. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report

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from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

24. Prior to the issuance of a certificate of occupancy, the applicant shall submit a letter of certification to the Building Official from the project architect and civil engineer certifying that all improvements have been constructed in accordance with the approved building plans. Determination of consistency shall be subject to the review and approval of the Building Official.

25. Site Improvement plans shall show slopes of all sidewalks and walkways and paths of travel to use site facilities including trash/recycling facilities. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

26. Recycling of Construction and Demolition Debris: Prior to issuance of a building permit the applicant shall submit a plan for the diversion of at least 70 percent of the debris from the building demolition and construction. The plan shall include the qualified recycler that will be used, the methods of managing diversion of construction materials on site, and the proposed documentation that will be submitted to confirm that the diversion goal has been met.

Fire District

General Fire District Conditions

27. In accordance with the standard mitigation measures and conditions of approval set forth by the City of American Canyon, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

28. Buildings in excess of two stories shall pay Aerial Apparatus mitigation fees prior to the issuance of any building permits. (see current Standard Fees and Chares adopted by resolution).

29. The project will require an annual fire and life-safety inspection under the "R (Residential) Occupancy Inspection Program". The R Occupancy Inspection Program has been developed to allow Fire District to meet requirements set forth by the State of California. The California Health and Safety Code, Section 13146.2 (a) mandates that inspections be completed at all "R occupancies" annually. California Health and Safety Code Section 13146.2 (b) provides the Fire District legal authority to charge property owners to recover reasonable costs for providing these inspections.

30. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, City of American Canyon standards and Nationally Recognized Standards.

31. There shall be no deferred submittals for fire protection equipment and related utilities. Fire protection plans shall not be attached to or bound with the building plan submittal package. This includes but is not limited to Automatic Fire Sprinkler, Fire Alarm, Fixed Fire Protection and Civil plans.

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32. All Fire related underground piping and fire appurtenances shall be shown on the Civil plan submittal. In addition to the Civil plan submittal, at least (1) plan set under separate cover shall be submitted to American Canyon Building Division for routing to the American Canyon Fire Protection District detailing all underground piping and related fire appurtenances including but not limited to underground piping, underground sweep detail, underground trench details showing depth of burial, type of backfill, manufacturer's specifications of piping, valves joints, fittings and calculated size and locations of thrust blocks, hydrants locations (designate public or private), gate shut-off valves, PIV's, FDC's, fire pumps, fire pump and/or riser rooms.

33. Underground utility contractor, architect and fire sprinkler contractor shall coordinate the location of risers and control valves prior to the issuance of a building permit.

34. Fire District plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

Fire Protection

35. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code. Applicant shall demonstrate on plan submittal; square footage of each building on plan and provide the required fire flow information. Applicant shall demonstrate that the number and spacing of onsite fire hydrants meets with requirements of the California Fire Code. ***See sample below regarding fire flow and hydrant detail information needed***.

BUILDING FIRE FLOW REQUIREMENTS – CFC TABLES B105.2 & B105.1(2)

INFORMATION BELOW IS A SAMPLE AND FOR REFERENCE ONLY

Table B105.1(2) – Building size = 129, 600 square feet
Construction type = Type IIA
FF = 5,250 gpm at 20 psi
Duration = 4 hours

Table B105.2 – Fire sprinkler allowance = - 50%
5,250 – 2,625 = 2,625 gpm
FF = 2,625 gpm @ 20 psi
Duration = 2 hours

Table CC105.1 – Approximate number of hydrants = 3
Average spacing = 400 feet + 25% allowable increase = 500
Maximum distance from street or frontage = 225 feet = 50% allowable increase = 337.5

36. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the City of Napa and the applicable National Fire Protection Association Standard.

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37. The fire protection equipment shall be located within an interior room having an approved exterior access door or in an exterior enclosure attached to the building, specifically, for the purpose of housing such equipment.

38. The City of American Canyon requires that a fire hydrant be in service within 250 feet of the furthest point of construction prior to the stockpiling of combustible materials for the beginning of construction.

39. Fire District Connections (FDC) shall be located not more than 100 ft. from the nearest fire hydrant.

Fire District Access

40. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the City of American Canyon and the applicable Public Works Standard.

41. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13' 6". They shall have an all-weather paved surface capable of supporting a GVW of 71,000 pounds.

42. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction. Fire apparatus access shall be provided to within 150 feet of the most remote portions of all building from an approved exterior route. If this cannot be achieved fire apparatus turn arounds will be needed.

43. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Vertical traffic calming in the form of speed pumps, humps or dips are prohibited along fire access roads without prior approval of the fire Code Official. The minimum width and clearances established in Section 503.2.1 shall be maintained at all times.

44. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

45. Where applicable improvement plan submittals for permit shall include locations of fire lane red curbing and fire lane signage. Please refer to and include City Public Works Standard FP-2A & 2B with plan submittals for permitting.

Public Works General Conditions of Approval

46. The Applicant shall be responsible for all City plan check, map check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

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47. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

48. All new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

49. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

50. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

51. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall include an analysis of the capacity of existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

52. A final detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ). It is the City's discretion whether to accept alternative treatment facilities other than bioretention.

53. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved, the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

54. A Final Map, as defined in the Subdivision Map Act, shall be prepared by a licensed surveyor or civil engineer. The Final Map shall show all parcels, rights-of-way, and easement(s), and shall be submitted to the City Engineer for review. The Final Map shall be in substantial conformance with the approved Tentative Map and all applicable conditions of approval. The Final Map is not valid until it has been approved by the City and recorded. Closure calculations shall be provided at the time of initial Final Map submittal. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the Final Map shall be directly verifiable by information shown on the closure calculation printout. The point(s) of beginning shall be clearly

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defined. All lot acreages shall be shown on the Final Map and shall be verifiable from information shown on the closure calculation printout. A current title report (within past 30 days) shall be submitted at the time of initial Final Map submittal.

55. Subject to the terms of Condition 56, the Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

56. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity. A good faith offer includes identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and a bonafide offer to pay this amount at the close of escrow.

57. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval of the City's Public Works Department. **Please be aware that this is separate submittal from the building permit application.** The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

58. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

59. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

60. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire District, Napa County Department of Environmental Services or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

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61. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

62. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

63. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

64. Prior to placing the final lift of asphalt, all public storm drains and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

65. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

66. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

67. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended), the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

68. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water sources. The Applicant shall provide verification that an outside source of construction water, e.g., recycled water, has been established and will be available for the duration of the project construction.

69. The development shall comply with the City's Zero Water Footprint policy.

70. All landscaping irrigation systems shall include an ET/SMART controller.

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Public Works Special Conditions of Approval

71. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary civil plans titled "Design Review Oat Hill Multi-Family – Parcel B" prepared by Carson, Barbee & Gibson Civil Engineers, dated February 2021 (Preliminary Plans), except as modified by these conditions.

72. Improvement Plans shall be tied to the State of California coordinate system.

73. The Applicant shall design and construct all of the Public Improvements as generally described below and in accordance with the project's Fee Credit/ Fee Reimbursement Agreement, as applicable.

    a. Napa Junction Road Improvements:
        i. Construct an approximately 300-foot segment of Napa Junction Road between the Hess Road/Napa Junction Road intersection and the existing roadway fronting Napa Junction Magnet Elementary School. The preliminary roadway shall have a curb-to-curb with of 40-feet with 5-foot wide (includes curb width) attached sidewalks on both sides. The final roadway section shall be as determined by the City Engineer. The extent of the roadway construction may be extended as necessary to meet City roadway geometric standards.

        ii. Construct a new 5-foot wide (includes curb width) attached sidewalk along the south side of Napa Junction Road between the east end of the new road segment described above to the existing sidewalk approximately 100-feet west of Theresa Avenue.

        iii. Construct a new 5-foot wide attached sidewalk along the south side of Napa Junction Road between its intersection with Hess Road and the west end of Parcel A's frontage.

        iv. The cost of these improvements will qualify for a credit against the project's Traffic Impact Fee.

    b. Water Main Replacement in Napa Junction Road:
    Replace approximately 590 linear feet of the existing 6-inch water main in Napa Junction Road with a new 12-inch water main between the intersection with Theresa Avenue to the intersection with Hess Road, connecting to the existing water mains in those intersections. The cost of these improvements will qualify for a credit against the project's Water Capacity Fee.

    c. Sanitary Sewer Main Replacement in Napa Junction Road and Theresa Avenue:
    Replace approximately 1,800 linear feet of the existing 6-inch sanitary sewer mains in Napa Junction Road between Hess Road and Theresa Avenue and in Theresa Avenue from Napa Junction Road to a point approximately 1,200 linear feet south thereof with new 8-inch and 10-inch sanitary sewer mains. The Engineer of Record shall conduct a capacity analysis for the new sanitary sewers to determine where it should upsize from 8-inch to

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10-inch. The cost of these improvements will qualify for a credit against the project's Wastewater Capacity Fee.

d. Recycled Water Main in Lombard Road and Hess Road:
Install approximately 1,300 linear feet of a new 8-inch recycled water main in Lombard Road between the cul-de-sac at its northern terminus and Hess Drive and in Hess Drive between Lombard Road and the Little League fields. This recycled water main will be assumed to provide a sufficient potable water demand offset to comply with the City's Zero Water Footprint policy for both the Oat Hill Parcel A and Oat Hill Parcel B projects.

Note that the Tentative Map for Oat Hill Parcel B is subject to conditions of approval to construct the same Public Improvement described above. In the event that any of those public improvements are constructed in conjunction with the development of Oat Hill Parcel B prior to the development of Oat Hill Parcel A, then the corresponding condition of approval for Oat Hill Parcel A will be considered to have been met.

74. The Applicant shall construct all of the on-site private drive isles, parking spaces, walks, water, recycled water, sanitary sewer, storm drainage and stormwater quality and landscaping **"Private Improvements"** generally shown on the Preliminary Plans and more specifically described below. All private drive isles, parking spaces, walks, water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

a. Storm Drain Facilities:
Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The storm drains and detention facilities shall be substantially consistent with the Preliminary Plans. However, the sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.

b. Stormwater Quality Facilities:
Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. Runoff from all roof drains shall be conveyed to the onsite stormwater treatment facilities.

c. Emergency Vehicle Access Road
Construct a 20-foot wide paved vehicle road on Oat Hill Parcel A and across Oat Hill Parcel B connecting to Napa Junction Road.

75. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:
a. Submit the City's "Improvement Plan Checklist".

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b. Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.

c. Provide the following:
   i. Public Street Repair Plan
   ii. Utility Plan and Joint Trench Plan
   iii. Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
   iv. Drainage Report
   v. Post-Construction Stormwater Control Plan (SWCP)
   vi. Geotechnical Report
   vii. Construction Traffic Control Plan.

d. Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed areas of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

76. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:

a. Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

b. Subject to the terms of Condition 56, acquire the public right-of-way and all rights of entry and/or temporary and permanent easements necessary for the construction of the Napa Junction Road improvements described above. Applicant shall prepare the legal descriptions, plats and deeds and submit them to the City for review. The location of all such rights on the Plans.

c. Record a City approved lot line adjustment between Oat Hill Parcel A and Oat Hill Parcel B as shown on the Tentative Map and Preliminary Plans.

d. Furnish proof that all permits that may be required by the California Department of Fish & Game, State and Regional Water Quality Control Board, US Army Corps of Engineers and any other regulatory agencies with jurisdiction over the proposed construction have been obtained.

e. Complete and submit the City's Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.

f. Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

77. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:

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a. Pay off all current account balances with the City of American Canyon.

b. Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.

c. Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), and/or the Contractor provides the following:

   i. Six (6) full-size bond copies of the approved Improvement Plans for the City's use.
   ii. One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
   iii. One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
   iv. Electronic copies of Improvement Plans and SWPPP

78. Prior to RECORDATION OF THE FINAL MAP, the Applicant shall:

a. Construct all of the Public and Private Improvements to the satisfaction of the City. Alternatively, the Applicant may enter into a Subdivision Improvement Agreement with the City agreeing to complete all of the Public and Private Improvements prior to Occupancy of the first unit. Such an Agreement will require the Applicant to provide bonds, proof of workers compensation insurance, and general liability insurance in the forms and amounts as deemed satisfactory to the City.

b. Establish a Homeowner's Association (HOA) in accordance with State law with recorded Codes, Covenants, & Restrictions (CC&Rs) that are satisfactory to the City Engineer and City Attorney to provide long-term and ongoing maintenance of all of the Private Improvements identified above. Specifically, the HOA will be responsible for the long-term and ongoing maintenance of the private streets, sidewalks, streetlights, domestic water facilities including the water booster pump station, sewers, storm drain facilities and stormwater quality facilities within the limits of the subdivision. The City will have enforcement authority over the HOA's maintenance obligations and the obligation to review and approved proposed changes amendments to the CC&R's. The CC&R's shall require the HOA to create and maintain a separate maintenance reserve fund in the amount of a percentage of the cost of constructing the HOA maintained improvements listed above. Said percentage will be determined by the City prior to recordation of the CC&Rs.

c. Establish a Shared Maintenance Agreement or such similar agreement between the owners of Oat Hill Parcel A and Oat Hill Parcel B for the long term and ongoing maintenance and operation of all shared private improvements. Specifically, the parcel owners shall be responsible for the ongoing maintenance and operation of all onsite stormwater quality facilities, shared storm drains and the shared emergency vehicle access road. The Shared Maintenance Agreement shall be prepared to run with the land of each parcel. The Shared Maintenance Agreement shall be submitted to the City for review and approval prior to recordation.

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d. Generally, in substantial conformance with that which is shown on the approved Tentative Map, convey all easements and dedications, public and private, for the construction, use and/or maintenance of roads or other access, drainage facilities, utilities and post-construction storm water management facilities on the Final Map or by separate instruments. All dedications to the City shall be irrevocable offers of dedication. Specific public conveyances include:
    i. A public utility easement (PUE) 5-foot in width along the south side of Napa Junction Road across the frontage of Oat Hill Parcel B.
    ii. A strip of public street right-of-way of varying width and having an area of approximately 4,150 square feet as shown on the Tentative Map for Condominium Purposes Oat Hill Multi-family Parcel B.

e. Furnish documentation that the existing PG&E pole line easements (Book 1061 Page 114 and Book 1355 Page 779 O.R.) have been quit claimed.

f. Obtain all necessary easements over Oat Hill Parcel B including easements for emergency vehicle access and storm water conveyance and detention facilities through recorded separate instruments.

g. Furnish proof of the payment of the mapping service fee as required by Napa County Board of Supervisors Resolution No. 92-119.

79. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:

a. Pay all account balances and current City and American Canyon Fire Protection District fees (Mitigation and Capacity) shown in Condition 13.

80. Prior to ACCEPTANCE OF IMPROVEMENTS, the Applicant shall:

a. Restore all adjacent off-site road surfaces to pre-project conditions.

b. Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.

c. Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital AutoCAD (.dwg) and (.pdf) format (void of any AutoCAD block formats preventing full editing capabilities of the drawings), compatible with the City's current version, and tied to the NAD83 (California Zone 2, feet) coordinate system.

d. Provide a letter stating that all of the Developer's Conditions of Approval have been met.

e. Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

f. Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

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Oat Hill Parcel B – Mitigation Measures

The following are the applicable mitigation measures from the certified Mitigated Negative Declaration report. The following mitigation measures shall be complied with in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP) by the City Council.

81. **AES I-1.** Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.

82. **AQ III-3.** Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.

83. **BIO IV-1.** Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required

84. **BIO IV-2.** If Swainson's hawks are found to be nesting on the project site or within 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

85. **BIO IV-3.** Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys

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including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.

86. **BIO IV-4.** If burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:

    - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

    If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

    If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

87. **BIO IV-5.** If project activities must be conducted during the nesting season (February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 714 days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following

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the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.

If active nests of native nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission.

88. **CUL V-1.** Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.

89. **CUL V-2.** If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

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90. **GEO VII-1, VII-2, VII-4, and VII-5**. Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.

91. **GEO VII-3.** Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:
    a. Hydro-seeding;
    b. Placement of erosion control measures within drainage ways and ahead of drop inlets;
    c. The temporary lining (during construction activities) of drop inlets with "filter fabric";
    d. The placement of straw wattles along slope contours;
    e. Use of a designated equipment and vehicle "wash-out" location;
    f. Use of siltation fences;
    g. Use of on-site rock/gravel road at construction access points; and
    h. Use of sediment basins and dust palliatives.

92. **GHG VIII-1.** Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:
    a. Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.
    b. Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.
    c. One of the following options is required:
        i. A4.203.1.2.1 – Roof deck insulation or ducts in conditioned space.
        ii. A4.203.1.2.2 – High performance walls.
        iii. A4.203.1.2.3 – HERS-verified compact hot water distribution system.
        iv. A4.203.1.2.4 – HERS-verified drain water heat recovery.
    d. Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.
    e. Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.

93. **NOI XIII-1.** Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:

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a. Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;
b. Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations;
c. Equipment engine shrouds shall be closed during equipment operation;
d. When not in use, motorized construction equipment shall not be left idling for more than five minutes; and
e. Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

94. **TRANS XVII-1.** Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.

95. **TRANS XVII-2.** Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS:
    a. Unbundled Parking;
    b. Free Transit Passes;
    c. Secure Bicycle Parking and Maintenance Tools;
    d. Tele-Work/Compressed Schedules;
    e. Carpooling and Ride-Matching Program;
    f. Transportation Coordinator;
    g. Welcome Packet for New Residents; and
    h. Monitoring of Program Performance.

    Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.

96. **UTIL XIX-1.** The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water:
    a. Reducing existing potable water demands on-site;
    b. Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;
    c. Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or
    d. Purchasing new water supplies from other water providers.

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Compliance with the Zero Water Footprint Policy shall be ensured by submission of a "Will-Serve" Water Application to the City's Public Works Department for review and approval. Project plans shall demonstrate the applicant's inclusion of the selected wet-water offsets.

97. **UTIL XIX-2.** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.

98. **UTIL XIX-3.** At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect, to the extent they are not subject to applicable fee credits, to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.

99. **UTIL XIX-4.** The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.

100. **UTIL XIX-5.** Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.

101. **UTIL XIX-6.** Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.

102. **UTIL XIX-7.** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation
measures, such as, but not limited to:

a. Drought-resistant vegetation;
b. Irrigation systems employing the following features:
    i. drip irrigation;
    ii. low-precipitation-rate sprinklers;
    iii. bubbler/soaker systems;
    iv. programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);
    v. Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;
    vi. Conservative sprinkler spacings that minimize overspray onto paved surfaces; and
    vii. Hydrozones that keep plants with similar water needs in the same irrigation zone

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c. Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and
d. Organic topdressing in non-turf areas to decrease evaporation and increase water retention.

103. **COVID19 XXI-1.** The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of March, 2021, by the following vote:

AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro

NOES: None

ABSTAIN: None

ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
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Tyrone Navarro, Chair

ATTEST:
DocuSigned by:
Nicolle Jones 4/8/2021
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Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:
DocuSigned by:
William D. Ross 4/8/2021
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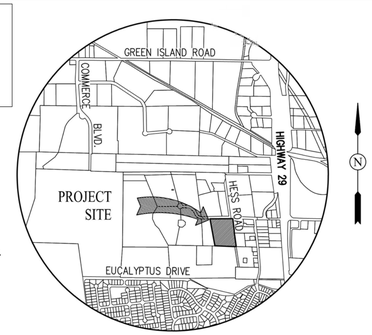
William D. Ross, City Attorney

EXHIBITS
A. Project Plans

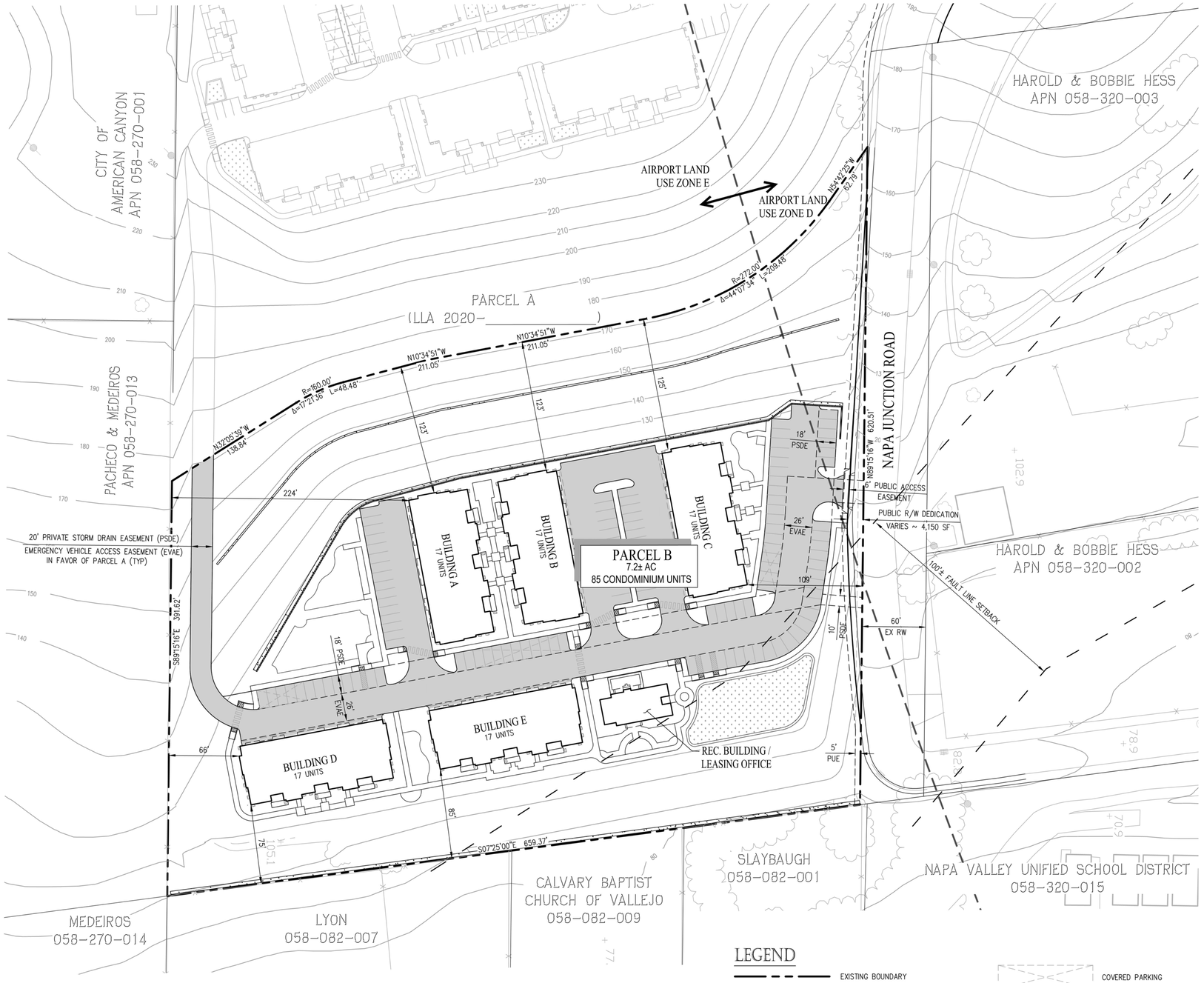
Exhibit A: Tentative Map Plans

GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES III, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5	ASSESSORS PARCEL NO.	058-320-001 (PORTION)
6.	SITE AREA:	7.2± ACRES
7.	LOTS:	1
8.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
9.	EXISTING ZONING: PROPOSED ZONING:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
10.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
11.	DWELLING UNITS:	85
12.	SITE DENSITY:	11.8 DU/AC
13.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET
14.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
15.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
16.	UTILITIES:	
	WATER:	CITY OF AMERICAN CANYON
	SEWER:	CITY OF AMERICAN CANYON
	STORM DRAIN:	CITY OF AMERICAN CANYON
	GAS & ELECTRIC:	PG&E
	TELEPHONE:	PACIFIC BELL
17.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
18.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.
19.	RECIPROCAL EASEMENT:	PRIOR TO THE RECORDATION OF THE FINAL MAP ALL RECIPROCAL EASEMENTS REQUIRED ON PARCEL A MUST BE RECORDED IN FAVOR OF PARCEL B OR THE FINAL MAPS MUST BE RECORDED CONCURRENTLY



VICINITY MAP
NOT TO SCALE



LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- PROPOSED RETAINING WALL
- 210 10' CONTOUR
- COVERED PARKING
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

TENTATIVE MAP FOR CONDOMINIUM PURPOSES

OAT HILL MULTI-FAMILY

PARCEL B - LLA 2020-_____

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1"=50' DATE: FEBRUARY 2021

0 50 100 150

cbg CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

SAN RAMON ▪ (925) 866-0322
SACRAMENTO ▪ (916) 375-1877
WWW.CBANDG.COM

JOB NO.: 1305-050

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PC RESOLUTION 2021-12

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON RECOMMEND THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVE A DESIGN PERMIT FOR THE OAT HILL MULTI-FAMILY PROJECT (PARCEL B), CONSISTING OF 85 DWELLING UNITS, A RECREATION BUILDING WITH LEASING OFFICE, 183 PARKING SPACES, AND APPROXIMATELY 47,000 SQUARE FEET OF LANDSCAPING ON A 7.2-ACRE PARCEL LOCATED ON THE EAST SIDE OF OAT HILL SOUTH OF NAPA JUNCTION ROAD, APN 058-320-001 (FILE NO. PL20-0023)

WHEREAS, on August 14, 2020, a Design Permit application was filed by Rick Hess Development Company for 85 dwelling units, a recreation building with leasing office, 183 parking spaces, and approximately 47,000 square feet of landscaping at the vacant 7.2-acre parcel located on east side of Oat Hill south of Napa Junction Road, APN 058-320-001 (File No. PL20-0023); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a General Plan Amendment and Zone Change application to allow 85 dwelling units on approximately 7.2 acres on the east side of Oat Hill south of Napa Junction Road, APN 058-320-001 (File No. PL20-0026); and

WHEREAS, on August 14, 2020, RH Hess Development Company submitted a Tentative Subdivision Map to permit a subdivision of 85 multi-family condominium units on 7.2 acres located at Oat Hill (Parcel B), APN 058-380-008 (File No. PL20-0027); and

WHEREAS, on November 2, 2021, RH Hess Development submitted a Lot Line Adjustment (File No. PL20-0039) to convert the two parcels APN 058-380-008 and 058-320-001 from 11.3-acres and 9.5-acres to 13.6-acres and 7.2-acres, respectively; and

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish regional housing needs allocations (RHNA) for the greater San Francisco Bay Area; and

WHEREAS, in light of the State's housing shortage, HCD and ABAG is expected to increase significantly the obligation of the City of American Canyon ("City") to plan for additional housing within its municipal boundaries; and

WHEREAS, on January 21, 2020, the City Council declared residential uses are the best use of the Rick Hess property on Oat Hill (Resolution 2020-06); and

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WHEREAS, the Planning Commission adopted Resolution 2021-XX recommending the City Council of the City of American Canyon to approve a Mitigated Negative Declaration and approval of the Mitigation Monitoring and Reporting Program for the project; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision; and

NOW, THEREFORE, BE IT RESOLVED that the American Canyon Planning Commission recommends the City Council approval of a Design Permit for the Oat Hill Project Parcel B (PL20-0023) based on the findings contained in Section 1, and the conditions of approval contained in Section 2.

SECTION 1: Design Permit Findings

A. The Oat Hill Project requires the following findings for the Design Permit. As stated in Chapter 19.41.050 ACMC, approval of a design permit application may be granted by the appropriate decision making authority only if all of the following findings are made:

1. The project complies with all applicable provisions of this title and any applicable approvals granted for the project by any decision making authority.

The project complies with all applicable provisions of this title.

2. The project and its design complies with any applicable design guidelines.

The project complies with all design guidelines and criteria of the Medium Density Residential (RM) zoning district.

3. The project and its design complies with all applicable general plan policies.
4.

The project proposes a General Plan Amendment and Zone Change to convert the parcel from Residential Estate (RE) to Medium Density Residential (RM). The proposed use is consistent with the RM designation in the General Plan in that multifamily residential uses are permitted by right. Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

- *Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."*
- *Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."*
- *Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).*

The project satisfies the following Land Use Element policies:

- *Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are*

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designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

- *Policy 1.27.2: "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions." A small portion of the northwest corner of Parcel B is located in Napa County Airport Compatibility Zone "D". The remaining property is located in Zone "E". Zone E permits multifamily development with approval of an avigation easement. The project approval requires an avigation easement. Therefore, there is no potential inconsistency between the General Plan Amendment and the Napa County Airport Compatibility Land Use Plan.*

5. The project complies with applicable policies of the Napa County Airport land use compatibility plan.

The Parcel B site is within the Napa County Airport Land Use Compatibility Plan (ALUCP) E-Zone, which does not conflict with residential use. As an added precaution and a condition of approval, the applicant will agree to record an avigation easement in favor of the Napa County Airport to indemnify them from noise complaints.

6. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.

The project proposes high quality residential buildings that enhances the landscape of Oat Hill. The applicant conducted viewing studies to ensure the residential buildings take advantage of the view sheds from Oat Hill and are also providing a new public walking trail with the project. The applicant also provided photo simulations that show the residential buildings blend in harmoniously with the Oat Hill setting.

7. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.

The project design complies to the RM zoning district design standards and is compatible to existing development.

8. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.

The design of the residential buildings are of high quality and avoids excessive variety and repetition. They feature a hip roof, articulated entrances, functional balconies, separations in color, and recessed windows. The site also takes advantage of landscaping in the setbacks, common areas, and parking areas.

9. The proposed design promotes a harmonious transition in terms of scale and character between areas of different general plan land use designations and zoning districts.

The Oat Hill project provides an appropriate transition between lower density housing, located to the south and west of Oat Hill, and commercial and retail uses surrounding Highway 29. The development of housing on Oat Hill also would be compatible with the Broadway Specific Plan (BDSP). Although Parcels A and B are not within the boundaries of the BDSP, that plan designates land adjacent to the parcels as "Medium Density Residential," which permits 12 units/acre and is intended to foster a high-density residential community that is compatible with the existing older single-family residences in this area. Re-designating Parcels A and B to RH-1 and RM would allow for residential densities similar to those permitted in the Medium Density Residential area of the

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Broadway Plan, and it would further establish a residential community that is compatible with surrounding uses.

10. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

The site will be graded for safe and adequate on-site circulation. A new section of Napa Junction Road would be constructed between two disconnected segments east and west of Hess Road. The new roadway and pedestrian connections would result in a more direct route to the project site from SR 29 and other areas of the City.

B. The Oat Hill Project requires the following additional findings related to design. General Plan Land Use Policy 1.8.4 requires that multi-family residential projects be designed to convey a high level of quality and distinctive neighborhood character in conformance with the following:

1. Treatment of building elevations to convey the visual character of individual units rather than a singular building mass and volume.

The building elevation is separated by three complimentary colors and supporting accents. The building has functional balconies, recessed windows, and defined main entries that reduce the building mass and volume.

2. Location of the elevation of the first occupiable floor at or in proximity to the predominant grade elevation, limiting the visibility of subterranean parking facilities from the street frontage.

The first floor of each building is accessible from ground level and parking facilities are accessible from the street level. The site will have clearly marked accessible paths of travel.

3. Inclusion of separate and well-defined entries to convey the visual character of individual identity for each residential unit, which may be developed as seen from exterior facades, interior courtyards, and/or common areas.

The buildings have defined entries that convey individual identity. Each building has two main entries that are recessed and doors facing the front elevation are painted in a light leather brown color. The covered garages of the units are hidden in the rear.

4. Siting and design of parking areas and facilities to be integrated with and not dominate the architectural character of the structure.

The site parking areas are integrated with the buildings and open spaces. The site is also facilitated with landscaping in the setbacks so that parking is not the dominant architectural feature.

5. Use of an adequate setback along the street frontage containing landscape, which provides physical and visual continuity with abutting sidewalks.

The applicant provided a preliminary landscaping plan that identified landscaped setbacks for street frontages. The landscaping consists of native trees, shrubs, and groundcover that will be supported with drip irrigation systems. The final landscaping plan shall comply with the City water efficient landscaping ordinance.

6. Provision of useable and functional private open spaces, including ground level patios where appropriate or enclosed balconies of adequate size for use.

The buildings include ground level patios and enclosed balconies with a minimum depth of 6 feet, which is consistent with medium density residential buildings in the neighboring Broadway District Specific Plan area.

7. Provides of sense of openness and unit separation while providing attractive locations for functional activities such as children's outdoor play, preferably within sight of each residential unit.

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The site includes functional activity areas such as a courtyard between Buildings A and B, an open space area in front of Building C, an open space and pet area north of Building D, a recreation building, and a community loop walkway on the southern perimeter of the site.

SECTION 2. CONDITIONS OF APPROVAL

General

1. The Design Permit approval is granted for development of 85 dwelling units on 5 apartment buildings on a 7.2-acre parcel in the Medium Density Residential (RM) zoning district. The site will be supported with 183 parking spaces and approximately 94,000 square feet of landscaping at the vacant parcel, APN 058-320-001 (File No. PL20-0023), which shall be substantially shown on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit A includes the following:
    a. Architectural Plans prepared by William Hezmalhalch Architects (WHA) from San Ramon, CA, consisting of 20 sheets showing the proposed building elevations, floor plans, and roof plans, dated October 19, 2020.
    b. Site Plans prepared by Carlson, Barbee, and Gibson (CBG) from San Ramon, CA, consisting of 7 sheets showing the site plan, preliminary grading and drainage plan, and cross sections, dated February of 2021.
    c. Landscaping Plans prepared by Vander Toolen Associates from Sacramento, CA, consisting of 6 sheets showing the proposed landscaping plans, dated October of 2020.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

    The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

    The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit,

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approval, conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project. The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. Appeal. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $703. This approval is also subject to return of the "Applicant Confirmation of Conditions of Approval" form signed by the property owner. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on April 5, 2021.

4. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

5. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

6. Expiration of this Approval. If no construction permits have been issued and construction commenced within one year of the date upon which this approval is final, the approval shall become null and void and of no effect. An extension of time may be granted by the Community Development Director upon the written request by a responsible party before the expiration of the one-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval being made.

7. All plans submitted for review and approval and all development shall be in substantial conformance with the approved exhibits, except where modified by a condition of approval. The Community Development Director or designee may approve minor changes to the project as approved by the Planning Commission on the plans submitted for the construction permits with a determination that the changes are in substantial compliance with the representation of the project as reviewed by the Planning Commission and City Council, that the proposed change will be in compliance with the required development standards, and the change will not materially affect adjacent private or public property.

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8. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Design Permit, under the title "Design Permit Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

Planning

9. All new roof top equipment is required to be screened. The parapet shall be opaque and equal in height of the top of the rooftop mechanical equipment.

10. All ground mounted air conditioning and heating equipment facing Napa Junction Road shall be screened. The screen shall be made of wood and painted to be weather resistant.

11. Prior to the issuance of the site improvement plan, the applicant shall identify 10 bicycle parking spots for Parcel B. The bicycle parking spots shall be evenly distributed amongst the buildings.

12. The subdivision ordinance requires new projects to dedicate parkland on the basis of 5 acres per 1,000 population (ACMC Chapter 18.44). Based on the current project proposal of 85 dwelling units @ 3.49 persons per unit, the project generates a population of 297 people. This equates to a park dedication standard of 1.48 acres. The Subdivision Ordinance has provisions for a combination of park dedication and payment of a fee in-lieu of park dedication.

13. Prior to the issuance of the first building permit, the applicant is required to pay all applicable impact fees. For your information, the following table identifies the fees and their rates. Please note that the City fees are subject to change and the applicant is required to pay the updated fee at the time of building permit issuance. The applicant is required to pay Fire Mitigation fees separately at the Fire District.

Parcel B Fee	Rate	Calculation	Cost
Affordable Housing Nexus	$3.82 per SF	118,560 SF per plans	$ 452,899.20
Parks and Recreation Fee	$5806.38 per unit	85 units per plans	$ 493,542.30
Civic Facility Fee	$1685.61 per unit	85 units per plans	$ 143,276.85
General Plan Update Fee	$89.59 per unit	85 units per plans	$ 7,615.15
Traffic Impact Fee	$618.18 per trip	462 trips estimated	$ 285,599.16
Water Capacity Fee (Estimated)	$11,599 per unit plus $26.25 per gpd	85 units per plans plus irrigation demand in gpd	$985,915.00
Wastewater Capacity Fee (Estimated)	$6,952.00 per unit	85 units per plans	$590,920.00
		Impact Fees Subtotal	**$ 2,959,767.66**

14. Prior to the issuance of the first building permit, the applicant shall provide proof of payment or exemption for Napa Valley Unified School District (NVUSD) developer fees. For more information, see their website here: https://www.nvusd.k12.ca.us/developerfees .

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15. Prior to the issuance of the first building permit or the recordation of the final map, whichever occurs first, an Avigation Easement shall be recorded. The Avigation Easement shall cover all portions of the property and include:
    a. Right-of-flight at any altitude above an easement surface elevation, established based on either Part 77 of the Federal Aviation Regulations or FAA Terminal Instrument Procedures Standards (TERPS), whichever is controlling (glide slope in approach is the controlling factor).
    b. Right to cause noise, vibration, fumes, dust, and fuel particle emissions.
    c. Right to prevent erection or growth of all objects above the easement surface.
    d. Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

16. Prior to the Certificate of Occupancy, the applicant shall complete the public access trail that meanders from the site entry, traversing all the identified look-out points, and reaches the northwest side of the site.

Landscaping

17. The applicant shall agree to a licensing agreement that requires them to maintain the landscaping within the right-of-way along the project frontage. Prior to final inspection of the building permit, the applicant shall amend their facilities operation and maintenance plan (O&M plan) to include this activity.

18. Prior to the issuance of the Building Permit, the applicant shall submit a final landscaping plan. The landscape plan shall comply with the requirements of the California Government Code 65591 et. seq. known as the Water Conservation in Landscaping Act as set out in the model water efficient landscape ordinance adopted by the California Department of Water Resources and amended in 2015. All plant material shall be served by a city-approved automatic irrigation system.

19. Prior to the issuance of a certificate of occupancy, all landscaping shall be completed and the project's landscape architect shall provide a written certification that all plant materials have been installed in accordance with the approved landscape plan.
20. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

21. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

22. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site's vision triangles.

Building and Safety

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23. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

24. Prior to the issuance of a certificate of occupancy, the applicant shall submit a letter of certification to the Building Official from the project architect and civil engineer certifying that all improvements have been constructed in accordance with the approved building plans. Determination of consistency shall be subject to the review and approval of the Building Official.

25. Site Improvement plans shall show slopes of all sidewalks and walkways and paths of travel to use site facilities including trash/recycling facilities. The applicant shall have the detailed building and site plans reviewed by a Certified Accessibility Specialist to verify that the proposed construction will comply with accessibility requirements. Each application for site construction or building permit shall be accompanied by a written report from a Certified Accessibility Specialist verifying that the site and building design as shown on the submitted plans comply with all accessibility requirements.

26. Recycling of Construction and Demolition Debris: Prior to issuance of a building permit the applicant shall submit a plan for the diversion of at least 70 percent of the debris from the building demolition and construction. The plan shall include the qualified recycler that will be used, the methods of managing diversion of construction materials on site, and the proposed documentation that will be submitted to confirm that the diversion goal has been met.

Fire District

General Fire District Conditions

27. In accordance with the standard mitigation measures and conditions of approval set forth by the City of American Canyon, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

28. Buildings in excess of two stories shall pay Aerial Apparatus mitigation fees prior to the issuance of any building permits. (see current Standard Fees and Chares adopted by resolution).

29. The project will require an annual fire and life-safety inspection under the "R (Residential) Occupancy Inspection Program". The R Occupancy Inspection Program has been developed to allow Fire District to meet requirements set forth by the State of California. The California Health and Safety Code, Section 13146.2 (a) mandates that inspections be completed at all "R occupancies" annually. California Health and Safety Code Section 13146.2 (b) provides the Fire District legal authority to charge property owners to recover reasonable costs for providing these inspections.

30. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, City of American Canyon standards and Nationally Recognized Standards.

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31. There shall be no deferred submittals for fire protection equipment and related utilities. Fire protection plans shall not be attached to or bound with the building plan submittal package. This includes but is not limited to Automatic Fire Sprinkler, Fire Alarm, Fixed Fire Protection and Civil plans.

32. All Fire related underground piping and fire appurtenances shall be shown on the Civil plan submittal. In addition to the Civil plan submittal, at least (1) plan set under separate cover shall be submitted to American Canyon Building Division for routing to the American Canyon Fire Protection District detailing all underground piping and related fire appurtenances including but not limited to underground piping, underground sweep detail, underground trench details showing depth of burial, type of backfill, manufacturer's specifications of piping, valves joints, fittings and calculated size and locations of thrust blocks, hydrants locations (designate public or private), gate shut-off valves, PIV's, FDC's, fire pumps, fire pump and/or riser rooms.

33. Underground utility contractor, architect and fire sprinkler contractor shall coordinate the location of risers and control valves prior to the issuance of a building permit.

34. Fire District plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

Fire Protection

35. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code. Applicant shall demonstrate on plan submittal; square footage of each building on plan and provide the required fire flow information. Applicant shall demonstrate that the number and spacing of onsite fire hydrants meets with requirements of the California Fire Code. ***See sample below regarding fire flow and hydrant detail information needed***.

BUILDING FIRE FLOW REQUIREMENTS – CFC TABLES B105.2 & B105.1(2)

INFORMATION BELOW IS A SAMPLE AND FOR REFERENCE ONLY

Table B105.1(2) – Building size = 129, 600 square feet
Construction type = Type IIA
FF = 5,250 gpm at 20 psi
Duration = 4 hours

Table B105.2 – Fire sprinkler allowance = - 50%
5,250 – 2,625 = 2,625 gpm
FF = 2,625 gpm @ 20 psi
Duration = 2 hours

Table CC105.1 – Approximate number of hydrants = 3

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Average spacing = 400 feet + 25% allowable increase = 500
Maximum distance from street or frontage = 225 feet = 50% allowable increase = 337.5

36. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the City of Napa and the applicable National Fire Protection Association Standard.

37. The fire protection equipment shall be located within an interior room having an approved exterior access door or in an exterior enclosure attached to the building, specifically, for the purpose of housing such equipment.

38. The City of American Canyon requires that a fire hydrant be in service within 250 feet of the furthest point of construction prior to the stockpiling of combustible materials for the beginning of construction.

39. Fire District Connections (FDC) shall be located not more than 100 ft. from the nearest fire hydrant.

Fire District Access

40. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the City of American Canyon and the applicable Public Works Standard.

41. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13' 6". They shall have an all-weather paved surface capable of supporting a GVW of 71,000 pounds.

42. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction. Fire apparatus access shall be provided to within 150 feet of the most remote portions of all building from an approved exterior route. If this cannot be achieved fire apparatus turn arounds will be needed.

43. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Vertical traffic calming in the form of speed pumps, humps or dips are prohibited along fire access roads without prior approval of the fire Code Official. The minimum width and clearances established in Section 503.2.1 shall be maintained at all times.

44. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

45. Where applicable improvement plan submittals for permit shall include locations of fire lane red curbing and fire lane signage. Please refer to and include City Public Works Standard FP-2A & 2B with plan submittals for permitting.

Public Works General Conditions of Approval

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46. The Applicant shall be responsible for all City plan check, map check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

47. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

48. All new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

49. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

50. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

51. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall include an analysis of the capacity of existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

52. A final detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ). It is the City's discretion whether to accept alternative treatment facilities other than bioretention.

53. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved, the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

54. A Final Map, as defined in the Subdivision Map Act, shall be prepared by a licensed surveyor or civil engineer. The Final Map shall show all parcels, rights-of-way, and easement(s), and shall be

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submitted to the City Engineer for review. The Final Map shall be in substantial conformance with the approved Tentative Map and all applicable conditions of approval. The Final Map is not valid until it has been approved by the City and recorded. Closure calculations shall be provided at the time of initial Final Map submittal. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the Final Map shall be directly verifiable by information shown on the closure calculation printout. The point(s) of beginning shall be clearly defined. All lot acreages shall be shown on the Final Map and shall be verifiable from information shown on the closure calculation printout. A current title report (within past 30 days) shall be submitted at the time of initial Final Map submittal.

55. Subject to the terms of Condition 56, the Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

56. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity. A good faith offer includes identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and a bonafide offer to pay this amount at the close of escrow.

57. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval of the City's Public Works Department. **Please be aware that this is separate submittal from the building permit application.** The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

58. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

59. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

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60. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire District, Napa County Department of Environmental Services or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

61. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

62. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

63. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

64. Prior to placing the final lift of asphalt, all public storm drains and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

65. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

66. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

67. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended), the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

68. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water sources. The Applicant shall provide verification that an outside source of construction

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water, e.g., recycled water, has been established and will be available for the duration of the project construction.

69. The development shall comply with the City's Zero Water Footprint policy.

70. All landscaping irrigation systems shall include an ET/SMART controller.

Public Works Special Conditions of Approval

71. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary civil plans titled "Design Review Oat Hill Multi-Family – Parcel A" prepared by Carson, Barbee & Gibson Civil Engineers, dated February 2021 (Preliminary Plans), except as modified by these conditions.

72. Improvement Plans shall be tied to the State of California coordinate system.

73. The Applicant shall design and construct all of the Public Improvements as generally described below and in accordance with the project's Fee Credit/ Fee Reimbursement Agreement, as applicable.

    a. Napa Junction Road Improvements:
        i. Construct an approximately 300-foot segment of Napa Junction Road between the Hess Road/Napa Junction Road intersection and the existing roadway fronting Napa Junction Magnet Elementary School. The preliminary roadway shall have a curb-to-curb with of 40-feet with 5-foot wide (includes curb width) attached sidewalks on both sides. The final roadway section shall be as determined by the City Engineer. The extent of the roadway construction may be extended as necessary to meet City roadway geometric standards.

        ii. Construct a new 5-foot wide (includes curb width) attached sidewalk along the south side of Napa Junction Road between the east end of the new road segment described above to the existing sidewalk approximately 100-feet west of Theresa Avenue.

        iii. Construct a new 5-foot wide attached sidewalk along the south side of Napa Junction Road between its intersection with Hess Road and the west end of Parcel A's frontage.

        iv. The cost of these improvements will qualify for a credit against the project's Traffic Impact Fee.

    b. Water Main Replacement in Napa Junction Road:
    Replace approximately 590 linear feet of the existing 6-inch water main in Napa Junction Road with a new 12-inch water main between the intersection with Theresa Avenue to the intersection with Hess Road, connecting to the existing water mains in those intersections. The cost of these improvements will qualify for a credit against the project's Water Capacity Fee.

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c. Sanitary Sewer Main Replacement in Napa Junction Road and Theresa Avenue:
Replace approximately 1,800 linear feet of the existing 6-inch sanitary sewer mains in Napa Junction Road between Hess Road and Theresa Avenue and in Theresa Avenue from Napa Junction Road to a point approximately 1,200 linear feet south thereof with new 8-inch and 10-inch sanitary sewer mains. The Engineer of Record shall conduct a capacity analysis for the new sanitary sewers to determine where it should upsize from 8-inch to 10-inch. The cost of these improvements will qualify for a credit against the project's Wastewater Capacity Fee.

d. Recycled Water Main in Lombard Road and Hess Road:
Install approximately 1,300 linear feet of a new 8-inch recycled water main in Lombard Road between the cul-de-sac at its northern terminus and Hess Drive and in Hess Drive between Lombard Road and the Little League fields. This recycled water main will be assumed to provide a sufficient potable water demand offset to comply with the City's Zero Water Footprint policy for both the Oat Hill Parcel A and Oat Hill Parcel B projects.

Note that the Tentative Map for Oat Hill Parcel B is subject to conditions of approval to construct the same Public Improvement described above. In the event that any of those public improvements are constructed in conjunction with the development of Oat Hill Parcel B prior to the development of Oat Hill Parcel A, then the corresponding condition of approval for Oat Hill Parcel A will be considered to have been met.

74. The Applicant shall construct all of the on-site private drive isles, parking spaces, walks, water, recycled water, sanitary sewer, storm drainage and stormwater quality and landscaping **"Private Improvements"** generally shown on the Preliminary Plans and more specifically described below. All private drive isles, parking spaces, walks, water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

a. Storm Drain Facilities:
Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The storm drains and detention facilities shall be substantially consistent with the Preliminary Plans. However, the sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.

b. Stormwater Quality Facilities:
Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. Runoff from all roof drains shall be conveyed to the onsite stormwater treatment facilities.

c. Emergency Vehicle Access Road

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Construct a 20-foot wide paved vehicle road on Oat Hill Parcel A and across Oat Hill Parcel B connecting to Napa Junction Road.

75. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:
    a. Submit the City's "Improvement Plan Checklist".

    b. Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.

    c. Provide the following:
        i. Public Street Repair Plan
        ii. Utility Plan and Joint Trench Plan
        iii. Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
        iv. Drainage Report
        v. Post-Construction Stormwater Control Plan (SWCP)
        vi. Geotechnical Report
        vii. Construction Traffic Control Plan.

    d. Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed areas of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

76. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:

    a. Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

    b. Subject to the terms of Condition 56, acquire the public right-of-way and all rights of entry and/or temporary and permanent easements necessary for the construction of the Napa Junction Road improvements described above. Applicant shall prepare the legal descriptions, plats and deeds and submit them to the City for review. The location of all such rights on the Plans.

    c. Record a City approved lot line adjustment between Oat Hill Parcel A and Oat Hill Parcel B as shown on the Tentative Map and Preliminary Plans.

    d. Furnish proof that all permits that may be required by the California Department of Fish & Game, State and Regional Water Quality Control Board, US Army Corps of Engineers and any other regulatory agencies with jurisdiction over the proposed construction have been obtained.

    e. Complete and submit the City's Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.

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f. Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

77. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:

a. Pay off all current account balances with the City of American Canyon.

b. Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.

c. Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), and/or the Contractor provides the following:

i. Six (6) full-size bond copies of the approved Improvement Plans for the City's use.
ii. One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
iii. One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
iv. Electronic copies of Improvement Plans and SWPPP

78. Prior to RECORDATION OF THE FINAL MAP, the Applicant shall:

a. Construct all of the Public and Private Improvements to the satisfaction of the City. Alternatively, the Applicant may enter into a Subdivision Improvement Agreement with the City agreeing to complete all of the Public and Private Improvements prior to Occupancy of the first unit. Such an Agreement will require the Applicant to provide bonds, proof of workers compensation insurance, and general liability insurance in the forms and amounts as deemed satisfactory to the City.

b. Establish a Homeowner's Association (HOA) in accordance with State law with recorded Codes, Covenants, & Restrictions (CC&Rs) that are satisfactory to the City Engineer and City Attorney to provide long-term and ongoing maintenance of all of the Private Improvements identified above. Specifically, the HOA will be responsible for the long-term and ongoing maintenance of the private streets, sidewalks, streetlights, domestic water facilities including the water booster pump station, sewers, storm drain facilities and stormwater quality facilities within the limits of the subdivision. The City will have enforcement authority over the HOA's maintenance obligations and the obligation to review and approved proposed changes amendments to the CC&R's. The CC&R's shall require the HOA to create and maintain a separate maintenance reserve fund in the amount of a percentage of the cost of constructing the HOA maintained improvements listed above. Said percentage will be determined by the City prior to recordation of the CC&Rs.

c. Establish a Shared Maintenance Agreement or such similar agreement between the owners of Oat Hill Parcel A and Oat Hill Parcel B for the long term and ongoing maintenance and operation of all shared private improvements. Specifically, the parcel

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owners shall be responsible for the ongoing maintenance and operation of all onsite stormwater quality facilities, shared storm drains and the shared emergency vehicle access road. The Shared Maintenance Agreement shall be prepared to run with the land of each parcel. The Shared Maintenance Agreement shall be submitted to the City for review and approval prior to recordation.

d. Generally, in substantial conformance with that which is shown on the approved Tentative Map, convey all easements and dedications, public and private, for the construction, use and/or maintenance of roads or other access, drainage facilities, utilities and post-construction storm water management facilities on the Final Map or by separate instruments. All dedications to the City shall be irrevocable offers of dedication. Specific public conveyances include:
    i. A public utility easement (PUE) 5-foot in width along the south side of Napa Junction Road across the frontage of Oat Hill Parcel B.
    ii. A strip of public street right-of-way of varying width and having an area of approximately 4,150 square feet as shown on the Tentative Map for Condominium Purposes Oat Hill Multi-family Parcel B.

e. Furnish documentation that the existing PG&E pole line easements (Book 1061 Page 114 and Book 1355 Page 779 O.R.) have been quit claimed.

f. Obtain all necessary easements over Oat Hill Parcel B including easements for emergency vehicle access and storm water conveyance and detention facilities through recorded separate instruments.

g. Furnish proof of the payment of the mapping service fee as required by Napa County Board of Supervisors Resolution No. 92-119.

79. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:

a. Pay all account balances and current City and American Canyon Fire Protection District fees (Mitigation and Capacity) shown in Condition 13.

80. Prior to ACCEPTANCE OF IMPROVEMENTS, the Applicant shall:

a. Restore all adjacent off-site road surfaces to pre-project conditions.

b. Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.

c. Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital AutoCAD (.dwg) and (.pdf) format (void of any AutoCAD block formats preventing full editing capabilities of the drawings), compatible with the City's current version, and tied to the NAD83 (California Zone 2, feet) coordinate system.

d. Provide a letter stating that all of the Developer's Conditions of Approval have been met.

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e. Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

f. Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

Oat Hill Parcel B – Mitigation Measures

The following are the applicable mitigation measures from the certified Mitigated Negative Declaration report. The following mitigation measures shall be complied with in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP) by the City Council.

81. **AES I-1.** Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.

82. **AQ III-3.** Prior to the issuance of a grading permit, the project applicant shall indicate via notation on project construction plans that all off-road construction equipment used for the roadway extension along Napa Junction Road, including owned, leased, and subcontractor vehicles, shall meet the California Air Resources Board's (CARB's) Tier 4 emissions standards. The construction plans shall be submitted for review and approval to the City of American Canyon Community Development Department.

83. **BIO IV-1.** Prior to project initiation, pre-construction surveys shall be conducted by a qualified biologist within a 0.5-mile radius around all project activities, including on-site and off-site work, and shall be completed for at least two survey periods prior to starting Project activities. The survey period timing and methodology shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements. A letter report summarizing the survey results shall be submitted to CDFW for review and written acceptance prior to starting Project activities. The survey results shall also be submitted to the Community Development Department within 30 days following the final survey. If active Swainson's hawk nests are not identified on or within 0.5-mile of the project site within the survey periods, further avoidance and minimization measures for Swainson's hawk nesting habitat are not required

84. **BIO IV-2.** If Swainson's hawks are found to be nesting on the project site or within 0.5-mile of the project site, the project proponent shall either, a) delay project activities until all Swainson's hawk nests within 0.5-mile of the project site are no longer active, as determined by a qualified biologist, b) determine if the 0.5-mile buffer zone may be reduced in consultation with CDFW based on site-specific conditions, or c) if take cannot be avoided, obtain a CESA Incidental Take Permit from CDFW prior to starting project activities.

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85. **BIO IV-3.** Prior to initiation of ground disturbance, a qualified biologist shall conduct nesting and/or wintering owl surveys, as appropriate, in accordance with the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation survey methodology (see https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds). Surveys shall encompass the project area and a sufficient buffer zone to detect owls nearby that may be impacted. Time lapses between surveys or project activities shall trigger subsequent surveys including but not limited to a final survey within 24 hours prior to ground disturbance before construction equipment mobilizes to the project area. The qualified biologist shall have a minimum of two years-experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If burrowing owls are not present on-site or adjacent to the site where they may be disturbed during pre-construction surveys, further avoidance and minimization measures for burrowing owl nesting and wintering habitat are not required.

86. **BIO IV-4.** If burrowing owls are detected on or adjacent to the site where they may be disturbed, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented, unless reduced buffers are accepted by CDFW in writing based on site-specific conditions:

    - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests and wintering sites.
    - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones shall be marked with high visibility fencing or flagging.

    If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site and adjacent habitat using CDFW-accepted methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW acceptance. If passive relocation of burrowing owls is necessary, a qualified biologist shall prepare a Relocation Plan, including compensatory habitat as described below, for CDFW review and acceptance prior to the start of construction activities.

    If the survey determines that the project site is actively being used by burrowing owl, or any owls are passively relocated as described above, then compensatory habitat mitigation shall be provided. The habitat mitigation/compensation plan shall be submitted to CDFW for review and approval prior to the start of project activities. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before project construction. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan. If burrowing owls are observed during surveys, notification shall also be submitted to the California Natural Diversity Database (CNDDB; see https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

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87. **BIO IV-5.** If project activities must be conducted during the nesting season (February 15 and September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist within 714 days of vegetation removal or initial ground disturbance. The survey shall include the project site, any off-site disturbance areas, and within a minimum of 500 feet of all project areas, surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities. A letter report summarizing the survey results shall be submitted to the Community Development Department within 30 days following the pre-construction survey. If nesting birds are not present on-site or within a minimum 500 feet of the project site during pre-construction surveys, further avoidance and minimization measures for nesting bird habitat are not required.
    If active nests of native nesting bird species are identified during the nesting bird survey, a work exclusion zone shall be established around each nest by the qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist. The qualified biologist shall be on site daily for the first week during Project activities, and then weekly thereafter until the nest is no longer active, to observe all active bird and raptor nests and to ensure that Project activities do not cause nest disturbance. If the qualified biologist observes birds and/or raptors displaying potential nest disturbance behavior, the qualified biologist shall cease work and consult with CDFW before resuming Project activities. In this event, Project activities shall not resume without CDFW's written permission.

88. **CUL V-1.** Prior to grading permit issuance, the applicant shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work or off-site work, all such work shall be halted immediately within 100 feet and the applicant shall immediately notify the Community Development Department of the discovery. In such case, the applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.

89. **CUL V-2.** If human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Napa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or most likely descendent must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site

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with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

90. **GEO VII-1, VII-2, VII-4, and VII-5**. Prior to approval of any building permits, the project Civil Engineer shall show on the project plans that the project design would adhere to all engineering recommendations provided in the site-specific Geologic Hazards and Preliminary Geotechnical Investigation prepared by Giblin Associates and the Soil Investigation prepared by Reese & Associates. The project plans shall include, but would not be limited to, the use of mat slabs, post-tensioned slabs on-grade, imported non-expansive fill under conventional floor slabs, appropriate setbacks from fault zones, stabilization of potential landslide areas, and structural design in accordance with Site Class C of the CBSC Ground Motion Parameters. Project plans shall be subject to review and approval by the City Engineering Division.

91. **GEO VII-3.** Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:
    a. Hydro-seeding;
    b. Placement of erosion control measures within drainage ways and ahead of drop inlets;
    c. The temporary lining (during construction activities) of drop inlets with "filter fabric";
    d. The placement of straw wattles along slope contours;
    e. Use of a designated equipment and vehicle "wash-out" location;
    f. Use of siltation fences;
    g. Use of on-site rock/gravel road at construction access points; and
    h. Use of sediment basins and dust palliatives.

92. **GHG VIII-1.** Prior to issuance of building permits, the applicant shall submit proof to the Community Development Department for review and approval which indicate project compliance with the Tier 1 Energy Efficiency division of the Title 24 standards. Tier 1 Energy Efficiency for low-rise multifamily developments require the following measures:
    a. Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.
    b. Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference Appendices RA3.5 are completed.
    c. One of the following options is required:
        i. A4.203.1.2.1 – Roof deck insulation or ducts in conditioned space.
        ii. A4.203.1.2.2 – High performance walls.
        iii. A4.203.1.2.3 – HERS-verified compact hot water distribution system.
        iv. A4.203.1.2.4 – HERS-verified drain water heat recovery.
    d. Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation sufficient to achieve a Total EDR of the Tier 1 value indicated by Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.

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e. Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.

93. **NOI XIII-1.** Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:
    a. Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;
    b. Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations;
    c. Equipment engine shrouds shall be closed during equipment operation;
    d. When not in use, motorized construction equipment shall not be left idling for more than five minutes; and
    e. Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

94. **TRANS XVII-1.** Prior to issuance of grading permits, the project applicant shall submit Improvement Plans that reflect the recommendations included in the Traffic Impact Study prepared by W-Trans. Specifically, the Improvement Plans shall reflect a pedestrian path or sidewalk between the project site and the existing terminus of the sidewalk on the south side of Napa Junction Road near the elementary school crossing. The Improvement Plans shall also reflect space for bicycle storage provided either on balconies or other outside spaces dedicated to each housing unit, in garages or other storage spaces for each unit, or through provision of bike racks. The recommendations made by W-Trans shall be confirmed by the City's Public Works Department and/or the City Engineer prior to issuance of grading permits.

95. **TRANS XVII-2.** Prior to the first residential occupancy, the applicant shall implement the following TDM measures, as described in the TIS:
    a. Unbundled Parking;
    b. Free Transit Passes;
    c. Secure Bicycle Parking and Maintenance Tools;
    d. Tele-Work/Compressed Schedules;
    e. Carpooling and Ride-Matching Program;
    f. Transportation Coordinator;
    g. Welcome Packet for New Residents; and
    h. Monitoring of Program Performance.

    Proof of implementation of the TDM measures shall be submitted to the City's Community Development Department for review and approval.

96. **UTIL XIX-1.** The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the proposed project results in a net zero increase in demand for potable water:
    a. Reducing existing potable water demands on-site;
    b. Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area;

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c. Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used; and/or
d. Purchasing new water supplies from other water providers.

Compliance with the Zero Water Footprint Policy shall be ensured by submission of a "Will-Serve" Water Application to the City's Public Works Department for review and approval. Project plans shall demonstrate the applicant's inclusion of the selected wet-water offsets.

97. **UTIL XIX-2.** The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall use recycled water for irrigation in the event recycled water becomes available at the site.

98. **UTIL XIX-3.** At the time of issuance of building permits, the project applicant shall pay all updated water capacity and impact fees in effect, to the extent they are not subject to applicable fee credits, to provide funding for the City to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will permit the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system.

99. **UTIL XIX-4.** The project applicant shall pay to the City a monthly service charge to adequately cover the project's costs associated with City supplying water through the City's connection to the City of Vallejo, as determined by the Public Works Director.

100. **UTIL XIX-5.** Prior to issuance of building permits, the project shall be reviewed by the Community Development Department for consistency with the Water Conservation Guidelines. The project applicant shall incorporate water conservation Best Management Practices into the project.

101. **UTIL XIX-6.** Should additional project water be required, the proposed project shall comply with the City's ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which would trigger re-evaluation of the proposed project's water supply impacts.

102. **UTIL XIX-7.** Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that the proposed landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation

measures, such as, but not limited to:

a. Drought-resistant vegetation;
b. Irrigation systems employing the following features:
    i. drip irrigation;
    ii. low-precipitation-rate sprinklers;
    iii. bubbler/soaker systems;
    iv. programmable irrigation controllers with an automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller);

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v. Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system;
vi. Conservative sprinkler spacings that minimize overspray onto paved surfaces; and
vii. Hydrozones that keep plants with similar water needs in the same irrigation zone

c. Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and
d. Organic topdressing in non-turf areas to decrease evaporation and increase water retention.

103. **COVID19 XXI-1.** The project applicant shall prepare a COVID-19 Exposure Control Plan which shall be included in the project construction site safety plan. The COVID-19 Exposure Control Plan shall comply with all regional and statewide orders related to the operation of construction sites and essential businesses during the COVID-19 pandemic, including but not limited to: social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The COVID-19 Exposure Control Plan shall be submitted to the City of American Canyon Planning Department for review and approval prior to the issuance of grading permits.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 25th day of March, 2021, by the following vote:

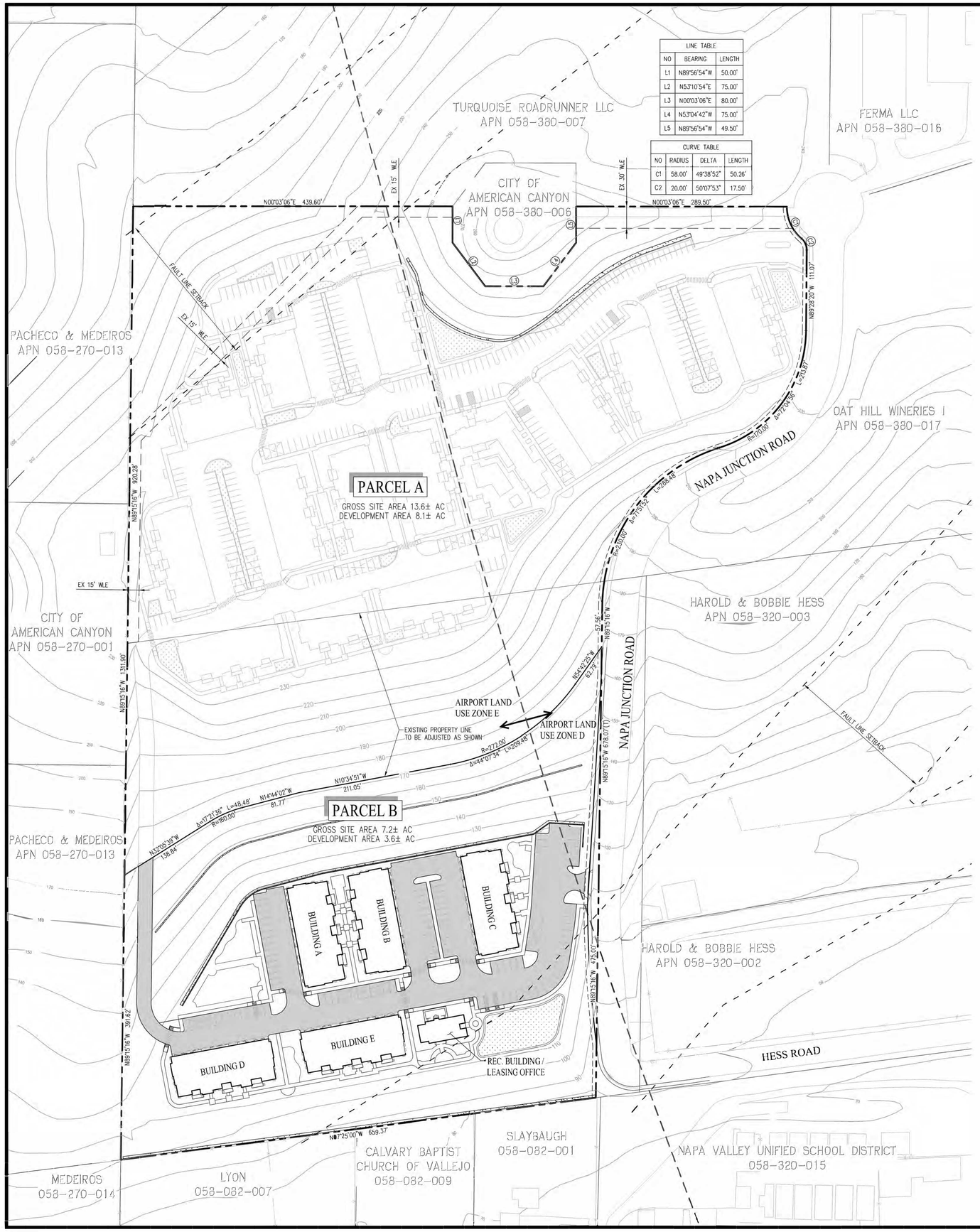
AYES: Commissioners Altman, Wong, Vice Chair Mallare, Chair Navarro
NOES: None
ABSTAIN: None
ABSENT: Commissioner Goff

DocuSigned by:
Tyrone Navarro 4/8/2021
13CB87295336491...
Tyrone Navarro, Chair

ATTEST:
DocuSigned by:
Nicolle Jones 4/8/2021
C302EF87A4F0450...
Nicolle Jones, Administrative Technician

APPROVED AS TO FORM:
DocuSigned by:
William D. Ross 4/8/2021
285D50133D93421...
William D. Ross, City Attorney

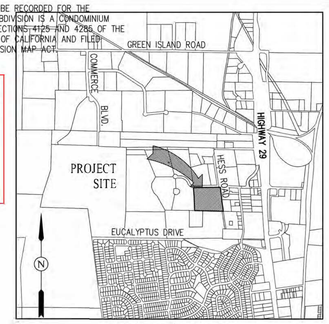
EXHIBITS
A. Project Plans



GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES N, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALIVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5.	ARCHITECT:	WILLIAM HEZMALHALCH ARCHITECTS 6111 BOLLINGER CANYON ROAD, SUITE 495 SAN RAMON, CA 94583 PHONE: (925) 463-1700
6.	LANDSCAPE ARCHITECT:	VANDERTOOLEN ASSOCIATES 855 BORDEAUX WAY, SUITE 240 NAPA, CA 94558 PHONE: (707) 224-2299
7	ASSESSORS PARCEL NO.	058-320-001 (PORTION)
8.	SITE AREA:	7.2± ACRES
9.	LOTS:	1
10.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
11.	EXISTING ZONING: PROPOSED ZONING:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
12.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
13.	DWELLING UNITS:	85
14.	SITE DENSITY:	11.8 DU/AC
15.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET (NGVD29) NAVD88 = NGVD29 + 2.4
16.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
17.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
18.	UTILITIES: WATER: SEWER: STORM DRAIN: GAS & ELECTRIC: TELEPHONE:	 CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON PG&E PACIFIC BELL
19.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
20.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4286 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.

Exhibit A:
Design Permit Plans



VICINITY MAP
NOT TO SCALE

RM ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	7.2 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/ REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM BUILDING COVERAGE	50 %	13%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

DEVELOPMENT AREA SUMMARY - 7.2± ACRES

(AFTER LOT LINE ADJUSTMENT)

BUILDING FOOTPRINT:	40,567± SF	0.93± AC
PARKING/ASPHALT:	59,437± SF	1.36± AC
SIDEWALK/OTHER CONCRETE:	14,940± SF	0.34± AC
TRASH ENCLOSURE	518± SF	0.01± AC
LANDSCAPED AREA:*	46,700± SF	1.07± AC
WATER QUALITY BASIN (OFF-SITE):	N/A	N/A
OPEN SPACE:	152,844± SF	3.50± AC
TOTAL:	314,523± SF	7.2± AC
TOTAL IMPERVIOUS AREAS:	114,979± SF	2.64± AC
BUILDING COVERAGE:	13%	
*REQUIRED LANDSCAPED AREA (10% OF PARKING/ASPHALT AREA):	5,943	0.13 AC

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- 11 — LOT NUMBER
- FF 23.0 — FINISHED FLOOR ELEVATION
- 210 — 10' CONTOUR
- (6C) — PARKING COUNT
- COVERED PARKING
- 100' — LOT DIMENSION
- 12" SD — STORM DRAIN AND CATCH BASIN
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W-PU — PUBLIC WATER MAIN AND VALVE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- PR JT — JOINT TRENCH
- LATERAL SERVICE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

C	COMPACT
DDCV	DOUBLE DETECTOR CHECK VALVE
EVA	EMERGENCY VEHICLE ACCESS
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SERVICE CLEAN OUT
TE	TRASH ENCLOSURE
WLE	WATER LINE EASEMENT

EXISTING

- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- EX 30" SD — STORM DRAIN AND CATCH BASIN
- UTILITY POLE
- FIRE HYDRANT

SHEET INDEX

1 PROJECT OVERVIEW
2 TECHNICAL SITE PLAN
3 PRELIMINARY GRADING & DRAINAGE PLAN
4 PRELIMINARY UTILITY PLAN
5 STREET SECTIONS & TRUCK TURNING PLAN
6 GRADING CROSS SECTIONS
7 PRELIMINARY STORMWATER CONTROL PLAN

DESIGN REVIEW

PROJECT OVERVIEW

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 60' DATE: FEBRUARY 2021

0 60 120 180

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LEGEND

- PROPOSED BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- BUILDING L — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- (14C) — PARKING COUNT
- C — COMPACT PARKING STALL
- PROPOSED ON STREET PARKING
- COVERED PARKING
- TRASH ENCLOSURE
- 100' — LOT DIMENSION
- EV — ZERO EMISSIONS VEHICLE CHARGING STALL
- ACCESSIBLE PARKING (CALTRANS STD PLAN A90A)
- VAN — VAN ACCESSIBLE STALL

RM ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	7.2 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/ REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM BUILDING COVERAGE	50 %	13%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

PARKING SUMMARY - REQUIRED						
UNIT TYPE	QTY	RATIO	COVERED PARKING REQUIRED	OPEN PARKING REQUIRED	GUEST PARKING REQUIRED	TOTAL REQUIRED
1 BED	20	1 COVERED SPACE, PLUS 0.5 UNCOVERED SPACES	20	10	5	35
2 BED	45	1 COVERED SPACE, PLUS 1 UNCOVERED SPACE, PLUS 1 GUEST SPACE PER 4 UNITS	45	45	12	102
3 BED	20		20	20	5	45
TOTALS	85		85	75	22	182

PARKING SUMMARY - PROVIDED			
GARAGE	CARPORTS	HEAD IN	TOTAL
65	20	97	182

PARKING NOTES:
4 TOTAL ADA PARKING STALLS PROVIDED (1 VAN)
6 TOTAL ELECTRIC VEHICLE STALLS PROVED

DESIGN REVIEW

TECHNICAL SITE PLAN

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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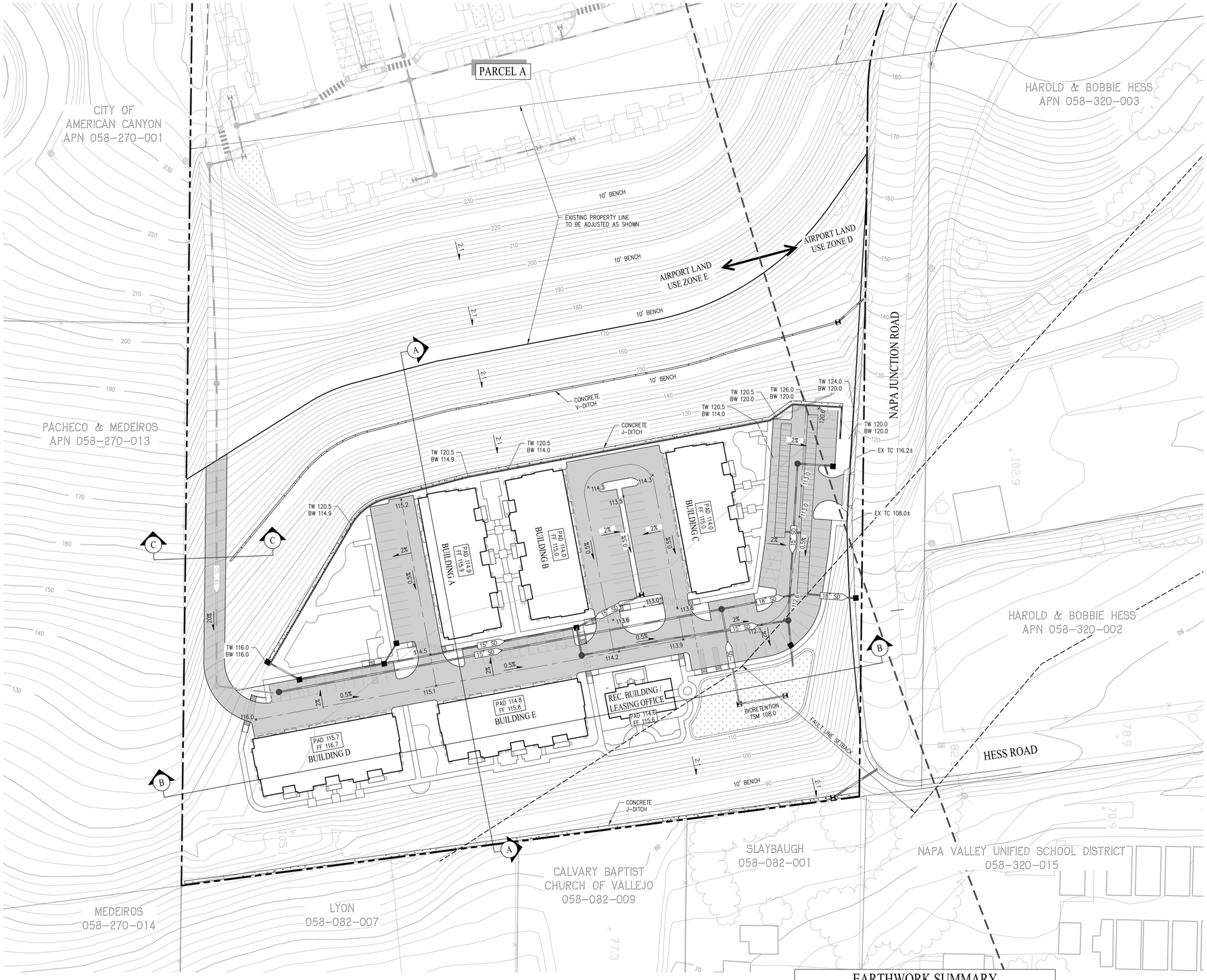

LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- FF 237.0 — FINISHED FLOOR ELEVATION
- P 236.0 — PAD ELEVATION
- BUILDING G — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- CUT–FILL LINE
- 12" SD — STORM DRAIN, CATCH BASIN AND MANHOLE
- EX 30" SD — STORM DRAIN, CATCH BASIN AND MANHOLE

FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT

NOTES:

1. ALL STREET ELEVATIONS ARE PAVEMENT GRADES UNLESS NOTED OTHERWISE.
2. ALL EXISTING TREES AND/OR VEGETATION WITHIN GRADING LIMITS TO BE REMOVED.
3. THE ROOF DRAINS WILL DISCHARGE EITHER DIRECTLY TO A PAVED SURFACE OR TO THRU–THE–CURB DRAINS. FINAL ROOF DRAIN LOCATIONS TO BE DETERMINED WITH FINAL DESIGN.
4. DRIVE ISLES WILL HAVE A CROSS SLOPE BETWEEN 1% AND 4%.
5. THE PROJECT IS NOT LOCATED WITHIN A FEMA FLOODPLAIN.
6. SEE SHEET C–6 FOR GRADING CROSS SECTIONS.

EARTHWORK SUMMARY

DESCRIPTION	CUT (C.Y.)	FILL (C.Y.)
ROUGH GRADING	6,000	6,000

EARTHWORK NOTES:

1. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH UTILITY CONTRACTOR TO DETERMINE STREET UNDERCUT AND TO BALANCE SITE AS NEEDED. UTILITY CONTRACTOR TO DETERMINE ANTICIPATED SPOILS BASED ON CONSTRUCTION METHOD.
2. CONTRACTOR TO DETERMINE EARTHWORK QUANTITIES AND SHALL NOTIFY ENGINEER AND OWNER PRIOR TO STARTING CONSTRUCTION.
3. ADDITIONAL MATERIALS MAY BE REQUIRED TO BALANCE.
4. EARTHWORK QUANTITIES DO NOT INCLUDE ANY REMEDIAL GRADING AND/OR OVER–EXCAVATION THAT MAY BE NECESSARY.
5. EARTHWORK QUANTITIES ASSUME THAT SITE WILL BE PREVIOUSLY MASS GRADED.

DESIGN REVIEW

PRELIMINARY GRADING & DRAINAGE PLAN

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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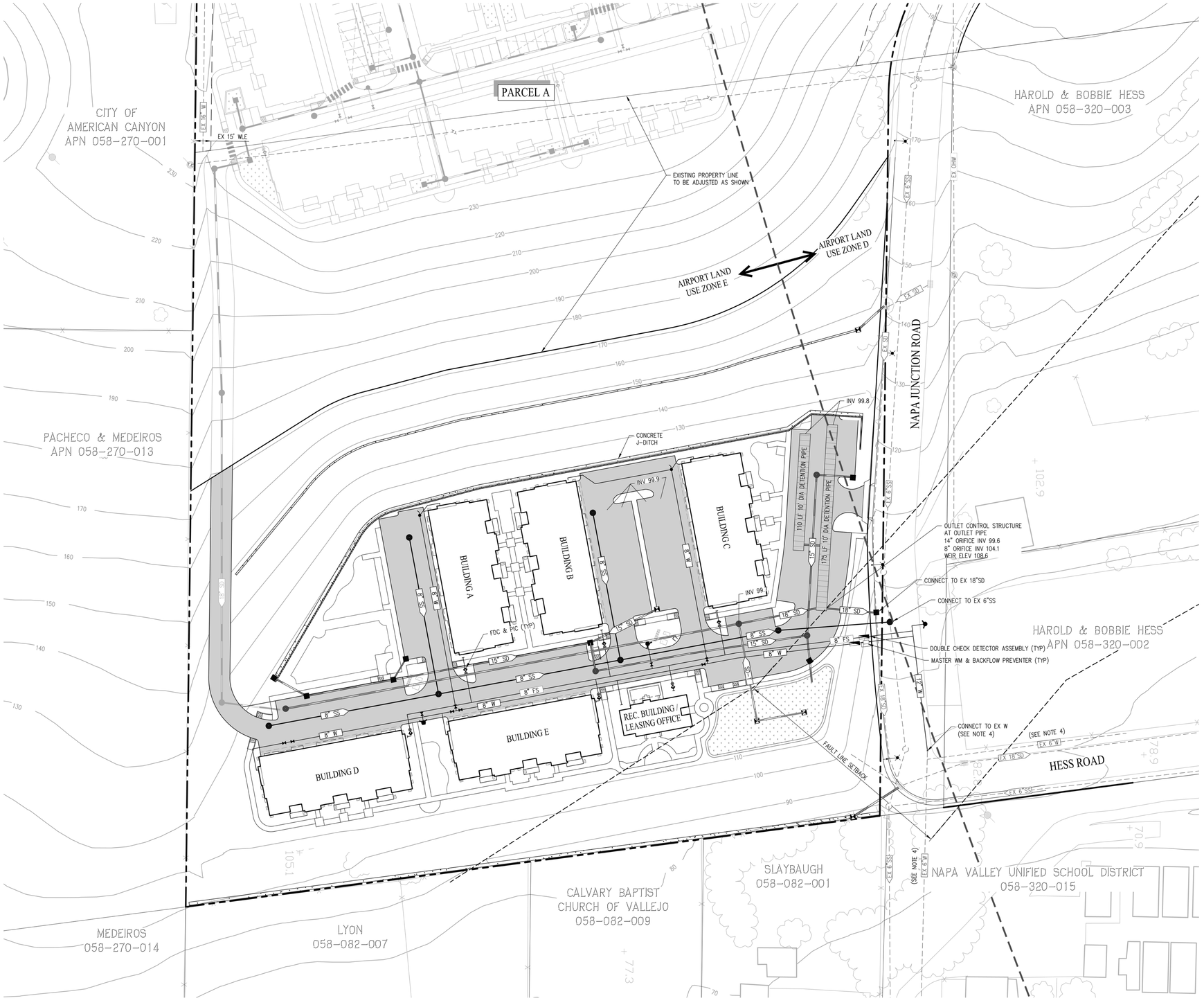

NOTES:

1. ELECTRIC, TELEPHONE, AND CABLE SERVICE WILL BE PROVIDED FROM EXISTING FACILITIES ON NAPA JUNCTION ROAD. FINAL POINTS OF CONNECTION TO BE DETERMINED AT FINAL DESIGN.
2. EXISTING OVERHEAD LINES ON NAPA JUNCTION ROAD WILL REMAIN.
3. PROPOSED SANITARY SEWER MANHOLE CONNECTION ON NAPA JUNCTION ROAD MAY INCORPORATE A DROP STRUCTURE TO BE DETAILED ON THE CONSTRUCTION PLANS.
4. EXISTING 6" WATER MAIN TO BE UPSIZED TO A 12" WATER MAIN PER CITY OF AMERICAN CANYON CAPITAL IMPROVEMENT PROJECT #W11.

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP/TOE OF SLOPE
- PROPOSED RETAINING WALL
- BUILDING L — BUILDING DESIGNATION
- 10' CONTOUR
- STORM DRAIN, CATCH BASIN & MANHOLE
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- LATERAL SERVICE
- 10' DETENTION PIPE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- PIV
- FDC

DDCV	DOUBLE DETECTOR CHECK VALVE
FDC	FIRE DEPARTMENT CONNECTION
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SERVICE CLEAN OUT
WLE	WATER LINE EASEMENT

EXISTING

- EX 30" SD — STORM DRAIN, CATCH BASIN & MANHOLE
- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- UTILITY POLE
- FIRE HYDRANT
- 210 — EXISTING 10' CONTOUR
- 210 — PROPOSED 10' CONTOUR

DESIGN REVIEW

PRELIMINARY UTILITY PLAN

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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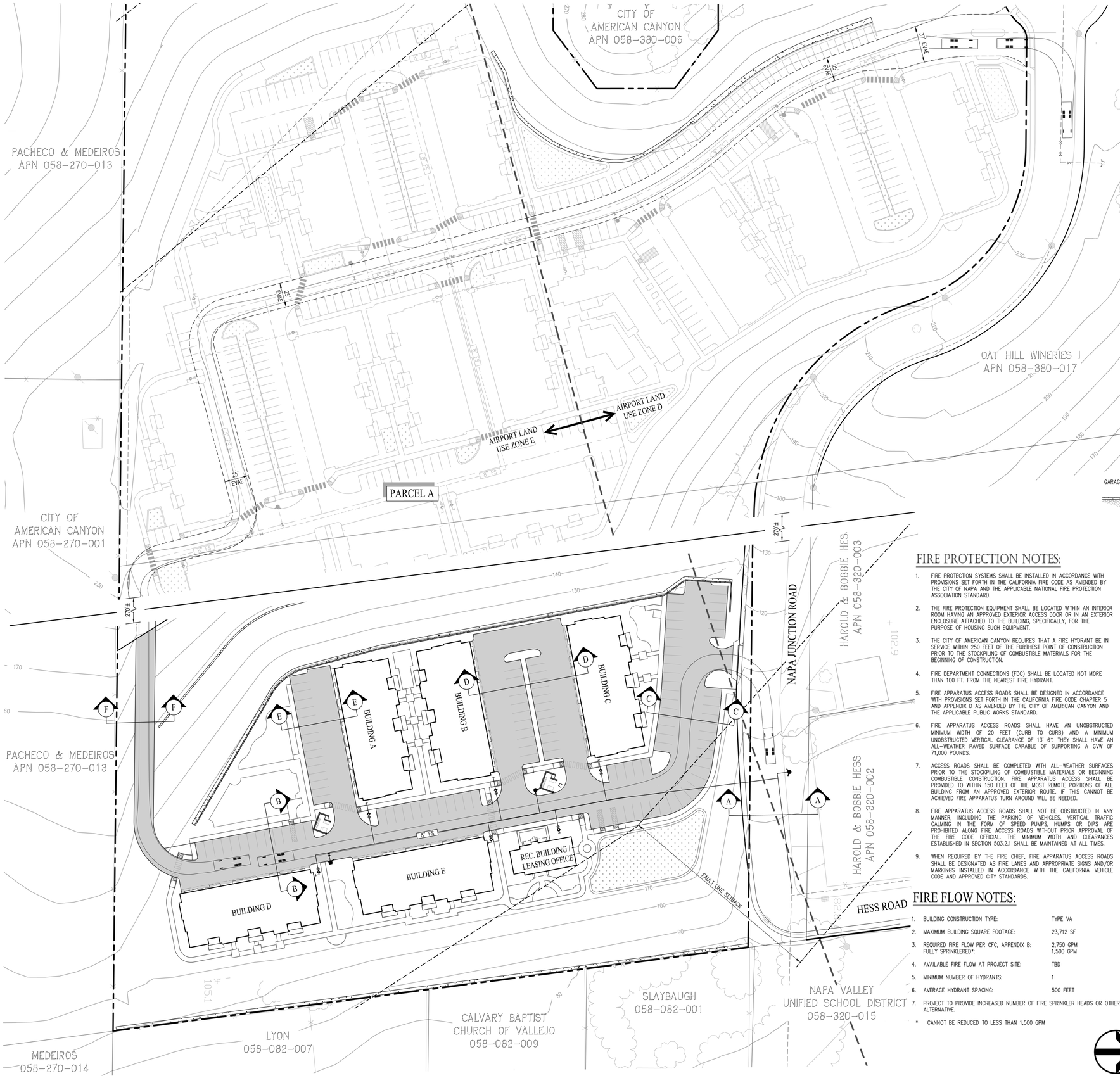
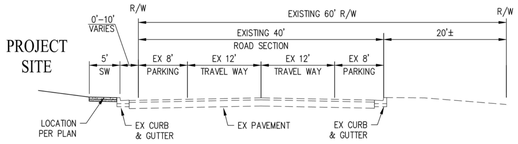
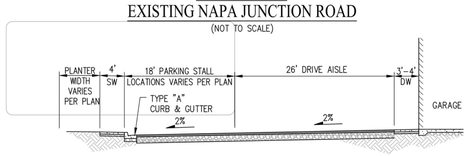
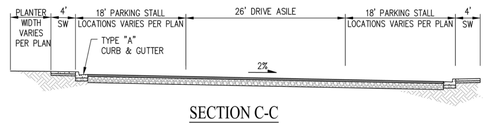




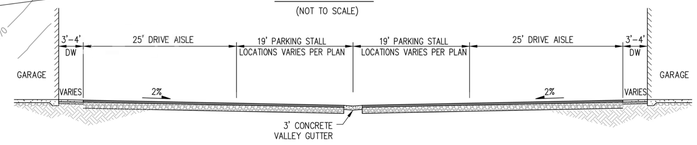
SECTION A-A
EXISTING NAPA JUNCTION ROAD
(NOT TO SCALE)



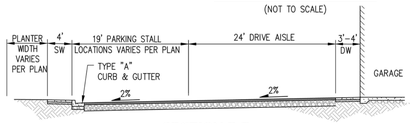
SECTION B-B
MAIN DRIVE AISLE W/ ONE SIDE PARKING BAY
(NOT TO SCALE)



SECTION C-C
MAIN DRIVE AISLE W/ TWO SIDE PARKING BAY
(NOT TO SCALE)



SECTION D-D
BUIDLING DRIVE AISLE
(NOT TO SCALE)



SECTION E-E
BUIDLING DRIVE AISLE
(NOT TO SCALE)



SECTION F-F
16' EVA ROAD
(NOT TO SCALE)

FIRE PROTECTION NOTES:

1. FIRE PROTECTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE AS AMENDED BY THE CITY OF NAPA AND THE APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD.
2. THE FIRE PROTECTION EQUIPMENT SHALL BE LOCATED WITHIN AN INTERIOR ROOM HAVING AN APPROVED EXTERIOR ACCESS DOOR OR IN AN EXTERIOR ENCLOSURE ATTACHED TO THE BUILDING, SPECIFICALLY, FOR THE PURPOSE OF HOUSING SUCH EQUIPMENT.
3. THE CITY OF AMERICAN CANYON REQUIRES THAT A FIRE HYDRANT BE IN SERVICE WITHIN 250 FEET OF THE FURTHEST POINT OF CONSTRUCTION PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS FOR THE BEGINNING OF CONSTRUCTION.
4. FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE LOCATED NOT MORE THAN 100 FT. FROM THE NEAREST FIRE HYDRANT.
5. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE CHAPTER 5 AND APPENDIX D AS AMENDED BY THE CITY OF AMERICAN CANYON AND THE APPLICABLE PUBLIC WORKS STANDARD.
6. FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED MINIMUM WIDTH OF 20 FEET (CURB TO CURB) AND A MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF 13' 6". THEY SHALL HAVE AN ALL-WEATHER PAVED SURFACE CAPABLE OF SUPPORTING A GVW OF 71,000 POUNDS.
7. ACCESS ROADS SHALL BE COMPLETED WITH ALL-WEATHER SURFACES PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS OR BEGINNING COMBUSTIBLE CONSTRUCTION. FIRE APPARATUS ACCESS SHALL BE PROVIDED TO WITHIN 150 FEET OF THE MOST REMOTE PORTIONS OF ALL BUILDING FROM AN APPROVED EXTERIOR ROUTE. IF THIS CANNOT BE ACHIEVED FIRE APPARATUS TURN AROUND WILL BE NEEDED.
8. FIRE APPARATUS ACCESS ROADS SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING THE PARKING OF VEHICLES. VERTICAL TRAFFIC CALMING IN THE FORM OF SPEED PUMPS, HUMPS OR DIPS ARE PROHIBITED ALONG FIRE ACCESS ROADS WITHOUT PRIOR APPROVAL OF THE FIRE CODE OFFICIAL. THE MINIMUM WIDTH AND CLEARANCES ESTABLISHED IN SECTION 503.2.1 SHALL BE MAINTAINED AT ALL TIMES.
9. WHEN REQUIRED BY THE FIRE CHIEF, FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNATED AS FIRE LANES AND APPROPRIATE SIGNS AND/OR MARKINGS INSTALLED IN ACCORDANCE WITH THE CALIFORNIA VEHICLE CODE AND APPROVED CITY STANDARDS.

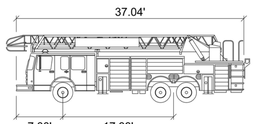
FIRE FLOW NOTES:

1.	BUILDING CONSTRUCTION TYPE:	TYPE VA
2.	MAXIMUM BUILDING SQUARE FOOTAGE:	23,712 SF
3.	REQUIRED FIRE FLOW PER CFC, APPENDIX B: FULLY SPRINKLERED*:	2,750 GPM 1,500 GPM
4.	AVAILABLE FIRE FLOW AT PROJECT SITE:	TBD
5.	MINIMUM NUMBER OF HYDRANTS:	1
6.	AVERAGE HYDRANT SPACING:	500 FEET
7.	PROJECT TO PROVIDE INCREASED NUMBER OF FIRE SPRINKLER HEADS OR OTHER APPROVED ALTERNATIVE.	

* CANNOT BE REDUCED TO LESS THAN 1,500 GPM

LEGEND

- FRONT TIRE PATH OF TRAVEL
- REAR TIRE PATH OF TRAVEL
- TRASH ENCLOSURE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- FIRE HYDRANT



AMERICAN LA FRANCE 75'AERIAL

Width	: 10.00'
Track	: 8.50'
Lock to Lock Time	: 6.00'
Steering Angle	: 45.00

TRUCK DIMENSIONS
DETAIL NOT TO SCALE

DESIGN REVIEW

STREET SECTIONS & TRUCK TURNING PLAN

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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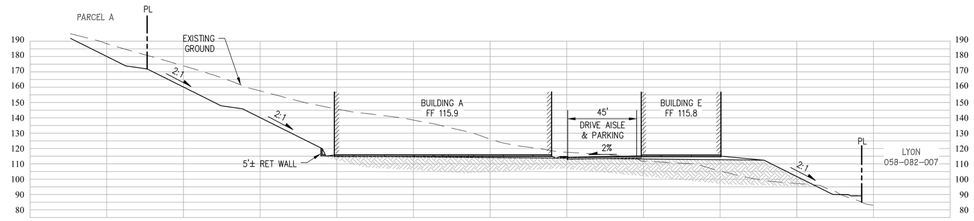
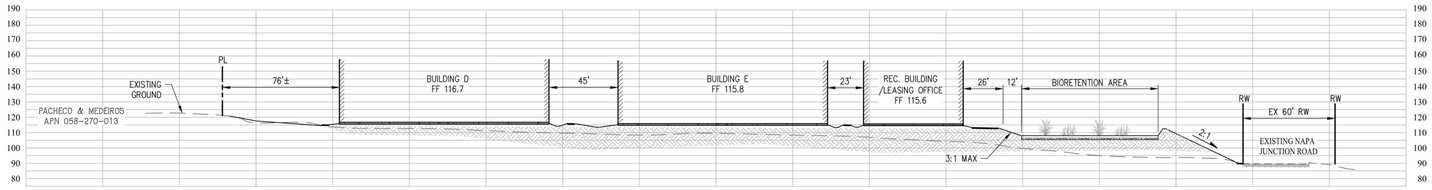


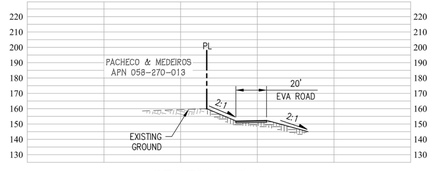
SECTION A-A

NOT TO SCALE



SECTION B-B

NOT TO SCALE



SECTION C-C

SCALE: 1" = 40'

NOTES:

1. SECTION LOCATIONS ARE SHOWN ON SHEET C-3

DESIGN REVIEW

GRADING CROSS SECTIONS

OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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SACRAMENTO • (916) 375-1877
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SHEET NO. C-6 OF 7 SHEETS

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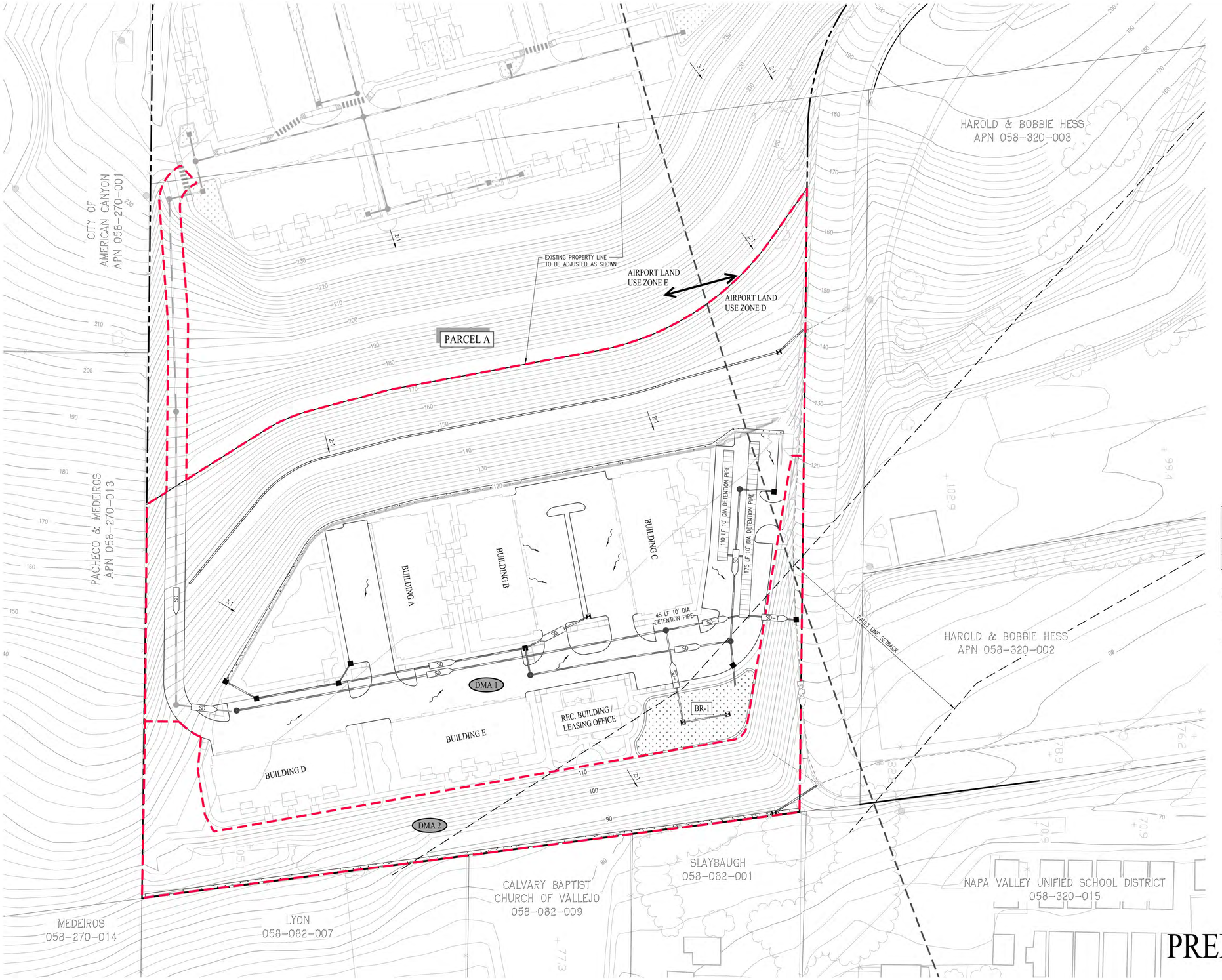


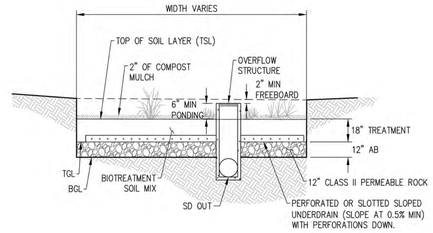
LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- DRAINAGE AREA BOUNDARY
- 10' DETENTION PIPE
- BIORETETION AREA
- DMA 1 — DRAINAGE MANAGEMENT AREA
- BR-1 — BIORETENTION AREA
- 12" SD — PROPOSED STORM DRAIN

DRAINAGE MANAGEMENT AREA (DMA)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	DRAINAGE AREA (SF)	REQUIRED TREATMENT AREA (SF)	PROVIDED TREATMENT AREA (SF)	TREATMENT TYPE
DMA 1	128,772	131,260	260,032	5,676	5,797	BIORETENTION
DMA 2	–	60,669	60,669	–	–	SELF-TREATING

NOTES

- VALUES IN THE TABLE ABOVE ARE ESTIMATED BASED UPON THE AVAILABLE INFORMATION AT THE TIME OF THIS MAP.
- REQUIRED TREATMENT AREAS CALCULATED USING THE 4% RULE WITH A FACTOR OF 1.0 FOR IMPERVIOUS AREAS AND 0.1 FOR PERVIOUS AREAS (NAPA COUNTY IMP SIZING TOOL).



BIORETENTION AREA
NOT TO SCALE

DESIGN REVIEW
PRELIMINARY STORMWATER CONTROL PLAN
OAT HILL MULTI-FAMILY - PARCEL B

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 60' DATE: FEBRUARY 2021

0 60 120 180

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SHEET NO. C-7 OF 7 SHEETS

2/17/2021 3:31 PM

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CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINGKO	24"BOX	MOD
	LAGERSTROEMIA X `ARAPAHO`	ARAPAHO CRAPE MYRTLE	24"BOX	LOW
	LAGERSTROEMIA X `ZUNI`	ZUNI CRAPE MYRTLE	24"BOX	LOW
	PISTACIA CHINENSIS `KEITH DAVEY`	KEITH DAVEY CHINESE PISTACHE	24"BOX	LOW
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	V. LOW
	QUERCUS DOUGLASII	BLUE OAK	24"BOX	V. LOW
	QUERCUS LOBATA	VALLEY OAK	24"BOX	LOW

CONCEPTUAL SHRUB PALETTE

BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
PROTOTYPICAL LANDSCAPE PALETTE			
ACHILEA MILLEFOLIUM	COMMON YARROW	1 GAL.	LOW
ANIGOZANTHOS HYBRID	KANGAROO PAW	1 GAL.	LOW
ARCTOSTAPHYLOS SPP.	MANZANITA	1 GAL.	LOW
CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
DIETES BICOLOR	FORTNIGHT LILY	5 GAL.	LOW
ELYMUS C. 'CANYON PRINCE'	WILD RYE	1 GAL.	LOW
ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL.	MOD
EUONYMUS JAPONICUS	JAPANESE SPINDLE	1 GAL.	LOW
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	MOD
GELSEMIUM SEMPERVIRENS	CAROLINA JESSAMINE	5 GAL.	LOW
GREVILLEA NOELLII	GREVILLEA	1 GAL.	LOW
HELIANTHEMUM NUMMULARIUM	SUN ROSE	1 GAL.	MOD
KNIPHOFIA UVARIA	TORCHLILY	1 GAL.	LOW
MUHLENBERGIA RIGENS	DEER GRASS	5 GAL.	LOW
MYRTUS C. 'COMPACTA'	DWARF MYRTLE	5 GAL.	LOW
MYOPORUM P. 'PROSTRATUM'	MYOPORUM	1 GAL.	LOW
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	1 GAL.	LOW
PENNISETUM ORIENTALE	ORIENTAL FOUNTAIN GRASS	1 GAL.	LOW
PHORMIUM TENAX	NEW ZEALAND FLAX	5 GAL.	LOW
PRUNUS C. 'COMPACTA'	CAROLINA CHERRY	5 GAL.	LOW
SALVIA GREGGII	AUTUMN SAGE	1 GAL.	LOW
SALVIA LEUCANTHA	MEXICAN BUSH SAGE	5 GAL.	LOW
TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL.	LOW
VERBENA PERUVIANA	PERUVIAN VERBENA	1 GAL.	LOW
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
ZAUSCHNERIA CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL.	LOW

TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

Exhibit A: Landscaping Plans

PARCEL 'A' ENTRY PILASTERS W/ OVERHEAD TRELLIS

BIO-RETENTION AREA PER CIVIL, TYP.

ORNAMENTAL ACCENT TREES, TYP.

PROPOSED COVERED PARKING STALLS, TYP.

PARKING SHADE TREES

PROPOSED SIDEWALK AT NAPA JUNCTION ROAD PER CIVIL

PARCEL 'A' COMMUNITY RECREATION AND POOL AREA. SEE SHEET L-4

COMMUNITY LOOP WALKWAY

NAPA JUNCTION ROAD

RETAINING WALL PER CIVIL

NATIVE OAK PLANTING ON UPSLOPE

PROPOSED PUMP STATION

PARCEL 'B' ENTRY PILASTERS W/ OVERHEAD TRELLIS

OPEN PLAY COMMON SPACE TURF AREA

PRIVATE UNIT PATIO AREA W/ GATE & ENHANCED PAVING, TYP.

UNIT ENTRY NODE W/ ENHANCED PAVING, TYP.

TYPICAL WALKWAY OVERLOOK PLAZA W/ BENCH SEATING

NATIVE OAK PLANTING ON UPSLOPE

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

RETAINING WALL PER CIVIL

BUILDING COURTYARD W/ OPEN PLAY TURF AREA

PUBLIC OVERLOOK AREA W/ BENCH SEATING. SEE SHEET L-4

OPEN PLAY COMMON SPACE TURF AREA W/ PICNIC TABLE

GUARD RAIL FENCE AT TOP OF SLOPE WHERE REQUIRED

SINGLE ARM GATE AT E.V.A ACCESS ROAD

E.V.A ACCESS ROAD

SINGLE ARM GATE AT E.V.A ACCESS ROAD

NATIVE OAK PLANTING ON UPSLOPE

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION AREA PER CIVIL, TYP.

PARCEL 'B' COMMUNITY RECREATION AND OUTDOOR PLAZA AREA. SEE SHEET L-4

GUARD RAIL FENCE AT TOP OF SLOPE WHERE REQUIRED

PRIVATE UNIT PATIO AREA W/ GATE & ENHANCED PAVING, TYP.

UNIT ENTRY NODE W/ ENHANCED PAVING, TYP.

BUILDING COURTYARD W/ OPEN PLAY TURF AREA

OPEN PLAY COMMON SPACE TURF AREAS

TYPICAL WALKWAY OVERLOOK PLAZA W/ BENCH SEATING

COMMUNITY LOOP WALKWAY

FENCED PET PARK AREA W/ DOUBLE GATED ENTRY

OVERALL LANDSCAPE SITE PLAN

RH HESS DEVELOPMENT

3423 BROADWAY, SUITE D-5
AMERICAN CANYON, CA 94503
707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

OVERALL PLAN
CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

vanderToolen Associates
2295 Gateway Oaks Dr.
Suite 125
Sacramento, CA 95833

tel: 707.224.2299
www.vandertoolen.com

0' 25' 50' 100'

SCALE: 1" = 50'-0"

NORTH

L-1

Project No. 04320

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CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	MOD
	ACER PLATANOIDES `CRIMSON SENTRY`	CRIMSON SENTRY NORWAY MAPLE	24"BOX	MOD
	ACER RUBRUM `RED SUNSET`	RED SUNSET MAPLE	24"BOX	MOD
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	QUERCUS DOUGLASII	BLUE OAK	24"BOX	V. LOW
	QUERCUS LOBATA	VALLEY OAK	24"BOX	LOW

TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

MAILBOX LEGEND

(A) PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

CONCEPTUAL SHRUB PALETTE

PROTOTYPICAL LANDSCAPE PALETTE

BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
ACHILEA MILLEFOLIUM	COMMON YARROW	1 GAL.	LOW
ANIGOZANTHOS HYBRID	KANGAROO PAW	1 GAL.	LOW
ARCTOSTAPHYLOS SPP.	MANZANITA	1 GAL.	LOW
CALLISTEMON V. 'BETTER JOHN'	DWARF WEEPING BOTTLE BRUSH	1 GAL.	LOW
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CEANOTHUS SPP.	CALIFORNIA LILAC	5 GAL.	LOW
CISTUS SPP.	ROCK ROSE	5 GAL.	LOW
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	1 GAL.	LOW
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XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
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707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

PARCEL A ENLARGEMENT

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

vanderToolen Associates
2295 Gateway Oaks Dr.
Suite 125
Sacramento, CA 95833
tel: 707.224.2299
www.vandertoolen.com

0' 20' 40' 80'
SCALE: 1" = 40'-0"
NORTH

L-2
Project No. 04320

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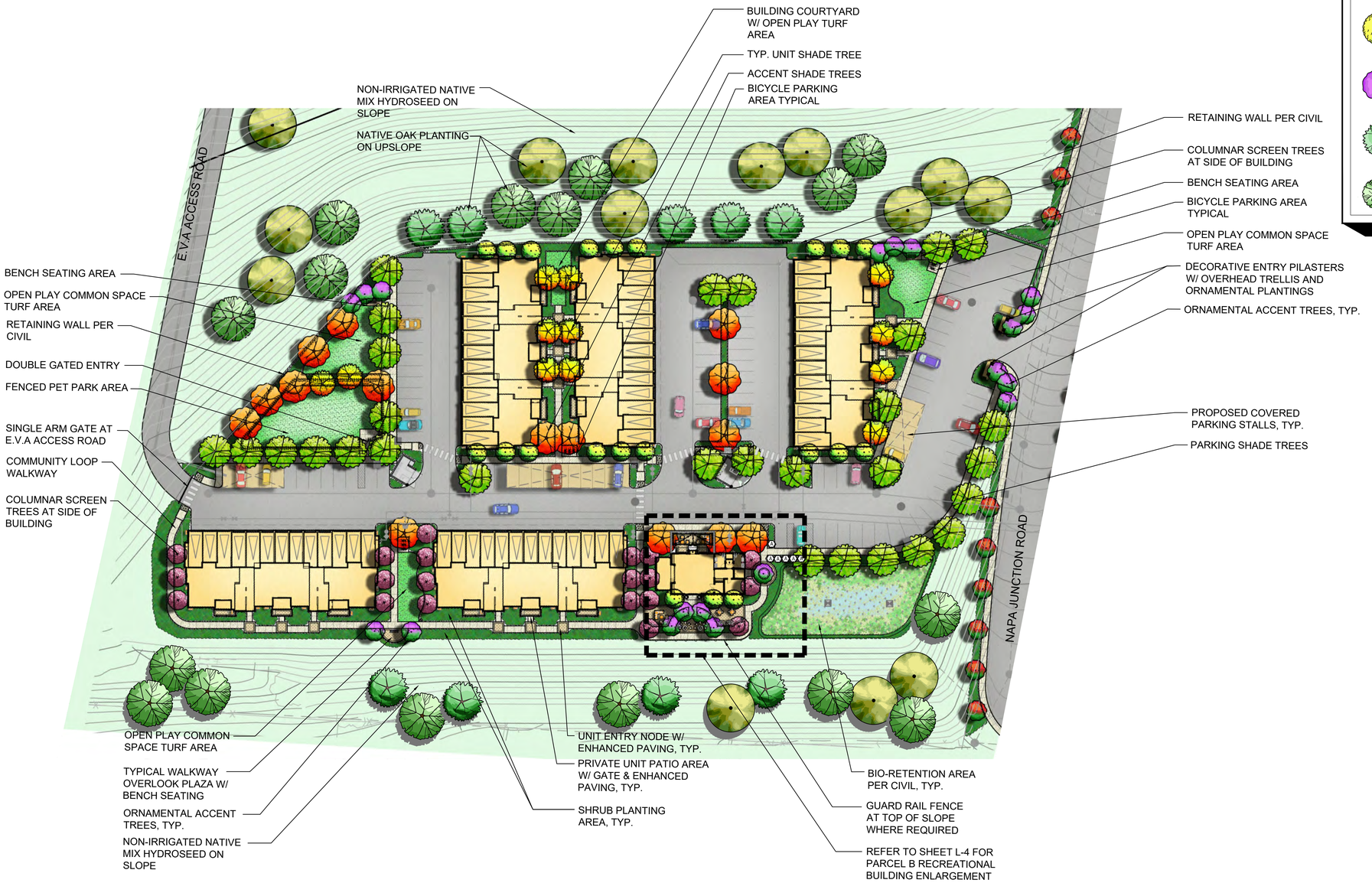

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	CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL.	LOW
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	GREVILLEA NOELLII	GREVILLEA	1 GAL.	LOW
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	PHORMIUM TENAX	NEW ZEALAND FLAX	5 GAL.	LOW
	PRUNUS C. 'COMPACTA'	CAROLINA CHERRY	5 GAL.	LOW
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TURF

NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE

BIO-RETENTION

MAILBOX LEGEND

(A) PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

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L-3
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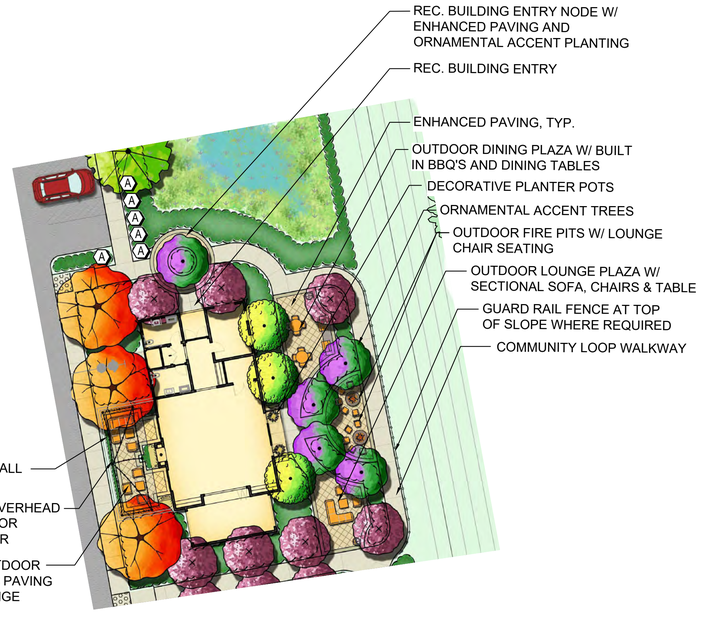

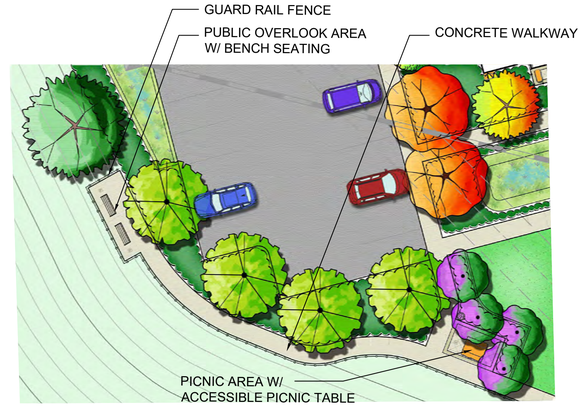

PARCEL A RECREATIONAL BUILDING AND POOL AREA

PARCEL B RECREATIONAL BUILDING

PARCEL A PUBLIC OVERLOOK AREA

MAILBOX LEGEND

Ⓐ PROPOSED MAILBOX LOCATION. MAILBOX SIZES AND LOCATIONS ARE TO BE VERIFIED FOR USPS FINAL APPROVAL PRIOR TO INSTALLATION.

- TURF
- NON-IRRIGATED NATIVE MIX HYDROSEED ON SLOPE
- BIO-RETENTION

CONCEPTUAL TREE PALETTE

TREES	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WATER USE (WUCOLS)
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TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL.	LOW
VERBENA PERUVIANA	PERUVIAN VERBENA	1 GAL.	LOW
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	5 GAL.	LOW
ZAUSCHNERIA CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL.	LOW

RH HESS DEVELOPMENT
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AMERICAN CANYON, CA 94503
707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

RECREATIONAL BUILDING & PUBLIC OVERLOOK ENLARGEMENTS

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

vanderToolen Associates
2295 Gateway Oaks Dr.
Suite 125
Sacramento, CA 95833

tel: 707.224.2299
www.vandertoolen.com

SCALE: 1" = 20'-0" (0' 10' 20' 40')

NORTH

L-4

Project No. 04320

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COMMUNITY ENTRY PILASTER & OVERHEAD TRELLIS FEATURE



OVERLOOK PLAZA WITH BENCH SEATING



OPEN TURF SPACE RECREATION



OPEN TURF SPACE RECREATION



FENCED IN OFF LEASH DOG PARK



PARCEL 'A' RECREATION BUILDING POOL



PARCEL 'A' RECREATION BUILDING JACUZZI SPA



PARCEL 'A' RECREATION BUILDING OPEN/COVERED FITNESS ROOM TURF AREA



PARCEL 'A' POOL AREA COVERED DAY BED



PARCEL 'A' POOL AREA CHAISE LOUNGE CHAIR



PARCEL 'A' POOL AREA OUTDOOR DINING TABLE



PARCEL 'B' RECREATION BUILDING OUTDOOR FIREPITS WITH LOUNGE SEATING



PARCEL 'B' RECREATION BUILDING BUILT IN BBQ PLAZA



PARCEL 'B' RECREATION BUILDING LOUNGE PLAZA SEATING



PARCEL 'B' RECREATION BUILDING OUTDOOR MULTI-PURPOSE ROOM OVERHEAD LIGHTS & SEATING



PARCEL 'B' RECREATION BUILDING OUTDOOR MULTI-PURPOSE ROOM WALL TRELLIS WITH VINES



METAL DOG PARK FENCE



METAL POOL FENCE



TOP OF SLOPE GUARD RAIL FENCE



DOUBLE GATED DOG PARK ENTRY



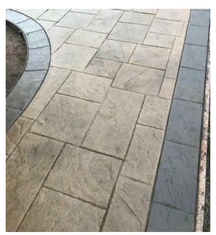
SITE BENCH SEATING



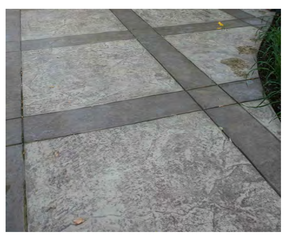
SITE TRASH RECEPTACLE



SITE CONCRETE PICNIC TABLE



ENHANCED STAMPED & COLORED CONCRETE PAVING



COLORED CONCRETE BANDS

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American Canyon, California

CONCEPT LIFESTYLE IMAGERY

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

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L-5

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TREES



ACER BUERGERIANUM -
TRIDENT MAPLE



ACER RUBRUM 'RED SUNSET' -
RED SUNSET MAPLE



ACER PLATANOIDES 'CRIMSON SENTRY' -
CRIMSON SENTRY MAPLE



GINKGO BILOBA 'PRINCETON SENTRY' -
MAIDENHAIR TREE



LAGERSTROEMIA x 'ZUNI' -
ZUNI CRAPE MYRTLE



LAGERSTROEMIA x 'ARAPAHO' -
ARAPAHO CRAPE MYRTLE



PISTACIA CHINENSIS 'KEITH DAVEY'-
KEITH DAVEY CHINESE PISTACHE



QUERCUS AGRIFOLIA -
COAST LIVE OAK



QUERCUS DOUGLASII -
BLUE OAK



QUERCUS LOBATA -
VALLEY OAK

SHRUBS AND GROUNDCOVER



ACHILLEA MILLEFOLIUM -
COMMON YARROW



ANIGOZANTHOS HYBRID -
KANGAROO PAW



ARCTOSTAPHYLOS SPP. -
HOOKER'S MANZANITA



CALLISTEMON VIMINALIS 'BETTER JOHN' -
DWARF WEEPING BOTTLE BRUSH



CAREX TUMULICOLA -
BERKELEY SEDGE



CEANOTHUS SPP. -
CALIFORNIA LILAC



CISTUS SPP. -
ROCK ROSE



DESCHAMPSIA CAESPITOSA
TUFTED HAIR GRASS



DIETES BICOLOR -
FORTNIGHT LILY



ELYMUS C. 'CANYON PRINCE'
WILD RYE



ERIGERON GLAUCUS -
SEASIDE DAISY



EUONYMUS JAPONICUS -
JAPANESE SPINDLE



FESTUCA CALIFORNICA -
CALIFORNIA FESCUE



GELSEMIUM SEMPERVIRENS-
CAROLINA JESSAMINE



GREVILLEA NOELLII -
GREVILLEA



HELIANTHEMUM NUMMULARIUM -
SUN ROSE



KNIPHOFIA UVARIA -
TORCHLILY



MUHLENBERGIA RIGENS -
DEER GRASS



MYRTUS COMMUNIS 'COMPACTA' -
DWARF MYRTLE



MYOPORUM P. 'PROSTRATUM' -
MYOPORUM



NASSELLA PULCHRA -
PURPLE NEEDLEGRASS



PENNISETUM ORIENTALE -
ORIENTAL FOUNTAIN GRASS



PHORMIUM TENAX -
NEW ZEALAND FLAX



SALVIA GREGGII-
AUTUMN SAGE



SALVIA LEUCANTHA-
MEXICAN BUSH SAGE



TEUCRIUM CHAMAEDRYS -
GERMANDER



VERBENA PERUVIANA-
PERUVIAN VERBENA



XYLOSMA CONGESTUM 'COMPACTA' -
COMPACT XYLOSMA



ZAUSCHNERIA CALIFORNICA -
CALIFORNIA FUSCHIA

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707.255.8075

OAT HILL MULTI- FAMILY

American Canyon, California

CONCEPT PLANT IMAGERY

CONCEPTUAL LANDSCAPE PLAN
OCTOBER 2020

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L-6

Project No. 04320

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Attachment 9, Exhibit A:
Architectural Plans



17-Plex

Color Scheme #3

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

October 19 , 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2

ARCHITECTURE

Recreation Building: Floor Plan A1
Recreation Building: Elevations A2
17 Plex | Building Plan.....A3
17 Plex | Building Plan.....A4
17 Plex | Building Elevations.....A5
Unit Plans | Plan 1.....A6
Unit Plans | Plan 1X.....A7
Unit Plans | Plan 2.....A8
Unit Plans | Plan 3.....A9
Unit Plans | Plan 4.....A10
Unit Plans | Plan 5.....A11
Unit Plans | Plan 6.....A12
Trash Enclosure & Carport Sample A13
Exterior Color & Materials | Lighting Fixture A14

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

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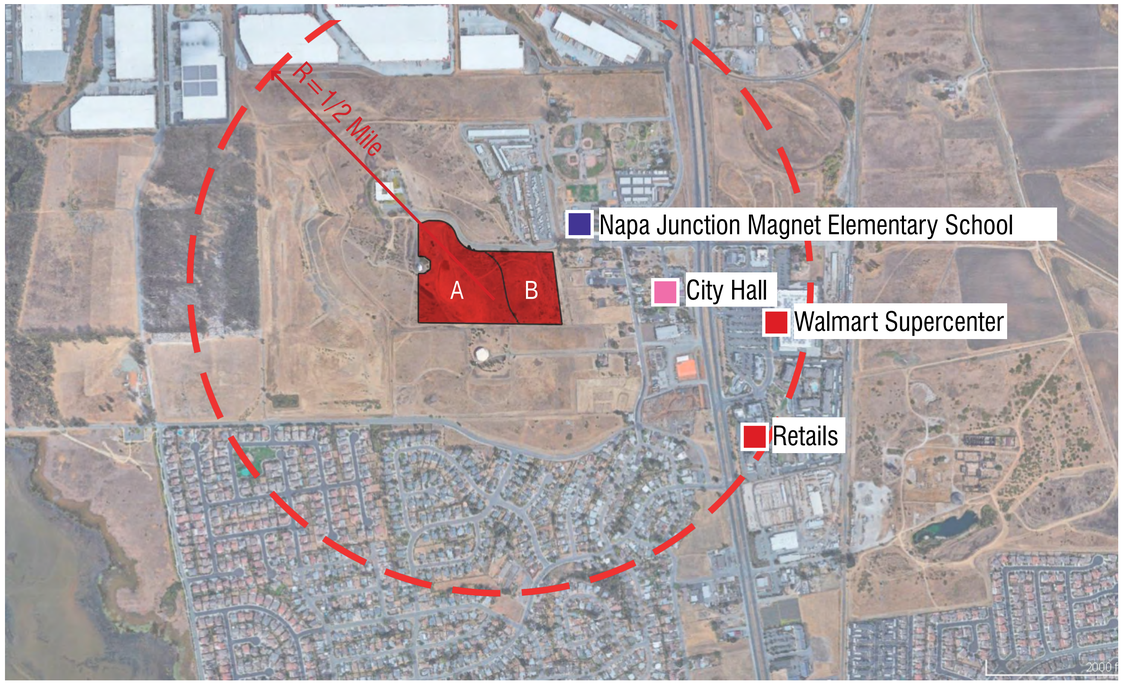
BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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Project Summary

Parcel B

Gross Site Area: ± 7.2 Acres

Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

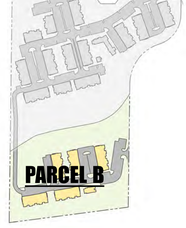
Density: 11.8 DU per Gross Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces
- 4 Handicapped + 1 Van Required

Provided: 182 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 97 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF



KEY MAP
N.T.S

Notes:
1. Site plan must be reviewed by planning, building, and fire departments for code compliance.
2. Base information per civil engineer.
3. Civil engineer to verify all setbacks and grading information
4. Please refer to landscape plan for final landscape details.
5. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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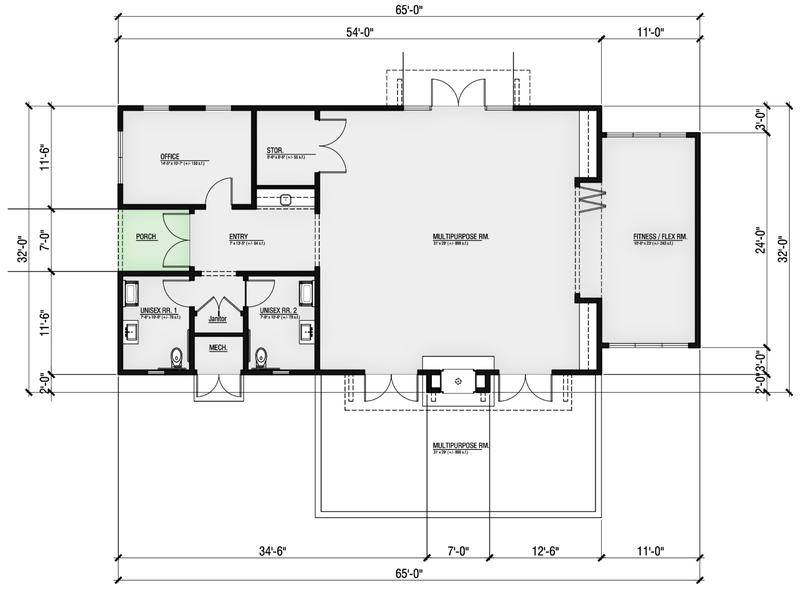
PLAN KEY: Recreation Building

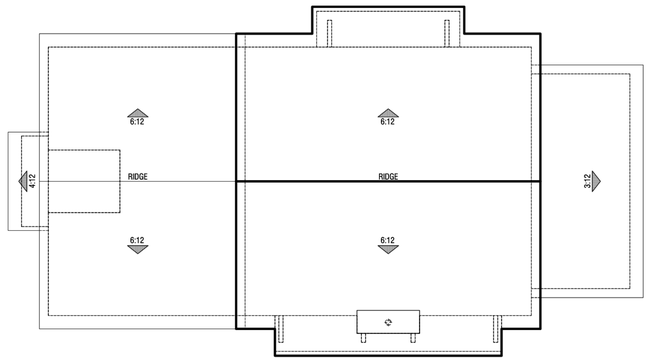
Conditioned Space: 1,842 SF

Entry Porch: 56 SF



Recreation Building Floor Plan: Parcel B

1,842 SF Total



Recreation Building Roof Plan: Parcel B

RECREATION BUILDING FLOOR PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A1

0 4 8 16

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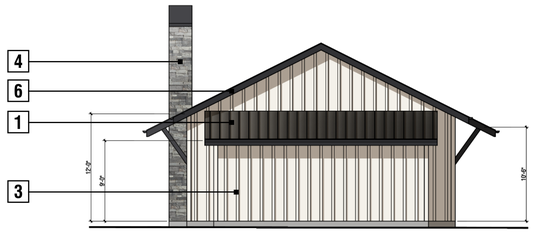
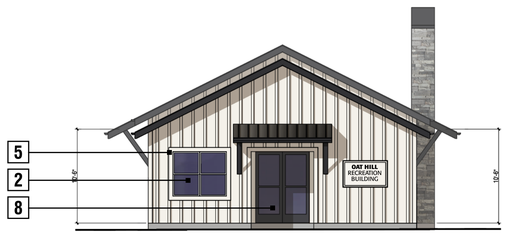


Recreation Building Right



Recreation Building Rear



Recreation Building Left



Recreation Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem

RECREATION BUILDING ELEVATIONS

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A2

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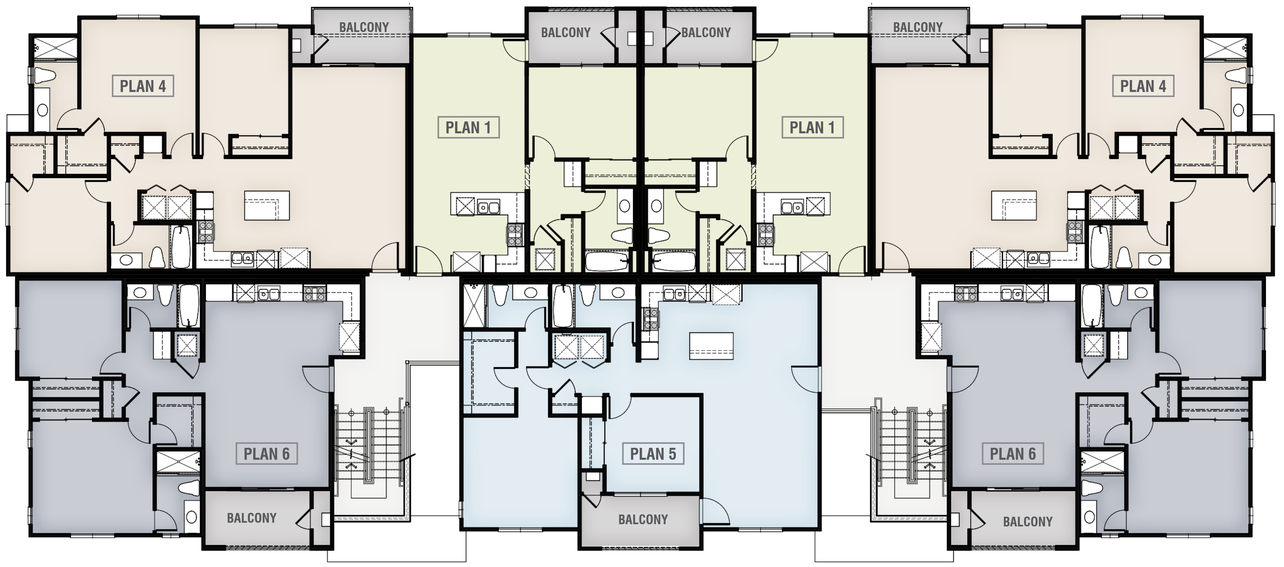
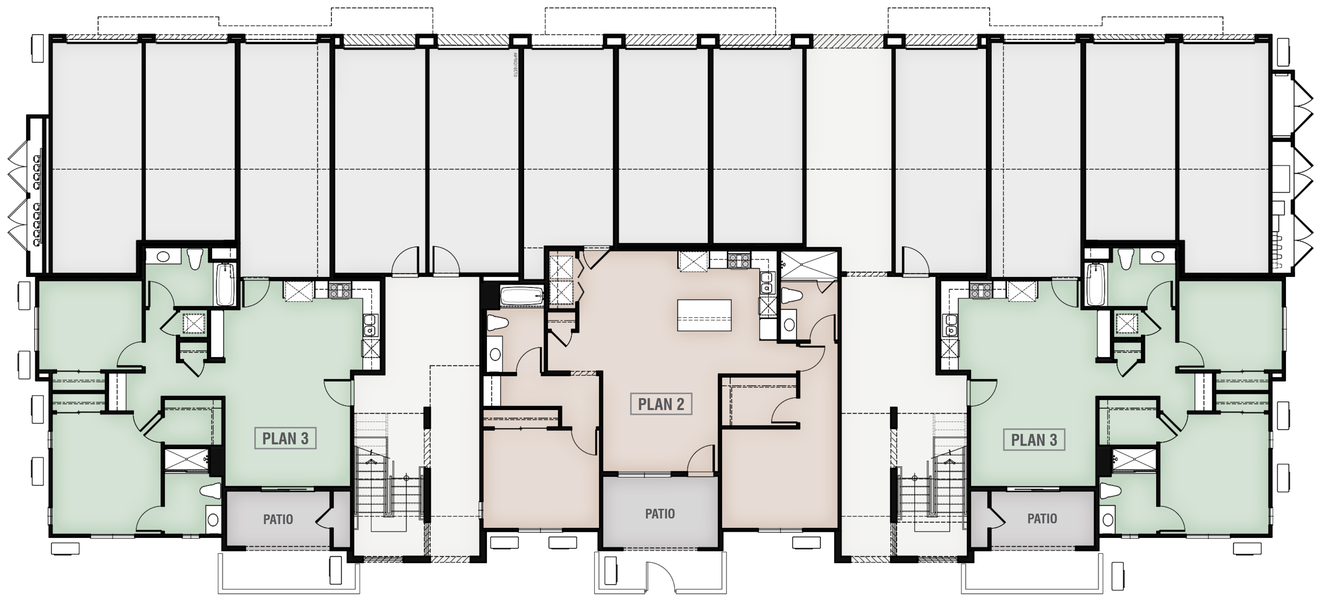
6434



Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-Plex Total Building Area: 23,712 SF
(Includes all covered areas on all three levels)

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A3

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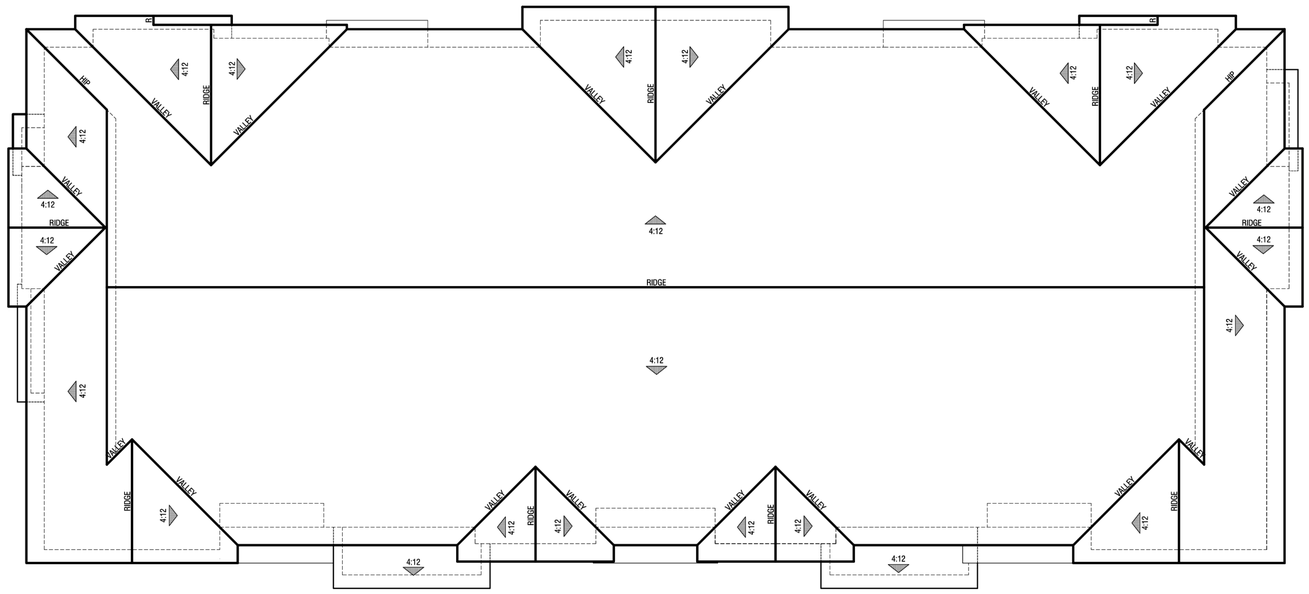

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

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A4

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A14

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A5

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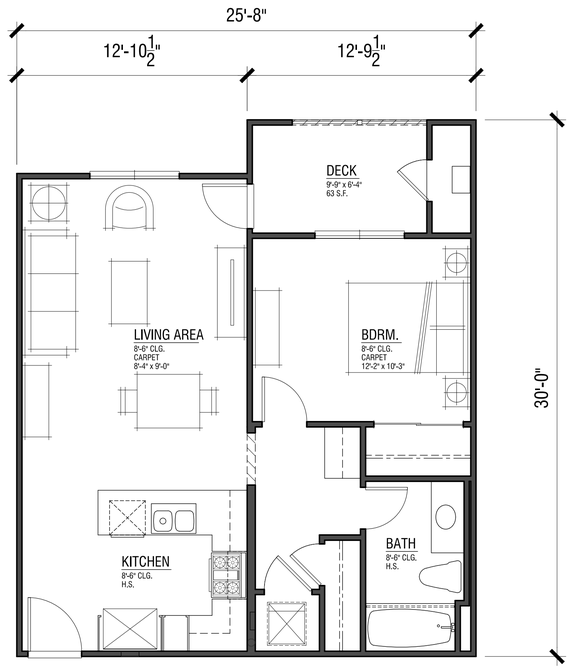

Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

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Plan 1X

672 SF

1 Bdrm | 1 Bath

UNIT PLANS| Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A7

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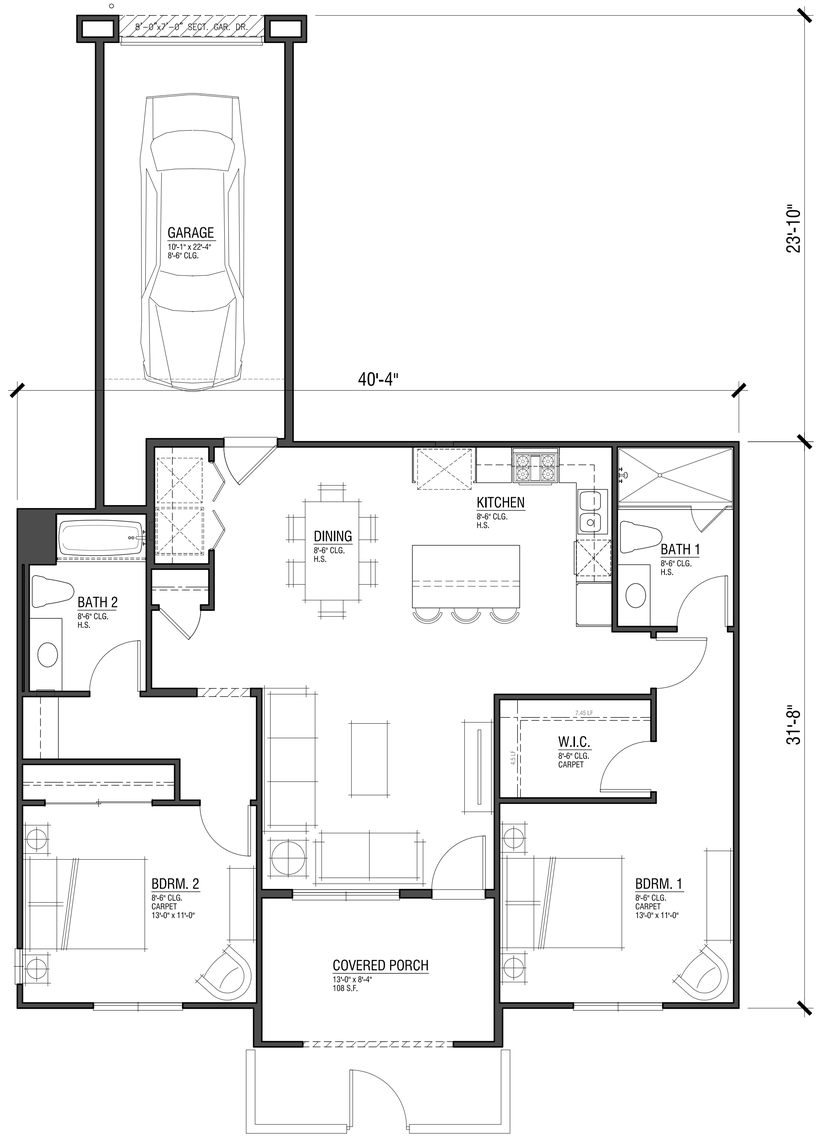

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A8

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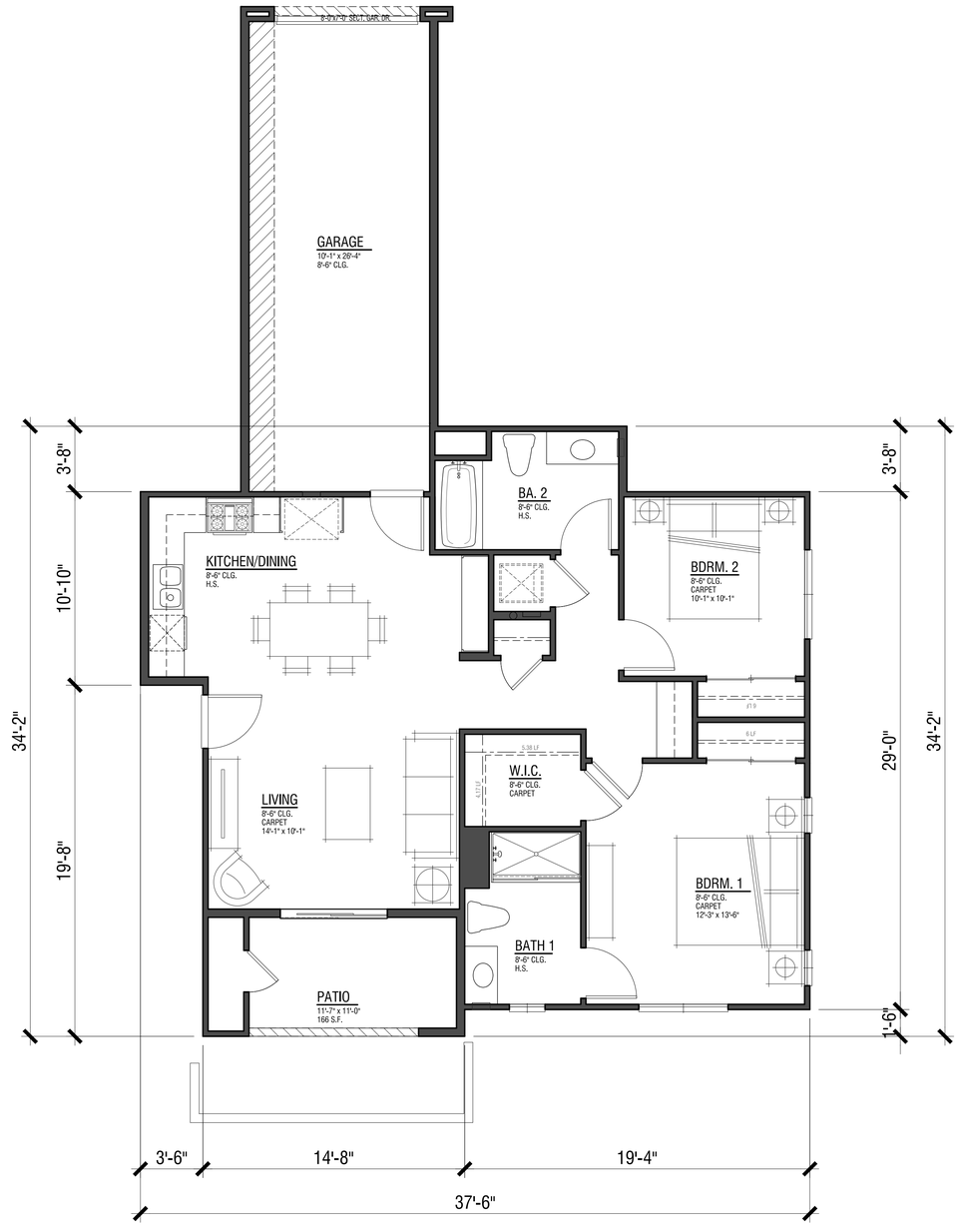

Plan 3
932 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

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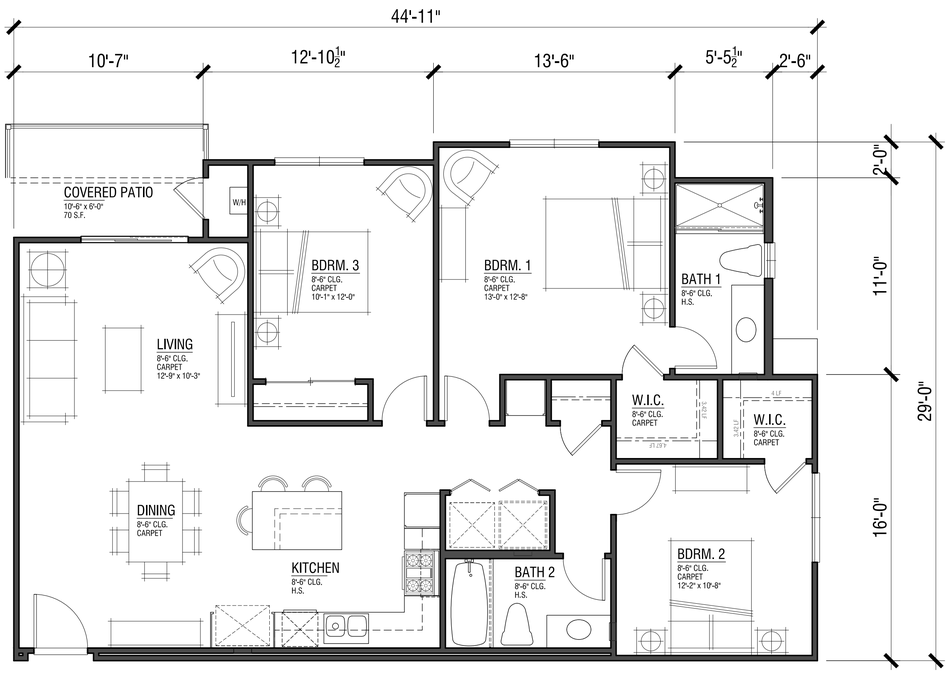

Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

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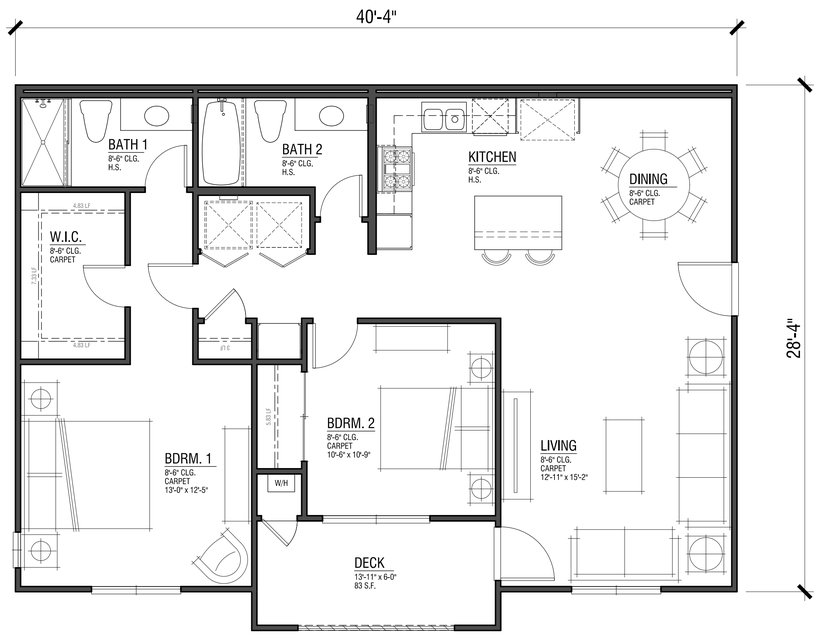

Plan 5
1,024 SF
2 Bdrm | 2 Bath

UNIT PLANS| Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

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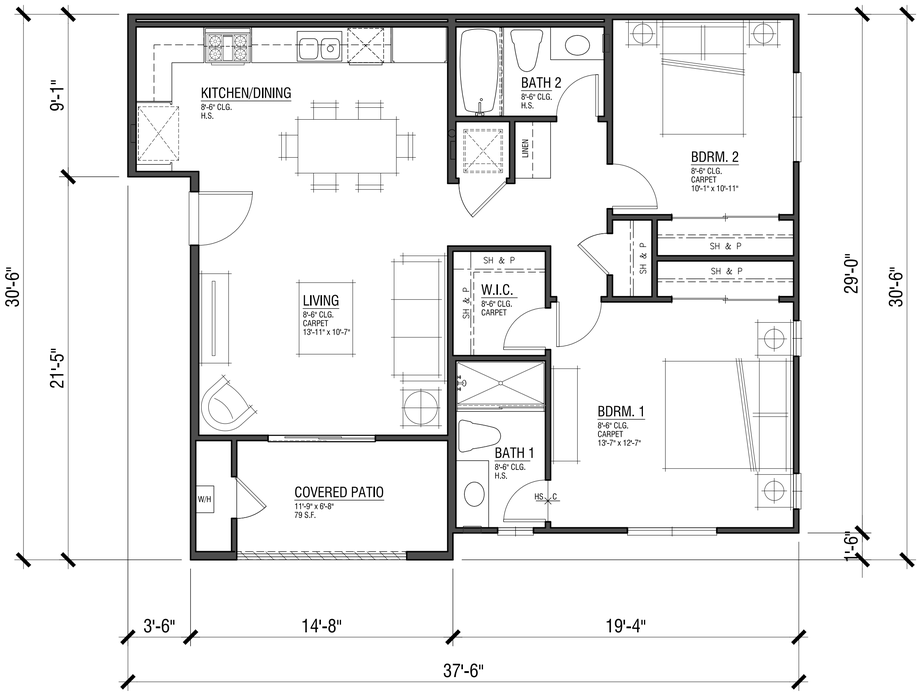

Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 6

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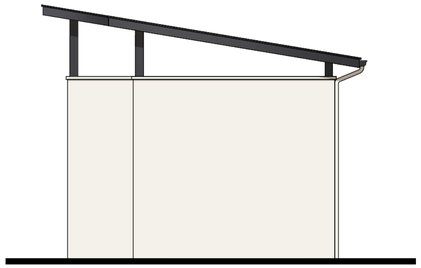
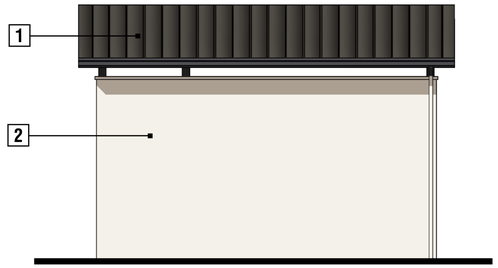
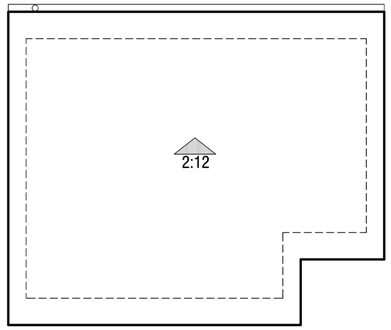


Trash Enclosure Left



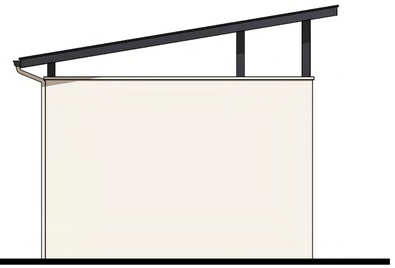
Trash Enclosure Front



Trash Enclosure
Roof Plan



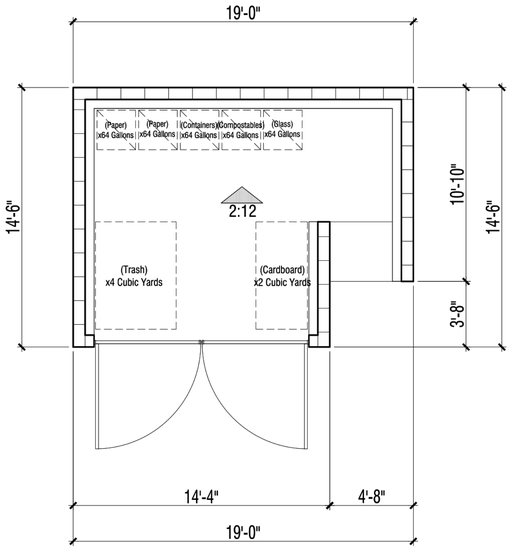
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A13

0 4 8 16

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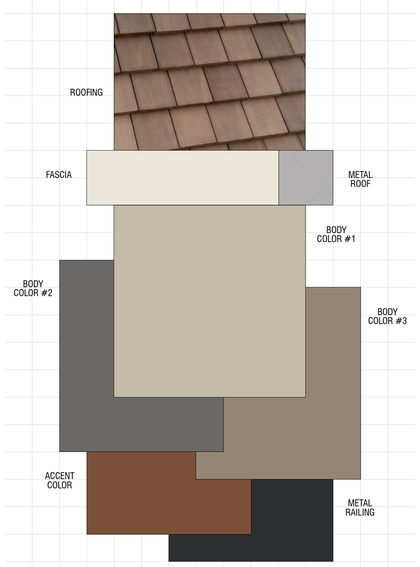
6445

Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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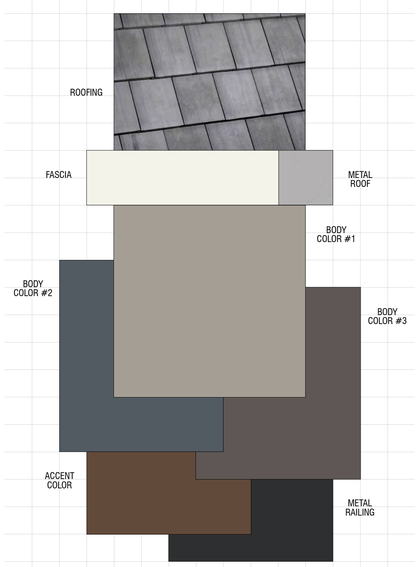
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

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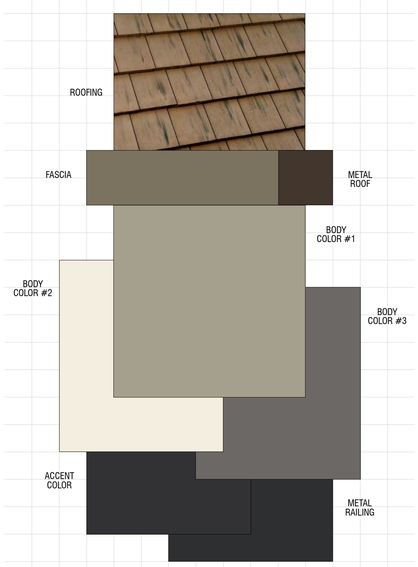
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

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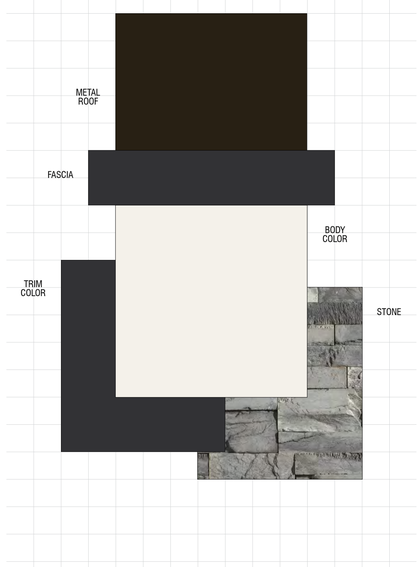
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to):* Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A14

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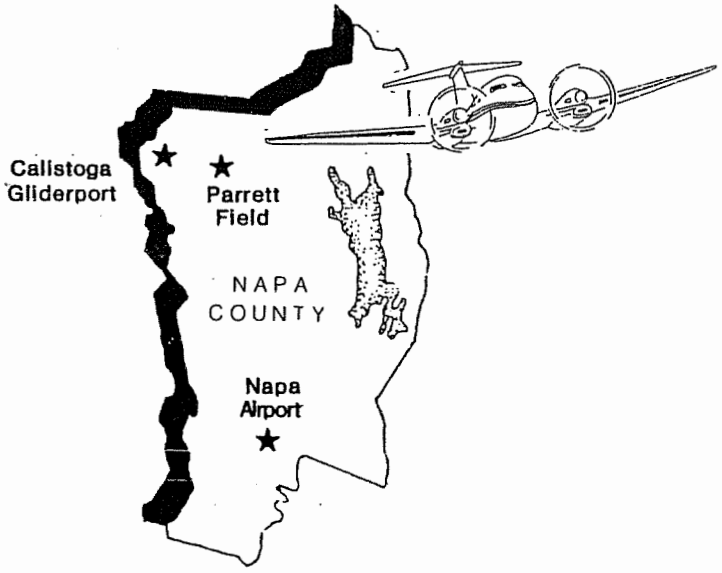
Napa County
Airport Land Use Commission

Airport Land Use Compatibility Plan



Napa County Airport Land Use Commission

Airport Land Use Compatibility Plan

Prepared By
Shutt Moen Associates

Adopted
April 22, 1991

Revised
December 15, 1999

NAPA COUNTY AIRPORT LAND USE COMMISSION

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Kathryn J. Winter, Chairperson (1991-92)
Tony Holzhauer, Chairman (1992-94)
Mary E. Handel, Chairperson (1994-95, 1998)
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ff = figure following page

PART I

Introduction

1

Introduction

PURPOSE

This document sets forth the policies and criteria which the Napa County Airport Land Use Commission (ALUC) will use in evaluating land use plans and proposed development in the vicinity of the public-use airports located within Napa County. Figure 1A illustrates the location of the three public-use airports covered by this Compatibility Plan. It is the Commission's duty to assist local agencies in the determination of compatible land uses in the vicinity of airports and to coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation while at the same time protecting the public health, safety, and welfare.

The primary function of the Airport Land Use Compatibility Plan is to provide guidance to the Airport Land Use Commission in reviewing the land use plans and zoning regulations of the affected local jurisdictions to ensure that future development in the airports' environs is compatible with airport activities. The Commission has no authority over existing land uses, even if such uses are considered incompatible. Also, the Commission has no authority over the operation of any airport. The following summarizes the Airport Land Use Commission's authority and review procedures as outlined in state law. A complete copy of the enabling legislation is included as Appendix A.

ROLE

The fundamental relationships between an Airport Land Use Commission and local jurisdictions is set by state law. Although the Commission functions under the general auspices of County government, it is not controlled by the County. In this regard, the Airport Land Use Commission's role is similar to that of the Local Agency Formation Commission (LAFCO). Within the bounds provided by state law, the decisions of the Commission — including the adoption of a comprehensive land use compatibility plan — are final. Other than through its larger representation on the Commission, the County does not have any greater legal authority over the Commission than do the individual cities in the County.

Napa County Airport Land Use Commission

In accordance with provisions of the State Aeronautics Act, the Napa County Planning Commission has been designated by the Board of Supervisors to assume the responsibilities of the Airport Land Use Commission with two additional members appointed to represent the aviation community. The Airport Land Use Commission meets regularly to review project referrals as required by recent legislation.

AUTHORITY

The statutory authority for the establishment of airport land use commissions is provided in the California Public Utilities Code, Sections 21670 et seq. (Chapter 4, Article 3.5 of the State Aeronautics Act). Every county in which there is located a public-use airport is required to have an Airport Land Use Commission. The Commission's charge is expressly stated as being:

> *. . . to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.*

A primary responsibility of the Commission is to formulate a comprehensive land use plan intended to achieve the above purpose. The plan must address each public-use airport within the Commission's jurisdiction and must reflect the anticipated growth of the airport during at least the next 20 years. The State Division of Aeronautics in an interpretation of state law has determined that special-use airports, such as the Calistoga Gliderport, fall under the definition of "public-use" airports for the purpose of land use planning. The plan may include height restrictions, specify land uses, and determine building standards.

RELATIONSHIP TO LOCAL PLANS

The primary purpose of the Airport Land Use Compatibility Plan is to establish policies and guidelines for land use compatibility to local jurisdictions affected by airport activities. Provisions of state law require that the ALUC review the local general plans and specific plans of each of the affected jurisdictions to determine consistency with the ALUC's policies within 180 days of adoption of the Airport Land Use Compatibility Plan.

If the local plans are determined to be inconsistent with the Airport Land Use Compatibility Plan, each affected local agency must hold a public hearing to consider amending its general plan and any applicable specific plans and zoning ordinances for consistency or otherwise take specific steps to override the Commission.

Until each affected local agency amends its General Plan and any applicable specific plans for consistency with the ALUC policies or otherwise overrides the ALUC determination, all actions, regulations, or permits within the planning areas must be referred for a consistency determination.

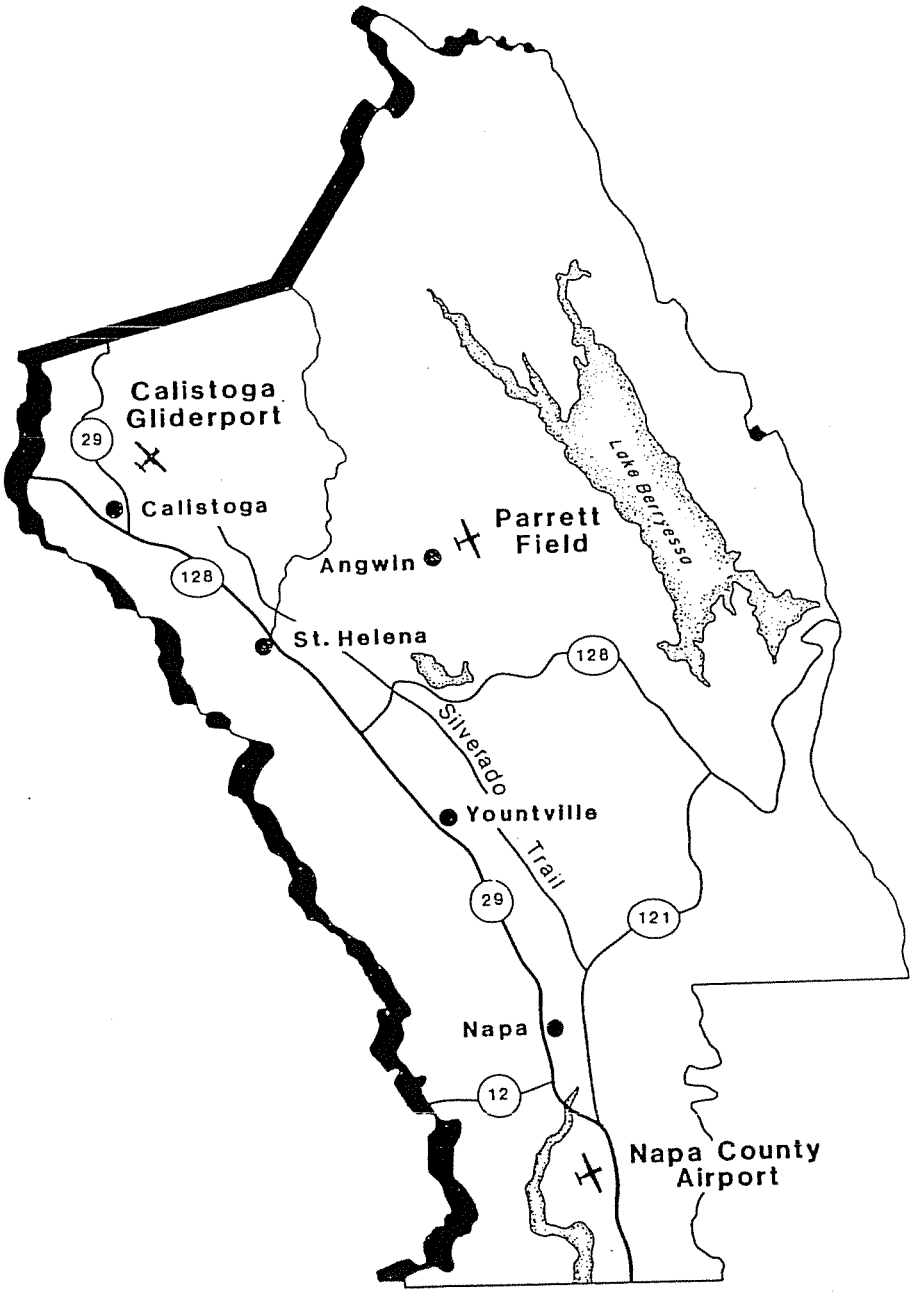

Figure 1A

Airport Locations

Napa County

Once consistency with ALUC policies is achieved, only certain types of actions (i.e., general plan or specific plan amendments) need be referred for a consistency determination, unless the local agency and the Commission agree that other types of actions or individual projects should be reviewed by the ALUC.

Overruling

The governing body of a local jurisdiction may overrule the Airport Land Use Commission's determination by taking the following actions:

- Hold a public hearing to reconsider the proposed action.
- Make a finding that the proposed action is consistent with the intent of the State Aeronautics Act.
- The motion to override must be passed by a two-thirds vote.

GENERAL APPROACH

The structure and design of the Airport Land Use Compatibility Plan is intended to simplify its implementation. A composite set of Compatibility Criteria has been assembled which incorporates three of the four airport/land use compatibility concerns – noise, safety, and overflight. Airspace protection remains as a separate set of criteria using federal aviation regulations to establish maximum height limitations. The intent is to simplify the review process by eliminating the need to consider several different compatibility tables and associated maps. Supporting policies are provided which further define the Compatibility Criteria.

The criteria in this Plan are performance oriented, rather than list oriented. That is, the criteria contain standards which are to be achieved (e.g., occupancy limits), rather than a list of specific uses which are permitted in each zone. This format directly relates the concern (e.g., safety) to the criteria (e.g., occupancy limits). The local governments which have the implementing authority for land use must then interpret these criteria in terms of their land use plans and zoning ordinances.

The policies and criteria presented in this Plan are directly derived from well established sources. Among the specific sources utilized are:

- Federal Aviation Regulations Part 77, "Objects Affecting Navigable Airspace".
- Federal Aviation Administration Advisory Circular 150/5020-1, "Noise Control and Compatibility Planning for Airports".
- California State Aeronautics Law.
- California Division of Aeronautics Noise Regulations.
- California Division of Aeronautics *Airport Land Use Planning Handbook.*

- Oregon Division of Aeronautics *Airport Compatibility Guidelines*.
- Previously adopted local plans and policies.

ORGANIZATION OF THE PLAN

This Plan is organized in three parts. Part I consists of this introductory chapter and an overview of airport compatibility issues presented in Chapter 2. The primary policies and compatibility plans for each airport are contained in Part II of this document. Review requirements, compatibility policies, plans, and criteria for each airport's planning area are contained in Chapter 3. Chapter 4 includes a discussion of implementation strategies that local agencies may utilize to achieve consistency with the Airport Land Use Compatibility Plan. Specific information relative to each airport's master plan, impact assessment, land use issues, and consistency with local plans is provided in Part III (Chapters 5, 6 and 7). A glossary of terms and reference materials to assist in the review of project referrals are included in the Appendices.

A technical supplement to this Compatibility Plan entitled "ALUC Handbook" contains a detailed description and analysis of noise and safety concerns as they relate to airport compatibility planning. The Handbook is incorporated by reference herein and provides the background and justification for the policies contained in the Airport Land Use Compatibility Plan. A master plan for Napa County Airport, updated in 1989, provides the basis for compatibility planning and establishment of the ALUC planning area. Long-term facility plans for the two privately-owned airfields were developed as part of this plan and reflect coordination with the airport owners, local jurisdictions, and the appropriate state and federal agencies.

2

Compatibility Concerns

The principal land use impacts and compatibility considerations associated with airport activities fall into four categories.

- **Noise** - Usually perceived as the most significant adverse impact of airport activity because of its routine, everyday occurrence. Human sensitivity to noise varies considerably depending upon the circumstances in which the noise occurs.

- **Hazards to Flight** – To protect the navigable airspace by preventing physical obstructions and other land use characteristics that could affect flight safety.

- **Safety on the Ground** – Limiting people's exposure to risks of injury or damage to property in the event of an aircraft accident. These risks are difficult to address because of the low probabilities involved.

- **Overflights** - Annoyance associated with regular aircraft overflight. Commonly thought to result from a combination of single-event noise impacts and individuals' concern that an aircraft accident may occur. Highly variable among individuals due to the subjective nature of the perceived impact.

NOISE IMPACTS

Assessment of Airport Impacts

Airport noise is particularly complex to measure because of the widely varying characteristics of the individual sounds and the intermittent nature of their occurrence. In an attempt to provide an appropriate measure of airport noise impacts, various composite noise level descriptors have been devised. The descriptor used in California to measure cumulative noise impact is the Community Noise Equivalent Level (CNEL). CNEL values are calculated using a complex set of equations based upon several factors:

- The single-event noise exposure levels for each type of aircraft.
- The volume of activity and mode of operation by aircraft type.
- Runway utilization and flight patterns.
- The time of day when the operations occur.

Because noise is considered more intrusive at night, a weighting or penalty is included in the calculation of CNEL values for all evening and nighttime operations. That is, evening operations (7 p.m. to 10 p.m.) are weighted three times normal daytime operations and nighttime operations (10 p.m. to 7 a.m.) are weighted ten times. These adjustments correlate to the drop in background noise levels which studies have found occurs between daytime and nighttime in a typical community. CNEL contours for each airport are illustrated in Chapter 5.

Noise Compatibility Concepts

The basic approach to enhancing noise compatibility is to minimize the extent to which noise impacts disrupt human activities or otherwise create an annoyance. Among the factors in this analysis:

- The absolute loudness of the noises people hear.
- The relative loudness compared to background noise levels.
- The frequency with which the noise events occur.
- The types of activity affected.

Various studies have been done to ascertain the relationships among these factors. Typically, the results are formulated in terms of the composite noise levels acceptable or unacceptable for specific types of land uses. Table 2-1 provides a comparison of the recommended compatibility guidelines for various land uses.

California State Aeronautics law establishes a CNEL of 65 dBA as the maximum acceptable noise exposure for residential land uses near commercial airports in urban areas. Part 150 of the Federal Aviation Regulations has a similar residential limit of 65 Ldn. (Refer to the Glossary of Terms in Appendix F for definition of Ldn and CNEL). This criteria is primarily based upon the "Levels" report prepared by the U.S. Environmental Protection Agency in 1974 (*Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*).

In the "Levels" report, the EPA recommends adjusting the 65 CNEL standard to account for ambient noise levels and other variables. The use of a normalized standard is also recommended in the California guidelines for preparation of Noise Elements and in the California *Airport Land Use Planning Handbook*. For residential uses in quiet suburban settings, a CNEL standard of 60 dBA is suggested. In more rural areas, a level as low as 55 dBA may be appropriate.

Table 2-1

Noise Compatibility Guidelines

LAND USE CATEGORY	CNEL, dBA 50-55	55-60	60-65	65-70	70-75
Residential					
Single family, nursing homes, mobile homes	+	o	–	—	
multi-family, apartments, condominiums	++	+	o	—	
Public					
schools, libraries, hospitals	+	o	–	—	—
churches, auditoriums, concert halls	+	o	o	–	—
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	—	—

LAND USE AVAILABILITY		INTERPRETATION/COMMENTS
++	Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
—	Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

other measures that can be utilized to mitigate potential noise impacts on noise-sensitive uses (such as schools, libraries, and theaters) including requiring additional noise attenuation measures be incorporated into the design of the building. Noise attenuation measures and criteria for their application are provided in Appendix C.

FLIGHT HAZARDS

Assessing Hazards to Flight

The intent of the airport/land use safety compatibility criteria is to minimize the risks associated with the operation of aircraft to and from an airport. Two types of potential hazards to flight are of concern: physical obstructions within navigable airspace and other land use characteristics that can affect flight safety.

Airspace Obstructions

Minimum standards for the maximum allowable height of objects around airports are set forth in Federal Aviation Regulations Part 77, "Objecting Affecting Navigable Airspace". The regulations require that the Federal Aviation Administration be notified regarding the proposed establishment of any object that would exceed specified heights. An Airspace Plan which graphically illustrates the areas affected by height limitations in accordance with federal regulations (Part 77) has been prepared for each airport and is included in the impact assessment (Part III).

Other Flight Hazards

Other land use characteristics can also affect flight safety. These characteristics can be visual, electronic, or physical in nature. Visual hazards include distracting lights, glare, and sources of smoke. Electronic hazards include any uses which interfere with aircraft instruments or radio communication. The principal physical hazards, other than the height of structures, are bird strikes. Any land use which can attract large flocks of birds should be avoided, but those which are artificial attractors are particularly inappropriate because they generally need not be located near airports. Sanitary landfills are a prime example of such land uses.

Limiting Flight Hazards

FAA standards for height limitations reflect, with an adequate margin of safety, the lowest altitudes at which an aircraft might reasonably be flown while approaching or departing an airport. A local jurisdiction can adopt more restrictive criteria if it chooses. Adoption of zoning ordinances which specifically limits the height of structures and objects in an airport's vicinity and which prohibits other land use characteristics

which may create flight hazards is a primary means of protecting the safety of the airspace. Additional measures include the required dedication of avigation easements which enable the airport authority to remove, mark, or light an obstruction or hazard with adequate notice to the landowner.

SAFETY

Assessing Safety Impacts

In 1993, the Institute of Transportation Studies, at the University of California at Berkeley, developed a database of general aviation accidents derived from accident reports prepared by the National Transportation Safety Bureau. This accident data was documented in Caltrans' Airport Land Use Planning Handbook. This data indicates that, for arrival accidents, the area of highest risk is along the extended centerline of the runway within one mile of the runway end. By comparison, departure accident risks are concentrated closer to the runway end, but spread farther from the runway centerline.

Low flight altitudes present greater risks because they offer pilots less opportunity to recover from unexpected occurrences or choice of where to make an emergency landing. At altitudes less than 500 feet above the ground, only moderate turns are advisable and the choice of emergency landing area is essentially limited to what lies ahead. Above this altitude, recovery, or at least a fairly wide discretion in choice of emergency landing sites, is possible. An emergency landing on the runway normally can be accomplished when the aircraft is flying in the traffic pattern at the typical traffic pattern altitude (1,000 feet above the airport).

Based upon the accident location data presented in the Airport Land Use Planning Handbook, the issue of safety is most critical within the approach/departure zones. These zones were sized to correspond to the future approach surfaces for each runway end. A visual approach with a much steeper approach angle has a smaller approach zone than instrument approaches where aircraft are approaching at much lower altitudes under conditions of poor visibility. Therefore, runways with only visual approaches have smaller approach/departure zones than those with instrument approaches.

Beyond the approach/departure zones, safety concerns are significantly reduced. Moderate safety concerns exist in the common traffic pattern where aircraft are below traffic pattern altitude. This will commonly occur where aircraft make their turn to the base leg of an approach or when using a circle-to-land instrument approach. Safety concerns are low where aircraft are at a pattern altitude and are further reduced where aircraft are at higher altitudes.

Limiting Risks of Injury or Damage

The objective in providing an acceptable level of safety on the ground is to reduce the risks of damage to property or injury to persons in the event of an aircraft accident. The greater the predicted risk, the more

restrictive land use controls are necessary. Limiting the density of development and providing open areas for emergency landings are two basic approaches to ensuring compatibility.

The concept behind limiting the density of land uses near an airport is to limit the number of people who might be affected by an aircraft accident. The larger the aircraft which use an airport, the greater the potential for a high number of injuries, should an accident occur. Limiting residential densities and maximum occupancy levels is the principal means of providing acceptable levels of safety on the ground.

High concentrations of people, such as occur in theaters and similar uses, should be avoided in areas most susceptible to aircraft accidents. Uses in which the occupants have low effective mobility, such as hospitals, nursing homes, elementary and secondary schools, etc., also pose higher risks. These uses are undesirable within the airport environs and are prohibited within the approach/departure zones.

Clustering of development and providing open land areas that can be utilized as emergency landing sites are other land use control measures that limit the risks of injury. An open area does not have to be very large to enable a successful emergency landing. The objective is for the occupants to survive the accident without serious injury. Damage to the aircraft is irrelevant in these circumstances. An area as small as 75 feet by 300 feet (about one-half acre - the size of a football field) can be adequate for a survivable emergency landing in a small plane. The area should be relatively free of objects such as overhead power lines and large trees and poles that could send a plane out of control at the last moment.

Because the pilot's discretion in selecting an emergency landing site is reduced when the aircraft is at low altitude, open areas preferably should be larger and spaced more closely in those locations overflown at low altitude (inner approach zones). The chance of a pilot seeing and successfully landing in a small open space also would be increased if there are more such spots from which to choose. This is particularly important for airports used by a high percentage of transient pilots who are unfamiliar with the airport vicinity.

The Compatibility Plans for each airport provide criteria which restricts the concentrations of people within the most critical areas and certain types of land uses which are most susceptible to safety risks. Clustering of development is encouraged, while limiting the maximum number of persons concentrated in any given area. Specific policies which identify the critical areas for open land are provided to ensure that community plans maintain open space in an airport's vicinity.

OVERFLIGHT IMPACTS

Assessing Overflight Impacts

Communities have become increasingly sensitive to overflight impacts. Areas underlying common flight tracks that are well outside of typically defined noise contours are increasingly becoming sources of complaints, and political and legal action. As these areas are commonly outside of areas classified as having a "noise problem", the impact is usually referred to as overflight annoyance.

Compared to cumulative noise compatibility considerations, the annoyance factor of overflight activity is more subtle and subjective. The degree of perceived annoyance varies widely from individual to individual, even though the definable impacts may be similar. The level of annoyance appears to be influenced by several factors related to the individuals affected - their attitudes toward aviation and the importance of a particular activity; their understanding of how airplanes fly; their knowledge of the airport's operational characteristics, as well as by the actual noise levels, frequency of overflights, altitude of the aircraft, and terrain conditions.

One explanation for the annoyance of overflights is that they result from a combination of single-event noise impacts, coupled with an individual's concern that an aircraft accident could occur on his/her property. The frequency of aircraft overflights is thus an important measure of the impact. Terrain conditions have also been noted to affect the level of annoyance experienced in certain areas. High terrain, or canyon areas will intensify the noise of aircraft overflights. In determining the sensitivity of an area to aircraft overflights, consideration should be given to the frequency of overflights, the single-event noise levels of the aircraft, as well as the underlying terrain conditions.

Overflight impacts primarily affect residential and noise-sensitive land uses and are generally concentrated along the flight paths. They also occur, to a lesser degree, elsewhere in the airport vicinity where aircraft fly at or below traffic pattern altitude while departing or approaching the runway. Typical flight patterns for each airport are depicted in the assessment of airport impacts contained in Part III of this Plan (Chapters 5, 6, and 7).

Overflight Compatibility Concepts

Preventing overflight impacts is often difficult because the area subject to overflights is large and it is impossible to predict precisely where in the area individuals will be sensitive. However, there is currently very limited residential or other noise-sensitive development in the vicinity of Napa County Airport and Parrett Field. This lack of significant amounts of existing noise-sensitive uses makes it possible for the ALUC's plan to offer significant protection to these airports, since the vicinities of these airports are not already filled with incompatible uses. It is for this reason that new residences and other sensitive uses are excluded from the traffic pattern, approach/departure, and runway protection zones.

PART II

Policies, Plans, and Criteria

3
Policies

1 SCOPE OF REVIEW

1.1 Geographic Area of Concern

The Airport Land Use Commission's planning area encompasses:

1.1.1 All lands on which the uses could be negatively affected by present or future aircraft operations at the following airports in the County. The specific limits of the planning area for each airport are depicted on the respective *Compatibility Map* for that airport as presented in Chapter 3.

(a) Napa County Airport

(b) Parrett Field

1.1.2 Those lands, regardless of their location in the County, on which the uses could adversely affect the safety of flight in the County. The specific uses of concern are identified in paragraph 1.2.

1.1.3 The site and environs of any proposed new airport or heliport anywhere in the County.

1.2 Types of Airport Impacts

The Commission is concerned only with the potential impacts related to aircraft noise, land use safety (with respect both to people on the ground and the occupants of aircraft), airspace protection, and aircraft overflights. Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are beyond the scope of this plan. They are within the authority of other local, state, and federal agencies and addressed within the environmental review procedures for airport development.

1.3 Types of Actions Reviewed

1.3.1 *General Plan Consistency Review* - The Commission shall review the local general plans and specific plans of the affected jurisdictions to determine consistency with the Airport Land Use Commission's policies within 180 days of adoption of the Airport Land Use Compatibility Plan. Until such time as the Commission finds that the local general plan or specific plan is consistent with the Airport Land Use Commission Plan; or the local agency has overruled the Commission's determination, all actions, regulations, and permits shall be referred to the Commission for a consistency determination (Section 21676.5 (a)).

1.3.2 *Statutory Requirements* - As required by state law, the following types of actions shall be referred to the Airport Land Use Commission for determination of consistency with the Commission's plan *prior to their approval* by the local jurisdiction:

(a) The adoption or approval of any amendment to a general or specific plan affecting the Commission's geographic area of concern as indicated in paragraph 1.1 (Section 21676 (b)).

(b) The adoption or approval of a zoning ordinance or building regulation which (1) affects the Commission's geographic area of concern as indicated in paragraph 1.1 and (2) involves the types of airport impact concerns listed in paragraph 1.2 (Section 21676 (b)).

(c) Adoption or modification of the master plan for an existing public-use airport (Section 21676 (c)).

(d) Any proposal for a new airport or heliport whether for public or private use (Section 21661.5).

1.3.3 *Other Project Review* - Other types of actions which may involve a question of compatibility with airport activities should also be referred to the Airport Land Use Commission through voluntary agreements with the local government agencies (Section 21676.5 (b)). The Commission shall review the following types of actions:

(a) Any proposed expansion of a city's or an urban service district's sphere of influence within an airport's planning area.

(b) Any proposed residential rezoning or planned unit development consisting of five or more dwelling units within an airport's planning area.

(c) Any request for variance from a local agency's height limitation ordinance within an airport's planning area.

(d) Any proposal for construction or alteration of a structure (including antennas) taller than 150 feet above the ground anywhere within the County.

(e) Any major capital improvements (e.g., water, sewer, or roads) that would promote urban development.

(f) Proposed land acquisition by a government entity (especially, acquisition of a school site).

(g) Any other proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.

(h) Any proposal requiring notification to the Federal Aviation Administration under Federal Aviation Regulations Part 77, Subchapter B, regardless of the location in the County.

1.4 Review Process

1.4.1 Proposed actions listed in paragraph 1.3.1 must be submitted to the Commission for review prior to approval by the local government entity. All projects should be referred to the Commission at the earliest reasonable point in time so that the Commission's review can be duly considered by the local jurisdiction prior to formalizing its actions.

1.4.2 When reviewing a land use proposal, the Airport Land Use Commission has a choice of either of two actions: (1) find the project *consistent* with the Airport Land Use Compatibility Plan; or (2) find the project *inconsistent* with the Plan. In making a finding of inconsistency, the Commission may note the conditions under which the project would be consistent with the Plan. The Commission cannot, however, find a project consistent with the Plan subject to the inclusion of certain conditions in the project.

1.4.3 Once a project has been found consistent with the Airport Land Use Compatibility Plan, it need not be referred for review at subsequent stages of the planning process (e.g., for a general plan amendment and again for a zoning change) unless: (1) major changes to the project are made during subsequent review and consideration by the local jurisdiction; or (2) the local jurisdiction agrees that further review is warranted.

1.4.4 The Airport Land Use Commission must respond to a local agency's request for a consistency determination on a project within 60 days of referral. If the Commission fails to make the determination within that period, the proposed action shall be deemed consistent with the Airport Land Use Compatibility Plan.

1.4.5 When reviewing airport master plans for existing airports, the Commission has three action choices:

(a) Find the airport master plan consistent with the Airport Land Use Compatibility Plan.

(b) Disapprove the airport master plan on the basis that it is inconsistent with the Commission's plan.

(c) Modify the Airport Land Use Compatibility Plan (after duly noticed public hearing) to reflect the assumptions and proposals in the airport master plan.

1.4.6 When reviewing proposals for new airports or heliports, the Commission's choices of action are:

(a) Approve the proposal as being consistent with the specific review policies listed in Section 2.3 below.

(b) Approve the proposal and adopt a Compatibility Plan for that facility. Adoption of such a plan is required if the airport or heliport will be a public-use facility.

(c) Disapprove the proposal on the basis that the noise and safety impacts it would have on surrounding land uses are not adequately mitigated.

2 PRIMARY REVIEW POLICIES

2.1 Land Use Actions

2.1.1 The compatibility of land uses in the vicinity of the airports covered by this plan shall primarily be evaluated in terms of: (1) the Compatibility Criteria (Table 2) and accompanying notes; (2) the Compatibility Plan for each airport; and (3) specific policies established for individual airports.

2.1.2 Additional evaluation criteria are provided in the Supporting Policies which follow (Section 3). The Commission may refer to these additional policies to clarify or supplement its review.

2.1.3 Where an *existing* incompatible development has been partially or fully destroyed, it may be rebuilt to a density and intensity not exceeding that of the original construction. This exception does not apply within the inner approach/departure zones (Compatibility Zones A and B).

2.1.4 Where substantial incompatible development already exists, additional infill development of similar land uses may be allowed to occur even if such land uses are to be prohibited elsewhere in the zone. This exception does not apply within the approach/departure corridors (Compatibility Zones A and B). Projects can be considered "infill" if they meet *all* of the following criteria:

(a) The Airport Land Use Commission has determined that "substantial development" already exists.

(b) The project site is surrounded by uses similar to those proposed.

(c) The proposed project would not extend the perimeter of the area developed with incompatible uses.

(d) The proposal does not otherwise increase the intensity and/or incompatibility of use through use permits, density transfers or other strategy.

2.1.5 Local jurisdictions should identify infill areas when submitting their general plans and specific plans for a consistency determination by the Airport Land Use Commission.

2.1.6 Where a property is affected by more than one compatibility zone, the Commission shall endeavor to ensure than an equivalent degree of compatibility within each zone is maintained through site planning.

(a) In order to make a consistency determination for areas located within 100 feet of an approach surface, proposed development plans and/or subdivision maps must depict the lot configurations, building envelopes, and approach surfaces. Proposal statements should identify potential uses allowable under the applicable general plan/zoning designations for determination of consistency with the density criteria contained in Table 3-2.

2.1.7 Referrals to the ALUC shall be in writing directed to: ALUC Executive Officer, Napa County Airport Land Use Commission, 1195 Third Street, Room 210, Napa, California 94559 and shall be accompanied by each of the following:

(a) A cover letter describing the name of the local agency making the referral and the name, address, and telephone number of the contact person at the local agency;

(b) The specific section of the Public Utilities Code pursuant to which the matter is being referred to the ALUC for review;

(c) A statement that the ALUC's failure to act on the referral within 60 days of the date of receipt of the referral shall result in the proposed action being deemed consistent by operation of law;

(d) At least ten (10) copies of the plan, ordinance, or regulation being referred;

(e) A locally-generated mailing list with labels of the names and addresses of all persons who have participated in hearings held by the local agency on the referred plan, ordinance, or regulation; and

(f) An analysis prepared by or on behalf of the local planning agency which demonstrates consistency between the proposed plan, ordinance, or regulation being referred and the policies, standards, and criteria contained in the ALUC's adopted Airport Land Use Plan.

2.1.8 The ALUC shall not accept any plan, ordinance, or regulation for review until the referring local agency has held at least one substantive local hearing or other public meeting on the proposed matter. In the case of adoption or amendment of a general or specific plan, the

plan shall not be referred to the ALUC for review until the local planning commission has completed all hearings and rendered its final advisory decision on the plan. If a plan or any amendment thereto is referred to the ALUC prior to conclusion of the planning commission hearings and decision, the ALUC in its discretion may either reject the plan or any amendment thereto as premature or may preliminarily review the plan and issue preliminary comments provided, however, that the ALUC's preliminary review of a premature plan shall not be considered or construed as final action or a formal determination of consistency or inconsistency.

2.1.9 Referral to the ALUC shall occur prior to a local governing body's final action to adopt or intention to adopt the plan, ordinance, or regulation. In the event the local agency formalizes its intention to adopt, or adopts the plan, ordinance, or regulation that is already pending before the ALUC, the 60-day review period shall be deemed to commence as of the last date the local governing body took action on the plan, ordinance, or regulation.

2.1.10 A finding of consistency or inconsistency rendered by the ALUC shall apply only to that particular version of the plan, ordinance, or regulation referred to the ALUC. If the local planning commission or governing body proposes any revision to the plan, ordinance, or regulation, one copy of the revised plan, ordinance, or regulation shall be submitted to the ALUC for a determination as to whether re-referral is necessary. Re-referral pursuant to statute and this plan will be required for any change to the plan, ordinance, or regulation which affects whether the proposed action is consistent with the adopted ALUP.

2.2 Review of Airport Plans

2.2.1 When reviewing airport master plans, the Commission shall determine whether the activity forecasts or proposed facility development identified in the proposed master plan differs substantially from the forecasts and development assumed for that airport in the Airport Land Use Compatibility Plan. Attention should specifically focus on:

(a) Activity forecasts that are: (1) significantly higher than those in the Airport Land Use Compatibility Plan; or which (2) include a significantly higher proportion of larger or noisier aircraft.

(b) Proposals to: (1) construct a new runway or helicopter takeoff and landing area; (2) change the length, width, or landing threshold location of an existing runway; or (3) establish an instrument approach procedure.

2.2.2 The Commission shall determine whether the proposed airport master plan is consistent with the Airport Land Use Compatibility Plan. The Commission shall base their determination of consistency on findings that the forecasts and development of the airport would not result in greater noise, overflight, and safety impacts or height restrictions on surrounding land uses than are presently assumed in the Airport Land Use Compatibility Plan.

(a) The Commission may determine that revision of the Airport Land Use Compatibility Plan is warranted based on their review of a proposed airport master plan. If the Commission finds that such a revision to the Airport Land Use Compatibility Plan should be initiated, then the Commission shall notify the local jurisdiction of this finding.

2.3 Plans for New Airports or Heliports

2.3.1 In reviewing proposals for new airports and heliports, the Commission shall focus on the noise, safety, overflight, and height limit impacts upon surrounding land uses.

(a) Other types of environmental impacts (e.g., air quality, water quality, natural habitats, vehicle traffic, etc.) are not within the scope of review for the Commission.

(b) The Commission shall evaluate the adequacy of the facility design to the extent that it affects surrounding land use.

(c) The Commission shall base its review on the proposed airfield design.

2.3.2 The review shall examine the relationships between existing and planned land uses in the vicinity of the proposed airport or heliport and the impacts that the proposed facility would have upon these land uses. Questions to be considered should include:

(a) Would the existing or planned land uses be considered incompatible with the airport or heliport if the latter were already in existence?

(b) What measures are included in the airport or heliport proposal to mitigate the noise, safety, overflight, and height restriction impacts on surrounding land uses? Such measures might include: (1) location of flight tracks so as to minimize the impacts; (2) other operational procedures to minimize impacts; (3) acquisition of property interests (fee title or easements) on the impacted land.

2.3.3 When submitted to the Commission, a proposal for a new airport or heliport shall contain sufficient information to enable the Commission to adequately review the noise, safety, overflight, and height restriction impacts upon surrounding land uses. Information to be submitted shall include:

(a) A layout plan drawing of the proposed facility showing the location of: (1) property boundaries; (2) runways or helicopter takeoff and landing areas; and (3) runway protection zones or helicopter approach/departure zones.

(b) Airspace surfaces in accordance with Federal Aviation Regulations, Part 77.

(c) Activity forecasts, including the number of operations by each type of aircraft proposed to use the facility.

(d) Noise contours or other relevant noise impact data.

(e) A map showing existing and planned land uses in the vicinity of the proposed airport or heliport.

(f) Identification and proposed mitigation of impacts on surrounding land uses.

3 SUPPORTING COMPATIBILITY POLICIES

3.1 Noise

3.1.1 The evaluation of airport/land use noise compatibility shall consider the *future* Community Noise Equivalent Level (CNEL) contours of each airport. These contours are calculated based upon aircraft activity forecasts which are set forth in adopted airport master plans or which are considered by the Commission to be plausible (refer to Part II for noise exposure maps).

3.1.2 The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. Noise compatibility criteria should be applied at the general plan or specific plan level. Because of the inherent variability of flight paths, the depicted contour boundaries are not absolute determinants of the compatibility or incompatibility of a given land use. For this reason, noise contours should **not** be used as site design criteria. Noise contours can only quantify noise impacts in a general manner. Site conditions, terrain, and actual flight patterns and frequency should also be evaluated.

3.1.3 The maximum CNEL considered normally acceptable for most residential uses in the vicinity of the airports covered by this plan is 55 dBA. This standard is appropriate for areas with low ambient noise levels. In areas with higher ambient noise levels, the maximum CNEL considered normally acceptable for residential uses shall be 60 dBA. Factors which determine whether to apply the higher standard include the presence of: major highways, large concentration of residences, or large-scale commercial and industrial uses.

3.1.4 Noise level standards for compatibility with other types of land uses shall be applied in the same manner as the above residential noise level criteria. Examples of acceptable noise levels for other land uses in an airport's vicinity are presented in Table 2 - 1.

3.1.5 The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise. In most locations, noise level reduction measures are only effective in reducing interior noise levels. Also, source reduction measures implemented by airport authorities are not within the scope of this plan.

3.1.6 Single-event noise levels should be addressed when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, and outdoor theaters. Single-event noise

levels are particularly important in areas which are regularly overflown by aircraft, but which do not produce significant CNEL contours. Flight patterns for each airport (illustrated in Part II) should be considered in the review process for such uses. Noise attenuation measures may be required based upon the criteria contained in Appendix C.

3.2 Safety

3.2.1 The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing.

(a) Risks both to people and property in the vicinity of an airport and to people on board the aircraft shall be considered.

(b) More stringent land use controls shall be applied to the areas with greater potential risk.

3.2.2 The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people permitted to occupy a given area. Methods for determining the concentration of people for various land uses is provided in Appendix D.

(a) Greater restrictions shall be placed upon the number of people permitted in a building than upon the number within an open area because of the greater difficulty of evacuating a building in the event of its involvement in an aircraft accident.

3.2.3 Land uses of particular concern are ones in which the occupants have reduced effective mobility or are unable to respond to emergency situations. Schools, hospitals, nursing homes, and other uses in which the majority of occupants are children, the elderly, and the handicapped shall be prohibited within the approaches to an airport (Compatibility Zones A, B, and C). These types of uses should be carefully evaluated in Zone D to determine their proximity to traffic pattern, turning movements, and the frequency of overflights.

3.2.4 Any use involving the potential for aboveground explosion or the release of toxic or corrosive materials shall be prohibited in the approaches to an airport (Compatibility Zones A, B, and C).

3.2.5 In the event that an aircraft is forced to land away from an airport, the risks to people on board aircraft and damage to property can best be minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the large majority of aircraft accidents occurring away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to select the landing site.

(a) For purposes of this Plan, "open land" shall be defined as an area that is typically: (1) free of structures and other major obstacles such as walls, large trees, and overhead wires; and (2) have minimum dimensions of at least 75 feet wide, and at least 300 feet or more in length. Certain roads are acceptable as open land areas if they meet the preceding criteria.

(b) The most critical areas for preserving open land are within the approach zones and beneath the traffic pattern (Zones A, B, C, and D). Within an airport's traffic areas, lands presently designated for open space uses (i.e., agricultural lands, golf courses, etc.) should be preserved as open land areas to the maximum extent feasible. The following criteria should be used to retain/preserve open land areas within proposed development.

(1) Within the approach/departure zones (Zones A, B, C and), buildings should be set back from the extended runway centerline to the maximum extent feasible.

(2) Within the traffic pattern areas (Zone D), open land areas at the periphery of the traffic pattern areas should be preserved.

(c) Clustering of development and providing contiguous landscaped and parking areas is encouraged as a means of maximizing open land and providing continuity of open land areas between developments.

(d) In order to establish the open land areas available in critical areas and make a consistency determination, building envelopes and the approach zones should be indicated on all development plans and subdivision maps for all proposed development within 100 feet of an approach zone.

3.3 Airspace Protection

3.3.1 The criteria for limiting the height of structures, trees, and other objects in the vicinity of an airport shall be set in accordance with Part 77, Subpart C, of the Federal Aviation Regulations and with the United States Standard for Terminal Instrument Procedures (TERPS). Airspace plans for each airport which depict the critical areas for airspace protection are provided in Part III. TERPS height limitations are only applicable at Napa County Airport where an instrument approach has been established. The private airfield has only visual approaches.

3.3.2 Within the approaches to a public airport, the owner of any property proposed for development should be required to dedicate an avigation easement to the jurisdiction owning the airport. In the case of a private airport, a height-limit easement should be dedicated to the jurisdiction controlling the land use. Examples of these easements are provided in Appendix E.

(a) The avigation easement shall: (1) provide the right of flight in the airspace above the property; (2) allow the generation of noise and other impacts associated with aircraft overflight; (3) restrict the height of structures, trees, and other objects; (4) permit access to the property with proper notice for the removal or aeronautical marking of objects exceeding the established height limit; and (5) prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.

(b) Within the approach/departure zones, height restrictions of less than 35 feet may be required.

3.3.3 Other than within the approach/departure zones, (Compatibility Zones A, B, and C), height restrictions may allow up to 35 feet above the level of the ground on which they are located, or as similarly provided by local ordinance.

(a) In locations where the terrain, structure, or any object (including clearances over roads and railroads) penetrates Federal Aviation Regulations Part 77 surfaces, an avigation easement shall be required in accordance with Paragraph 3.3.2 which limits the height to 35 feet above the ground and enables the marking or lighting of any potential hazard to air navigation. Trees and other natural materials may exceed the height limitation provided that the avigation easement allows for removal, marking, or lighting of potential aircraft hazards.

3.3.4 Proponents of a project which may exceed a Part 77 surface must notify the Federal Aviation Administration as required by FAR Part 77, Subpart B, and by the California State Public Utilities Code Sections 21658 and 21659. (Notification to the Federal Aviation Administration under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix B for the specific Federal Aviation Administration notification requirements.)

(a) Local jurisdictions shall inform project proponents of the requirements for notification to the Federal Aviation Administration.

(b) The requirement for notification to the Federal Aviation Administration shall not necessarily trigger review of an individual project by the Airport Land Use Commission if the project is otherwise in conformance with the compatibility criteria established in the Airport Land Use Plan.

(c) Any project coming before the Airport Land Use Commission for reason of height-limit issues shall include a copy of FAR Part 77 notification to the Federal Aviation Administration.

3.3.5 Land uses which may produce hazards to aircraft in flight shall not be permitted within any airport's planning area. Specific characteristics to be avoided include: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam, or smoke which may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; and (4) any use which may attract large flocks of birds, especially landfills and certain agricultural uses.

3.4 Overflight

3.4.1 All locations within an airport's planning area are regarded as potentially subject to routine aircraft overflight. Although sensitivity to aircraft overflights varies from individual to individual, overflight sensitivity is particularly important with respect to residential land uses.

(a) Local jurisdictions shall establish some method of providing notification to prospective buyers of new residential uses within an airport's planning area (all compatibility zones). Appropriate measures may include requiring the dedication of avigation or overflight easements, deed noticing, or real estate disclosure statements. Regardless of the method chosen, the notification shall: (1) note that the property is subject to routine overflight by aircraft at low altitudes; and (2) provide positive assurance that a prospective buyer has received this information. Refer to Appendix E for sample easements and deed notices.

(b) Local jurisdictions are encouraged to extend the above or similar buyer awareness program to existing residential uses within the airport planning areas.

3.4.2 The compatibility of uses in the airport planning areas shall be preserved to the maximum feasible extent. There is presently a high degree of land use compatibility among the existing and planned land uses in the vicinity of airports within Napa County, primarily because no residential land uses are designated within the traffic areas. The proposed conversion of land to residential use within any airport's traffic area (Compatibility Zones A, B, C, and D) shall be deemed inconsistent with this Airport Land Use Compatibility Plan.

3.4.3 The conversion of land **designated** for agricultural use (in respective general plans) to residential use beneath the common flight paths shall be discouraged. Consideration should be given to specific terrain conditions and actual flight patterns in determining the compatibility of proposed uses in these areas. Clustering of development away from common flight paths is encouraged.

Revised 12/15/99 **6488**
Revised 2/16/00

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Table 3-1

Compatibility Zone Definitions

ZONE A	Runway Protection Zone: Dimensioned to encompass the future Runway Protection Zones of the respective runways for each airport as presented on the Airport Layout Plans contained in Part III of this document. Also includes areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
ZONE B	Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway in the future. Future approach slopes are designated on the respective Airport Layout Plans and Airspace Plans for each airport in Part III. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
ZONE C	Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for each airport and illustrated in the respective "Airport Impact Areas" figures contained in Part III. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 feet above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES [8]		
			Residential [1]	Other Uses (people/ac) [2]	
				In Structures	Total in and out of Structures
A [9]	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	0	50	75
D	Common Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	0	100	150
E	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.

2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.

3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.

7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.

8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.

9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g., landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.

11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

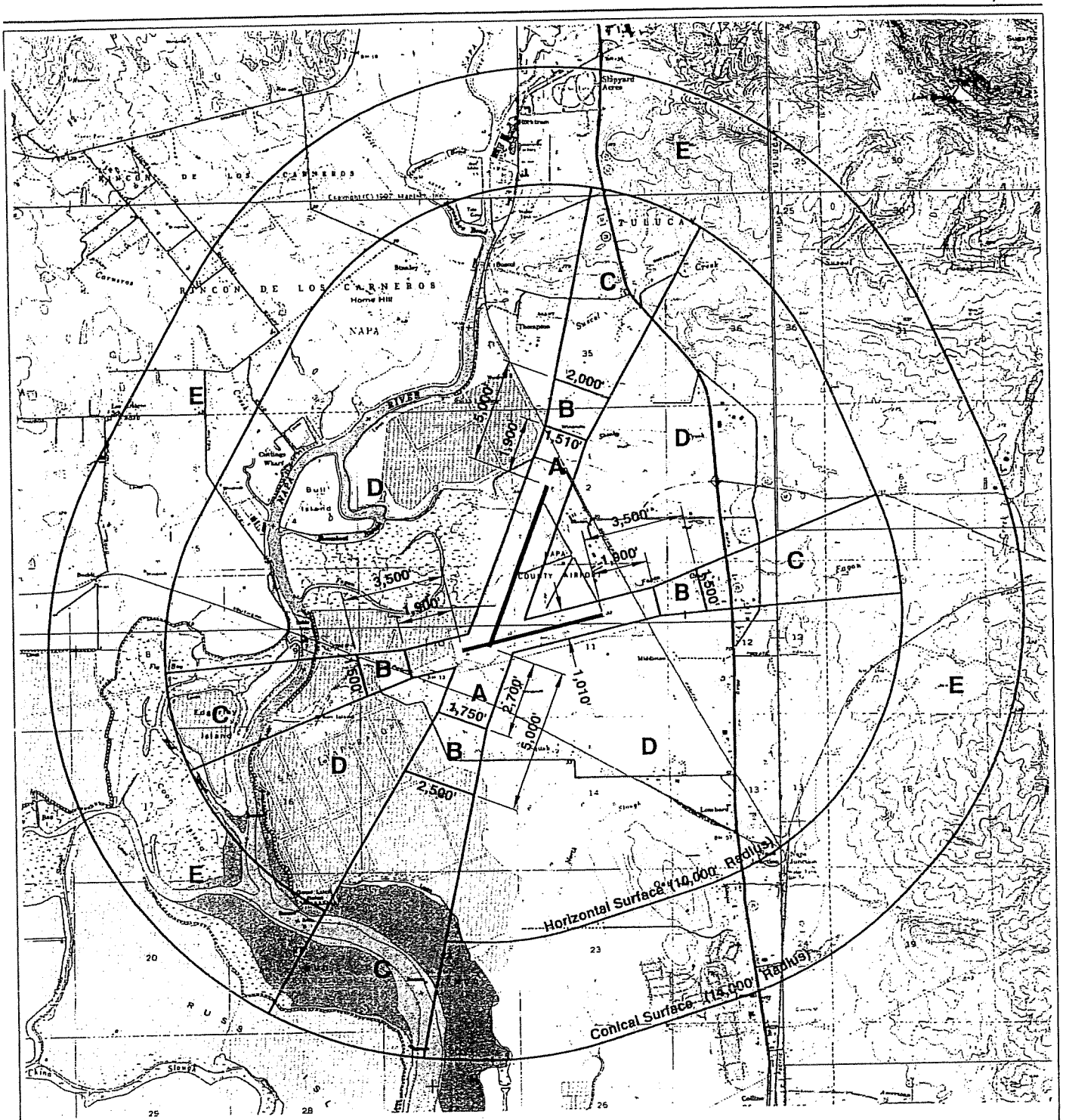
Table 3-2

Airport Vicinity Land Use Compatibility Criteria

Napa County Airport

ZONE[1]	PROHIBITED USES	OTHER DEVELOPMENT[3] CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES[4]	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE[5]
A	- All residential uses - Any assemblage of people - Any new structure which exceeds height limits - Noise sensitive uses - Uses hazardous to flight[10]	- Avigation easement required	- Pasture, open space - Aircraft tiedowns - Auto parking - Most agricultural uses	- Heavy poles, signs, large trees, etc. - Ponds
B	- All residential uses - Any noise-sensitive uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight[10]	- Avigation easement required - Structures to be as far as possible from extended runway centerline - Clustering is encouraged to maximize open land areas - Minimum NLR of 25 dBA in office buildings[6] - Building envelopes and approach surfaces required on all subdivision maps and development plans	- All uses from Zone A - Parks with low-intensity uses, golf courses - Nurseries - Mini-storage	- Retail uses - Office uses (except as accessory uses - Hotels, motels, resorts - Theaters, assembly halls, and conference centers - Ponds
C	- All residential uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight[10]	- Avigation easement required - Structures to be set back as far as possible from extended centerline - Clustering is encouraged to maximize open land areas - Building envelopes and approach surfaces required on all subdivision maps - NLR measures may be required for noise-sensitive uses (offices)	- All uses from Zone B - Warehousing and low-intensity light industrial - Small retail uses - Outdoor recreation uses; marina, ballpark - Office uses	- Large retail buildings - Hotels, motels, resorts, health club - Restaurants, bars - Multi-story buildings - Theaters, assembly halls, and conference centers - Ponds
D	- All residential uses - Uses hazardous to flight[10]	- Overflight easement or deed notice required[11] - Building envelopes and approach surfaces required on all development plans within 100' of approach zones - Clustering is encouraged to maximize open land areas - NLR measures may be required for noise-sensitive uses[6]	- All uses from Zone C - Most non-residential uses - Accessory day care centers	- Schools, libraries, hospitals, nursing homes - Large shopping malls - Amphitheaters - Ponds
E	- Noise-sensitive outdoor uses	- Overflight easement or deed notice required[11]	- Any permitted use	- Amphitheaters - Landfills - Ponds

Table 3-2, Continued



Source: Shutt Moen Associates (October 1999)

Figure 3A

Compatibility Plan
Napa County Airport

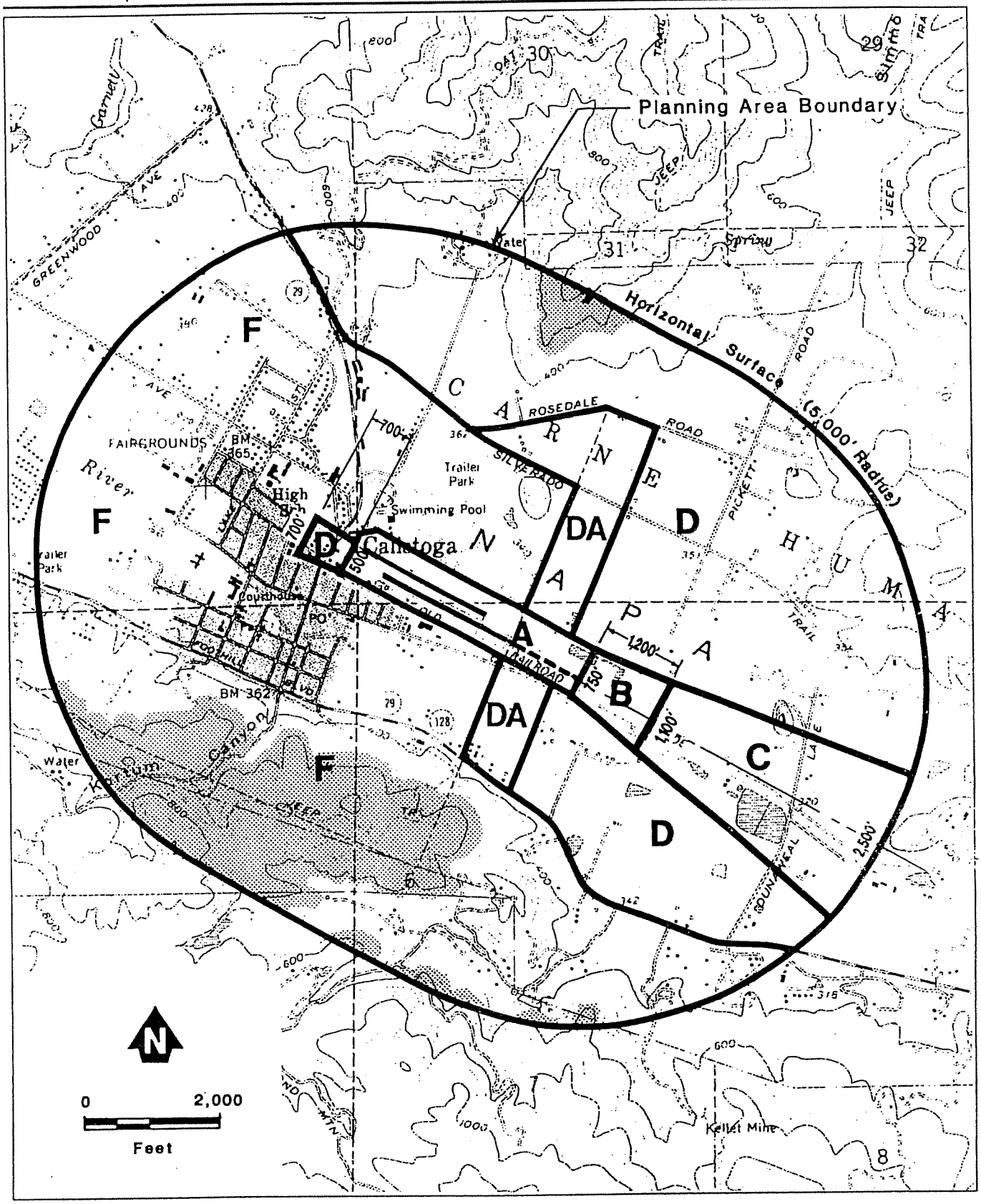


Figure 3B

Compatibility Plan

Calistoga Gliderport

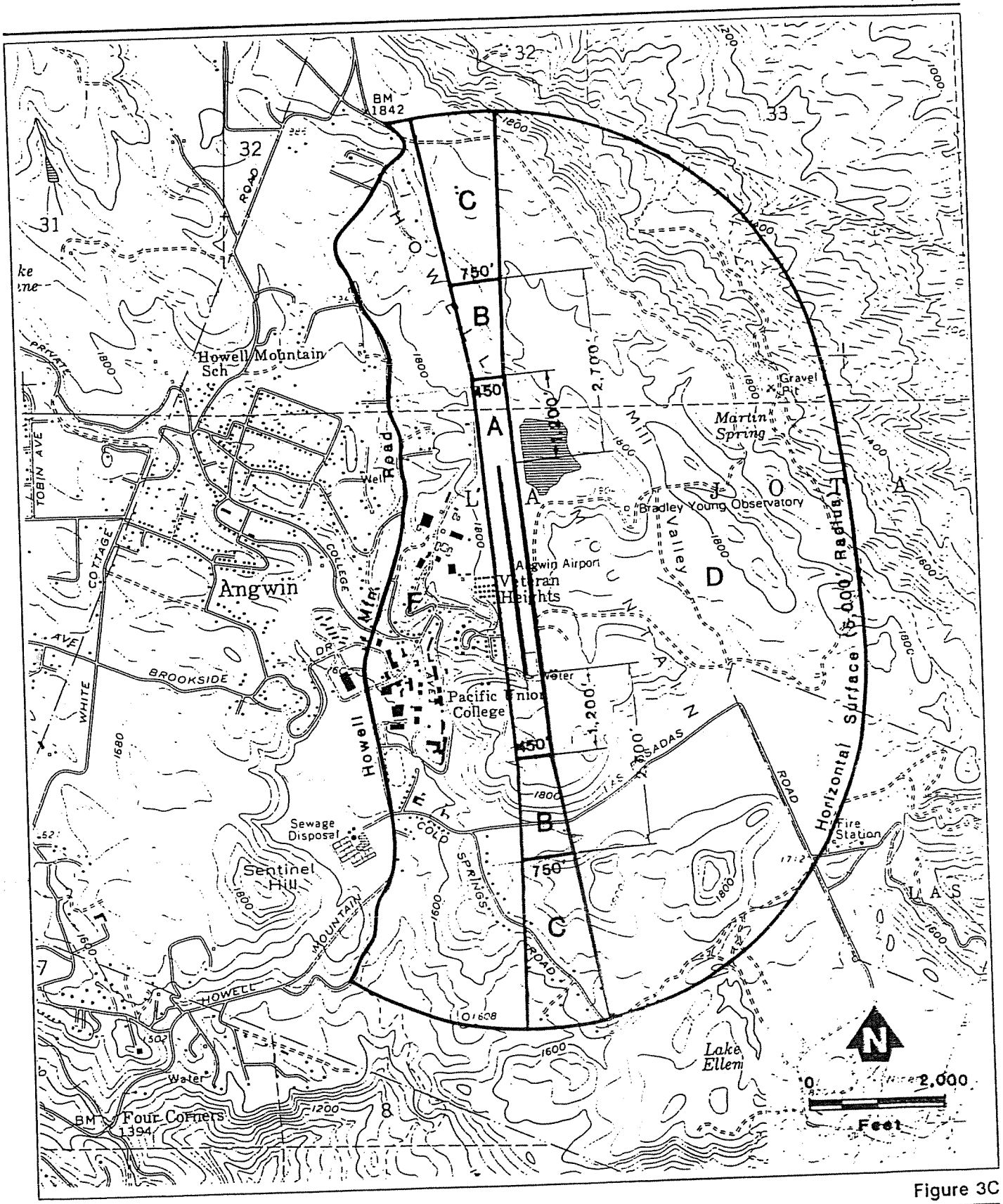


Figure 3C

Compatibility Plan

Parrett Field

4

Implementation Strategies

Local land use plans, ordinances, and policies are the principal means used to ensure land use compatibility in the vicinity of an airport. This section discusses the various types of land use control measures available to the local jurisdictions in implementing the policies of the Airport Land Use Compatibility Plan.

NOISE AND SAFETY

Land Use Policies

Local general plans and specific plans should include goals and policies to promote land use compatibility within an airport's vicinity. In addition, an airport combining zone is recommended to implement the policies and further guide the type and intensity of development in an airport's planning area. For a consistency determination, affected jurisdictions should incorporate specific policies addressing compatibility concerns in their respective General Plans which reflect the ALUC's compatibility plans, policies, and criteria. Specific policies addressing the following issues should be clearly referenced in the General Plan:

- Policies which recognize the role of the ALUC, the Airport's Planning/Referral Area and the type of actions to be referred for ALUC review.

- Policies regarding airspace protection which specify the height-limits in accordance with FAR Part 77 and which clarify the use of avigation easements within the approaches and in areas where terrain may penetrate the airspace.

- Policies which prohibit certain land uses which pose greater risks (i.e., low mobility, noise sensitivity) or may produce flight hazards.

- Policies which apply the maximum density criteria to development in the Airport's vicinity. Approach surfaces should be indicated on all development plans.

- Policies which ensure that open land is preserved in critical areas, such as requiring building envelopes, contiguous parking and landscaped areas, and larger setbacks from certain geographic features (i.e., creeks, roads etc).

- Policies with regard to overflight impacts and the need to prevent encroachment of residential uses into the Airport's traffic area.

- Policies requiring the dedication of overflight easements and/or deed notices for all residential uses within an airport's planning referral area.

Land Use Designations

The designation of land uses consistent with the Airport Land Use Commission's policies is the primary means of assuring airport land use compatibility. The adoption of appropriate land use designations within the various impact zones should minimize the public's exposure and risks associated with airport activities (e.g., limiting and/or prohibiting residential uses and other noise-sensitive land uses in an airport's vicinity). However, for airport compatibility planning, land use designations as the only form of land use control has important limitations:

- **Non-aviation Orientation** – The basic land use categories employed throughout the community do not address the specific issues of compatibility with airport activities. Additional conditions need to be established to assure that land uses normally compatible within an airport's vicinity do not include incompatible characteristics.

- **Ease of Change** – Nothing permanently locks in a land use designation. If pressured by landowners to allow less restricted development, future local legislative bodies can change the established designations. Such changes especially occur if the land changes jurisdiction (e.g., as a result of annexation). However, proposed land use changes must be reviewed by the ALUC for consistency and specific findings are required in order for local jurisdictions to override the ALUC determination.

- **Restrictiveness** – Land use designations must not eliminate all reasonable economic use of private property without being considered an unfair taking. Other methods of land use control, such as the acquisition of land, purchase of development rights, or restrictive easements may also be needed to achieve the desired degree of land use control.

Noise Compatibility Standards

In order to limit the public's exposure to excessive noise impacts, each jurisdiction has adopted noise compatibility guidelines for various land uses. These guidelines are contained in the noise element of the general plans for each jurisdiction. The guidelines establish criteria for both exterior noise exposure levels and interior noise levels and must include an evaluation of airport noise. The adopted noise standards should be consistent with ALUC policies but may be more restrictive than those indicated in the Airport Land Use Compatibility Plan.

State law requires each element of the general plan to be consistent. Thus, the land use designations must reflect the adopted noise standards for each jurisdiction. State law requires a finding of consistency with the adopted general plan for project approval. These existing land use control measures have been principally used to ensure land use compatibility throughout the community.

Development Restrictions

Development restrictions with regard to population density, building coverage, building height, and noise insulation measures are often used by local governments to ensure land use compatibility with airports. These restrictions can be implemented by:

- The adoption of specific policies in the local general plan, specific plan, or area plan.
- The adoption of a local ordinance establishing an airport combining zone for a specific area.
- The establishment of restrictions and/or conditions upon the approval of a specific project.

The land use policies and compatibility criteria contained in the Airport Land Use Compatibility Plan are designed so that local jurisdictions can incorporate appropriate policies and establish reasonable conditions on the approval of developments in an airport's vicinity.

Projects should meet the maximum densities specified in the Compatibility Criteria. Other development conditions which may be appropriate include:

- The establishment of height-limitations through the dedication of avigation easements within the approach/departure zones and where existing terrain may penetrate the airspace defined by federal regulations.
- The dedication of overflight easements and/or deed notices for residential uses within an airport's planning area.
- Prohibit certain uses which may be hazardous to flight or which pose greater risk or sensitivity to airport activities.
- Establishment of maximum lot coverage and appropriate setbacks to insure open land is preserved in critical areas.
- Designation of building envelopes and approach/departure surfaces on proposed development plans within the approaches to determine the amount and configuration of open land in these critical areas.

Airport Combining Zone

The recommended method for implementation of this Compatibility Plan is the establishment of an airport combining or overlay zone. The basic concept of a combining zone is to establish requirements in addition to those of the underlying land use district. The principal zoning classification continues to define most of the use and site design parameters. The combining zone then serves to modify the primary classification in a few, very specific ways. The specific modifications should include limitations on building height, lot coverage, population density, and flight hazards (smoke, glare, electrical interference, etc.), as well as provisions for site design criteria and buyer notification.

There are several benefits to using an airport combining zone. A combining zone provides a mechanism for implementation of restrictions and conditions that may apply to only a few types of land uses within a given land use category or zoning district. It permits the continued utilization of the majority of the design and use guidelines contained in the existing zoning code. This avoids the need for a large number of discrete new zoning districts in an airport's vicinity. It also enables the local jurisdictions to use the performance standards provided in the Airport Land Use Compatibility Plan directly, rather than redefining the existing zoning code. In addition, zoning is a commonly disclosed source of information for prospective buyers and can be utilized as an element of a comprehensive buyer awareness program.

OBSTRUCTIONS AND HAZARDS TO FLIGHT

FAA Notification and Referral

Project proponents must be informed of the notification and filing requirements of Federal Aviation Regulation Part 77, Subpart B (refer to Appendix B). Notice to the FAA using Form 7460-1, "Notice of Proposed Construction or Alteration" should be filed for any proposed structure which would penetrate imaginary slopes extending from the nearest point of an airport's runway. The slope of the imaginary surface and the radius of the referral area are specified in relation to the length of the runway. This referral requirement differs substantially from the height-limitations also specified under Part 77.

The purpose of the FAA referral would be to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Proposed structures in developed areas that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety, do not require FAA referral.

Height Limitation and Safety Ordinance

As a means of implementing the height restrictions of Federal Aviation Regulations Part 77, a height limitation ordinance is appropriate. The purpose of the ordinance would be to prevent the creation of flight hazards and obstructions in order to protect the utility of the airport. The ordinance will generally define the minimum slopes for the approaches to each runway and the various imaginary surfaces which establish the maximum height of objects in the airport's vicinity.

Provisions in the ordinance should also prohibit/limit the creation of other hazards to air navigation, such as the production of excessive smoke, glare, light, and electrical interference and uses which may attract birds, such as landfills.

Easements

The use of easements is another land use control measure available to local jurisdictions. Easements have historically been used to establish height limitations, prevent flight hazards, as well as ensure that prospec-

tive buyers are notified of potential overflights. The dedication of an easement is generally required as a condition of development approval or other land use entitlement. An easement will only apply to the specific property to which it is attached and is binding on all subsequent owners. There are three types of easements generally associated with compatibility planning.

- **Height-limit easements** are often required as a condition of approval for projects that are within an airport's approach/departure zone or other areas where height restrictions are of critical concern (i.e., areas where high terrain is close to or penetrates Part 77 imaginary surfaces). The advantage of an easement is that it generally conveys the right to enter the property and remove, mark, or light any potential obstructions. Height-limit easements also include provisions which prohibit other flight hazards, such as excessive smoke, glare, electrical interference, and uses which may attract birds.

- **Overflight easements** simply establish a right-of-way through the airspace over the property. The right to subject the property to noise, vibration, fumes, dust, and fuel emissions associated with airport activities is generally included. One limitation of overflight easements is that they do not address flight hazards or obstructions. They are generally used in areas that are subject to aircraft overflights where height limitations and safety are not significant concerns.

- **Avigation easements** are generally broader in scope than either height-limits easement or overflight easements in that they include both provisions enabling access to the property to remove, mark, or light potential obstructions or flight hazards and the right of overflight. The dedication of an avigation easement is often required by local jurisdictions as a condition of approval for development of property where noise, safety, or potential flight hazards are significant concerns.

  Although the rights associated with most avigation easements may be established in other forms (e.g., Federal Aviation Regulations and height-limit zoning), an avigation easement clearly conveys these rights to the airport owner. It also serves to notify all future owners of affected property of the airport's influence and specific restrictions. An avigation easement normally conveys the following rights and restrictions:

  - A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (set in accordance with Federal Aviation Regulations Part 77 and/or criteria for terminal instrument approaches).

  - A right to subject the property to noise, vibration, fumes, dust, and fuel particle emissions associated with normal airport activity.

  - Prohibits the construction or growth of any structure, tree, or other object that would enter the acquired airspace.

  - A right-of-entry onto the property, with appropriate advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.

  - Prohibit electrical interference, glare, misleading light sources, visual impairments, and other hazards to aircraft from being created on the property.

OVERFLIGHTS

Buyer Awareness Programs

The objective of a buyer awareness program is to ensure that the prospective buyers of property in the vicinity of an airport are informed about the airport's potential overflight impacts. Buyer awareness measures are intended to enable people who are particularly sensitive to aircraft overflights to avoid moving to the principally affected areas. Generally, there are three types of measures that can be utilized to establish a buyer awareness program: overflight easements, deed notices, and real estate disclosure statements.

Overflight Easements

Overflight easements as described above are generally used as a condition of approval for residential land uses in areas subject to aircraft overflights. The primary purpose of an overflight easement is not to protect the airspace, but rather to notify prospective buyers of the overflights.

Deed Noticing

Deed noticing is similar to an overflight easement in that it is attached to the title to a specific property. The distinguishing difference between a deed notice and an overflight easement is that the deed notice only serves as a disclosure of potential overflights, whereas an easement conveys a "right-of-way" to the airspace over a property. The filing of deed notices is recommended as a condition of approval for new residential uses within the planning areas of the privately owned airports in the County. A sample of language for deed noticing is included in Appendix E.

Real Estate Disclosure Statements

A more comprehensive form of buyer awareness program is to require the disclosure of information about an airport's influence area along to prospective buyers of property prior to the transfer of title. The advantage of this type of program is that it applies equally to all properties, including existing land uses.

This type of buyer awareness program could be implemented through the adoption of a local ordinance requiring real estate disclosure upon the transfer of title or established in conjunction with the adoption of an airport combining zone. Notification describing the zone and discussing its significance could be formally sent to all local real estate brokers and title companies. Having received this information, the brokers would be obligated by state law to pass it along to prospective buyers.

PART III

Airport Plans and Impact Assessment

5

Napa County Airport Plans and Impact Assessment

NAPA COUNTY AIRPORT

Setting

Napa County Airport is situated at the southern entrance to Napa Valley near the intersection of State Highway 29 and State Highway 12, approximately 2 miles south of the City of Napa and 3 miles north of the City of Vallejo and the Solano County Line.

Most of the land surrounding the Airport is, as yet, undeveloped, providing a high degree of land use compatibility between the Airport and its environs. The Airport is bounded on the west by marshland of the Napa River, and on east by the Southern Pacific Railroad. Other uses adjoining the Airport include the salt evaporation ponds to the south and west, and the Napa Sanitation District's lands used for storage and irrigation of wastewater to the north.

Existing urban development in the area includes scattered industrial and commercial uses located along State Highway 29, Tower Road, and Green Island Road. The nearest residential development includes an estimated 150 homes along the west bank of the Napa River located directly west of the airfield. Other residential land uses are concentrated in the unincorporated American Canyon area located approximately two miles south of the Airport. A description of the he Airport's environs are is summarized in Table 5 - 1.

Affected Jurisdictions

Land within the Airport's influence area falls under the jurisdiction of two local agencies: the County of Napa and the City of Napa. Figure 5A illustrates the jurisdictional boundaries and respective land use designations in the Airport's vicinity.

Table 5-1

Airport Environs

Napa County Airport

AIRPORT LOCATION AND ACCESS

- Located south of the City of Napa approximately 1 mile from the city limits.
- Situated 2 miles north of the unincorporated community of American Canyon.
- Access 1 mile west on Airport Road from the intersection of State Highways 12 and 29.
- Airport property and adjoining lands within the jurisdiction of the County.
- Southern Pacific Railroad adjoins Airport on the east and traverses Airport property to the south.
- Airport property adjoins Green Island Road to the south.

LOCAL LAND USE PLANS AND ZONING

- *Napa County General Plan* adopted 1983
- *Napa County Airport Industrial Area Specific Plan* adopted 1986
- *City of Napa General Plan*
- City sphere of influence extends within 1 mile northwest of Airport.
- *Napa Valley Corporate Park Specific Plan* 1983.

PLANNED LAND USE DEVELOPMENT IN AIRPORT AREA

- Future industrial business park planned for adjoining areas north, east and south.
- Potential mixed use planned development for area northwest of airport within the City of Napa.
- Agricultural and open space uses designated at periphery of planning area.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport owns fee title or has established easements over the majority land within runway protection zones.
- Napa County *Airport Safety Ordinance* establishes height limitations and prohibits flight hazards in the airport planning area.
- Standard avigation easement is required for development approval on all projects within the airport planning area.
- Airport Master Plan recommends acquisition of additional lands/easements for approach protection.

EXISTING AIRPORT AREA LAND USES

General Character

- Airport is situated in a developing industrial/business park area
- Surrounded by predominantly agricultural and industrial uses.
- Airport property is bounded on the west by tidal salt evaporation ponds, marsh and the Napa River.
- Napa Sanitation District lands adjoins Airport to the north.
- Scattered industrial uses to the east and south

Runway Approaches

- Runway 18R and 18L (north) Approaches – Sewage treatment plant and irrigation lands close-in; industrial uses within two miles.
- Runway 24 (east) Approach – Industrial uses located within one mile of runway end; Chardonnay Golf Course located beneath the outer approach
- Runway 36L and 36 R (south) Approaches – Scattered industrial uses located close-in; salt evaporation ponds, Napa River and baylands beyond.
- Runway 6 (west) Approach – Salt evaporation ponds, Napa River and residential uses along the west bank of the Napa River.

Traffic Patterns

- Traffic patterns located on east, west and south sides of the airfield.
- Residential uses along Napa River and undeveloped land within the City of Napa located beneath westside traffic pattern to primary runway 18R-36L.
- Developing business park, industrial uses and sanitation district lands lie beneath the eastside traffic pattern to the general aviation runway.
- Predominantly undeveloped lands and scattered industrial uses to the south along Green Island Road, designated for future industrial park lie beneath the traffic pattern for the crosswind runway 6-24.

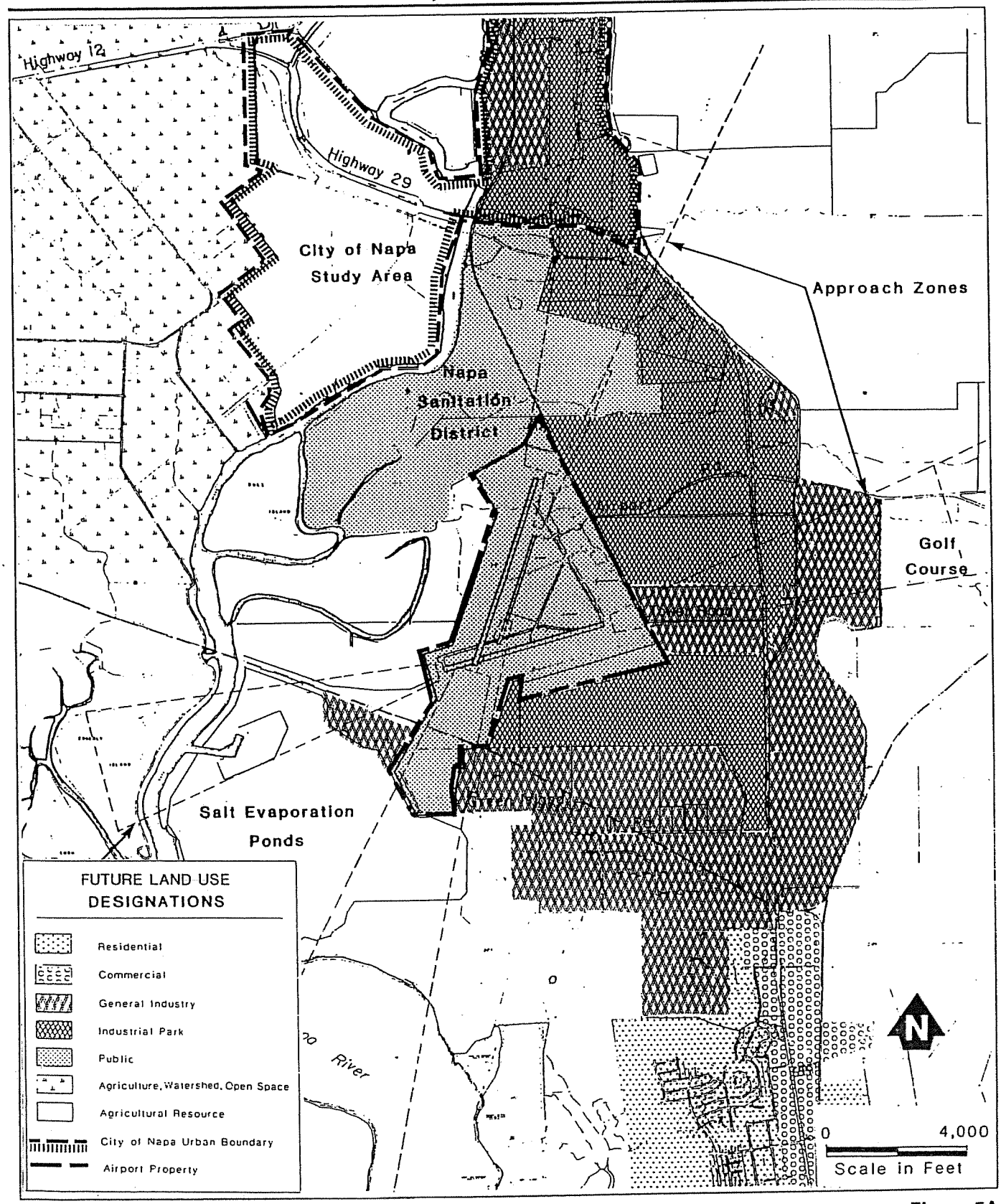


Figure 5A

Jurisdictional Boundaries and Future Land Use

Napa County Airport

The airport property and most of the land surrounding the Airport is within the jurisdiction of the County of Napa. Lands adjoining the Airport to the east and south are designated for industrial park development. The outlying areas within the Airport's vicinity are designated for agricultural use.

The City of Napa's southernmost boundary extends within two miles north of the Airport, encompassing a partially developed industrial park. Northwest of the airfield is a large undeveloped area within the City Limits with potential for residential development. Both of these areas lie beneath the traffic pattern for the primary runway.

Airport Development

The Napa County Airport was originally constructed in 1942 by the Army Corps of Engineers on land owned by the County. The purpose of the construction, to establish an air base for national defense, was never fulfilled and the airport facilities were conveyed to the County for civilian use in 1945. There have been 25 federally funded development projects to enhance the Airport's safety and capacity. Previous airport improvement projects have included the construction of a parallel general aviation runway, extension of the primary runway, additional taxiways, parking aprons, and the acquisition of land for runway protection zones. A profile of airport features is provided in Table 5 – 2.

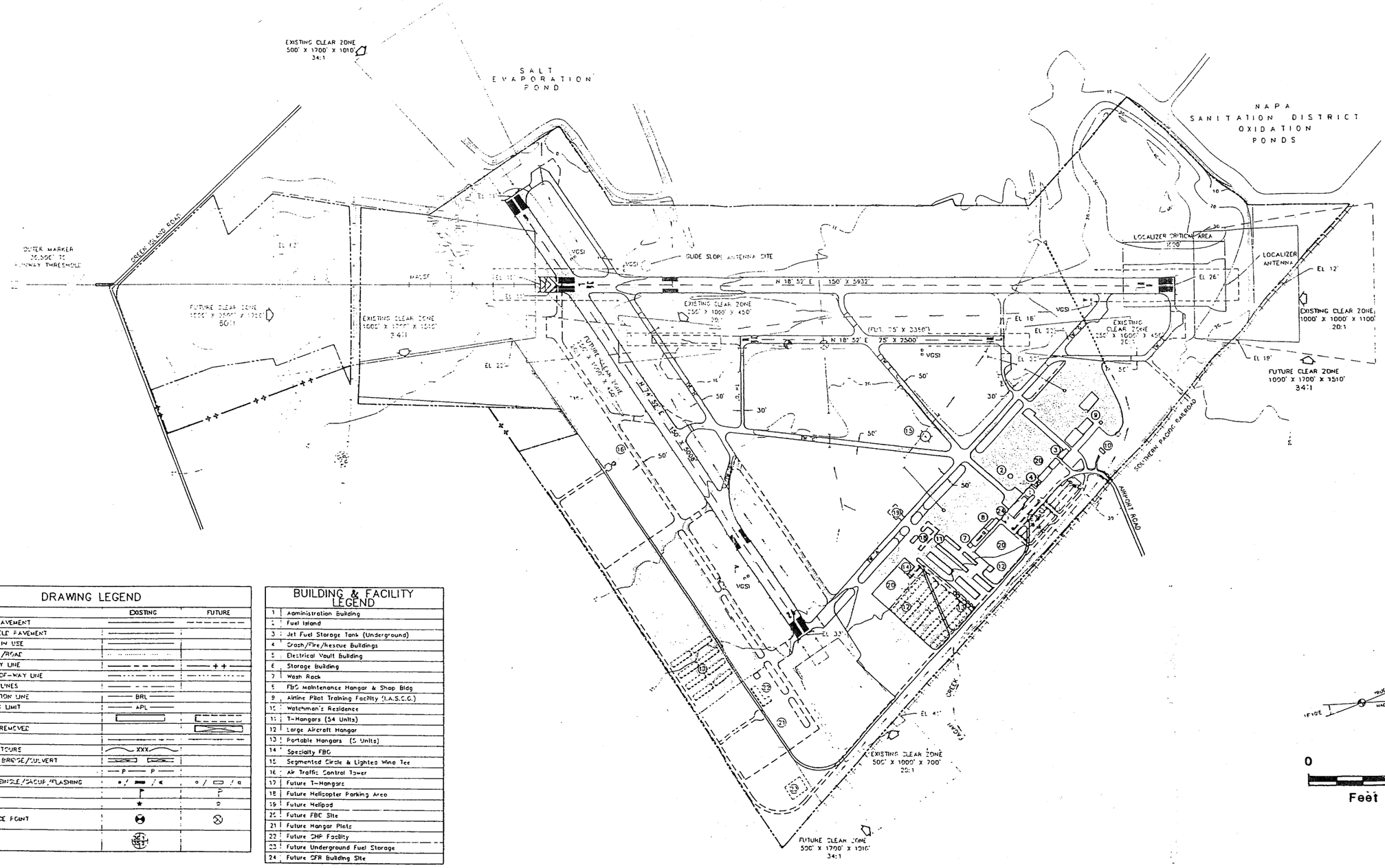
Airport Role

Napa County Airport is expected to continue as primarily a general aviation facility with an emphasis in flight training activities. The existing airline pilot training facility located at the Airport is the single largest generator of aircraft activity, comprising an estimated 50% of all operations. The Airport is also designated as a reliever airport in the *National Plan of Integrated Airport Systems* which serves as a site for pilots from more congested areas to train and maintain their flight proficiency. The Airport is considered an important transportation link, supporting the growing business and industrial sectors of the community, as well as a recreational resource for local pilots.

Airport Master Plan and Projected Activity

An update of the Airport's Master Plan was completed in 1989 and forms the basis for the Compatibility Plan. The focus of the Master Plan is on improving the operational safety of the Airport and mitigating potential impacts.

Of particular relevance for land use planning is the proposed extension of the general aviation runway to accommodate training (touch-and-go) flights. This project will enable a significant number of flights to be shifted to the eastside traffic pattern, thus avoiding the residential area located along the west bank of the Napa River. Other major features of the Master Plan are shown on the Airport Layout Plan (Figure 5B).



DRAWING LEGEND

	EXISTING	FUTURE
ACTIVE AIRFIELD PAVEMENT		
ABANDONED AIRFIELD PAVEMENT		
OTHER PAVEMENT IN USE		
GRAVEL SHOULDER/ROAD		
AIRPORT PROPERTY LINE		
LEASE OR RIGHT-OF-WAY LINE		
OTHER PROPERTY LINES		
BUILDING RESTRICTION LINE	BRL	
AIRCRAFT PARKING LIMIT	APL	
BUILDINGS		
BUILDINGS TO BE REMOVED		
FENCE & GATE		
TOPOGRAPHIC CONTOURS	XXX	
WATER COURSE & BRIDGE/CULVERT		
POWER LINE	P P	
AIRFIELD LIGHTS: SINGLE/GAGUE/FLASHING		
WIND CONE		
BEACON		
AIRPORT REFERENCE POINT		
SECTION CORNERS		

BUILDING & FACILITY LEGEND

1	Administration Building
2	Fuel Island
3	Jet Fuel Storage Tank (Underground)
4	Crash/Fire/Rescue Buildings
5	Electrical Vault Building
6	Storage Building
7	Wash Rack
8	FBO Maintenance Hangar & Shop Bldg
9	Airline Pilot Training Facility (L.A.S.C.C.)
10	Watchman's Residence
11	T-Hangars (54 Units)
12	Large Aircraft Hangar
13	Portable Hangars (5 Units)
14	Specialty FBO
15	Segmented Circle & Lighted Wind Tee
16	Air Traffic Control Tower
17	Future T-Hangars
18	Future Helicopter Parking Area
19	Future Helipad
20	Future FBO Site
21	Future Hangar Plots
22	Future CHP Facility
23	Future Underground Fuel Storage
24	Future CFR Building Site

Figure 5B

Airport Layout Plan

Napa County Airport

Table 5-2

Airport Features

Napa County Airport

AIRPORT PROPERTY

Ownership – County of Napa
Acreage – 800 acres
Elevation – 33 feet MSL

AIRPORT PLANNING

Adopted Plans

- Airport Master Plan updated 1989

Planned Improvements

- Extension of general aviation Runway 18L-36R to accommodate training activities
- Additional aircraft storage hangars
- Public helipad and helicopter parking area
- Relocation of Airport Tower Road to southernmost property line.
- New access road from entrance to hangars

Major Facilities

- Terminal Building with administrative offices and restaurant
- Fixed base operator hangar/office
- Specialty fixed base operator hangar
- Airline pilot training facility school, offices, and hangar
- California Highway Patrol Air Support Unit
- Air Traffic Control Tower

RUNWAY SYSTEM

Primary Runway 18R-36L
Critical Aircraft – Gulfstream III
Classification – General Utility Stage II.
Dimensions – 5,932 feet long x 150 feet wide.
Pavement Strength - 50,000 lbs. dual wheel
Lighting – Medium intensity edge lights;

Crosswind Runway 6-24
Critical Aircraft – Gulfstream III
Classification – General Utility Stage II.
Dimensions – 5,008 feet long x 150 feet wide.
Pavement Strength - 70,000 lbs. dual-wheel
Lighting – Medium intensity edge lights.

General Aviation Runway 18L-36R
Critical Aircraft – Piper Arrow
Classification – Basic Utility (Stage I existing; Stage II proposed)
Dimensions – 2,500' x 75' existing; 3,400' x 75' proposed.
Pavement Strength - 12,500 lbs. single-wheel
Lighting – None existing; medium intensity edge lights proposed

RUNWAY APPROACHES

Primay Runway 18R
Approach Type – Existing visual (also circling VOR instrument approach); Future non-precision instrument
Approach Slope Required - Existing 20:1; Future 34:1
Runway Protection Zone – Majority on airport property; portion under conservation easement.

Primary Runway 36L
Approach Type – Existing Nonprecision instrument; Future precision instrument
Approach Slope Required - Existing 34:1; Future 50:1
Runway Protection Zone – All on airport property; portion of future runway protection zone recommended for acquisition

Crosswind Runway 6
Approach Type – Existing non-precision instrument approach;
Approach Slope Required – 34:1
Runway Protection Zone – Under avigation easement.

Crosswind Runway 24
Approach Type – Existing visual; Future non-precision instrument
Approach Slope Required - Existing 20:1; Future 34:1
Runway Protection Zone – All on airport property; portion of future runway protection zone recommended for acquisition

General Aviation Runway 18L
Approach Type – Visual
Approach Slope Required - 20:1
Runway Protection Zone – All on airport property

General Runway 36L
Approach Type – Visual
Approach Slope Required – 20:1
Runway Protection Zone – All on airport property

Table 5-3

Airport Activity

Napa County Airport

BASED AIRCRAFT

	Current [a]	Future [b]
Total	215	315

AIRCRAFT OPERATIONS

	Current [a]	Future [b]
Total		
Annual	163,000	210,000
Average Day	446	575
Distribution		
Single-Engine	77.0%	71.0%
Twin-Engine	6.0%	7.0%
Turboprop	11.0%	12.0%
Business Jets	2.0%	3.0%
Helicopters	6.0%	7.0%

TIME OF DAY DISTRIBUTION

		Current [a]
Single		
Day	(0700-1900)	95.0%
Evening	(1900-2200)	4.0%
Night	(2200-0700)	1.0%
Twins		
Day	(0700-1900)	97.0%
Evening	(1900-2200)	2.0%
Night	(2200-0700)	1.0%
Helicopter		
Day	(0700-1900)	75.0%
Evening	(1900-2200)	16.0%
Night	(2200-0700)	9.0%
Jet		
Day	(0700-1900)	99.0%
Evening	(1900-2200)	1.0%
Night	(2200-0700)	-0-

RUNWAY USE DISTRIBUTION

	Current [a]
All Aircraft	
All Operations	
Primary Runway	
Runway 18R	60.0%
Runway 36L	2.5%
Crosswind Runway	
Runway 24	15.0%
Runway 6	2.0%
General Aviation	
Runway 18L	20.0%
Runway 36R	.5%

FLIGHT TRACK DATA

- Pattern Altitude – 1,000 feet AGL
- Left traffic standard to Runways 18L, 36L, 06, and 24.
- Right traffic Runways 18R and 36R.

NOTES

[a] 1988/89 activity levels as indicated in *Airport Master Plan.*

[b] *Airport Master Plan* projections for 2008.

Forecasts of activity (summarized in Table 5 - 3) project an increase from the current level of 163,000 annual operations to 210,000 annual operations in 2008. This level of activity remains below the peak levels achieved in the late 1970's.

IMPACT ASSESSMENT

An analysis of the Napa County Airport's potential impact area provides the basis for evaluating future land use compatibility. The following summarizes the impact analysis. Projected noise contours, overflight areas, flight patterns, and approach surfaces are illustrated in Figure 5C.

Noise Contours

An analysis of the underlying land use designations, noise compatibility criteria, and the projected noise contours indicates that noise exposure levels will not present a significant problem with respect to land use compatibility in the Airport's environs. The projected 65 CNEL contour does not extend beyond airport property. The projected 55 CNEL contour extends south over the salt ponds, west over the Napa River, north over the sanitation district's lands, and to the east over the industrial lands on Tower Road. The types of land uses within these areas are consistent with local, state, and federal guidelines for noise compatibility.

Overflight

Overflight impacts are expected to be a more significant concern than composite noise exposure levels around Napa County Airport. The most sensitive areas are those beneath the common traffic pattern. Standard traffic patterns at Napa County Airport tend to be larger than usual for a general aviation facility, primarily because the airline training program requires a larger pattern. The size of the traffic pattern is also dependent upon the number of aircraft in the pattern, the size of the aircraft, and the skill of the pilot in judging distances. Napa County Airport has busy-hour traffic counts of six to seven aircraft in the pattern. Additionally, the Airport serves a wide range of multi-engine and jet aircraft which require a larger pattern.

Of particular concern for land use compatibility planning is the potential conversion of land to residential use within the Airport's traffic areas. Currently, residential uses are limited to a narrow strip of homes along the west bank of the Napa River. The County's General Plan and Airport Area Specific Plan does not provide for any new residential uses within the Airport's traffic area. Northwest of the Napa County Airport is an area designated as a Study Area in the City of Napa General Plan (known as the Stanly Ranch). Development on this site may include some residential uses. The site lies in the D and E zones; the D zone does not permit new residential uses, while the E zone does. As an approved site plan does not yet exist for the property, it is not possible to know how development of the property will affect compatibility in the Napa County Airport's environs.

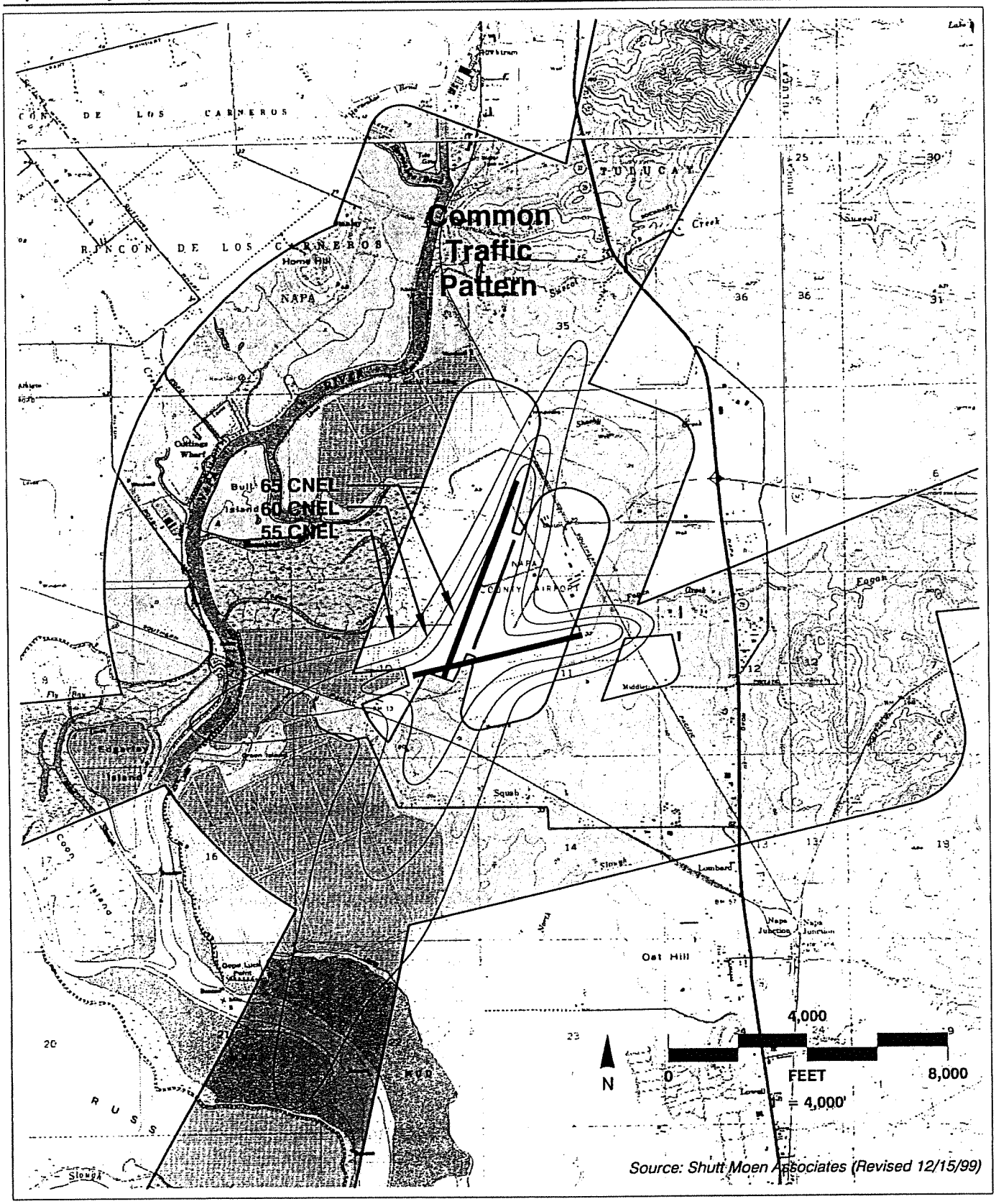


Figure 5C

Airport Impact Areas

Napa County Airport

Safety

Safety is also a significant concern at Napa County Airport because of the emphasis on flight training and the type of aircraft that use the facility. Although most of the aircraft are light single-engine planes, the Airport is also utilized by multi-engine and jet aircraft which are more difficult to control in the event of an emergency. Safety concerns are most significant with respect to the developing industrial area where compatible land use designations alone are not adequate to limit the exposure to risks. The areas of greater potential risk are beneath the approach/departure zones and the traffic pattern. A review of accident histories at the Airport reveals three off-airport accidents over the past 12 years. One accident involving a fatality, occurred in the approach to Runway 24. A summary of the accident history over the past 10 years is provided in the Napa County Airport Master Plan Report.

Flight Hazards

Potential obstructions and hazards to flight are another significant concern at Napa County Airport. An airspace plan depicting the critical areas for height limitations under federal regulations (FAR Part 77) is provided in Figure 5D. The County's existing Airport Safety Ordinance is more restrictive than federal regulations (crosswind runway approach surface is defined as 40:1 under the ordinance compared to 34:1 under FAR Part 77). Although the general aviation runway is not depicted in the ordinance, the approach surfaces for the primary runway encompass those for the parallel runway and are the controlling surfaces. If duly enforced, the ordinance should provide adequate protection from flight hazards.

COMPATIBILITY ISSUES

The primary issue confronting the Napa County Airport is the need to maintain compatibility while allowing for an acceptable degree of development in the Airport's vicinity. The key issues can be defined in terms of:

- Preventing the encroachment of incompatible development.
- Limiting the exposure to risks or flight hazards.

Encroachment of Incompatible Development

City of Napa

The area within the City of Napa's jurisdiction, located northwest of the Airport (known as the "Stanly Ranch") is an area of concern with respect to future land use compatibility. This area (designated as a Study Area in the City of Napa's General Plan and zoned as Planned Development), is expected to develop with

residential uses. As this area will continue to be affected by aircraft overflights, two specific land use compatibility measures are recommended:

1) Residential development is limited to areas outside of the common traffic pattern. That is, residential uses are only permitted in Zone E.

   and

2) Buyer notification should be required (i.e., dedication of overflight easements).

In accordance with ALUC policies for project referrals, future development proposals and specific plans for this area should be referred to the Airport Land Use Commission for a consistency determination.

County Lands

The potential conversion of agricultural lands to residential uses in the Airport's planning area is another concern which could undermine the relatively high degree of land use compatibility that now exists. Of particular concern are the areas lying beneath the approaches and common flight paths to Runway 18R and Runway 24. These areas are currently designated as Agricultural, Watershed, and Open Space in the Napa County General Plan. However, the conversion to residential use in these areas may be contemplated in the future.

As these areas are and will continue to be impacted by frequent aircraft overflights, the conversion of lands designated for agricultural use to residential uses within the Airport's planning area should be avoided. Preserving agricultural uses in the Airport's planning area would minimize the potential for future land use conflicts and ensure open land areas are maintained in the Airport's vicinity.

Exposure to Risk and Flight Hazards

There are two primary objectives with regard to safety in the vicinity of Napa County Airport:

- Limiting the exposure to risks by restricting the maximum densities of uses in the Airport's vicinity.

- Maintaining open land areas that can be utilized for emergency landings within the approaches and traffic pattern areas.

Maximum Densities

Of particular concern is the area within the approach/departure zones for the Primary Runway 18R and the Crosswind Runway 24. Most of the land within these areas is under the jurisdiction of the County of Napa. A portion of the Bedford Industrial Park, located within the Napa City Limits, lies beneath the approach and

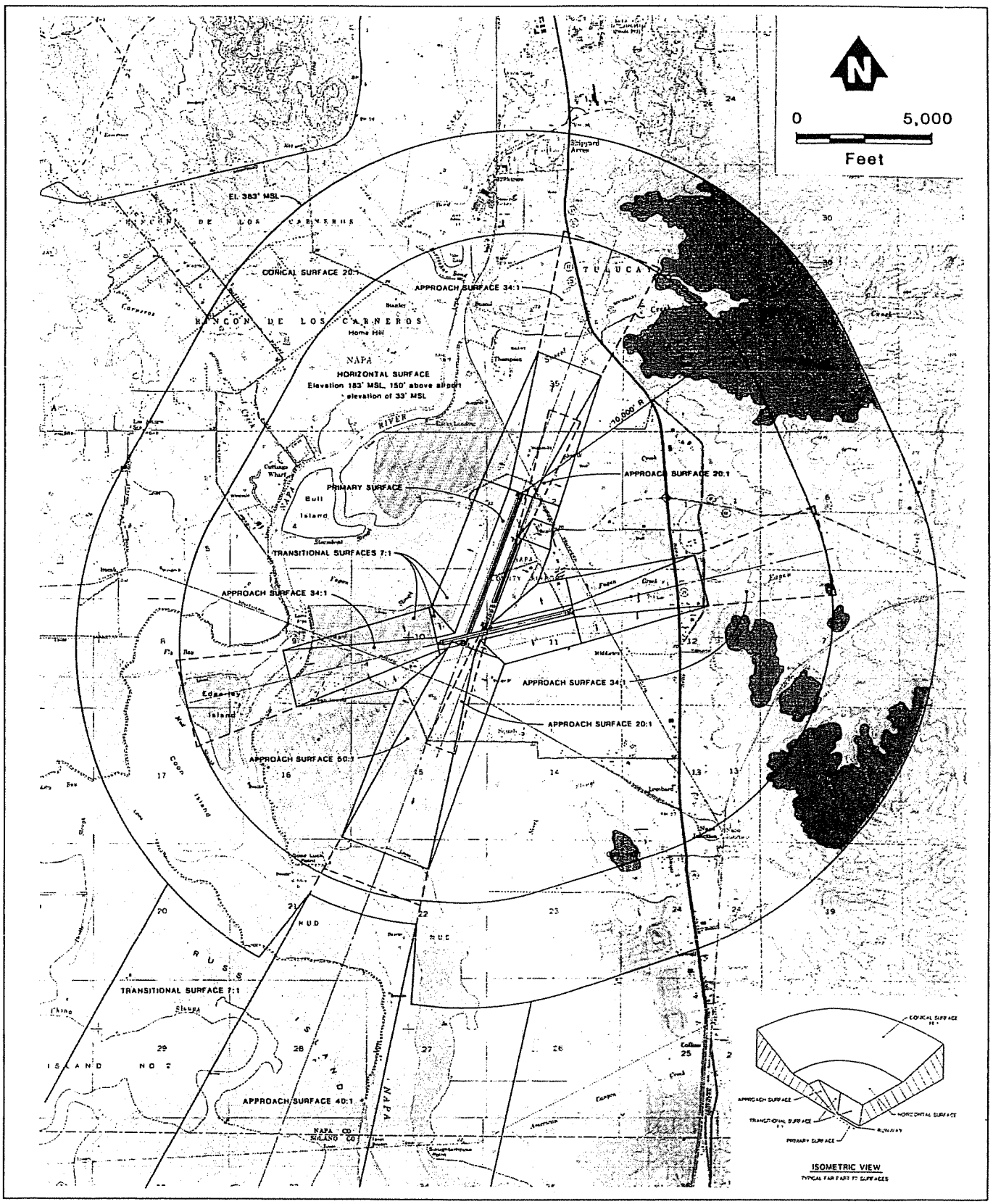


Figure 5D

Airspace Plan

Napa County Airport

traffic area for the primary runway. These areas are partially developed with primarily industrial uses; however, more intensive uses can be anticipated in the future.

Although industrial uses are considered compatible with airport activities, development of uses with high occupancies, limited mobility, or which include potential flight hazards should be avoided. The Compatibility Criteria contained in Table 3 - 2 establishes maximum densities in critical areas and prohibits certain land uses considered clearly incompatible.

Open Land Requirements

Maintaining open land areas that can be utilized in the event of an emergency landing is another important element of the Compatibility Plan for Napa County Airport. The intent of this Plan is to preserve to the extent feasible the existing open space uses (i.e., agricultural lands or golf course use) in the Airport's vicinity. Some mechanism must be established that ensures open land areas are preserved as the area develops. Of critical concern are those open land areas that lie beneath the approaches (Zones A, B, and C) and at the periphery of the traffic pattern area (Zone D). It is recommended that the local jurisdictions revise their General Plans to identify the critical open land areas that should be preserved for public safety.

Requiring larger setbacks from creeks or roads within the Airport's vicinity is one method of maintaining open land (i.e. requiring a 75' to 100' setback from the bank of Fagan Creek along the approach to Runway 24). Clustering of development and providing contiguous parking and landscaped areas is also encouraged. Building envelopes and approach surfaces should be required on all development plans within or near the approach zones.

City of Napa Plans and Policies

The City of Napa's General Plan is currently in the process of being updated and prior to adoption, must be sent to the ALUC for a consistency determination. The current General Plan does not include any specific policies relative to airport compatibility. The underlying land use designations within the Airport's vicinity appear consistent with the Compatibility Plan, provided that the City recognizes and incorporates the policy statements as described in Chapter 4.

County of Napa Plans and Policies

Land use designations in the Napa County General Plan and the Airport Industrial Area Specific Plan are for the most part consistent with the Compatibility Plan. Although the Specific Plan includes policies with regard to airport compatibility, this plan only applies to a portion of the Airport's planning area.

Established County policies (contained in the Airport Industrial Area Specific Plan) limiting employment densities and lot coverage in the Airport's vicinity apply only to the approaches to the primary runway 18R-36L. These policies do not fully address the safety concerns and overflight impacts within the approaches to the

crosswind runway and the broader airport planning area. Also, the local General Plan and Specific Plan do not fully reflect the ALUC requirements for open land and maximum densities.

Of particular concern is the industrial area lying beneath the approach to the crosswind Runway 24. The Specific Plan provides a minimum lot size of 20,000 square feet which would enable more intense development than now exists. In order to meet the compatibility criteria for maximum occupancies and open land requirements, larger minimum lot sizes are recommended (e.g., five-acre minimum lot sizes).

OTHER COMPATIBILITY MEASURES

Other measures used to ensure land use compatibility include operating restrictions and noise abatement procedures implemented by the airport authorities. The airline pilot training facility currently operates under an agreement with the County which limits the nighttime (after 10 p.m.) training operations. In addition, they have agreed to conduct training activities outside Napa Valley and to avoid overflights of the City of Napa.

The size of the aircraft that may use Napa County Airport is currently limited by the strength of the runway pavements to aircraft under 50,000 pounds (dual-wheel). This limitation was emphasized in a voter-approved referendum regarding the extension of the primary runway in 1974. The 50,000-pound limitation effectively limits the types of activities that could potentially locate at the Airport. By limiting the strength and length of the runway system, the County also limits the impact of airport activities on surrounding land uses.

6

(Chapter repealed February 16,2000)

7

Parrett Field Plans and Impact Assessment

PARRETT FIELD

Setting

Parrett Field is part of the campus of Pacific Union College, located within the unincorporated community of Angwin. The airfield is situated on a ridgetop with predominantly undeveloped and heavily wooded land surrounding the airfield to the north, east, and south. The community of Angwin and the college facilities are situated west of the Airport. Table 7 — 1 provides a summary of the planning context.

Affected Jurisdictions

Land within the influence area for Parrett Field falls within the jurisdiction of the County of Napa. Figure 7A illustrates the parcelization and respective zoning designations in the vicinity of the Airport.

Airport Operation and Development

Parrett Field, developed as a private landing strip, is owned and operated by Pacific Union College. The college is affiliated with the Seventh Day Adventist Church, and as such, commercial business activities are prohibited on Saturdays, the Church's Sabbath.

The Airport is open to the public and has a full-service fixed-base operator which provides fueling, maintenance, flight training, and rentals. The airfield has low intensity lighting, but no beacon that would enable transient pilots to locate the airfield at night. Consequently, the level of evening and night operations is expected to be very limited.

Table 7-1

Airport Environs

Parrett Field

AIRPORT LOCATION AND ACCESS

- Airport situated on a ridgetop within the campus of Pacific Union College
- Lands surrounding the Airport and within the community of Angwin are in the jurisdiction of the County of Napa

EXISTING AIRPORT AREA LAND USES

General Character

- Pacific Union College adjoins airport to the west
- Undeveloped, heavily wooded land to the north and east
- Few rural residential uses to the south
- Unincorporated community of Angwin is located west of the airfield

Runway Approaches

- Undeveloped lands to the north and south under approach/departure zones

Traffic Pattern

- Standard traffic pattern on eastside of the airfield only to avoid overflying Angwin

LOCAL LAND USE PLANS

- *Napa County General Plan*, adopted 1983
- Surrounding lands are within County's jurisdiction

PLANNED DEVELOPMENT IN AIRPORT AREA

- Pacific Union College Land Use Plan includes development of residential and commercial uses

ESTABLISHED COMPATIBILITY MEASURES

- Airport traffic pattern avoids overflying Angwin
- Limited night-time operations
- Adjacent lands owned by Airport proprietor

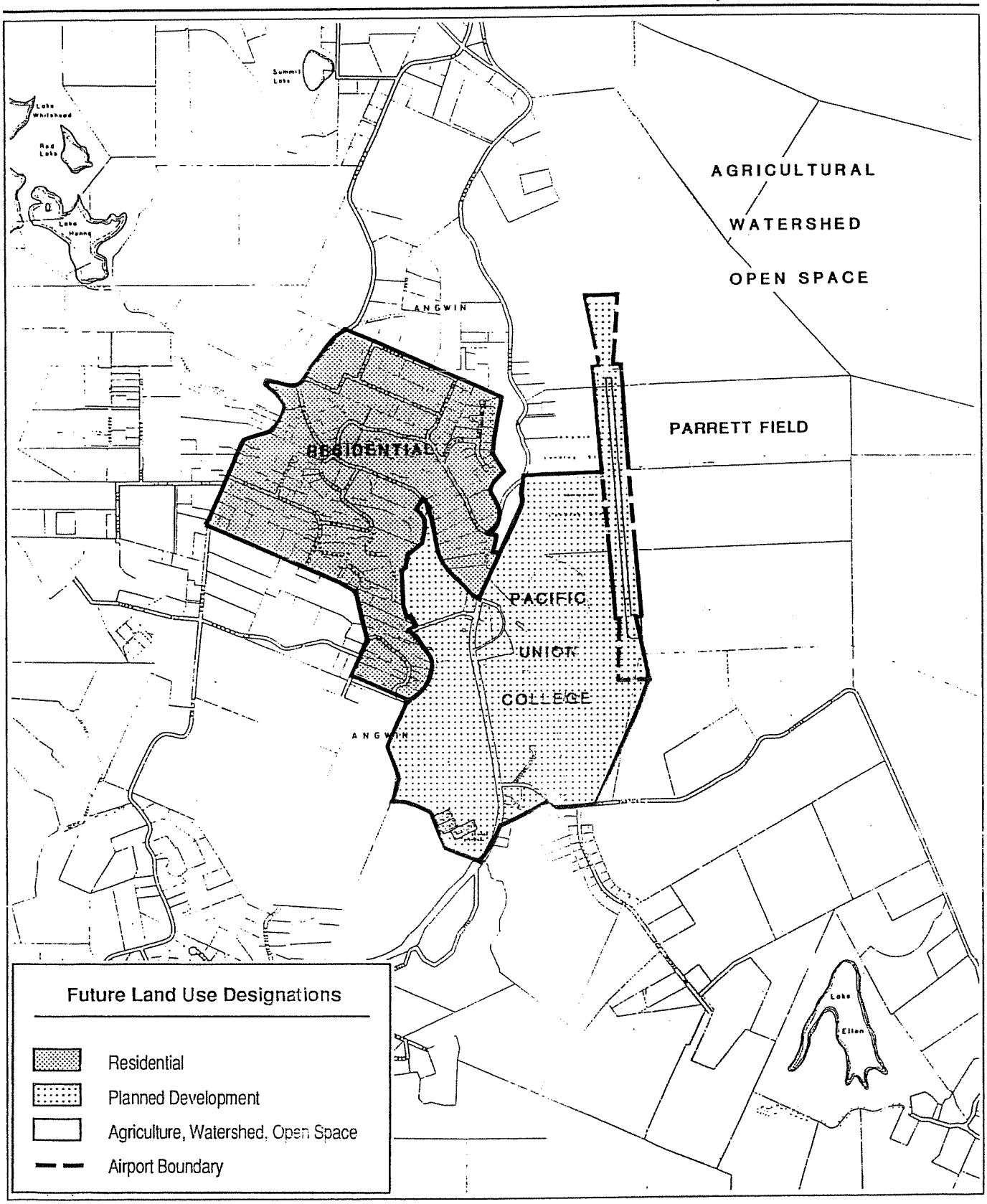


Figure 7A

Land Use Designations

Parrett Field

There are standard traffic patterns to both runway ends (left traffic to Runway 16; right traffic to Runway 34). Traffic is limited to the east side only in order to avoid overflying the community of Angwin. Runway utilization is evenly divided between the north and south.

Airport Layout Plan

Parrett Field does not have a formal master plan. However, the college does have facility plans which reflect the potential build-out of the airfield's building area with the addition of 14 hangars. An analysis of the existing runway length and FAA standards indicate that the existing 3,217-foot runway is sufficient to accommodate the type of aircraft expected to use Parrett Field over the 20-year planning period. The configuration of the airfield and existing topographic features also present a natural constraint to lengthening the runway. This information has been compiled into an Airport Layout Plan for the purpose of this plan as shown in Figure 7B. Major airport features are summarized in Table 7 – 2.

Projected Activity

Forecasts of activity at Parrett Field were developed by the California Department of Transportation for the *California Aviation System Plan* (CASP). These figures, summarized in Table 7 – 3 reflect a relatively low level of activity over the 20-year planning period. There are currently 40 aircraft based at Parrett Field. An additional 20 aircraft are forecast over the 20-year planning period. Annual aircraft operations are projected to increase from 12,000 in 1990 to 20,000 by 2010.

IMPACT ASSESSMENT

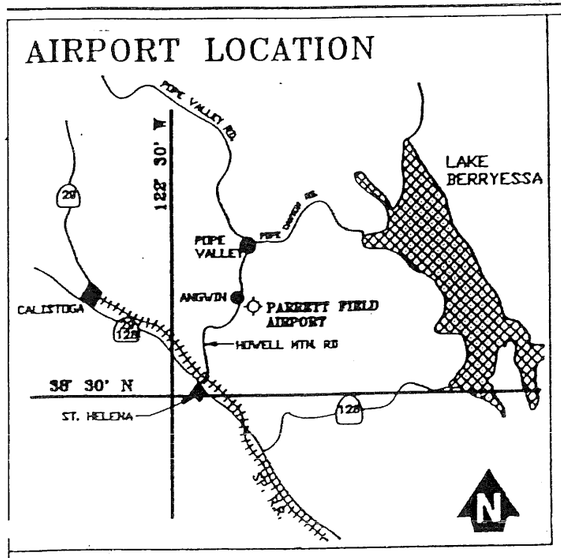
An analysis and summary of the potential impact area for Parrett Field is summarized below. Projected noise contours, overflight areas, flight patterns, and approach surfaces are illustrated in Figure 7C.

Noise

An analysis of the projected noise contours indicates that noise exposure levels will primarily affect the close-in properties adjoining the airfield. Because the airfield is situated above the community and college facilities, noise is not expected to present a significant concern.

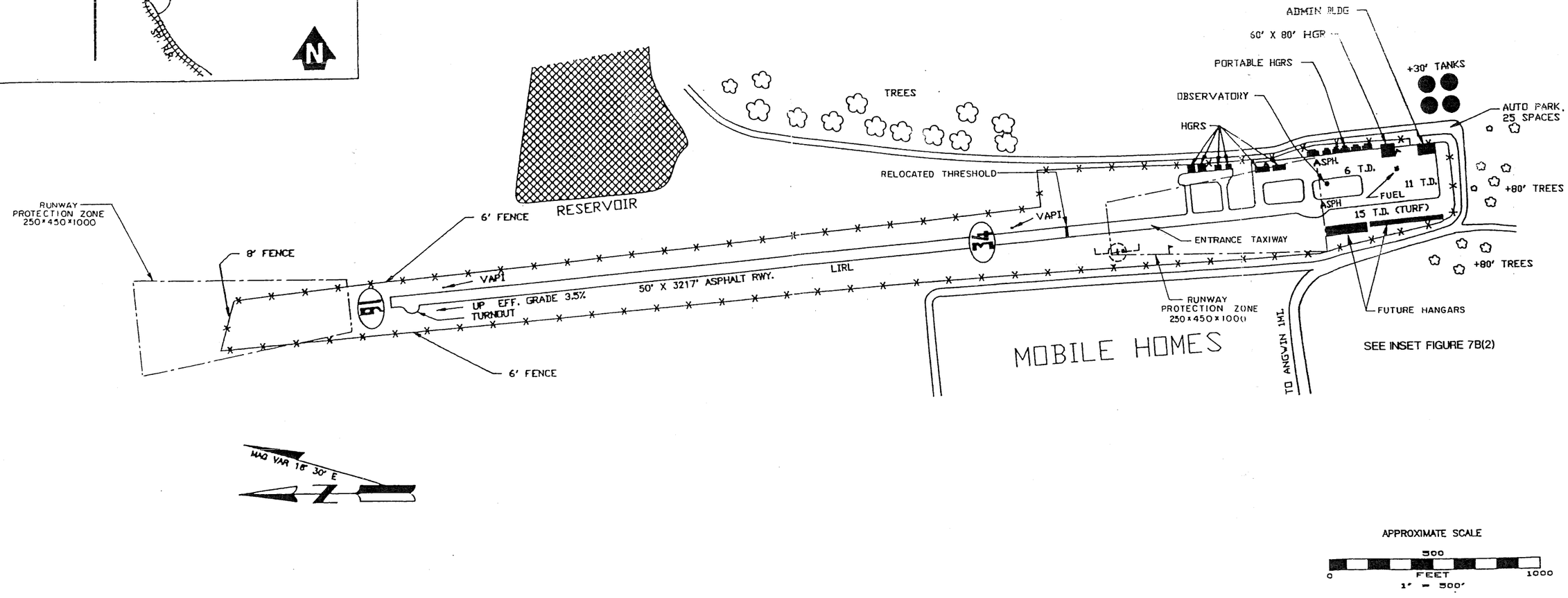
Overflight

Because the traffic pattern is limited to the east side of the airfield which is essentially undeveloped, the potential for overflight annoyance is limited. The future potential for development on the east side of the airfield is severely constrained by the heavily wooded and steep terrain. One area where overflights are of particular concern is south of the airfield within the approach to Runway



Acres: 60 (Est.)

Elev.: 1,848'

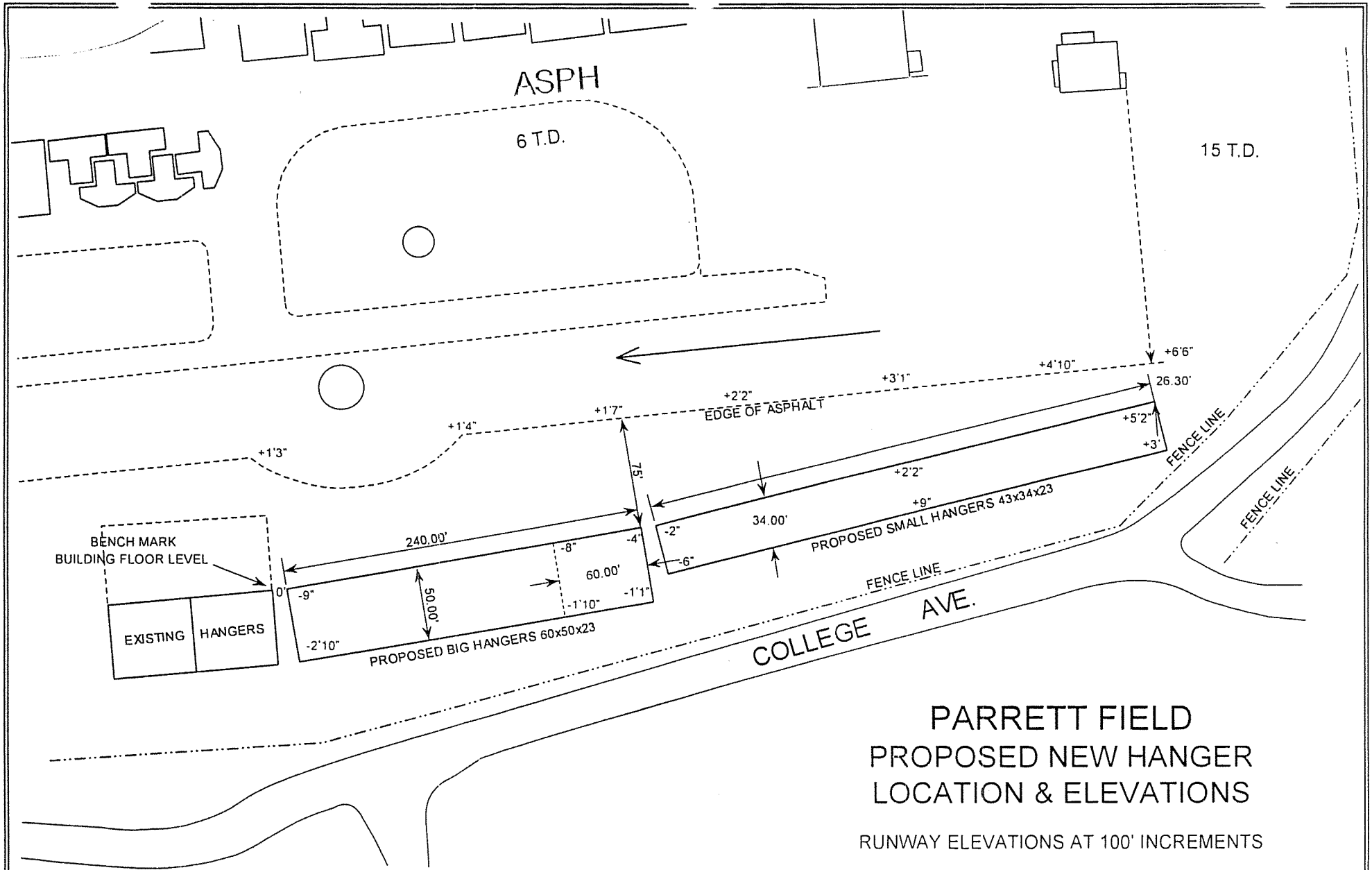


Revised 9/4/96

Figure 7B(1)

Airport Layout Plan

Parrett Field Airport



PARRETT FIELD
PROPOSED NEW HANGER LOCATION & ELEVATIONS

RUNWAY ELEVATIONS AT 100' INCREMENTS

SCALE
0 100'±
N

FIGURE 7B (2)

6527

Parrett field_aluc1-1 ppt

34. This area (along Cold Springs Road) is situated in a canyon area off the end of the runway which intensifies the noise of aircraft on departures to the south.

Safety and Flight Hazards

Safety is primarily a concern within the approaches to the Airport where densities are already low due to the nature of the terrain. Because the Airport is situated on a ridgetop, the Airport has clear approaches and there are no terrain penetrations of the imaginary surfaces. An airspace plan for Parrett Field is depicted in Figure 7D.

COMPATIBILITY ISSUES

Presently, there exists a relatively high degree of land use compatibility due to the airfield's ridgetop setting; eastside traffic pattern over undeveloped areas; and the low level of activity. Lands primarily affected by activities at Parrett Field are those within the college campus itself, creating a somewhat self-correcting situation, in that if a problem occurs, the college administrator can deal with it directly, rather than looking to local land use controls. Recommended policies with respect to Parrett Field primarily focus on 1) preserving open space/agricultural uses within the approaches; 2) preventing residential development beneath the traffic pattern; and 3) requiring buyer notification for residential uses in the Airport's vicinity. Figure 3C presents the recommended Compatibility Plan for Parrett Field.

AIRPORT COMPATIBILITY MEASURES

Airport-sponsored compatibility measures include:

1. Limited nighttime operations (lack of airfield beacon).

2. Right turns required on departure from Runway 34 to avoid overflying community.

Table 7-2

Airport Features

Parrett Field

RUNWAY/TAXIWAY SYSTEM

Airport Classification

Basic Utility Stage II

Airport Reference Code

B-I

Runway 16-34

Length: 3,217 feet Width: 50 feet
Overruns: 800' dirt overrun Runway 16; 1,850' entrance taxiway/overrun to relocated threshold Runway 34.
Surface: Asphalt with chip seal;
Lighting: Low intensity; no rotating beacon

Taxiway Access

No parallel; access at south end only

Approach and Landing Aids

Visual approaches only
Visual approach path indicators (VAPI) at both ends

BUILDING AREA

Location

South end of runway, both sides

Existing Aircraft Parking Capacity

Tiedowns/uncovered spaces: 32
Hangars: 20

Services

Attended 8 a.m. to 5 p.m.; closed Saturday
Fuel, instruction, rentals, major maintenance

AIRPORT PROPERTY

Ownership: Pacific Union College
Acreage: 60 (estimated)
Elevation: 1,848 MSL

RUNWAY PROTECTION ZONES AND APPROACHES

Runway 16

Existing Approach Type: Visual
Required Approach Slope: 20:1
Obstacles in the Approach: No
Runway Protection Zone: 100% on airport property

Runway 34

Existing Approach Type: Visual
Required Approach Slope: 20:1
Obstacles in the Approach: yes, trees
Runway Protection Zone: 99% on airport property

PLANNED AIRPORT IMPROVEMENTS

- 12 additional hangars

Table 7-3

Airport Activity

Parrett Field

	1990	2010
Based Aircraft		
Total	40	60
Aircraft Operations		
Annual	12,000	20,000
Average Day	33	55
Fleet Activity Mix		
Single-engine, fixed-pitch propeller	80%	No Change
Single-engine, variable-pitch propeller	13%	No Change
Twin-engine propeller	7%	No Change
Time of Day Distribution		
All Aircraft		
Day (0700-1900)	80%	No Change
Evening (1900-2200)	15%	No Change
Night (2200-0700)	5%	No Change
Runway Use Distribution		
All Aircraft		
Takeoff and Landings		
Runway 16	50%	No Change
Runway 34	50%	No Change

Flight Track Data

- Traffic pattern on east side only.
- Left traffic to Runway 16; right traffic to Runway 34.
- Standard patterns to both runway ends; no geographic features used as turning points.

Sources

- Airport Manager (June 1990)
- Airport Master Record (April 1990)

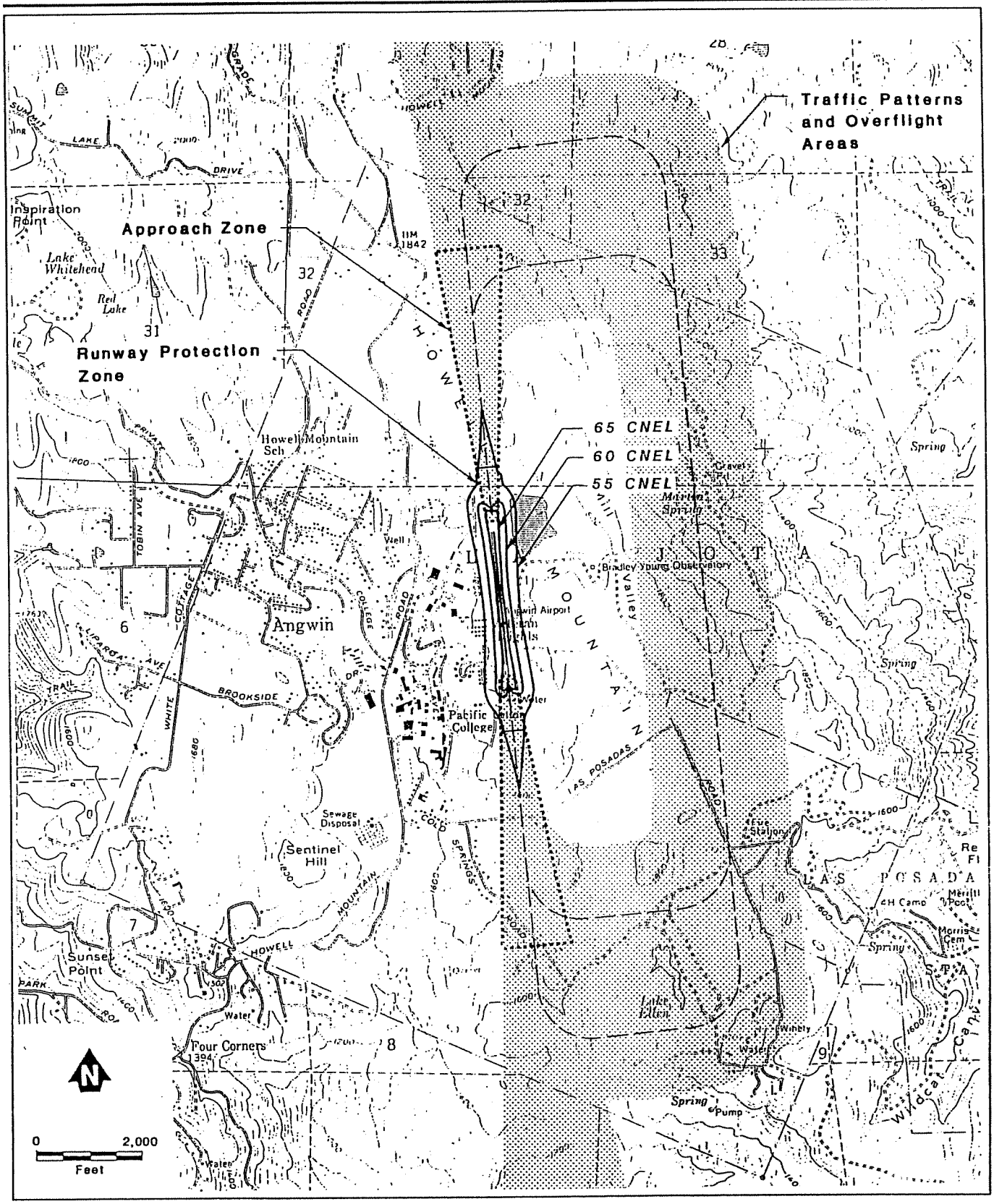


Figure 7C

Airport Impact Areas

Parrett Field

EL. 2,198'

CONICAL SURFACE 20:1

PRIMARY SURFACE

HORIZONTAL SURFACE
El. 1,998' MSL; 150' above airport elevation of 1,848' MSL

APPROACH SURFACE 20:1

5,000'

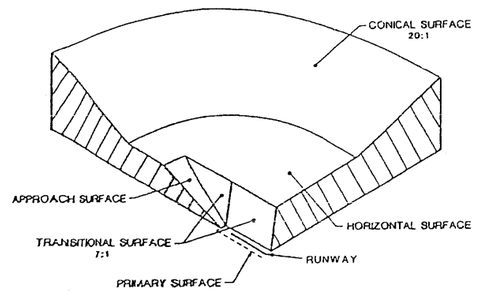
4,000'

APPROACH SURFACE 20:1

TRANSITIONAL SURFACES 7:1

0 2,000

Feet



ISOMETRIC VIEW

TYPICAL FAR PART 77 SURFACES

Figure 7D

Airspace Plan

Parrett Field Airport

PART IV

Environmental Evaluation

8

Napa County Airport Initial Study and Negative Declaration (1991) and Notice of Exemption (1999)

DRAFT
NEGATIVE DECLARATION

The Executive Director of the Napa County Airport Land Use Commission has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Airport Land Use Commission Office, 1195 Third St., Room 210, Napa, California 94559. For further information call (707) 253-4416.

NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

(Project Description)
The criteria and policies which the Napa County Airport Land Use Commission will use in evaluating the compatibility of land uses around Napa County Airport. (See Project Description contained in the attached Initial Study, incorporated by reference).

WRITTEN COMMENT PERIOD:
April 1, 1991 to April 21, 1991

DATE: April 1, 1991

BY THE ORDER OF

JEFFREY REDDING
Director
Napa County Conservation, Development and Planning Department

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT
1195 Third Street, Rm. 210
Napa, California, 94559
(707) 253-4416

INITIAL STUDY

PROJECT NAME: NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN
FILE NO:

PROJECT DESCRIPTION: The Napa County Airport Land Use Compatibility Plan (the Plan) sets forth the criteria and policies which the Napa County Airport Land Use Commission (the Commission) will use in evaluating the compatibility of land uses around Napa County Airport (the Airport). The statutory requirement for the establishment of the Commission and the adoption of the Plan is set forth in the State Aeronautics Act, Article 3.5, Chapter 4, Section 21670 of the Public Utilities Code (the Act).

The recommended Planning Area for Napa County Airport is the area encompassed by the outer conical surface as defined under Part 77 of Federal Aviation Regulations (established by a 14,000-foot radius from each runway's primary surface, refer to Figure 3A). A detailed discussion and assessment of the Airport's impact area is included in Chapter 5 of the Plan. Figure 3A of the Plan and Tables 3-1 and 3-2 summarize the areas of concern and the Commission's criteria and policies for Napa County Airport, which are further defined in Chapter 3 of the Plan. If implemented, the primary policies of the Plan would:

1) Prohibit any use that may be hazardous to flight, including uses which produce excessive glare, light, smoke, steam, emissions, electronic interference, or may attract large flocks of birds.

2) Establish height limitations in accordance with Part 77 of Federal Aviation Regulations and require the dedication of avigation easements within the approaches and critical areas of high terrain to prevent obstructions to the navigable airspace.

3) Require local jurisdictions to identify and preserve open space within the approaches and at the periphery of the traffic pattern area to provide open land areas that can be utilized in an emergency landing.

4) Preclude uses in which the occupants have low-mobility (e.g. nursing homes, schools, etc.) from locating in areas with high to moderate accident potential within the approach/departures zones or the traffic pattern areas (Zones A, B, C, DA and D).

5) Require noise attenuation measures for noise-sensitive uses in areas that are subject to frequent noise intrusion (including single-event noise) within the approaches and traffic pattern area (Zones A, B, C, DA and D).

5) Require the dedication of overflight easements within the Airport's Planning Area to ensure notification to potential buyers of the Airport's influence.

6) Establish density limitations (as shown in Table 3-2) that would effectively:

   a) Preclude the conversion of land to residential use within the areas subject to frequent noise intrusion within the approach/departure zones and traffic pattern areas (Zones A, B, C, DA and D). The Plan maintains residential densities in these areas at 1 unit per 40 acres in accordance with the present land use designations of the underlying general plan.

   b) Preclude high-occupancy uses from locating in areas with high to moderate accident potential within the approach/departure zones and traffic pattern areas (Zones A, B, C, DA and D).

ALTERNATIVES TO THE PLAN

During the development of the Plan, various alternative zone configurations and density restrictions were proposed, evaluated, and modified in response to input from staff, the community, and the Commission. As proposed, the Plan identifies residential land use as incompatible within the approach/departure zones and the traffic pattern areas (Zones A, B, C, DA and D). This policy, if implemented, would **avoid** the single-event noise and overflight annoyance impacts associated with residential uses.

Recently, much discussion has centered over the policy that would preclude residential use within the outer approach zone to Runways 18R. An alternative which would **NOT** preclude residential use within the outer approaches to runways 18R and 24 has been developed for consideration by the Commission. The outer approach zones have been designated as "Zone DA" (depicted on Exhibit A) for the purposes of evaluating the distinction between the traffic pattern areas affected by single and twin engine aircraft approaching the airport and the outer approach which is affected by jet aircraft as well.

Specific policies for this zone have been developed for both the Plan as proposed and the residential alternative. These policies are summarized in the attached Exhibits B entitled "Recommended Revisions" and Exhibit C entitled "Residential Alternative" for inclusion/revision to the draft Plan by the Commission. The impact discussion addresses issues relative to both the Recommended Plan and the Residential Alternative where there are no distinguishable differences. The potential differences in relative impacts between the alternatives is discussed separately in the appropriate sections: Noise (Items #17), Public Health impacts (Items #44, 45, 46, & 47); Fiscal (Items #52) and Growth Inducement (Item #53).

JURISDICTIONAL BACKGROUND

Public Plans and Policies

	YES	NO	N/A
Is the project consistent with:			
a) Regional and Subregional Plans and Policies?	X	—	—
b) LAFCOM Plans and Policies?	—	—	X
c) The County General Plan? **(see discussion below)**	—	—	X
d) Appropriate City General Plans? **(see discussion below)**	—	—	X
e) Adopted Environmental Plans and Goals of the Community?	X	—	—
f) Pertinent Zoning? **(see discussion below)**	—	—	X

Responsible (R) and Trustee (T) Agencies

County of Napa (R)
City of Napa (R)

Other Agencies Contacted

Federal Aviation Administration
State Division of Aeronautics

The affected jurisdictions within Napa County Airport's Planning Area include the County of Napa and the City of Napa. Refer to Figure 5A of the Compatibility Plan for an illustration of the jurisdictional boundaries and the present land use designations in the vicinity of the Airport.

The adoption of the Plan by the Commission will have no **direct** effect on land use because the Commission has no direct authority over land use. The Plan only serves to provide guidance to the local jurisdictions in determining the compatibility of land uses with airport activities. However, due to the conformance provisions contained in the enabling legislation, the Plan will have an indirect effect on land use, in that local jurisdictions must bring their general plans and specific plans into conformance with the Compatibility Plan or otherwise provide findings that meet the intent of the Act to override the Commission's determination. The Commission must review the local general plans and specific plans for consistency within 180 days of the adoption of the Plan. The statutory authority and role of the Commission and the relationship to local plans is further described in Chapter 1 of the Compatibility Plan.

An initial review of the underlying land use designations contained in the local general plans and specific plans indicates that, presently, the existing **land use designations** within Napa County Airport's Planning Area are consistent with the Compatibility Plan. However, in order for the Commission to make a determination of consistency with the Compatibility Plan, the affected jurisdictions must revise their plans to incorporate **specific policies** relative to airport compatibility which:

1) recognize the Airport's Planning Area;

2) agree to the types of actions to be referred to the Commission; and

3) reflect the density criteria, mitigation measures, and other conditions listed (i.e. height limitations, use restrictions, overflight easements, etc).

Implementation strategies are further described in Chapter 4 of the Compatibility Plan.

Discussion of Effect on Land Use Plans

Because implementation of the Compatibility Plan is essentially a subsequent action to be taken by the affected jurisdictions and because provisions of the Act allow for local jurisdictions to override the Commission's determination, an assessment of the potential effect of this Plan is difficult to predict. Therefore, this Initial Study is based upon the assumption that the criteria, policies, and land use restrictions set forth in this Plan will be adopted by the affected agencies as recommended. Subsequent actions by the local jurisdictions required by the Plan (i.e. general plan revisions) which differ from the recommendations in this Plan may require additional environmental review.

Since the Plan addresses land use compatibility issues related to potential noise and safety impacts resulting from airport activities, the adoption of the Plan itself is a mitigation measure of potential airport impacts. The Plan establishes maximum densities for all land uses and identifies additional mitigation measures addressing noise and safety impacts. A fundamental policy of the plan focuses on preventing the encroachment of incompatible uses (primarily residential uses) into traffic areas.

Even though the Plan is considered to be a mitigation of potential impacts and thus not likely to have any significant adverse environmental effects, the Plan would preclude the conversion of land to residential use within the approach/departures zones and traffic pattern areas (Zones A, B, C, DA and D). Thus, a potential adverse effect of the Plan, would be on the future availability of land for housing in the Airport's Planning Area. However, the effect of the policies precluding residential use on the future availability of housing is considered not significant under the California Environmental Quality Act for two primary reasons:

1) Residential land use is not presently designated in the approach zones or the traffic pattern areas (Zones A, B, C, DA and D) in the adopted general plans and specific plans of the affected jurisdictions (with the exception of a narrow strip of land along the west bank of the Napa River, that is already developed with residential use). Since these areas have not been designated by the local jurisdictions for residential use, it can be determined that these areas are not needed nor expected to meet the long-term housing needs of the community over the 20-year timeframe of the Plan.

2) The policies precluding residential land use encompass a limited geographic area within the Airport's approach/departure zones and the traffic pattern areas (Zones A, B, C, DA and D). In other areas of the Airport's Planning Area (Zones E and F) residential use is considered compatible with mitigation measures that provide buyer notification of the Airport's influence. There is an extensive area within the Airport's Planning Area (Zones E and F) that remains available for future residential use.

For these reasons, it is determined that no impact on housing availability or affordability (such as the relocation of an unmet housing need or removal of a site designated for future residential use) would result from adoption and implementation of the Compatibility Plan for Napa County Airport.

ENVIRONMENTAL SETTING

Napa County Airport is located in the southern part of the Napa River flood plain at elevation 33 MSL, within the unincorporated County of Napa. The Planning area is traversed (n-s) by the Napa River and (e-w) by its tributaries Suscol, Sheehy, and Fagan Creeks. The Airport Planning Area lies geographically south of the narrow Napa Valley, and north of the expanse of San Francisco/San Pablo Bay. The Planning Area is traversed from northwest to southeast, and from southwest to southeast by trunk lines of the Southern Pacific Railroad, and from north to south by State Highway 29. State Highway 12 joins Highway 29 from the east near the Airport.

A developing industrial area is located to the north and east of the Airport, undeveloped open land lies to the immediate south, and wetlands associated with the Napa River lie to the west. Within the Planning Area, but more than one mile from the Airport, are located (north) a portion of an industrial park in the City of Napa and the sloping terrain of Suscol Ridge and the "Southern Crossing", a high level bridge and fill across the Napa River about 7,200 feet north of the Airport, (east) vineyards and the east-west trending Jameson Canyon, (south) the topographic protrusion of Oat Hill and the northern fringes of the urbanized but unincorporated community of American Canyon, and (west) a part of the Carneros agricultural district, which also contains marine-oriented residential uses on the Napa River and an undeveloped portion of the City of Napa.

The Airport and most of the adjoining areas on the east, south, and west are composed of quaternary alluvial deposits and bay muds. Suscol Ridge, north of the Airport, is at the southwestern edge of a mountainous area formed of Sonoma volcanics. The southern flank of Jameson Canyon, southeast of the Airport, is geologically in the foothills of Mt. George, and is composed of Briones sandstones. Oat Hill is thought to be a remnant of the Great Valley sequence. The active West Napa Fault has been traced from just north of the Airport, through the Planning Area towards the south-southeast. Soils in the Planning Area consist largely of loams, clay loams, and clays of the Haire, Clear Lake and Reyes series. Most are highly suitable for agricultural use (Class II through IV).

Most of the Planning Area lies within a grassland habitat. A substantial area west of the Airport remains in a natural riparian system of the Napa River, and thus contains riparian habitats and permanently and seasonally flooded wetlands. Many of the grassland areas have been altered by salt ponds, vineyard cultivation, hay production, livestock grazing, and urban development. Tree stands consist primarily of native oaks on the hillsides and eucalyptus windrows.

ENVIRONMENTAL EFFECTS:
Normally Significant Individual Impacts

YES	NO		
		(Geology)	
__	X	1.	Exposure of new site users to substantial life and/or property hazards from geologic processes (*e.g.*, severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
__	X	2.	Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
__	X	3.	Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		(Meteorology)	
__	X	4.	Substantial modification of climatic or microclimatic conditions (*e.g.*, temperature, rainfall, wind, shadow patterns, etc.).
		(Hydrology)	
__	X	5.	Exposure of new site users to substantial life and/or property hazards from flooding (*e.g.*, stream flooding, tsunamis, seiches, dam or levee failure, etc.).
__	X	6.	Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
__	X	7.	Substantial temporary construction period increase in erosion and/or sedimentation.
__	X	8.	Substantial permanent increase in erosion and/or sedimentation.
__	X	9.	Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		(Water Quality)	
__	X	10.	Substantial degradation of the quality of waters present in a stream, lake, or pond.
__	X	11.	Substantial degradation of the quality of groundwater supplies.
__	X	12.	Substantial contamination of a public or private water supply.
		(Air Quality)	
__	X	13.	Exposure of new site users to substantial health hazards from breathing polluted air.
__	X	14.	Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
__	X	15.	Substantial degradation of local or regional air quality.
__	X	16.	Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		(Noise)	
__	X	17.	Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	18.	Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	19.	Exposure of people to high construction noise levels for substantial periods of time.
__	X	20.	Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Ecosystem)	
__	X	21.	Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
	X	22.	Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (*e.g.*, marshes, riparian galleries, vernal pools, etc.).
__	X	23.	Substantial reduction in habitat for plants, fish, and/or wildlife.
__	X	24.	Substantial modification in the number or diversity of plant or animal species present.
__	X	25.	Substantial interference with the movement of a resident or migratory fish or wildlife species.
		(Social)	
__	X	26.	Disruption or division of an established community.
__	X	27.	Displacement of a large number of people.
		(Aesthetic)	
__	X	28.	Blockage or substantial degradation of important public or private views.
__	X	29.	Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare.
__	X	30.	Creation of a litter problem.
		(Cultural)	
__	X	31.	Destruction of or substantial damage to a recognized archaeological site.
__	X	32.	Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
__	X	33.	Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
		(Traffic)	
__	X	34.	Exposure of new site users to substantial life and/or property hazards from traffic accidents.
	X	35.	Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
	X	36.	Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
__	X	37.	Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
__	X	38.	Creation of a substantial local parking problem.
		(Energy)	
__	X	39.	Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
__	X	40.	Creation of a facility or development which will use fuel or energy in a wasteful manner.
__	X	41.	Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
		(Public Health)	
__	X	42.	Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	43.	Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
__	X	44.	Exposure of new site users to substantial life and/or property hazards from fire.
__	X	45.	Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

YES NO

(Public Health)

__ X 46. Exposure of new site users to substantial life and/or property hazards from air crashes.

__ X 47. Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes.

__ X 48. Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.

(Community Services)

__ X 49. Increase in the demand for a community service (*e.g.*, sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.

(Commercial Resources)

__ X 50. Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.

__ X 51. Removal of a substantial amount of agricultural or grazing land from current or potential production.

(Fiscal)

__ X 52. Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.

(Growth Inducement)

__ X 53. Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

Does the project:	YES	NO
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	__	X
b) Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	__	X
c) Have possible environmental effects which are individually limited but cumulatively considerable?	__	X
d) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	__	X

* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

IMPACT DISCUSSION

Because no physical construction project(s) would result from the adoption of the Compatibility Plan, nor from the subsequent implementation of the land use restrictions and policies by the affected jurisdictions, the following areas of potential effect related to construction/alteration of the natural environment on the Initial Study Checklist have been checked "NO".

Geology	Items #1, 2 and 3
Meteorology	Item #4
Hydrology	Items #5, 6, 7, 8, 9
Water Quality	Items #10, 11, 12
Air Quality	Items #13, 14, 15, 16
Noise	Item #19
Ecosystem	Items #21, 22, 23, 24, 25
Aesthetic	Items #28, 30
Cultural	Items #31, 32
Traffic (Auto)	Items #34 and 35
Energy	Items #39, 40, 41
Public Health	Items #42, 43, 44, 48

IMPACT DISCUSSION (continued)

The following items in the Initial Study Checklist have also been checked "NO" but relate directly to land use that is potentially affected by the Plan and therefore warrants further explanation.

Noise

Item #17:

The adoption and implementation of the Plan would not increase noise levels. The Plan does, however, recognize future noise levels from airport activities projected over a 20-year period. The projected impact elements and specific areas are discussed in Chapter 5 of the Compatibility Plan and depicted in Figure 5C. Projected noise contours as described by the Community Noise Equivalent Level (CNEL) indicate that aircraft noise from Napa County Airport would not present a health hazard. This is primarily because all areas within the 55 CNEL contour are either dedicated

health hazard. This is primarily because all areas within the 55 CNEL contour are either dedicated to open space uses or designated for industrial or agricultural use considered compatible with the anticipated noise levels. A greater concern and impact element surrounding Napa County Airport is related to single-event noise levels from aircraft overflights.

Implementation of the Recommended Plan would preclude residential land uses and require noise attenuation measures for other noise-sensitive land uses within the approach/departure zones and beneath the traffic pattern areas where frequent single-event noise intrusion can be expected. If implemented, the Plan would limit the exposure of future residents to airport noise. The policy that would preclude residential use within the Airport's traffic areas would **avoid** potential noise impacts from present and future airport activities. In avoiding the potential for single-event noise intrusion on residential uses in high traffic areas, the Plan also **avoids** the potential for overflight annoyance. Overflight annoyance has the potential to impact Airport activities by requiring noise monitoring programs, noise abatement procedures and/or operating restrictions.

In other areas within the Airport's Planning Area (Zones E and F) aircraft overflights are expected to occur, but not at such low altitudes or as frequently as expected in the approach and traffic pattern areas. In these outlying areas, the Plan requires overflight easements for all residential uses to provide notification to prospective buyers that the area is subject to overflights from aircraft operating to and from the Airport, thus enabling those who may be sensitive to aircraft noise to avoid moving to the affected areas.

If adopted and implemented, the Compatibility Plan would avoid potential noise impacts in the most affected areas (beneath the approaches and traffic pattern) and would mitigate potential noise impacts to new site users in those outlying areas potentially affected by airport activities. No new noise impacts would be created and no additional mitigation measures are required.

Residential Alternative (within Zones DA)

Since the outer approaches (Zone DA) are outside of the projected noise contours for Napa County Airport, future residents are not expected to be subject to health hazards related to excessive noise exposures. However, the outer approach zone will be subject to frequent overflights and single-event noise intrusion from aircraft on approach to the primary runway (18R) as well as the crosswind runway (24). In addition to the typical single-engine aircraft, these runways are also utilized by larger aircraft and business jets with single-event noise levels ranging from 70 dBA to 90 dBA on approach in these areas.

Departures, which are generally noisier, would occur relatively infrequently in these areas (approximately 5% of all operations) due to the prevailing wind conditions at Napa County Airport. Approximately 80 percent of all aircraft departures are to the south over baylands another 15 percent depart to the west over salt ponds/marsh and agricultural preserves. Therefore, departure noise levels are not considered a significant effect because of their relatively low freqency over developable areas.

The frequency of overflights on approach are projected to average 230 per day to the primary Runway 18R with an estimated 8 to 9 business jets per day as summarized in Table 1. The number of jets overflying these areas could double if jet training activities were re-instated at Napa County

Airport. It should be noted that jets will approach the airport on a straight-in approach because of their speed, placing all jet overflights within the outer approach zone. Larger aircraft and busy-hour traffic would require a larger and longer pattern that would extend over the outer approaches (Zone DA).

The Airport Master Plan, prepared in 1989 indicated that jet training activities at Napa County Airport had been discontinued. However, recent discussions with the local training instructors indicated that jet training activities may be re-instated at the airline training facility in the future. Currently students are advanced through multi-engine training on King Air turboprop aircraft at Napa County Airport. Upon completion the students are relocated to another facility in Washington to train on 747 aircraft. The transition from a King Air weighing less than 10,000 lbs. to a Boeing 747 which weighs well over 500,000 lbs. is seen as a difficult one by the flight instructors. The type of aircraft that would be used as an "interim jet trainer" would be similar to those business jets which frequent the Airport. A list of typical aircraft at Napa County Airport and their maximum noise levels as measured under FAR Part 36 is included in Table 2.

Table 3 presents typical noise levels relative to the line of sight for three types of representative aircraft that are expected to use Napa County Airport. Figure 1 provides a profile of the altitude of aircraft on approach to Napa County Airport with terrain elevations and both the existing approach and the future approach slopes indicated. As noted in the figures, aircraft will overfly the outer approaches less than 500 feet above the ground. The Airport Master Plan recommends that instrument approaches be established in the future for both Runway 18R and Runway 24. With an instrument approach procedure aircraft can be expected to fly even lower (340' minimums already established for a circle to land approach to runway 18R) in the outer approach.

The type of aircraft (jets with high single-event noise levels) and the low altitude of the aircraft, coupled with the frequency of overflights in the outer approaches present the potential for significant single-event noise impacts on future residents.

Recommended Mitigation Measures:

The Residential Alternative would not preclude residential use in the outer approaches based upon the following recommended mitigation measures:

1. Overall residential densities should be limited to a low density classification (1 unit per 5 acres is recommended) in order to limit the total number of residences that would be exposed to aircraft noise and overflight annoyance, thus limiting the potential of these neighborhoods to adversely impact airport activities.

2. An open space component should be incorporated into the project design and oriented along the extended runway centerline. Residences should be clustered and setback as far as possible from the extended runway centerline. Although the open space component is intended to address safety issues, it may also serve to increase the sight-distance to aircraft for residences. To the extent that the sight-distance would be increased, single-event noise levels experienced on-site may be reduced.

3. Accoustical studies should be required to identify noise attenuation measures incorporated into the building design that would provide a maximum interior noise level of 45 dBA based upon

the typical single-event noise levels for jet aircraft overflights on approach. This measure would mitigate single-event noise intrusion for **interior** noise levels.

4. However, exterior noise levels cannot be effectively reduced through noise attenuation measures. Given the temperate climate of the area, residents can be expected to enjoy outdoor living spaces and thus would be subject to aircraft noise. The dedication of an overflight easement as required in the Plan, which also specifies the potential for increased jet activities, could potentially mitigate the impact by notifying prospective buyers of the Airport's influence so that those who may be sensitive to jet aircraft noise could avoid moving to these areas.

Even with the mitigations noted above, annoyance associated with jet overflights could occur and may result in a potential impact to Napa County Airport. Operating restrictions, noise monitoring programs, noise abatement procedures, and land acquisitions are potential impacts experienced at other general aviation airports where residential uses have been allowed to encroach into the approach zones or traffic pattern areas. If residential uses were developed within the approaches to Napa County Airport, the subsequent use of the facility for jet training may also require restrictions on the training program to mitigate the potential impact on these areas (i.e. the type of jets allowed, the time of day, runway utilization etc).

Item #18:

Pursuant to provisions of the enabling legislation, the Commission's jurisdiction does not extend to existing land uses. Existing noise-sensitive uses in the Airport's Planning Area includes approximately 150 homes along the west bank of the Napa River (within Zone E) and a approximately 15 homes located northeast of the Airport off of Kelly Road (within Zones D and E). These areas are well outside of the projected 55 CNEL noise contour considered acceptable for residential uses and therefore would not create a health hazard for existing residents. Infill development of new residential uses and/or expansion of these existing uses may be allowed to occur in Zone D and residential use is considered compatible in Zone E. The dedication of an overflight easement would be required for new or expanded residential uses (see discussion below).

Item #20:

Although the Plan does not apply to existing land uses, it would require the dedication of an overflight easement for the expansion of an existing use to ensure buyer notification of the potential for aircraft overflights, thus enabling those who would be particularly annoyed to avoid moving into the affected areas. This would mitigate the potential for annoyance from aircraft noise in areas beneath the common flight paths and other areas in the Airport's environs (Zones E and F). It should be noted that the frequency of overflights within Zones E and F is much lower than the traffic pattern areas (Zones A through D) and the altitude of the aircraft is expected to remain above 1,000 feet, thus minimizing the single-event noise levels resulting from aircraft overflights. No potential impacts from adoption of the Plan is anticipated and no further mitigation measures are needed.

Social

Items #26 and 27:

Since the Planning Area for Napa County Airport is primarily undeveloped at the time of Plan adoption, the potential to disrupt or divide an established community or displace a large number of people does not exist. The Plan includes density limitations which would preclude the development of high-occupancy uses (large assemblies) within those areas with high to moderate potential for aircraft accidents. This policy avoids any potential to disrupt or displace any use which would involve a large number of people in the event of an aircraft accident.

Aesthetic

Item #29:

The Plan would require the dedication of avigation easements within the approach/departure zones and in areas where high terrain penetrates the airspace. The purpose of the avigation easement would be to prevent obstructions to the navigable airspace through the establishment of height limitations, and to allow for the marking or lighting of aircraft hazards by the airport authorities. The potential lighting of tall objects in the Airport's vicinity is not expected to create excessive glare or light. These effects could be readily mitigated by the property owner(s) in coordination with the airport authorities should they prove to be a problem. The impact is therefore deemed insignificant and no mitigation measures are required.

Cultural

Item #33:

The Plan would not eliminate or conflict with established recreational, educational, religious, or scientific uses since the Plan does not apply to any existing uses in the Airport's Planning Area. A primary objective of the Plan is to preserve the operating environment of the Airport. Since the Airport's emphasis in on training activities and is considered a recreational resource by many local pilots, the Plan is expected to have a beneficial impact on the established recreational and educational use of the Airport. Other established recreational, educational, religious, or scientific uses in the airport's planning area include: the Chardonnay Golf Course located within the approach to Runway 24; Fagan Creek Marsh adjacent to the Airport to the west; and, a church facility located just beyond the approach to Runway 18R. These uses would be considered compatible uses under the Compatibility Plan.

Traffic

Items #36, 37, and 38:

To the extent that the Plan limits the potential for large assemblages of people and other high-occupancy uses from locating in the area, the Plan would reduce the potential for increased traffic

loads and congestion on area roadways. No significant impact is identified and no mitigations are required.

Public Health

Item #44, 45, 46, and 47:

The Compatibility Plan addresses potential hazards to flight, as well as the safety of persons and property on the ground by the following measures:

1. Restricting allowable densities in critical areas to limit the exposure of people and property on the ground to risks associated with potential aircraft accidents (including the potential for fire).

2. Establishing height limitations and requiring avigation easements to prevent obstructions to the navigable airspace, thus limiting the potential for aircraft accidents in the Airport's vicinity.

3. Prohibition of certain uses which have characteristics that may create an aircraft hazard (i.e., smoke, glare, electrical interference or attraction of large flocks of birds.)

4. Requiring that local jurisdictions maintain open space uses in areas with high to moderate accident potential (Zones A, B, C, DA and D). The provision of open space in an Airport's vicinity would provide an opportunity for controlled emergency landings and/or crash sites. This increases the potential survivability of an off-airport accident for the airport users and limits the exposure of persons and property on the ground from potential hazards (including fire) in the event of an aircraft accident.

5. The Plan requires buildings within the approach zones to be setback to the maximum extent feasible from the extended runway centerline. The Plan further encourages clustering of buildings to maximize open land areas. Subdivision maps and development plans within 100 feet of the approach zones are required to indicate building envelopes and approach surfaces in order to determine conformance with the open land requirements.

These measures are expected to minimize the potential exposure of area occupants and airport users to hazards related to potential aircraft accidents. The adoption of the Plan itself is a mitigation of these potential impacts; therefore, no other mitigation measures are necessary.

Residential Alternative (Zone DA)

The alternative which allows residential development in the outer approaches could expose new residents to the potential for an aircraft accident since these areas are frequently overflown at low altitudes (between 400 and 800 feet above ground level). The potential for an uncontrolled stall-spin accident occurs at the turning points in the aircraft approach pattern. The turn "on base to final approach" generally occurs along the extended runway centerline.

Recommended Mitigation Measures:

1. Because residential land use is typically scattered across a broad area, a policy statement which requires clustering of the residential units to provide an open space component oriented along the extended runway centerline is recommended. Since buildings in the approach are required to be setback from the extended runway centerline to the maximum extent feasible, the open space component would provide this setback from the areas with high to moderate accident potential. This would mitigate the safety concerns with respect to the potential for a stall-spin accident in the outer approaches (Zone DA).

Community Services

Item #49:

The effect of the proposed land use restrictions would be to limit or preclude the establishment of high-occupancy uses that could create a substantial demand on community services. To the extent that the Plan would limit the allowable density of uses within the Airport's Planning Area, the demand for community services would also be limited. The adoption of the Plan reduces the potential to create a substantial increase in demand for community services within the Airport's Planning Area. No impacts are identified and no mitigation measures are needed.

Commercial Resources

Item #50:

The Plan would not restrict the development of aggregate, rock product, or mineral resources in the Planning Area since these uses generally do not involve characteristics which may create a hazard to flight. An avigation easement which enables marking or lighting of tall objects used for extraction may be required if the use were located within an approach/departure zone.

Item # 51:

The Plan identifies agricultural or grazing land as a compatible use in all compatibility zones and therefore would not remove any land from current or potential production. The Plan does require the local jurisdictions to maintain open space uses in critical areas and thus is expected to have a beneficial effect on the preservation of agricultural lands in the Airport's Planning Area.

Fiscal

Item # 52:

The adoption of the Plan would not involve any project development, but rather establishes criteria for evaluating land use compatibility in the Airport's Planning Area. To the extent that the Plan limits the intensity and density of uses, it may have a minor indirect effect on the cost of providing

public services to certain areas. The most restrictive density criteria are applied to a very limited geographic area within the approach/departure zones (Zones A, B and C). Except for Zone A (which is recognized as an airport acquisition area pursuant to the Airport's Master Plan) the density restrictions are not expected to reduce the taxable base to any significant or measurable extent and would therefore have a negligible effect on the cost to the community of providing services.

Since residential land uses generally do not return enough taxes to cover the cost of providing services, the policies which preclude the conversion of land to residential use may reduce the potential to create development which would cost the community more to provide services than it would return in taxes.

Residential Alternative (Zone DA)

Under this alternative, residential use would be considered compatible within the outer approaches to Runways 18R and 24. Since the adoption and implementation of the Plan would not involve development approval or entitlement for use, the potential to create development would not apply. However indirectly, this alternative has the potential to **encourage** residential development proposals which may cost the community more to provide services than it would return.

Recommended Mitigation Measures:

The fiscal impact could be mitigated through Community Development Fees and/or other user and municipal fees which may reduce the cost of services to an appropriate level. This type of mitigation measure is outside of the jurisdiction of the Commission.

Growth Inducement

Item # 53:

The adoption of the Plan would limit growth in the Airport's Planning Area to the extent that it would preclude the conversion of land to residential use and maintain open space within the approaches and traffic pattern areas. Since the primary effect of the Plan is growth-limiting, the adoption of the Plan and its implementation would not be growth-inducing.

Residential Alternative Zone DA

The potential to develop residential use within the outer approaches to Runways 18 and 24 could be viewed as growth-inducing, since it may **encourage** residential development proposals in areas not presently designated for residential use. However, the potential growth-inducing effect is considered not significant for two reasons:

1) The adoption of the Plan would not involve any development approval or entitlement for use.

2) The conversion of land to residential use is not necessary or anticipated for implementation or conformance by the local jurisdictions.

Thus, the growth-inducing effect of any proposed change in land use would need to be addressed in the context of the environmental review process required for the general plan amendment process. The Compatibility Plan only provides guidance to the Commission and the local jurisdiction's in evaluating the compatibility of such land use changes with airport activities.

MITIGATION MEASURES:

X None Required for "Recommended Plan".
X Identified By This Study for "Residential Alternative"
___ Included By Applicant As Part of Project
___ Recommended For Inclusion As Part of Public Project

BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information form contained in the permanent file on this project.

PERSONS PARTICIPATING IN THE INITIAL STUDY

Resource Evaluation:	Mike Miller, Napa County Planning	Date: 3-29-91
Site Review:	Jennifer Barrett, Hodges & Shutt	Date: 3-30-91
Planning/Zoning Review:	Jennifer Barrett, Hodges & Shutt	Date: 3-30-91

PRELIMINARY DETERMINATION

X No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

___ A Negative Declaration cannot be prepared unless all identifiable impacts are reduced to a level of insignificance or avoided.

DATE: 4-1-91 BY: Michael Miller

DATE: 3-30-91 BY: Jennifer Barrett

FINAL DETERMINATION

On the basis of this preliminary evaluation:

X I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be approved.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect on this case because the mitigation measures described on the attached sheet have been added to the project. A NEGATIVE DECLARATION should therefore be approved.

___ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT would be required.

___ Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.

___ A previously-certified Environmental Impact Report will fully address he impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.

___ A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: 4/1/91

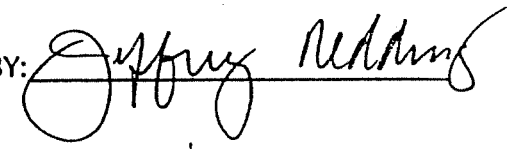
BY: 

Table 1

Projected 2008 Frequency of Overflights on Approach to Napa County Airport

210,000 projected annual operations

or

105,000 annual approaches

or

288 daily overflights on approach

	Average Daily Distribution[1]	Average Daily Approaches[2]	Average Daily Business Jets	With Jet Training[3]
Runway 18R	80%	230	9	18
Runway 18L	20%	58	0	0
TOTALS	100%	288	9	18

Notes:

1) Average daily distribution is calculated for the typical day when winds are from the south and all approaches are to 18R or 18L. During certain times of the year (summer afternoons), wind conditions will shift out of the west, in which all approaches would be directed to the crosswind Runway 24. Rarely (5% of total annual operations), wind conditions would require approaches from the south to Runway 36L or 36R.

2) Daily distribution percentages are different than the annual distribution. Annual distribution figures are used to identify runway utilization patterns pursuant to local weather patterns over the course of the entire year. Average daily distribution reflects the typical day as indicated by interviews with FAA tower personnel.

3) If jet training were re-instated at Napa County Airport in the future, the number of jet operations would double. All jets use Runway 18R or 24 and fly "straight-in" approaches.

Table 2

Estimated Maximum A-Weighted Sound Levels Measured in Accordance with FAA Part 36 Procedures

MANUFACTURER	AIRCRAFT	APPROACH dBA[1]
SINGLE-ENGINE		
Piper	PA-28-200	61.0
Cessna	172 Skyhawk	62.0
Cessna	150	59.0
Beech	Bonanza	64.0
TURBOPROPS		
Beech	C90	75.0
Beech	Super Kingair 200	77.0
Cessna	310	73.7
Shorts	3-60	80.1
Piper	Cheyenne	77.1
JETS		
Gulfstream	Gulfstream III	82.5
IAI	Westwind	84.0
Learjet	Learjet 35	83.1
Canadair	Challenger 600	81.7
Cessna	Citation III	81.4
Sabreliner	Sabre 40A	92.0
Dassault	Falcon 20	93.1

Notes:

1. Approach noise levels are measured at a point 6,562 feet (2,000 meters) from the threshold of the extended runway centerline.

2. Departure noise levels are measured at a point 21,325 feet (6,500 meters) from the start of the takeoff roll. (At Napa County Airport, this would be 15,393 feet from the nearest runway end).

Table 3

Typical Single-Event Noise Levels from Aircraft Departures

Aircraft Type	Line of Sight (Distance)	Typical Maximum Noise Level (dBA)
Single-engine propeller	500 ft. 1,200 ft.	75 65
Twin-engine propeller	800 ft. 1,500 ft.	75 65
Turbojet (Falcon)	2,000 ft. 4,000 ft.	76 65

Source: Napa County General Plan
Sound Solutions

Recommended Revisions
Exhibit B
Airport Vicinity Land Use Compatibility Criteria

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES		
			Residential[2]	Other Uses (people/ac)[2]	
				In Structures	Total in and out of Structures
A[9]	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	1 du/40 ac	10	25
C	Approach/ Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	1 du/40 ac	50	75
DA	Outer Approach	- Moderate risk (turning movements) - Frequent noise intrusion (jets) - Routine overflights below 800' AGL	1 du/40 ac	75	100
D	Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	1 du/40 ac	100	150
E	Common Flight Paths	- Limited risk - Frequent noise intrusion - Overflight annoyance	_[7]	150	300
F	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.

2. The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas.

3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objectiveis served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.

7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.

8. The purposed of this criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.

9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

Recommended Revisions
Exhibit B Continued

ZONE	PROHIBITED USES	OTHER DEVELOPMENT CONDITIONS[3]	EXAMPLES OF NORMALLY ACCEPTABLE USES[4]	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE[5]
A	- All residential uses - Any assemblage of people - Any new structure which exceeds height limits - Noise sensitive uses - Uses hazardous to flight	- Avigation easement required	- Pasture, open space - Aircraft tiedowns - Auto parking - Most agricultural uses	- Heavy poles, signs, large trees, etc.
B	- All residential uses - Any noise-sensitive uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight (e.g., landfills)	- Avigation easement required - Structures to be as far as possible from extended runway centerline - Clustering is encouraged to maximize open land areas - Minimum NLR of 25 dBA in office buildings[6] - Building envelopes and approach surfaces required on all subdivision maps and development plans	- All uses from Zone A - Parks with low-intensity uses, golf courses - Nurseries - Mini-storage	- Retail uses - Office uses (except as accessory uses - Hotels, motels, resorts - Theaters, assembly halls, and conference centers
C	- All residential uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight (e.g., landfills) - Landfills	- Avigation easement required - Structures to be set back as far as possible from extended centerline - Clustering is encouraged to maximize open land areas - Building envelopes and approach surfaces required on all subdivision maps - NLR measures may be required for noise-sensitive uses (offices)	- All uses from Zone B - Warehousing and low-intensity light industrial - Small retail uses - Outdoor recreation uses; marina, ball-park - Office uses	- Large retail buildings - Hotels, motels, resorts, health club - Restaurants, bars - Multi-story buildings - Theaters, assembly halls, and conference centers
DA	- All residential uses - Uses hazardous to flight	- Avigation easement required - Structures to be set back as far as possible from extended runway centerline - Building envelopes and approach surfaces required on all subdivision maps and development plans - NLR measures/acoustical studies may be required for noise-sensitive uses	- All use from Zone C - Most non-residential uses	- Schools, libraries, hospitals, nursing homes - Large shopping malls - Amphitheaters
D	- All residential uses - Uses hazardous to flight (e.g., landfills)	- Overflight easement or deed notice required - Building envelopes and approach surfaces required on all development plans within 100' of approach zones - Clustering is encouraged to maximize open land areas - NLR measures may be required for noise-sensitive uses[6]	- All uses from Zone DA - Most non-residential uses - Accessory day care centers	- Schools, libraries, hospitals, nursing homes - Large shopping malls - Amphitheaters
E	- Large assemblages of people under flight path - Noise-sensitive outdoor uses - Uses hazardous to flight (e.g., landfills)	- Overflight easement or deed notice required - Clustering of development away from flight path is encouraged	- Any permitted use	- Schools, libraries, hospitals, nursing homes - Amphitheaters - Landfills
F	- Noise-sensitive outdoor uses	- Overflight easement or deed notice required	- Any permitted use	- Amphitheaters - Landfills

Residental Alternative
Exhibit C
Compatibility Criteria

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES		
			Residential[2]	Other Uses (people/ac)[2]	
				In Structures	Total in and out of Structures
DA[9]	Outer Approach/Extended Traffic Pattern	- Moderate risk (turning movements) - Frequent noise intrusion (jets) - Routine overflights below 800' AGL	Low density (1 unit/5 acres)	75	100

* Note: Residential land uses with an overall gross density of no more than 1 unit/5 acres MAY be considered compatible within the Approach Pattern area (Zone DA) under certain conditions listed, provided that such use incorporates a substantial open space component and other mitigation measures are included which address the noise, safety, and overflight annoyance impacts.

ZONE	PROHIBITED USES	OTHER DEVELOPMENT[3] CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES[4]	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE[5]
DA	- Highly noise-sensitive uses - Uses hazardous to flight - Landfills	- Open space component is required - To be oriented along extended runway centerline - Buildings should be set back from centerline to the maximum extent feasible - Acoustical studies/NLR that provide maximum interior noise level of 45 dBA based upon single-event jet aircraft overflights on approach. - Avigation easement must also disclose potential for increased jet activities at Napa County Airport	- All uses from Zone C - Most non-residential uses - Apartments, multi-family units clustered to meet density criteria	- Schools, libraries, hospitals, nursing homes - Large shopping malls - Amphitheaters

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.

2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas.

3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.

7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.

8. The purposed of this criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.

9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

Notice of Exemption

99-0113

ENDORSED

DEC 22 1999

JOHN TUTEUR
Napa County Recorder- County Clerk
By L. EVANS
DEPUTY RECORDER - CLERK

[PUBLIC PROJECT EXEMPT FROM FILING FEES C.G.C. § 6103]

To: ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: (Public Agency) Napa County Airport Land Use Commission
1195 Third St, Rm 210
Napa, CA 94559

☐ County Clerk
County of Napa

Project Title: 1999 ALUCP Amendment (Napa County Airport)

Project Location - Specific: 14,000 ft. radius Planning Area for the Napa County Airport Land Use Plan, centered on this public airport located on unincorporated lands west of State Highway 29 and east of the Napa River, south of the city of Napa and north of the City of American Canyon.

Project Location - City: Napa, American Canyon, and unincorporated County: Napa

Description of Project:: Revisions of Napa County Airport Land Use Plan for the County Airport. The amendment would revise Chapter 2 (Compatibility Concerns) regarding safety and overflights; revise Chapter 3 (Policies) regarding compatibility zone designations and referral procedures including revisions of Table 3-1 (Compatibility Zone Definitions) and Table 3-2 (Compatibility Criteria) and Figure 3A (Compatibility Plan Map); and revise Chapter 5 (Napa County Airport Plans and Impact Assessment) for consistency and designation of Common Traffic Pattern, including revision of Figure 5C (Airport Impact Areas – Napa County Airport).

Name of Public Agency Approving Project:: Napa County Airport Land Use Commission

Name of Person or Agency Carrying Out Project: Napa County Airport Land Use Commission

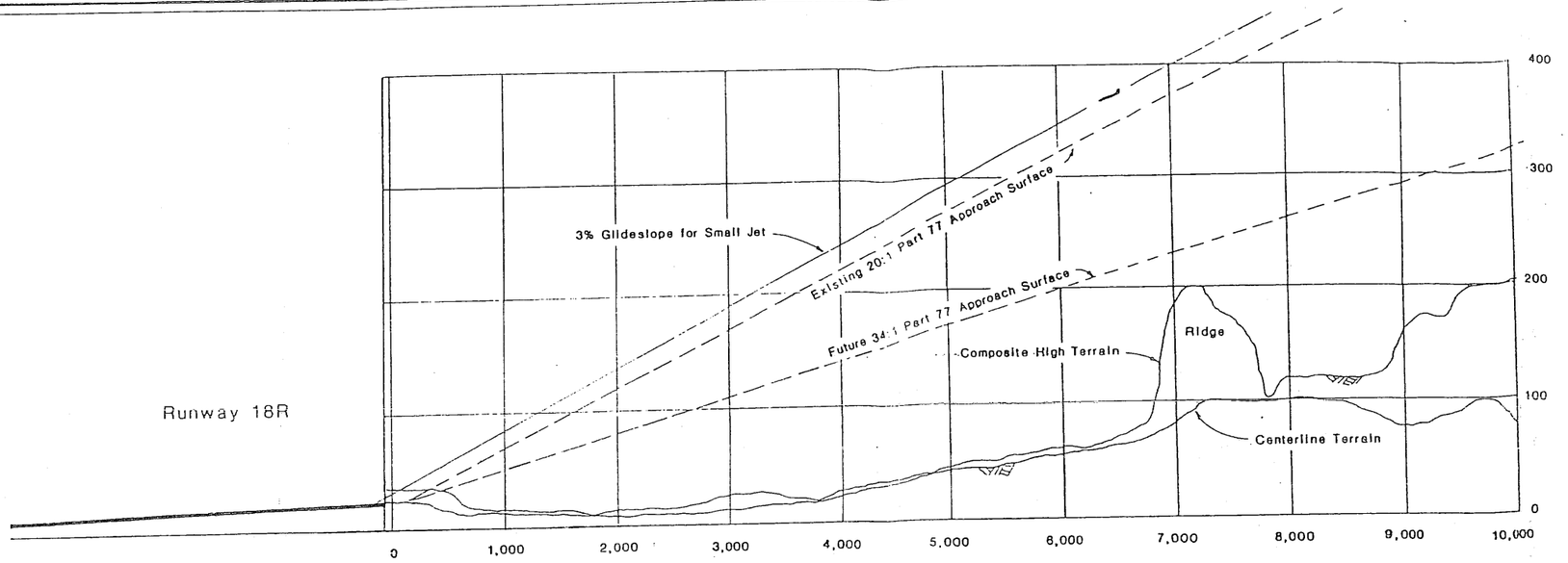
Exempt Status: General Rule Section 15061(b)(3)

Reasons why project is exempt: The General Rule applies "where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment." Pursuant to state law, the ALUCP operates to establish policies, with which either local general plans, zoning and development projects must be **made consistent**, or on a case-by-case basis **overruled by the local governing body with findings**. Thus whether a project (plan, zoning or development) actually may have an environmental impact is dependent both on that project itself, and on how the local government chooses to deal with the existence of the ALUCP. Negative Declarations were prepared and adopted in 1991 demonstrating that the ALUCP for each of the airports in Napa County would have no potential environmental impact. Amendments to the ALUCPs have no independent authority, and can therefore be seen with certainty to have no potential environmental effect.

Lead Agency
Contact Person: Michael Miller Area Code/Telephone Extension: 707/253-4417

Signature: Michael Miller Date: 12/22/99 Title: Deputy Planning Director/ALUC Staff
☑ Signed by lead agency

6564



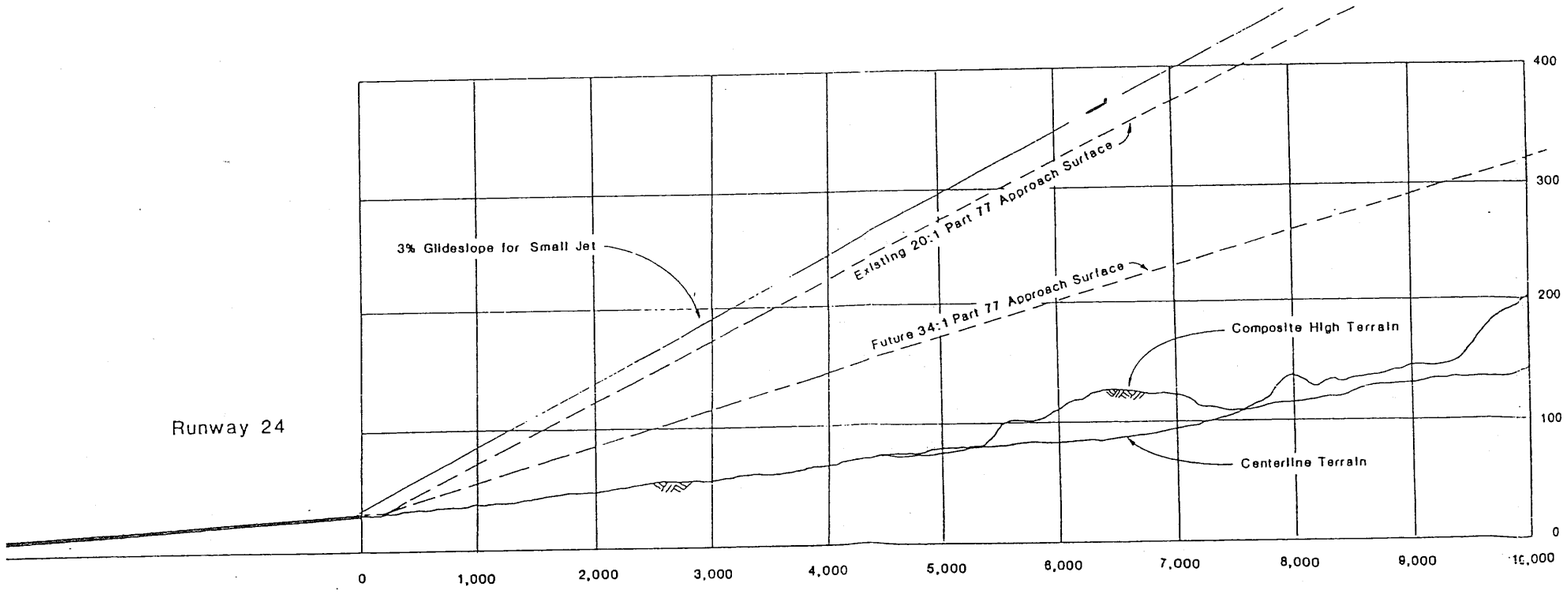


Figure 1

Aircraft Altitude Profiles

Napa County Airport

9

(Chapter repealed February 16,2000)

10

Virgil O. Parrett Field Initial Study and Negative Declaration

DRAFT
NEGATIVE DECLARATION

The Executive Director of the Napa County Airport Land Use Commission has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Airport Land Use Commission Office, 1195 Third St., Room 210, Napa, California 94559. For further information call (707) 253-4416.

PARRETT FIELD AIRPORT LAND USE COMPATIBILITY PLAN

(Project Description)
The criteria and policies which the Napa County Airport Land Use Commission will use in evaluating the compatibility of land uses around Virgil O. Parrett Field (Angwin Airport). (See Project Description contained in the attached Initial Study, incorporated by reference).

WRITTEN COMMENT PERIOD:
April 1, 1991 to April 21, 1991

DATE: April 1, 1991

BY THE ORDER OF

JEFFREY REDDING
Director
Napa County Conservation, Development and Planning Department

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT
1195 Third Street, Rm. 210
Napa, California, 94559
(707) 253-4416

INITIAL STUDY

PROJECT NAME: PARRETT FIELD AIRPORT LAND USE COMPATIBILITY PLAN
FILE NO:

PROJECT DESCRIPTION: The Parrett Field Airport Land Use Compatibility Plan (the Plan) sets forth the criteria and policies which the Napa County Airport Land Use Commission (the Commission) will use in evaluating the compatibility of land uses around Parrett Field (the Airport). The statutory requirement for the establishment of the Commission and the adoption of the Plan is set forth in the State Aeronautics Act, Article 3.5, Chapter 4, Section 21670 of the Public Utilities Code (the Act).

The recommended planning area for Parrett Field is entirely within the area encompassed by the outer conical surface as defined under Part 77 of Federal Aviation Regulations (established by a 5,000-foot radius from the runway's primary surface); and would be further limited on the west side (outside the airport traffic pattern) by Howell Mountain Drive and Falls Road (refer to Figure 3C of the Plan). A detailed discussion and assessment of the airport's impact area is included in Chapter 7 of the Plan. Figure 3C and Tables 3-1 and 3-2 of the Plan summarize the areas of concern and the Commission's criteria and policies for Parrett Field which are further defined in Chapter 3 of the Plan. The primary policies would:

1) Prohibit any use that may be hazardous to flight, including uses which produce excessive glare, light, smoke, steam, emissions, electronic interference or may attract large flocks of birds.

2) Establish height limitations in accordance with Part 77 of Federal Aviation Regulations and require the dedication of height-limit easements to the County of Napa within the approaches to prevent obstructions to the navigable airspace.

3) Require the local government to identify and preserve open space within the approaches and traffic pattern area to reduce the risks to life and property of aircraft emergencies.

4) Preclude uses in which the occupants have low mobility (*e.g.* nursing homes, grade schools, etc.) from locating in areas with high to moderate accident potential within the approach/departure zones or the traffic pattern areas (Zones A,B,C, and D).

5) Preclude noise-sensitive uses from locating in the areas that are subject to frequent noise intrusion (including single-event noise) within the approaches and traffic pattern area (Zones A,B,C and D).

6) Require the recordation of airport operational/overflight notices to ensure notification to potential buyers of the airport's influence.

7) Establish density limitations (as shown in Table 3-2) that would effectively:

   a) Preclude the conversion of land to residential use within the areas subject to frequent noise intrusion within the approach/departure zones and traffic pattern areas (Zones A,B,C and D). The Plan maintains residential densities in these areas at 1 unit per 40 acres in accordance with the present land use designations of the underlying general plan.

   b) Preclude high-occupancy uses from locating in areas with high to moderate accident potential within the approach/departure zones and traffic pattern areas (Zones A,B,C and D).

JURISDICTIONAL BACKGROUND:
Public Plans and Policies

Based on an initial review, the following findings have been made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

	YES	NO	N/A
Is the project consistent with:			
a) Regional and Subregional Plans and Policies?	X	—	—
b) LAFCOM Plans and Policies?	—	—	X
c) The County General Plan? (see discussion below)	—	—	X
d) Appropriate City General Plans?	—	—	X
e) Adopted Environmental Plans and Goals of the Community?	—	—	X
f) Pertinent Zoning? (see discussion below)	—	—	X

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Responsible (R) and Trustee (T) Agencies	Other Agencies Contacted
County of Napa (R)	Federal Aviation Administration State Division of Aeronautics

The adoption of the Plan by the Commission will have no direct effect on land use because the Commission has no direct authority over land use. The Plan only serves to provide guidance to the local jurisdictions in determining the compatibility of land uses with airport activities. However, due to conformance provisions contained in the enabling legislation, the Plan will have an indirect effect on land use, in that local jurisdictions must bring their general plans and specific plans into conformance with the Plan or otherwise provide findings that meet the intent of the Act to override the Commission's determination. The Commission must review the local general plan within 180 days of the adoption of the Plan. The statutory authority and role of the Commission and the relationship to local plans is further described in Chapter 1 of the Plan.

An initial review of the underlying local general plan indicates that the existing land use designations within the Parrett Field Planning Area are presently consistent with the Plan. However, in order for the Commission to make a determination of consistency with the Plan, the County must revise its plan to incorporate specific policies relative to airport compatibility which:

1) Recognize the airport's planning area;

2) Agree to the types of actions to be referred to the Commission; and

3) Reflect the density criteria, mitigation measures and other conditions listed (*i.e.* height limitations, use restrictions, notification requirements, etc.)

:ussion of Effect on Local Land Use Plan

Because implementation of the Plan is essentially a subsequent action to be taken by the County, and because provisions of the Act allow for local jurisdictions to override the Commission's determinations, an assessment of the potential effect of the Plan is difficult to predict. Therefore, this Initial Study is based on the assumption that the criteria, policies, and land use restrictions set forth in this Plan will be adopted by the local agency as recommended. Subsequent actions by the local jurisdiction required by the Plan (general plan revision) which differ from the recommendations in this Plan may require additional environmental review. Since the Plan addresses land use compatibility issues related to potential noise and safety impacts resulting from airport activities, the adoption of the Plan itself is a mitigation measure for potential airport impacts. The Plan establishes performance criteria for land use densities, identifies specific mitigation measures, and seeks to prevent the encroachment of incompatible uses (principally noise-sensitive uses such as residential) into aircraft traffic areas.

Even though the Plan is a mitigation of potential impacts and consequently not likely to have any significant adverse environmental effects of its own, the Plan precludes the conversion of land to higher densities of residential use than 1 unit/40 acres within the approach/departure zones and traffic pattern areas (Zones A,B,C and D). Thus, a potential adverse effect of the Plan would be to restrict the future availability of land for housing within the Airport's Planning Area. However, this impact is insignificant because no residential density higher than 1 unit/40 acres is presently designated in these areas in the local general plan, and is thus not regarded as necessary to meet the housing needs of the community over the 20-year time frame of the Plan.

ENVIRONMENTAL SETTING: Parrett Field is located on top of Howell Mountain at elevation ± 1850 feet immediately east of the ± 1½ square mile unincorporated community of Angwin, and is an integral part of Pacific Union College. The College forms the eastern side of the urbanized area begun in the 1860's as a resort. The airfield occupies a ridgetop formed of Sonoma volcanics; Howell Mountain forms a divide between the Conn Creek/Napa River watershed and the Maxwell Creek/Lake Berryessa watershed. Surrounding terrain drops away from the airfield almost immediately to the north, south, and east, and after a somewhat gently-sloping (2-15%) tableland to the west. The hilly environment consists of climax and successional Douglas fir woodland, but the ridgetop, including the airport, is clear of vegetation, and the urbanized community to the west has also significantly altered the vegetation. The Howell Mountain ridge has no mapped landslides, but an area of faulting is located southeast of the ridge at the head of Chiles Valley. Winds are generally light, except in September when high winds from the northeast occur. Air quality is excellent year-round, with the airport lying above the average inversion layer elevation. Soils throughout the airport planning area are composed of stony loams of the Aiken, Butte, and Konocti series.

ENVIRONMENTAL EFFECTS:
Normally Significant Individual Impacts

YES	NO		
		(Geology)	
__	X	1.	Exposure of new site users to substantial life and/or property hazards from geologic processes (*e.g.*, severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
__	X	2.	Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
__	X	3.	Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		(Meteorology)	
__	X	4.	Substantial modification of climatic or microclimatic conditions (*e.g.*, temperature, rainfall, wind, shadow patterns, etc.).
		(Hydrology)	
__	X	5.	Exposure of new site users to substantial life and/or property hazards from flooding (*e.g.*, stream flooding, tsunamis, seiches, dam or levee failure, etc.).
__	X	6.	Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
__	X	7.	Substantial temporary construction period increase in erosion and/or sedimentation.
__	X	8.	Substantial permanent increase in erosion and/or sedimentation.
__	X	9.	Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		(Water Quality)	
__	X	10.	Substantial degradation of the quality of waters present in a stream, lake, or pond.
__	X	11.	Substantial degradation of the quality of groundwater supplies.
__	X	12.	Substantial contamination of a public or private water supply.
		(Air Quality)	
__	X	13.	Exposure of new site users to substantial health hazards from breathing polluted air.
__	X	14.	Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
__	X	15.	Substantial degradation of local or regional air quality.
__	X	16.	Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		(Noise)	
__	X	17.	Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare. (See Discussion)
__	X	18.	Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
__	X	19.	Exposure of people to high construction noise levels for substantial periods of time.
__	X	20.	Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Ecosystem)	
_	X	21.	Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
_	X	22.	Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (*e.g.*, marshes, riparian galleries, vernal pools, etc.).
_	X	23.	Substantial reduction in habitat for plants, fish, and/or wildlife.
_	X	24.	Substantial modification in the number or diversity of plant or animal species present.
_	X	25.	Substantial interference with the movement of a resident or migratory fish or wildlife species.
		(Social)	
_	X	26.	Disruption or division of an established community.
_	X	27.	Displacement of a large number of people.
		(Aesthetic)	
_	X	28.	Blockage or substantial degradation of important public or private views.
_	X	29.	Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare. (See Discussion)
_	X	30.	Creation of a litter problem.
		(Cultural)	
_	X	31.	Destruction of or substantial damage to a recognized archaeological site.
_	X	32.	Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
	X	33.	Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
		(Traffic)	
_	X	34.	Exposure of new site users to substantial life and/or property hazards from traffic accidents.
_	X	35.	Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
_	X	36.	Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
_	X	37.	Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
_	X	38.	Creation of a substantial local parking problem.
		(Energy)	
_	X	39.	Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
_	X	40.	Creation of a facility or development which will use fuel or energy in a wasteful manner.
_	X	41.	Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
		(Public Health)	
_	X	42.	Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
_	X	43.	Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
	X	44.	Exposure of new site users to substantial life and/or property hazards from fire.
	X	45.	Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

YES	NO		
		(Public Health)	
__	X	46.	Exposure of new site users to substantial life and/or property hazards from air crashes.
__	X	47.	Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes. **(See Discussion)**
__	X	48.	Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.
		(Community Services)	
__	X	49.	Increase in the demand for a community service (*e.g.*, sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.
		(Commercial Resources)	
__	X	50.	Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
__	X	51.	Removal of a substantial amount of agricultural or grazing land from current or potential production.
		(Fiscal)	
__	X	52.	Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.
		(Growth Inducement)	
__	X	53.	Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

Does the project:	YES	NO
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	__	X
b) Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	__	X
c) Have possible environmental effects which are individually limited but cumulatively considerable?	__	X
d) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	__	X

* Mitigable (see Mitigation Measures below)
° Cumulatively Significant Only

Impact Discussion

[All items checked above "YES", "YES, mitigable", or "YES, cumulatively significant" must be discussed below.]

The following items were checked above "NO," but require additional explanation:

Item #17: The Plan will not increase noise levels. By requiring that the new owners and residents of the area subject to generally higher noise levels of normal aircraft operations be notified of the source of such noise, the Plan is expected to have a beneficial effect on the number of noise-exposure incidents and complaints.

Item #29: The Plan will not increase the sources of light or glare. The potential effect from the Plan to encourage additional lighting of aircraft hazards not presently marked is not a significant effect.

Item #47: The Plan would have a beneficial effect in potentially reducing the number of people subject to air crash hazards.

MITIGATION MEASURES:

_X_ None Required
___ Identified By This Study - Unadopted (see attached Draft Project Revision Statement)
___ Included By Applicant As Part of Project (see attached Project Revision Statement)
___ Recommended For Inclusion As Part of Public Project (see attached Recommended Mitigation Measure List)

BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information Form contained in the permanent file on this project.

AGENCY STAFF PARTICIPATING IN THE INITIAL STUDY:

Resource Evaluation:	Michael Miller & Jennifer Barrett (consultant)	Date: March 15, 1991
Site Review:	Jennifer Barrett	Date: March 26, 1991
Planning/Zoning Review:	Michael Miller & Jennifer Barrett	Date: March 26, 1991

PRELIMINARY DETERMINATION:

X No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

___ A Negative Declaration cannot be prepared unless all identified impacts are reduced to a level of insignificance or avoided.

DATE: March 26, 1991 BY: Michael Miller

FINAL DETERMINATION:

On the basis of this preliminary evaluation:

X I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be approved.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION should therefore be approved.

___ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT would be required:

___ Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.

___ A previously-certified Environmental Impact Report will fully address the impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.

___ A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: 3-27-91 BY: Jeffrey Reddick

alu6\parrett.is

APPENDICES

AERONAUTICS LAW
STATE AERONAUTICS ACT

Public Utilities Code
Chapter 4, Article 3.5

AIRPORT LAND USE COMMISSION

Creation; Membership; Selection

21670. (a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors for the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by subdivisions (b) and (c) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent the member in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation": means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport. The commission shall be constituted pursuant to this section on and after March 1, 1988.

Action by Designated Body Instead of Commission

21670.1 (a) Notwithstanding any provisions of this article, if the board of supervisors and the city selection committee of mayors in any county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriate designated body, then such body shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) which does not include among its membership at least two members having an expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that the body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

Applicability to Counties Having Over 4 Million Population

21670.2. (a) Sections 21670 and 21670.1 do not apply to counties of more than 4 million population. In such counties, the county regional planning commission has the responsibility of coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on such an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the comprehensive land use plans required pursuant to Section 21675.

Airports Owned by a City, District, or County; Appointment of Certain Members by Cities and Counties

21671. In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (a) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) subdivision (a) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

Term of Office; Removal of Members; Vacancies; Compensation; Staff Assistance; Meetings

21671.5 (a) Except for the terms of office of the members of the first commission, the term of office for each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members if four years. The body which originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing him or her. The expiration date of the term of office of each member shall be the first Monday in May in the year in which his or her term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes, and necessary quarters, equipment, and supplies shall be provided by the county. The usual and necessary expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees for reviewing and processing proposals and for providing copies of land use plans, as required by subdivision (d) of Section 21675. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Chapter 13 (commencing with Section 54990) of Part 1 of Division 2 of Title 5 of the Government Code. After June 30, 1991, a commission which has not adopted the comprehensive land use plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

Rules and Regulations

21672. Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

Initiation of Proceedings for Creation by Owner of Airport

21673. In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

Powers and Duties

21674. The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

(c) To prepare and adopt an airport land use plan pursuant to Section 21675.

(d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.

(e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

Staff Training and Development

21674.5 (a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff or airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

(1) The establishment of a process for the development and adoption of comprehensive land use plans.

(2) The development of criteria for determining airport land use planning boundaries.

(3) The identification of essential elements which should be included in the comprehensive plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions which the department determines to be appropriate to provide the commission staff and for which it determines there is a need for staff training and development.

(c) The department may provide training and development programs for airport land commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

SEC 2. The sum of one hundred thousand dollars ($100,000) is hereby appropriated from the Aeronautics Account in the State Transportation Fund to the Department of Transportation for the purposes of this act.

SEC 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to assist airport land use commissions to comply with state law requiring the development and adoption of comprehensive land use plans for each public airport in California, and in order to provide for the orderly development of public airports and to provide adequate protection from incompatible land uses in the vicinity of public use airports at the earliest possible time, it is necessary that this act take effect immediately.

Land Use Plan

21675. (a) Each commission shall formulate a comprehensive land use plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating a land use plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the planning area. The comprehensive land use plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission may include, within its plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any federal military airport for all the purpose specified in subdivision (a). This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The planning boundaries shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the plan and each amendment to the plan.

(e) If a comprehensive land use plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

Date of Adoption; Review of Actions; Approval or Disapproval

21675.1 (a) By June 30, 1991, each commission shall adopt the comprehensive land use plan required pursuant to Section 21675.

(b) Until a commission adopts a comprehensive land use plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give the public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land which will be included or reasonably could be included within the plan. If the

commission has not designated a study area for the plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted plan if the action, regulation, or permit is ultimately inconsistent with the plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations which exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

(1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.

(2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

Failure to Approve or Disapprove

21675.2 (a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to

this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

Review of Local General Plans

21676. (a) Each local agency whose general plan includes areas covered by an airport land use commission plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the commission's plan. If the plan or plans are inconsistent with the commission's plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its plans. The local agency may overrule the commission after such a hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(b) Prior to the amendment of a general plan or specific plan, or the addition or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(c) Each public agency owning any airport within the boundaries of an airport land use commission plan shall, prior to modification of its airport master plan, refer such proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the commission's plan.

Review of Local Plans

21676.5. (a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action,

regulation, or permit of the local agency is inconsistent with the commission plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may overrule the commission after hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that the individual projects shall be reviewed by the commission.

Marin County Override Provisions

21677. Notwithstanding Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body.

Airport Owner's Immunity

21678. With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676 or 21676.5 overrides a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to override the commission's action or recommendation.

Court Review

21679. (a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, which directly affects the use of land one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction which postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency which took the action does one of the following:

(1) In the case of an action which is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(2) In the case of an action which is not a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(3) Rescinds the action.

(4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2) of this subdivision, whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency which took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public

Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

Action to Postpone Effective Date of Zoning Change, Etc.

21679.5 (a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary or a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan.

(b) If a commission has been prevented from adopting the comprehensive land use plan by June 30, 1991, or if the adopted plan could not become effective, because of a lawsuit involving the adoption of the plan, the June 30, 1991 date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body does not adopt an airport land use plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

Excerpts from Federal Aviation Regulations

Part 77—Objects Affecting Navigable Airspace

Subpart A—General

§ 77.1 Scope.

This Part—

(a) Establishes standards for determining obstructions in navigable airspace;

(b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;

(c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;

(d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and

(e) Provides for establishing antenna farm areas.

§ 77.2 Definition of terms.

For the purpose of this Part:

"Airport available for public use" means an airport that is open to the general public with or without a prior request to use the airport.

"A seaplane base" is considered to be an airport only if its sea lanes are outlined by visual markers.

"Nonprecision instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

"Precision instrument runway" means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

"Utility runway" means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

"Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

§ 77.3 Standards.

(a) The standards established in this Part for determining obstructions to air navigation are used by the Administrator in—

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;

(2) Transferring property of the United States under Section 16 of the Federal Airport Act;

(3) Developing technical standards and guidance in the design and construction of airports; and

(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this Part but are contained in other publications of the Administrator.

§ 77.5 Kinds of objects affected.

This Part applies to—

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

Subpart B—Notice of Construction or Alteration

§ 77.11 Scope.

(a) This subpart requires each person proposing any kind of construction or alteration described in § 77.13(a) of this chapter to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under § 77.13(a).

(b) Notices received under this subpart provide a basis for—

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590;

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

§ 77.13 Construction or alteration requiring notice.

(a) Except as provided in § 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in § 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in subparagraph (5) of this paragraph.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally

traverse it, would exceed a standard of subparagraph (1) or (2) of this paragraph.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of Subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and except for military airports, it is clearly indicated that that airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the area involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) An FAA regional office advises him that submission of the form is required.

§ 77.15 Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.

§ 77.17 Form and time of notice.

(a) Each person who is required to notify the Administrator under § 77.13(a) shall send one executed form set (four copies) of FAA Form 7460–1, Notice of Proposed Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460–1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under § 77.13(a)(1) through (4) must be submitted at least 30 days before the earlier of the following dates—

(1) The date the proposed construction or alteration is to begin.

(2) The date an application for a construction permit is to be filed.

However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to the FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of Part 77 proposing a structure in excess of 2,000 feet aboveground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety, that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within five days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of § 77.13, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

§ 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under § 77.13 (a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the Advisory Circular.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration—

(1) Would not exceed any standard of Subpart C and would not be a hazard to air navigation;

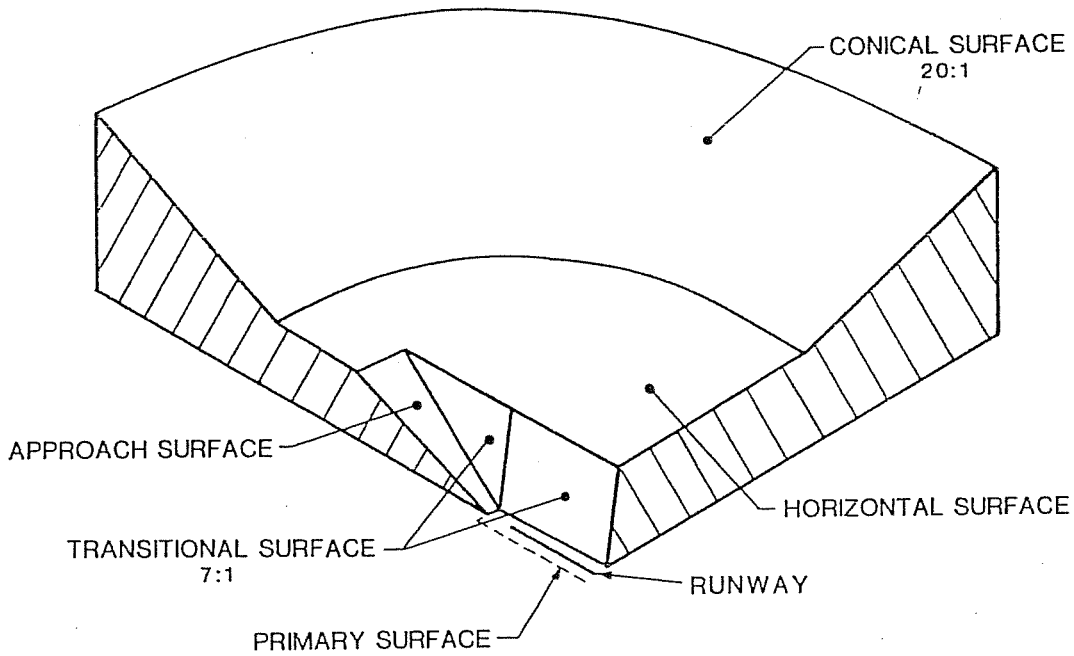
(2) Would exceed a standard of Subpart C but would not be a hazard to air navigation; or

(3) Would exceed a standard of Subpart C and further aeronautical study is necessary to determine whether it would be a hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.

Subpart C—Obstruction Standards

§ 77.21 Scope.

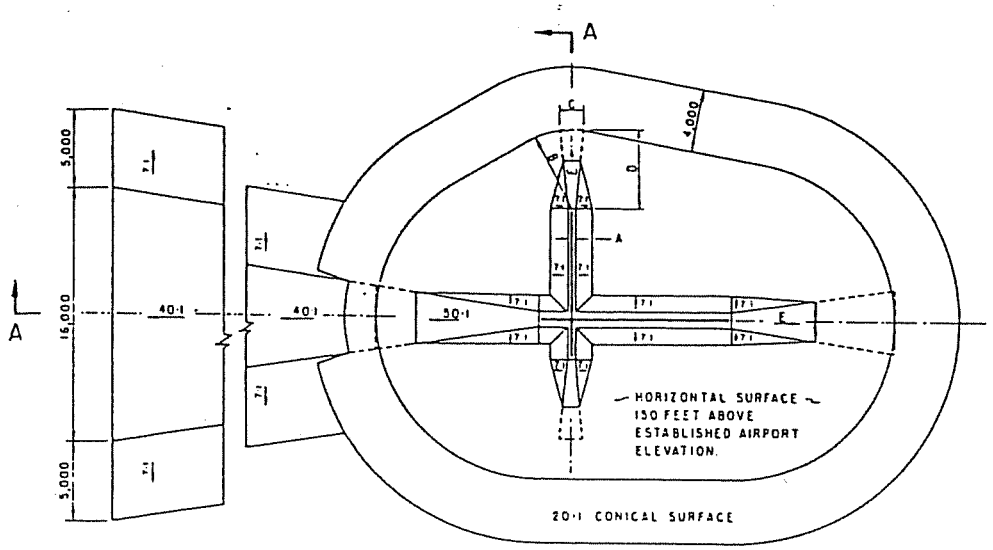
(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by § 77.13(a) is filed.



ISOMETRIC VIEW

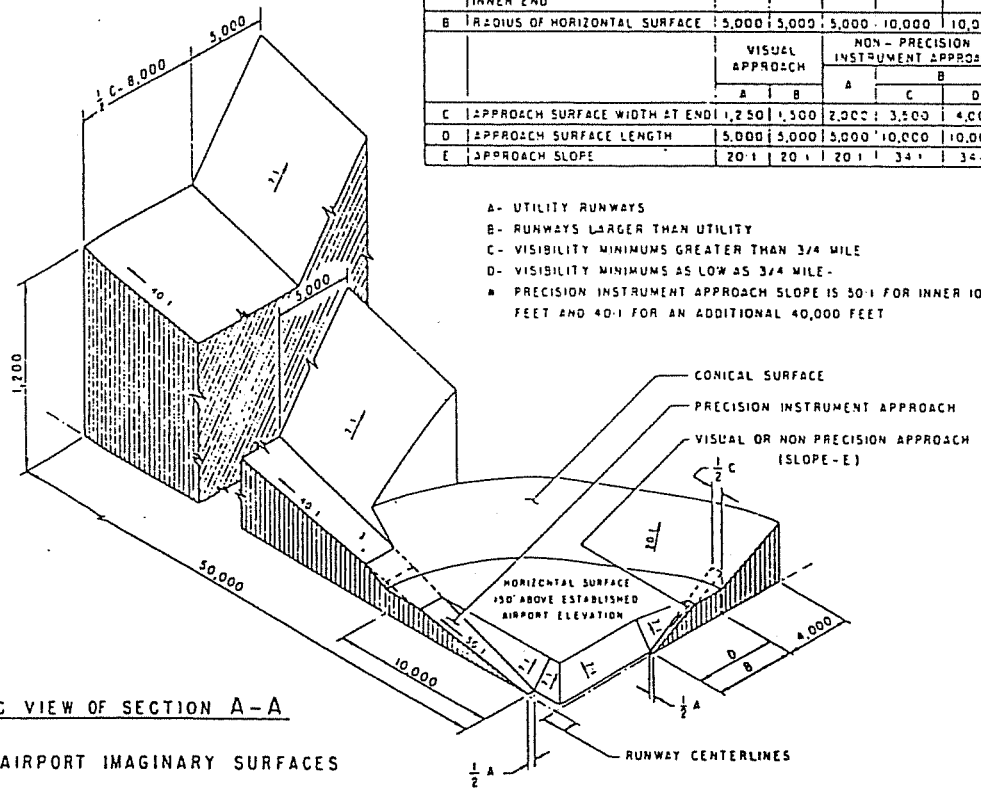
Figure B – 1

Typical FAR Part 77 Surfaces



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON – PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON – PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B C	B D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE-
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

§ 77.25 CIVIL AIRPORT IMAGINARY SURFACES

Source: FAR Part 77

Figure B – 2

Objects Affecting Navigable Airspace

Form Approved OMB No. 2120-0001

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Aeronautical Study Number

S Department of Transportation
-al Aviation Administration

ature of Proposal

ype	B. Class	C Work Schedule Dates
☐ New Construction	☐ Permanent	Beginning _____
☐ Alteration	☐ Temporary (Duration _____ months)	End _____

A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. *(Number, Street, City, State and Zip Code)*

( ) _____
area code Telephone Number

B. Name, address and telephone number of proponent's representative if different than 3 above.

2. Complete Description of Structure

A Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure.

B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports.

C. Include information showing site orientation, dimensions, and construction materials of the proposed structure.

(If more space is required, continue on a separate sheet.)

4. Location of Structure

A. Coordinates *(To nearest second)*	B. Nearest City or Town, and State	C Name of nearest airport, heliport, flightpark, or seaplane base
° ' " Latitude	(1) Distance to 4B Miles	(1) Distance from structure to nearest point of nearest runway
° ' " itude	(2) Direction to 4B	(2) Direction from structure to airport

5. Height and Elevation *(Complete to the nearest foot)*

A. Elevation of site above mean sea level	
B. Height of Structure including all appurtenances and lighting *(if any)* above ground, or water if so situated	
C. Overall height above mean sea level *(A + B)*	

scription of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or quivalent showing the relationship of construction site to nearest airport(s). *(If more space is required, continue on a separate sheet of paper and attach to this notice.)*

Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than $500 for the first offense and not more than $2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).

I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.

Date	Typed Name/Title of Person Filing Notice	Signature

FAA will either return this form or issue a separate acknowledgement.

FOR FAA USE ONLY

The Proposal:

- ☐ Does not require a notice to FAA.
- ☐ Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.
- ☐ Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.
- ☐ Should be obstruction ☐ marked, ☐ lighted per FAA Advisory Circular 70/7460-1, Chapter(s) _____
- ☐ Obstruction marking and lighting are not necessary.

emarks:

Supplemental Notice of Construction FAA Form 7460-2 is required any time the project is abandoned, or

- ☐ At least 48 hours before the start of construction.
- ☐ Within five days after the construction reaches its greatest height.

This determination expires on _____ unless:

(a) extended, revised or terminated by the issuing office;
(b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.

Issued In	Signature	Date

6599

FAA Form 7460-1 (8-85)

TABLE 1

RECOMMENDED MAXIMUM INTERIOR LEVEL
CRITERIA FOR INTERMITTENT NOISE

Generalized Land Use (Occupancy)	Maximum Intermittant Noise - dBA	Basis for Criteria
RESIDENTIAL SINGLE AND MULTIPLE FAMILY DWELLINGS		
1. Living Areas	55	Conversation - 5 ft.- normal voice
2. Sleeping Areas	50	Sleeping
EDUCATIONAL FACILITIES		
1. Concert Hall	25	Intrusion of noise may spoil artistic effect
2. Legitimate Theater	30	Intrusion of noise may spoil artistic effect
3. School Auditorium	35	Minimize intrusion into artistic performance
4. School Classroom	55	Speech communication - 20 ft. - raised voice
5. School Laboratory	60	Speech communication - 6 ft. - normal voice
6. Church Sanctuary	45	Speech communication - 50 ft. - raised voice
7. Library	65	Speech communication - 3 ft. - normal voice
RECREATIONAL FACILITIES		
1. Motion Picture Theater	45	Minimize intrusion into artistic performance
2. Sports Arena	75	Conversation - 2 ft. - raised voice
3. Bowling Alley	75	Conversation - 2 ft. - raised voice
COMMERCIAL, MISC.		
1. Hotel, Motel Sleeping	50	Sleeping
2. Hospital Sleeping	50	Sleeping
3. Exec. Office, Conference	55	Speech communication - 12 ft. - normal voice
4. Staff Offices	60	Speech communication - 6 ft. - normal voice
5. Sales, Secretarial	65	Satisfactory telephone use
6. Restaurants, Retail	65	Conversation - 4 ft. - normal voice
INDUSTRIAL		
1. Laboratories	75	Speech communication - 3 ft. - raised voice
2. Machine Shops	75	Speech communication - 2 ft. - raised voice
3. Assembly, Const.		

TABLE 2
REQUIRED BUILDING EXTERIOR NOISE REDUCTION FOR VARIOUS
LAND USES (OCCUPANCIES) AT VARIOUS NOMINAL DISTANCES
FROM AIRCRAFT TAKE-OFF OPERATIONS *

		REQUIRED NOISE REDUCTION - dBA Slant distance from Aircraft in feet*								
	Zone	175	350	700	1400	2800	3500	5000	7000	9000
	Boundary	350	700	1400	2800	3500	5000	7000	9000	14,000
Land Use Occupancy	Nominal Distance	250	500	1000	2000	3000	4000	6000	8000	10,000
RESIDENTIAL SINGLE AND MULTIPLE FAMILY DWELLINGS										
1. Living Areas		34	29	--	--	--	--	--	--	--
2. Sleeping Areas		39	34	29	--	--	--	--	--	--
EDUCATIONAL FACILITIES										
1. Concert Hall		64	59	54	48	46	44	41	39	35
2. Legitimate Theater		59	54	49	43	41	39	36	34	30
3. School Auditorium		54	49	44	38	36	34	31	29	25
4. School Classroom		34	29	--	--	--	--	--	--	--
5. School Laboratory		29	--	--	--	--	--	--	--	--
6. Church Sanctuary		44	39	34	28	26	--	--	--	--
7. Library		--	--	--	--	--	--	--	--	--
RECREATIONAL FACILITIES										
1. Motion Picture Theater		44	39	34	28	26	--	--	--	--
2. Sports Arena		--	--	--	--	--	--	--	--	--
3. Bowling Alley		--	--	--	--	--	--	--	--	--
COMMERCIAL, MISC.										
1. Hotel, Motel Sleeping		39	34	29	--	--	--	--	--	--
2. Hospital Sleeping		39	34	29	--	--	--	--	--	--
3. Exec. Office, Conf.		34	29	--	--	--	--	--	--	--
4. Staff Offices		29	--	--	--	--	--	--	--	--
5. Sales, Secretarial		--	--	--	--	--	--	--	--	
6. Restaurants, Retail		--	--	--	--	--	--	--	--	--

TABLE (CONT.)

Land Use Occupancy		REQUIRED NOISE REDUCTION - dBA Slant distance from Aircraft in feet*								
	Zone Boundary	175 350	350 700	700 1400	1400 2800	2800 3500	3500 5000	5000 7000	7000 9000	9000 14,000
	Nominal Distance	250	500	1000	2000	3000	4000	6000	8000	10,000
INDUSTRIAL										
1. Laboratories		29	--	--	--	--	--	--	--	--
2. Machine Shops		--	--	--	--	--	--	--	--	--
3. Assembly, Const.		--	--			--	--	--	--	--

-- Indicates required building noise reduction is 25 dBA or less. Therefore, typical construction will suffice. With windows closed, forced ventilation or air conditioning may be required.

* For purposes of this table, the noise produced by a Cessna 310 two engine piston aircraft has been used. If other types of aircraft are used, then the change in required noise reduction is equal to the change in noise exposure for the new type of aircraft.

TABLE 3
REQUIRED BUILDING EXTERIOR NOISE REDUCTION FOR VARIOUS
LAND USES (OCCUPANCIES) AT VARIOUS NOMINAL DISTANCES
FROM AIRCRAFT LANDING OPERATIONS *

		REQUIRED NOISE REDUCTION - dBA Slant distance from Aircraft in feet						
	Zone	175	350	700	1400	2800	3500	5000
	Boundary	350	700	1400	2800	3500	5000	7000
Land Use Occupancy	Nominal Distance	250	500	1000	2000	3000	4000	6000
RESIDENTIAL SINGLE AND MULTIPLE FAMILY DWELLINGS								
1. Living Areas		29	--	--	--	--	--	--
2. Sleeping Areas		34	28	--	--	--	--	--
EDUCATIONAL FACILITIES								
1. Concert Hall		59	53	46	35	32	30	25
2. Legitimate Theater		54	48	41	30	27	25	--
3. School Auditorium		49	43	36	25	--	--	--
4. School Classroom		29	--	--	--	--	--	--
5. School Laboratory		--	--	--	--	--	--	--
6. Church Sanctuary		39	33	26	--	--	--	--
7. Library		--	--	--	--	--	--	--
RECREATIONAL FACILITIES								
1. Motion Picture Theater		39	33	26	--	--	--	--
2. Sports Arena		--	--	--	--	--	--	--
3. Bowling Alley		--	--	--	--	--	--	--
COMMERCIAL, MISC.								
1. Hotel, Motel Sleeping		34	28	--	--	--	--	--
2. Hospital Sleeping		34	28	--	--	--	--	--
3. Exec. Office, Conf.		29	--	--	--	--	--	--
4. Staff Offices		29	--	--	--	--	--	--
5. Sales, Secretarial		--	--	--	--	--	--	--
6. Restaurants, Retail		--	--	--	--	--	--	--

TABLE - (CONT.)

Land Use Occupancy		REQUIRED NOISE REDUCTION - dBA Slant distance from Aircraft in feet						
	Zone Boundary	175 350	350 700	700 1400	1400 2800	2800 3500	3500 5000	5000 7000
	Nominal Distance	250	500	1000	2000	3000	4000	6000
INDUSTRIAL								
1. Laboratories		--	--	--	--	--	--	--
2. Machine Shops		--	--	--	--	--	--	--
3. Assembly, Const.		--	--	--	--	--	--	--

-- Indicates required building noise reduction is 25 dBA or less. Therefore, typical construction will suffice. With windows closed, forced ventilation or air conditioning may be required.

* For purposes of this table, the noise produced by a Cessna 310 two engine piston aircraft has been used. If other types of aircraft are used, then the change in required noise reduction is equal to the change in noise exposure for the new type of aircraft.

TABLE 4

GENERAL CONSTRUCTION METHODS TO ACHIEVE
THE INDICATED EXTERIOR NOISE REDUCTION

Required Overall Bldg. Noise Reduction (dBA)	FLOOR	EXTERIOR WALLS	EXTERIOR DOORS	WINDOWS	CEILING, ROOF
30	No special provisions	No special provisions, except eliminate penetrations of wall air conditioning units, mail boxes, etc. Fireplaces should have glass type closable screen & well fitted damper	STC 33**. Solid core, weatherstripping, combined door and window area less than 20% of floor area.	STC 31. Seal	Generally, no special provisions.
40	a. Slab on grade-no special provisions b. If raised floor, one or more of the following: 1. baffle air vent 2. attach gypboard to underside of floor joists	Eliminate penetrations of wall air conditioning units, mail boxes, etc. Operational vented fire places should be avoided.	STC 43. Sound doors, sound seals, combined door and window area less than 20% of floor area.	STC 43. Double glazing, sealed windows.	a. Attic System 1. vent baffling 2. sound absorption between joists. b. If beam ceiling: 1. provide sound absorption between beams 2. provide gypboard on resilient clips to underside of beams.

TABLE 4 (CONT.)

Required Overall Bldg. Noise Reduction (dBA)	FLOOR	EXTERIOR WALLS	EXTERIOR DOORS	WINDOWS	CEILING, ROOF
50	a. Slab on grade-no special provisions b. If raised floor: 1. baffle air vent 2. provide sound absorption between floor joists 3. add gypboard to underside of floor joists	a. Wood framing staggered studs with sound absorption in cavity. Stucco on outside, 2 layers gypboard on inside. b. 8 in. concrete block with sealed exterior and interior surfaces. c. 4 in. dense concrete	STC 50. Special sound doors with acoustical seals.	STC 49. Double glazing, sealed windows, minimum 4 in. airspace.	a. Attic System 1. vent sound traps 2. independently framed ceiling and roof system. 3. sound absorption in attic space. b. Built-up roof over 4 in. concrete slab with suspended ceiling.
60	a. Slab on grade-no special provisions b. If raised floor: similar to NR-50 requirement except more effective vent baffling and attach gypboard to floor joists by resilient clips.	a. Wood or steel stud framing-double studs with multi-layer gypboard on both sides, exterior stucco or sheathing. Sound absorption in air cavity. b. 12 in. dense concrete c. 4 in. concrete with seperate furred multi-layer gypboard wall. Sound absorption in air cavity.	Two solid core weatherstripped doors with sound lock.	Barely practical. Minimize window area. Double glazing with acoustical glass and 8 in. airspace. Avoid windows on noise exposure side. Arrange windows on interior enclosed court., etc.	a. Attic System, similar to NR-50 requirement but more mass. b. 4 in. concrete slab with vibration isolated ceiling

Table 4 (CONT.)

* All noise reductions are for buildings with windows closed. Mechanical ventilation may be required. All ventilation ducts to the outside should consist of 10' of lined duct (except for kitchen exhaust) with at least one 90° bend. Kitchen exhaust ducts should have baffle plate at the duct discharge. The table assumes that construction is generally airtight. All joints and penetrations need to be sealed.

** Sound Transmission Class (STC)--A single-figure rating designed to give an estimate of the sound insulation properties of a partition. Numerically, STC represents the number of decibels of speech sound reduction from one side of the partition to the other.

METHODS FOR DETERMINING CONCENTRATIONS OF PEOPLE

One criteria used in the Airport Land Use Compatibility Plan is the maximum number of persons per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum density, it will be considered inconsistent with ALUC policies. This appendix provides some guidance on how to make the persons-per-acre determination.

The most difficult part of making a persons-per-acre determination is estimating the number of people likely to use a particular facility. There are several methods that can be utilized, depending upon the nature of the proposed use:

- **Parking Ordinance** – The number of persons present in a given area can be calculated based upon the number of parking spaces provided. Some assumption regarding the number of persons per vehicle needs to be developed to calculate the number of persons on-site. The number of persons per acre can then be calculated by dividing the number of persons on-site by the size of the parcel in acres. This approach is appropriate where the use is expected to be dependent upon access by vehicles.

- **Maximum Occupancy** – The Uniform Building Code can be used as a standard for determining the maximum occupancy of certain uses. The chart provided as Exhibit A is taken from the 1976 edition of the UBC (Table 33-A) and indicates the required number of square feet per occupant. The number of persons on the site can be calculated by dividing the total floor area of a proposed use by the minimum square foot per occupant requirement listed in the table. The maximum occupancy can then be divided by the size of the parcel in acres to determine the persons per acre.

  Surveys of actual occupancy levels conducted by the City of Sacramento have indicated that many retail and office uses are generally occupied at 50% of their maximum occupany levels, even at the busiest times of day. Therefore, the number of persons calculated for office and retail uses should be adjusted (50%) to reflect the actual occupancy levels before making the final persons-per-acre determination.

  Some uses will have short peaks in occupancy levels, but otherwise remain relatively low during the majority of the time. In these cases, it is appropriate to use an average occupany level over an 8-hour period for making the determination. The reasoning behind this approach is to allow for short peaks in occupancy that may exceed the limit, but overall occupancy levels are below the maximum indicated by the Compatibility Plan.

- **Survey of Similar Uses** – Certain uses may require an estimate based upon a survey of similar uses. This approach is more difficult, but is appropriate for uses which, because of the nature of the use, cannot be reasonably estimated based upon parking or square footage.

Exhibit A

Use	Minimum Square Feet per Occupant
1. Aircraft Hangars (No Repair)	500
2. Auction Room	7
3 Assembly Areas, Concentrated Use (without fixed seats) Auditoriums Bowling Alleys (assembly areas) Churches and Chapels Dance Floors Lodge Rooms Reviewing Stands Stadiums	7
4. Assembly Areas, Less Concentrated Use Conference Rooms Dining Rooms Drinking Establishments Exhibit Rooms Gymnasiums Lounges Skating Rinks Stages	15
5. Children's Homes and Homes for the Aged	80
6. Classrooms	20
7. Dormitories	50
8. Dwellings	300
9. Garage, Parking	200
10. Hospitals and Sanitariums – Nursing Homes	80
11. Hotels and Apartments	200
12. Kitchen – Commercial	200
13. Library Reading Room	50
14. Locker Rooms	50
15. Mechanical Equipment Room	300
16. Nurseries for Children (Day-care)	50
17. Offices	100
18. School Shops and Vocational Rooms	50
19. Stores – Retail Sales Rooms	
Basement	20
Ground Floor	30
Upper Floors	50
20. Warehouses	300
21. All Others	100

Examples:

A. The proposal is for a 60,000-square-foot two-story office building on 4 net acres (exclusive of roads). The local parking ordinance requires one parking space for every 250 square feet of commercial space. Assuming that the use would generate one person per vehicle, the following calculations would derive the number of persons per acre.

Steps:

1) 60,000 sq. ft. ÷ 250 persons per vehicle/sq. ft. = 240 (persons expected at any one time).
2) 240 persons ÷ 4 acres = 60 persons per acre.

Under this example, the use would be estimated to generate 60 persons per acre. In zones with limits of 100 persons-per-acre, the use would be considered compatible assuming all other conditions were met.

B. The proposal is for a 12,000-square-foot store on a 63,000-square-foot parcel. Using the maximum occupancy table from the Uniform Building Code (Exhibit A) and applying the assumption that the building is occupied at 50 percent of maximum nets results in the following calculations:

Steps:

1) 63,000 sq. ft. ÷ 43,560 sq. ft. (in an acre) = 1.45 acre.
2) 12,000 sq. ft. ÷ 30 sq. ft./occupant = 400 (max. building occupancy).
3) 400 max. bldg. occup. x 50% = 200 (persons expected at any one time).
4) 200 persons ÷ 1.45 acre = 138 persons per acre.

Under this example, 138 persons per acre would represent a reasonable estimate. In zones with limitations of 100 persons-per-acre or less, the use would be considered incompatible.

C. The proposal is for a 3,000-square-foot office on a 16,500-square-foot parcel. Again using the table in Exhibit A but assuming the actual occupancy level is 50% of the maximum indicated by the UBC code provides the following result:

Steps:

1) 16,500 sq. ft. ÷ 43,560 sq. ft. (acre) = .38 acre.
2) 3,000 sq. ft. ÷ 100 sq. ft./occupant = 30 (max. building occupancy).
3) 30 persons maximum building occupancy x 50% (actual occupancy) = 15 persons in the building at any one time
3) 15 persons ÷ .38 acres = 39 persons per acre.

Under this example, the use would be estimated to generate 39 persons per acre. In zones with occupancy limits of 100, the use would be considered compatible assuming all other conditions were met.

Exhibit B

TYPICAL AVIGATION EASEMENT

This indenture made this _____ day of _____, 19 __, between

_____

hereinafter referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant tot he Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ _____ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

> The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the ____ _____ Airport official runway end elevation of _____ feet Above Mean Sea Level (AMSL), as determined by [Insert name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

(1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

(2) The easement and right to cause or create, or permit or allow to be caused or created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air, illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

(3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures, or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and

(4) The right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects, which extend into or above the Airspace; and

(5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Insert County or City name], for the direct benefit of the real property constituting the _____ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the hereinabove described real property, nor will they permit to allow, any building structure, improvement, tree or other object which extends into or above the Airspace, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the _____ Airport, int he [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the _____ Airport, or in otherwise flying through said Airspace.

This grant of easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said _____ Airport is the dominant tenement.

DATED: _____ _____

_____

STATE OF } ss

COUNTY OF }

On _____, before me, the undersigned, a Notary Public in and for said County and State, personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____

Notary Public

SAMPLE DEED NOTICE, OVERFLIGHT AND AVIGATION EASEMENTS

The Napa County Airport Land Use Compatibility Plan requires the dedication of avigation easements in certain areas and requires some form of buyer notification for all projects within the planning areas of the public-use airports in the County. There are three measures which have different applications under various circumstances. Examples of these are included in the attached exhibits and their application is briefly described below.

Exhibit A — **Avigation Easement** - Within the approach/departure zones to an airport and in areas where terrain penetrates the specified imaginary surfaces of the airspace plans for each airport, an avigation easement is required. The avigation easement provides the right of overflight, prohibits certain flight hazards, specifies height limitations and also includes provisions which enables the airport authorities to remove, mark or light any objects which create an obstruction to flight.

Exhibit B — **Overflight Easement** - In areas where height limitations are not a significant concern, an overflight easement is an appropriate means of providing notification to prospective buyers of the airports influence. Overflight easements provide the right of overflight and include limitations on certain land use characteristics which may constitute a hazard to flight.

Exhibit C — **Deed Notice** - In areas subject to overflights from privately-owned or operated airports, a deed notice is an appropriate means of providing buyer notification. The deed notice should be recorded on the deed to the subject property and on any subdivision map.

Exhibit C

SAMPLE DEED NOTICE

The following statement should be included on the deed for the subject property and recorded in by the County. This statement should also be included on any parcel map, tentative map or final map for subdivision approval.

THIS PROPERTY IS IN THE AREA SUBJECT TO OVERFLIGHTS BY AIRCRAFT USING (AIRPORT), AND AS A RESULT, RESIDENTS MAY EXPERIENCE INCONVENIENCE, ANNOYANCE OR DISCOMFORT ARISING FROM THE NOISE OF SUCH OPERATIONS. STATE LAW (PUBLIC UTILITIES CODE SECTION 21670 ET. SEQ.) ESTABLISHES THE IMPORTANCE OF PUBLIC USE AIRPORTS TO PROTECTION OF THE PUBLIC INTEREST OF THE PEOPLE OF THE STATE OF CALIFORNIA. RESIDENTS OF PROPERTY NEAR A PUBLIC USE AIRPORT SHOULD THEREFORE BE PREPARED TO ACCEPT SUCH INCONVENIENCE, ANNOYANCE OR DISCOMFORT FROM NORMAL AIRCRAFT OPERATIONS. ANY SUBSEQUENT DEED CONVEYING PARCELS OR LOTS SHALL CONTAIN A STATEMENT IN SUBSTANTIALLY THE FORM STATED ABOVE.

Exhibit B

RECORDING REQUESTED BY:

APN # _____

WHEN RECORDED MAIL TO:

_____ SPACE ABOVE THIS LINE FOR _____
RECORDER'S USE

TYPICAL OVERFLIGHT EASEMENT

GRANTOR hereby grants to the _____ located in _____, its successors or assigns, as owners of the [Name of Airport] _____, California, an overflight easement for the following purposes and granting the following rights:

1. For the use and benefit of the public, and to the extent and in the manner consistent with safe operating procedures as provided under applicable governmental regulations, the right to make flights, and the noise inherent thereto, in airspace over the property described in Exhibit A (attached) in connection with landings, takeoffs, and general operation of the [Name of Airport] _____.

2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft such as, but not limited to, steam, dust, and smoke.

3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.

4. The right to prohibit electrical emissions which would interfere with aircraft communication systems or aircraft navigational equipment.

This easement shall be effective from this date and run with the land until such time as the [Name of Airport] _____ is no longer used as an airport.

The real property subject to this overflight easement is described as follows:

See Attachment "A"

DATED: _____

GRANTOR: _____

By: _____

GLOSSARY

ABOVE GROUND LEVEL (AGL): An elevation datum given in feet above ground level.

AIRPORT TRAFFIC CONTROL TOWER (ATCT): A terminal facility that uses air/ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area. (AIM)

AIRCRAFT ACCIDENT: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage. (NTSB)

AIRCRAFT OPERATION: The airborne movement of aircraft in controlled or noncontrolled airport terminal areas and about given en route fixes or at other points where counts can be made. There are two types of operations – local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

AIRCRAFT PARKING LINE LIMIT (APL): A line established by the airport authorities beyond which no part of a parked aircraft should protrude. (Airport Design AC)

AIRPORT: An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities, if any. (FAR 1)

AIRPORT ELEVATION: The highest point of an airport's usable runways, measured in feet above mean sea level. (AIM)

AIRPORT LAYOUT PLAN (ALP): A scale drawing of existing and proposed airport facilities, their location on the airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

AIRPORT REFERENCE CODE (ARC): A coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport. (Airport Design AC)

ALUC: Airport Land Use Commission established under provisions of California Public Utilities Code, Sections 12670 et seq. (Chapter 4, Article 3.5 of State Aeronautics Act)

AMBIENT NOISE LEVEL: Background noise level, the normal or existing level of environmental noise at a given location.

APPROACH LIGHT SYSTEM (ALS): An airport lighting system which provides visual guidance enabling a pilot to align the aircraft with the extended runway centerline during a final approach to landing. Among the specific types of systems are:

- LDIN – Sequenced Flashing Lead-in Lights.
- ODALS – Omnidirectional Approach Light System, a combination of LDIN and REILS.
- SSALR – Simplified Short Approach Light System with Sequenced Flashing Lights. (AIM)

APPROACH SPEED: The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

AVIGATION EASEMENT: A type of easement that includes the following rights or restrictions: (1) the right of overflight above the property at any altitude above a surface specified in the easement. (2) A right to subject the property to noise, vibrations, fumes, dust, emissions associated with airport activities. (3) Prohibits the erection or growth of any object, tree or structure that would penetrate the defined airspace. (4) A right of entry to the property, with proper notice to the owner for the purpose fo removing, marking, or lighting any structure or other object that may constitute a hazard or obstruction. (5) Prohibits certain land use characteristics that may create flight hazards, including electrical interference, glare, misleading light sources, smoke, steam, dust or other visual impairments and uses which may attract large flocks of birds.

BASED AIRCRAFT: Aircraft stationed at an airport on a long-term basis.

CEILING: Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

CIRCLING APPROACH/CIRCLE-TO-LAND MANEUVER: A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

COMMERCIAL OPERATOR: A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL): The noise measure adopted by the State of California for evaluating airport noise. It represents the composite noise levels of aircraft operations during an average annual 24-hour day. CNEL is measured in dBA and evening and nighttime operations are weighted to reflect a community's greater sensitivity to noise during these hours and to account for quieter ambient levels.

COMMUTER AIR CARRIER: An air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed. (FAA Census)

CONTROL ZONE: Controlled airspace surrounding one or more airports, normally a circular area. Having a radius of five statute miles plus extensions to include instrument arrival and departure paths. Most control zones surround airports with air traffic control towers and are in effect only for the hours the tower is operational.

CONTROLLED AIRSPACE: Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

dBA: Noise level adjusted to account for the perception range of the human ear.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn): The noise descriptor adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods.

DEED NOTICE: A deed notice is a formal statement which is added to the legal description of the deed for a property and on any subdivision map which states that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas. (Refer to overflight easement.)

DISPLACED THRESHOLD: A landing threshold that is located at a point on the runway other than the designated beginning of the runway. (See Threshold) (AIM)

FEDERAL AVIATION REGULATIONS (FAR): Regulations issued by the FAA to regulate air commerce; issued as separate "Parts", e.g., Part 77.

FAR PART 77: The part of the Federal Aviation Regulations which deals with objects affecting navigable airspace.

FAR PART 77 SURFACES: Imaginary surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

FEDERAL AVIATION ADMINISTRATION (FAA): The United States government agency which is responsible for insuring the safe and efficient use of the nation's airspace.

FIXED BASE OPERATOR (FBO): A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

GENERAL AVIATION: That portion of civil aviation which encompasses all facets of aviation except air carriers. (FAA Stats)

GLIDE SLOPE: An electronic signal radiated by a component of an ILS to provide descent path guidance to approaching aircraft.

HELIPAD: A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

INSTRUMENT APPROACH PROCEDURE: A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority. Refer to nonprecision and precision approach procedures. (AIM)

INSTRUMENT FLIGHT RULES (IFR): Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

INSTRUMENT LANDING SYSTEM (ILS): A precision instrument approach system which normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

INSTRUMENT OPERATION: An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

INSTRUMENT RUNWAY: A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

ITINERANT OPERATION: An arrival or departure performed by an aircraft from or to a point beyond the local airport area.

LARGE AIRCRAFT: An aircraft of more than 12,500 pounds maximum certificated takeoff weight. (FAR 1)

LOCALIZER (LOC): The component of an ILS which provides course guidance to the runway. (AIM)

LOCALIZER TYPE DIRECTIONAL AID (LDA): A NAVAID used for nonprecision instrument approaches with utility and accuracy comparable to a localizer but which is no a part of a complete ILS and is not aligned with the runway. (AIM)

LOCAL OPERATION: An arrival or departure performed by an aircraft: (1) operating in the traffic pattern, (2) known to be departing or arriving from flight in local practice areas, or (3) executing practice instrument approaches at the airport. (FAA ATA)

MEAN SEA LEVEL (MSL): An elevation datum given in feet above mean sea level.

MICROWAVE LANDING SYSTEM (MLS): A precision instrument approach system providing a function similar to an ILS, but operating in the microwave spectrum. It normally consists of three components: azimuth station, elevation station, and precision distance measuring equipment.

MINIMUM DESCENT ALTITUDE (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

MISSED APPROACH: A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

NAVIGATIONAL AID/NAVAID: Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight. (AIM)

NOISE CONTOURS: Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and Ldn are the measures used to describe community exposure to noise.

NONPRECISION APPROACH PROCEDURE: A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

NONPRECISION INSTRUMENT RUNWAY: A runway with an instrument approach procedure utilizing air navigation facilities, with only horizontal guidance, or area-type navigation equipment for which a straight-in nonprecision instrument approach procedure has been approved or planned, and no precision approach facility or procedure is planned. (Airport Design AC)

OBJECT FREE AREA (OFA): A two-dimensional ground area surrounding runways, taxiways, and taxilanes which is clear of objects except for objects whose location is fixed by function. (Airport Design AC)

OBSTRUCTION: Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein the height of which exceeds the obstruction standards of subpart C of FAR Part 77 "Objects Affecting Navigable Airspace".

OBSTACLE FREE ZONE (OFZ): The airspace defined by the runway OFZ and, as appropriate, the inner-approach OFZ and the inner-transitional OFZ, which is clear of object penetrations other than frangible NAVAIDs.

OBSTRUCTION: An object, including a mobile object, which penetrates an imaginary surface described in FAR Part 77.

OUTER MARKER: A marker beacon at or near the glide slope intercept position of an ILS approach. (AIM)

OVERFLIGHT EASEMENT: An easement which describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes and emissions. An overflight easement is used primarily as a form of buyer notification.

OVERFLIGHT ZONE: The area(s) where aircraft are maneuvering to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

OVERLAY ZONING: Establishes development standards in areas of special concern over an above the standards applicable to basic underlying zoning districts.

PLANNING BOUNDARY: The area designated by the ALUC surrounding each airport pursuant to Section 21675 (c) of the Public Utilities Code in which the ALUC plan applies.

PRECISION APPROACH PATH INDICATOR (PAPI): An airport landing aid similar to a VASI, but which has light units installed in a single row rather than two rows.

PRECISION APPROACH PROCEDURE: A standard instrument approach procedure in which an electronic glide slope is provided. (FAR 1)

PRECISION INSTRUMENT RUNWAY: A runway with an instrument approach procedure utilizing an instrument landing system (ILS), microwave landing system (MLS), or precision approach radar (PAR). (Airport Design AC)

PUBLIC USE AIRPORT: Publicly or privately owned airport that offers the use of its facilities to the public without prior notice or special invitation or clearance, and that has been issued a California Airport Permit by the Division of Aeronautics of the California Department of Transportation. For purposes of the ALUC plan, the State Division of Aeronautics has interpreted "public use" to include special-use airports in which commercial operators offer service to the public.

REFERRAL AREA: The area around an airport defined by the planning boundary adopted by the ALUC within which certain land use proposals are to be referred to the ALUC for review.

RUNWAY EDGE LIGHTS: Lights used to define the lateral limits of a runway. Specific types include:

- HIRL – High-Intensity Runway Lights.
- MIRL – Medium-Intensity Runway Lights.

RUNWAY END IDENTIFIER LIGHTS (REIL): Two synchronized flashing lights, one on each side of the runway threshold, which provide a pilot with a rapid and positive visual identification of the approach end of a particular runway. (AIM)

RUNWAY PROTECTION ZONE (RPZ): An area (formerly the clear zone) used to enhance the safety of aircraft operations. It is at ground level beyond the runway end. (Airport Design AC)

RUNWAY SAFETY AREA (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. (Airport Design AC)

SAFETY ZONE(S): For the purposes of this Plan, a safety zone is an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

SINGLE-EVENT NOISE: As used in this report, it refers to the noise from an individual aircraft operation or overflight.

SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL) OR (SEL): The A-weighted sound level of a single noise event, such as an aircraft overflight, measured over the time interval for which the sound exceeds a threshold level and normalized to a reference duration of one second. SENEL and SEL values are identical: SENEL is used in California, SEL is adopted by the EPA and FAA.

The SENEL or SEL expresses the level of a continuous one-second signal that contains the same amount of energy as the entire noise event. This value is not equal to the maximum A-level occuring during the noise event. Aircraft noise events last more than one second. SENEL/SEL values will be higher than the maximum A-level for the same events.

SMALL AIRCRAFT: An aircraft of 12,500 pounds or less maximum certificated takeoff weight. (FAR 1)

STANDARD INSTRUMENT DEPARTURE (SID): A preplanned instrument flight rules (IFR) air traffic control departure procedure printed for pilot use in graphic and/or textual form. SID's provide transition from the terminal to the appropriate en route structure. (AIM)

STANDARD TERMINAL ARRIVAL ROUTE (STAR): A preplanned instrument flight rule (IFR) air traffic control arrival route published for pilot use in graphic and/or textual form. STARs provide transition from the en route structure to an outer fix or an instrument approach fix/arrival waypoint in the terminal area. (AIM)

STOPWAY: An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, able to support the airplane during an aborted takeoff, without causing structural damage to the airplane, and designated by the airport authorities for use in decelerating the airplane during an aborted takeoff. (FAR 1)

STRAIGHT-IN INSTRUMENT APPROACH: An instrument approach wherein final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

TAXILANE: The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc. (Airport Design AC)

TAXIWAY: A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft. (Airport Design AC)

TERMINAL INSTRUMENT PROCEDURES (TERPS): Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

TERMINAL RADAR SERVICE AREA (TRSA): Airspace surrounding designated airports wherein ATC provides radar vectoring, sequencing, and separation on a full-time basis for all IFR and participating VFR aircraft. (AIM)

THRESHOLD: The beginning of that portion of the runway usable for landing. (AIM) (Also see Displaced Threshold)

TOUCH-AND-GO: A practice maneuver consisting of a landing and a takeoff performed in one continuous movement. A touch-and-go is defined as two operations.

TRAFFIC PATTERN: The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

TRANSIENT AIRCRAFT: Aircraft not based at the airport.

UNICOM (Aeronautical Advisory Station): A nongovernment air/ground radio communication facility which may provide airport information at certain airports. (AIM)

UTILITY AIRPORT: An airport designed, constructed, and maintained to serve airplanes having approach speeds less than 121 knots. (Airport Design AC)

VISUAL APPROACH: An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

VISUAL APPROACH SLOPE INDICATOR (VASI): An airport landing aid which provides a pilot with visual descent (approach slope) guidance while on approach to landing. Also see PAPI.

VISUAL FLIGHT RULES (VFR): Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum – generally, a 1,000-foot ceiling and 3-mile visibility.

VISUAL GLIDE SLOPE INDICATOR (VGSI): A generic term for the group of airport visual landing aids which includes Visual Approach Slope Indicators (VASI), Precision Approach Path Indicators (PAPI), and Pulsed Light Approach Slope Indicators (PLASI). When FAA funding pays for this equipment, whichever type received the lowest bid price will be installed unless the airport owner wishes to pay the difference for a more expensive unit.

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan. (Airport Design AC)

WIND SHEER: A condition typified by rapid changes in wind velocity and duration with altitude.

REFERENCES

FAR 1: Federal Aviation Regulations Part 1, Definitions and Abbreviations. (1974)

AIM: Airman's Information Manual, Pilot/Controller Glossary. (1988)

Airport Design AC: Federal Aviation Administration. Airport Design. Advisory Circular 150/5300-13. (1989)

FAA ATA: Federal Aviation Administration. Air Traffic Activity. (1986)

FAA Census: Federal Aviation Administration. Census of U.S. Civil Aircraft. (1986)

FAA Stats: Federal Aviation Administration. Statistical Handbook of Aviation. (1984)

Handbook: California Department of Transportation, Division of Aeronautics, Airport Land Use Planning Handbook. (1985)

NTSB: National Transportation Safety Board.

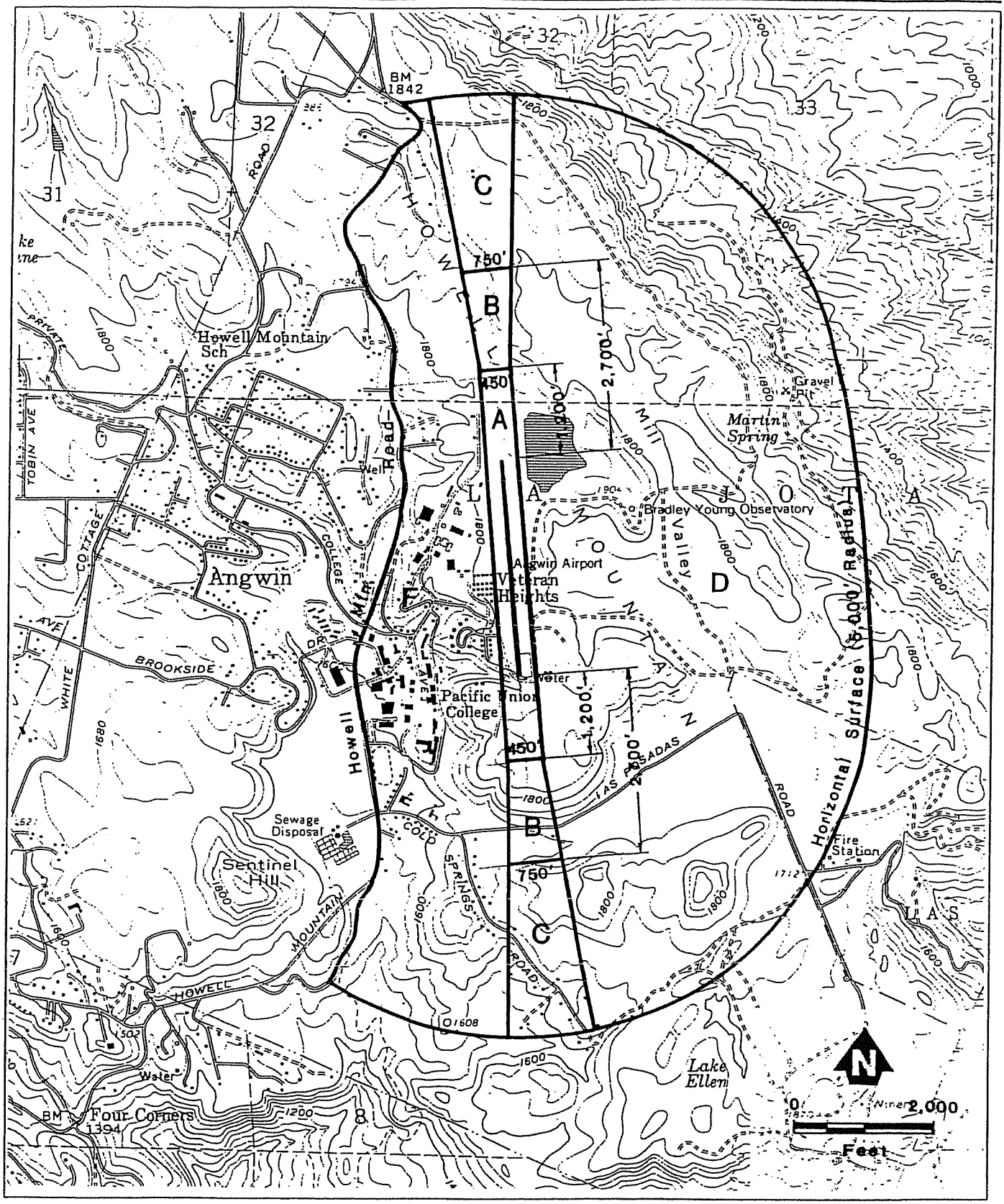
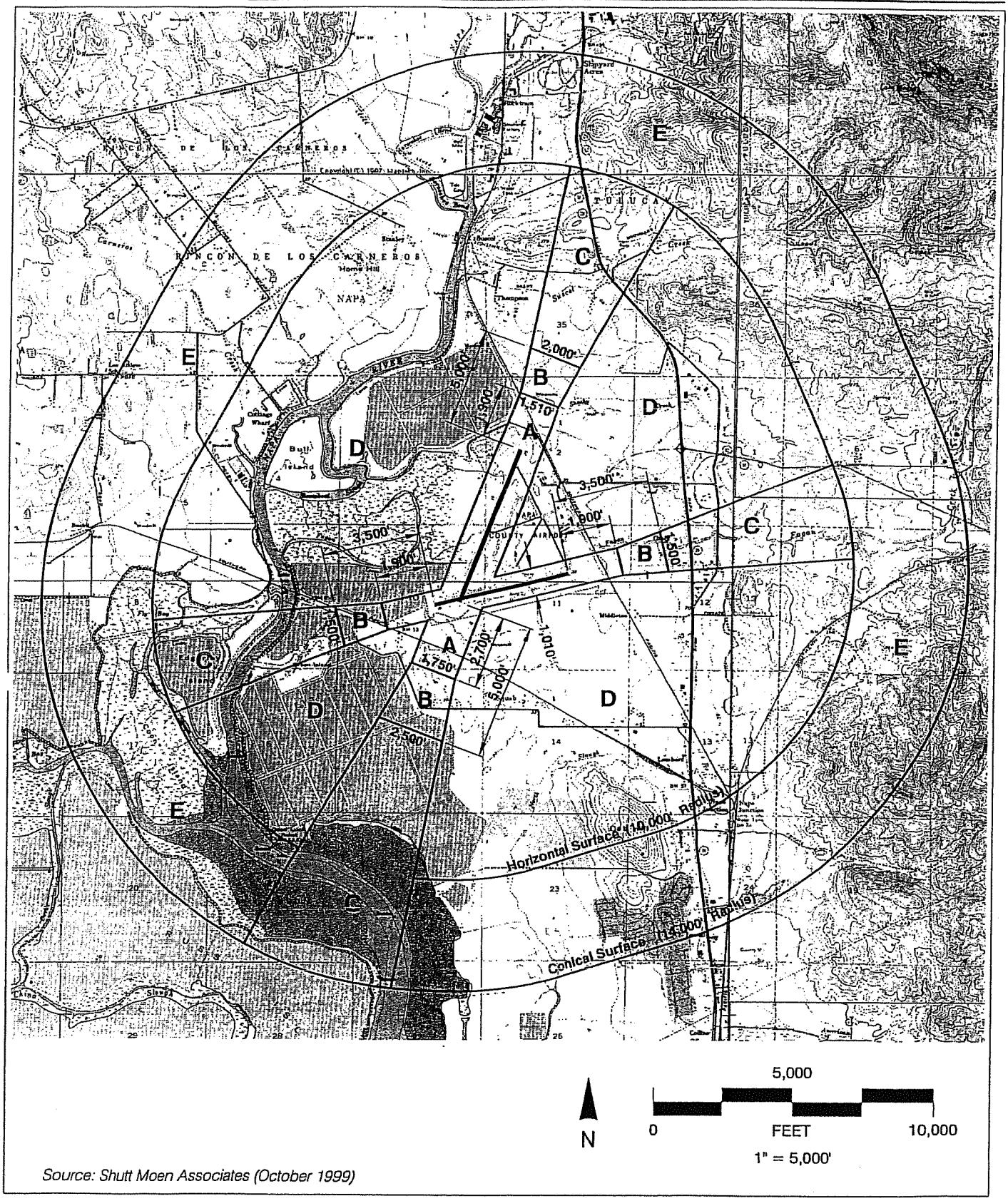


Figure 3C

Compatibility Plan

Parrett Field



Source: Shutt Moen Associates (October 1999)

Figure 3A

Compatibility Plan
Napa County Airport

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES[6]		
			Residential[1]	Other Uses (people/ac)[2]	
				In Structures	Total in and out of Structures
A[9]	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	0	50	75
D	Common Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	0	100	150
E	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.

2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.

3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.

7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.

8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.

9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g., landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.

11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

Table 3-2

Airport Vicinity Land Use Compatibility Criteria

Napa County Airport

ZONE	PROHIBITED USES	OTHER DEVELOPMENT CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES[4]	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE[5]
A	- All residential uses - Any assemblage of people - Any new structure which exceeds height limits - Noise sensitive uses - Uses hazardous to flight[10]	- Avigation easement required	- Pasture, open space - Aircraft tiedowns - Auto parking - Most agricultural uses	- Heavy poles, signs, large trees, etc. - Ponds
B	- All residential uses - Any noise-sensitive uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight[10]	- Avigation easement required - Structures to be as far as possible from extended runway centerline - Clustering is encouraged to maximize open land areas - Minimum NLR of 25 dBA in office buildings[6] - Building envelopes and approach surfaces required on all subdivision maps and development plans	- All uses from Zone A - Parks with low-intensity uses, golf courses - Nurseries - Mini-storage	- Retail uses - Office uses (except as accessory uses - Hotels, motels, resorts - Theaters, assembly halls, and conference centers - Ponds
C	- All residential uses - Schools, libraries, hospitals, nursing homes, daycare centers - Uses hazardous to flight[10]	- Avigation easement required - Structures to be set back as far as possible from extended centerline - Clustering is encouraged to maximize open land areas - Building envelopes and approach surfaces required on all subdivision maps - NLR measures may be required for noise-sensitive uses (offices)	- All uses from Zone B - Warehousing and low-intensity light industrial - Small retail uses - Outdoor recreation uses; marina, ballpark - Office uses	- Large retail buildings - Hotels, motels, resorts, health club - Restaurants, bars - Multi-story buildings - Theaters, assembly halls, and conference centers - Ponds
D	- All residential uses - Uses hazardous to flight[10]	- Overflight easement or deed notice required[11] - Building envelopes and approach surfaces required on all development plans within 100' of approach zones - Clustering is encouraged to maximize open land areas - NLR measures may be required for noise-sensitive uses[6]	- All uses from Zone C - Most non-residential uses - Accessory day care centers	- Schools, libraries, hospitals, nursing homes - Large shopping malls - Amphitheaters - Ponds
E	- Noise-sensitive outdoor uses	- Overflight easement or deed notice required[11]	- Any permitted use	- Amphitheaters - Landfills - Ponds

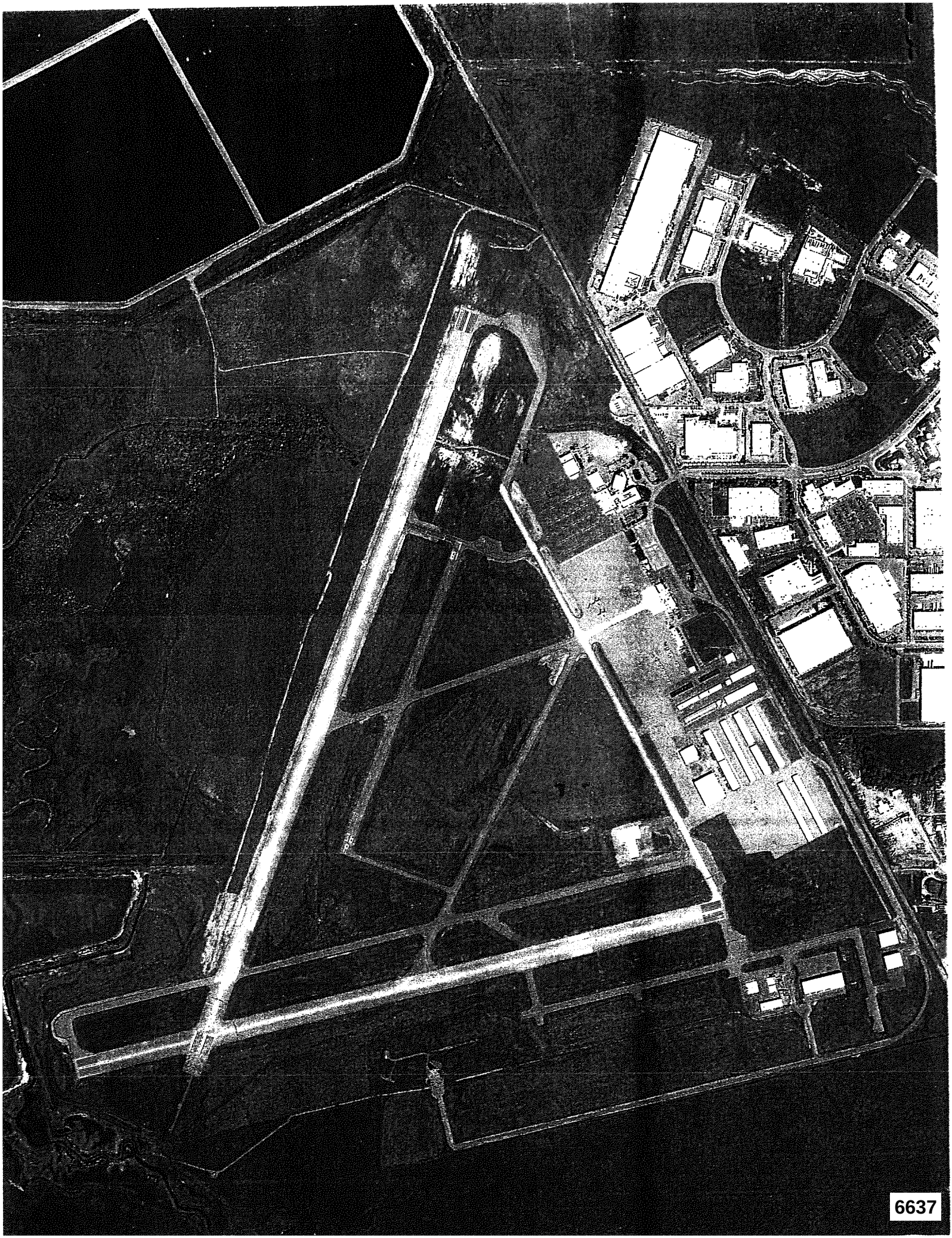
Table 3-2, Continued

Table 3-1

Compatibility Zone Definitions

ZONE A	Runway Protection Zone: Dimensioned to encompass the future Runway Protection Zones of the respective runways for each airport as presented on the Airport Layout Plans contained in Part III of this document. Also includes areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
ZONE B	Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway in the future. Future approach slopes are designated on the respective Airport Layout Plans and Airspace Plans for each airport in Part III. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
ZONE C	Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for each airport and illustrated in the respective "Airport Impact Areas" figures contained in Part III. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 feet above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

Revised 12/15/99



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ORDINANCE NO. 1242

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NAPA, STATE OF CALIFORNIA, AMENDING SECTIONS 18.08.460, 18.120.010(A) AND 18.120.010(B) OF THE NAPA COUNTY CODE REGARDING PERSONAL USE AIRPORTS AND HELIPORTS, AND HELICOPTER LANDING SITES IN SUPPORT OF AGRICULTURAL PRODUCTION IN THE UNINCORPORATED PORTIONS OF NAPA COUNTY

The Board of Supervisors of the County of Napa, State of California, ordains as follows:

SECTION 1. Section 18.08.460 (Private airport) of Chapter 18.08 (Definitions) of the Napa County Code is amended to read in full as follows:

18.08.460 Personal use airport and heliport.

"Personal use airport and heliport" means an airport or heliport limited to the noncommercial activities of an individual owner or family and occasional invited guests.

SECTION 2. Section 18.120.010 (Exceptions to use limitations) of Chapter 18.120 (Exceptions) of the Napa County Code is amended to read in full as follows:

18.120.010 Exceptions to use limitations.

A. The following uses, in addition to those hereinbefore set forth, shall be allowed without a use permit in any zoning district:

1. Category 1 and 1A temporary events, as defined in Section 5.36.010;

2. Category 2A, 2B, 3 and 4 temporary events as defined in Section 5.36.010 and conducted in accordance with a temporary event license obtained in accordance with Chapter 5.36; and special events as defined in Section 10.24.010 and conducted in accordance with a special events permit obtained in accordance with Chapter 10.24;

3. Commercial excavation or extraction of natural materials including, without limitation, geothermal, oil and gas resources so long as a surface mining permit has been issued pursuant to the provisions of Chapter 16.12 for those operations involving surface mining;

4. Distribution lines installed to convey gas and/or electricity locally to individual services or to another such line;

5. Cable television lines, and telephone lines other than long distance cables;

6. Cultivation of gardens;

7. Temporary sheds for the retail sale of agricultural products lawfully produced on the premises;

8. Hand-held, vehicular, or other portable transmitters or transceivers, including, but not limited to, cellular phones, CB radios, emergency services radio, and other similar devices;

9. Helicopter emergency use facility landing sites; and

10. Helicopter landings solely in support of direct agricultural production activities such as aerial spraying and frost protection.

B. The following uses may be permitted in any zoning district (or where restricted to certain zoning districts, in accordance with such restrictions) upon the grant of a use permit in each case:

1. (Reserved);

2. Personal use airports and heliports, and emergency medical services landing sites, provided, that such use permit is not effective unless and until any required permits, licenses, or other approvals from other federal, state, and local agencies (including the airport land use commission) have been obtained;

3. Commercial excavation or extraction of natural materials including, without limitation, geothermal, oil and gas resources;

4. Timber harvesting;

5. Sanitation treatment plants and oxidation ponds;

6. Electric transmission lines designed to carry large blocks of electric energy at a voltage of thirty-three kv or above from generating stations, between points of interchange, between transmission substations, to distribution stations or to large individual customers;

7. Gas transmission lines installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers or to one or more large volume customers or to interconnect sources of supply;

8. Other public utility uses including, without limitation, warehouses, storage yards, gas holders, substations, electric generating plants, reservoirs, storage tanks, pumping stations and communication equipment buildings;

9. Other public and quasi-public uses not included elsewhere in this section other than telecommunication facilities;

10. Other provisions of this section to the contrary notwithstanding, the undergrounding of any electric, gas or telephone line shall require a use permit except:

a. Where the entire length of the line to be underground is covered by an encroachment permit, or

b. The entire length of the line to be undergrounded lies between a distribution line on a street and an individual service connection;

11. Churches;

12. Cemeteries;

13. Child day care center in existing structures developed for public assembly (i.e., churches, meeting halls, public and private schools) and in existing nonconforming commercial buildings;

14. Temporary real estate offices for the sale of properties developed pursuant to a development plan for the site;

15. Provided that the property to be developed is located within a railroad right-of-way in existence as of January 1, 1988, and notwithstanding any other provision of this code, tourist and excursion transportation facilities may be permitted, subject to the issuance of a conditional use permit pursuant to Sections 18.124.010 18.124.080.

C. Minimum lot area regulations applicable to any zoning district may be waived by the commission in connection with issuance by it of a use permit for any use set forth in subsections (B)(7) and (8) of this section.

D. The following uses shall be allowed in any zoning district upon issuance of an administrative permit in accordance with Chapter 18.126:

1. A home occupation; provided however, that notwithstanding Section 18.08.310, a bed and breakfast shall not be considered a home occupation;

2. Directional, identification, temporary off-site and agricultural signs;

3. A temporary trailer; and

4. An application for an extension of time for a previously issued administrative permit for a temporary trailer.

SECTION 3. If any section, subsection, sentence, clause, phrase or word of this chapter is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Supervisors of the County of Napa hereby declares it would have passed and adopted this ordinance and each and all provisions hereof irrespective of the fact that any one or more of said provisions be declared invalid.

SECTION 4. This ordinance shall be effective thirty (30) days from and after the date of its passage.

SECTION 5. A summary of this ordinance shall be published at least once 5 days before adoption and at least once before the expiration of 15 days after its passage in the Napa Valley Register, a newspaper of general circulation published in the County of Napa, together with the names of members voting for and against the same.

The foregoing ordinance was first introduced and read at a regular meeting of the Conservation Development and Planning Commission, held on the 5th day of May, 2004, and passed at a regular meeting of the Board of Supervisors of the County of Napa, State of

California, held on the 20th day of July, 2004, by the following vote:

AYES:	SUPERVISORS	WAGENKNECHT, DILLON, DODD, RIPPEY and LUCE
NOES:	SUPERVISORS	NONE
ABSTAIN:	SUPERVISORS	NONE
ABSENT:	SUPERVISORS	NONE

MARK LUCE, CHAIR
Napa County Board of Supervisors

ATTEST:
Clerk of the Board

By: _____
Deputy

Approved by the Napa County Board of Supervisors
Date: July 20, 2004
Processed by:
Deputy Clerk of the Board

APPROVED AS TO FORM
Office of County Counsel
By: _____
Deputy County Counsel
By: _____
County Code Services
Date: 7-12-04

A Tradition of Stewardship
A Commitment to Service

Agenda Date: 6/23/2021
Agenda Placement: 8A

Airport Land Use Commission
Board Agenda Letter

TO:	Airport Land Use Commission
FROM:	John McDowell for David Morrison - Director Planning, Building and Environmental Services
REPORT BY:	John McDowell, Supervising Planner - 299-1354
SUBJECT:	Oat Hill Residential Project # P21-00056-ALUC

RECOMMENDATION

OAT HILL RESIDENTIAL PROJECT / CITY OF AMERICAN CANYON / RH HESS DEVELOPMENT COMPANY - AIRPORT LAND USE CONSISTENCY DETERMINATION #P21-00056-ALUC

Request: Airport Land Use Compatibility Plan Consistency Determination for the City of American Canyon regarding a proposal from RH Hess Development Company to construct a 291 dwelling unit condominium project, including a General Plan Amendment and Rezoning, on two parcels totaling approximately 20.8 acres. Parcel A includes 206 dwelling units on 13.6 acres. Parcel B includes 85 dwelling units on 7.2 acres. The property is located on the land feature commonly known at Oat Hill, which is located within the City of American Canyon on Hess Drive approximately 0.25 miles west of the intersection of State Routes 29 and Napa Junction Road within Napa County Airport Compatibility Zones D and E (Assessor's Parcel Numbers 058-380-008, and 058-320-001).

Staff Recommendation: Find the project inconsistent with the Airport Land Use Compatibility Plan, and provide direction to City of American on actions to achieve consistency.

Staff Contact: John McDowell, (707) 299-1354 or john.mcdowell@countyofnapa.org

Applicant Representative: William He, City of American Canyon, (707) 647-4360 or whe@cityofamericancanyon.org

EXECUTIVE SUMMARY

Proposed Action:

1. That the Airport Land Use Commission find the Oat Hill Residential Project (P21-00056-ALUC) inconsistent

with the Napa County Airport Land Use Compatibility Plan, and direct ALUC Staff to provide comments to the City of American Canyon on actions to achieve consistency.

Discussion:

As required by State Aeronautic Act and the Napa County Airport Land Use Compatibility Plan (ALUCP), the Airport Land Use Commission (ALUC) is responsible for making an Airport Land Use Consistency Determination on the proposed 291 residential condominium project. The project includes a General Plan Amendment and Rezoning to designate two parcels totaling 20.8 acres located within the City of American Canyon generally 1.75 miles south of the Napa County Airport. Parcel A consists of a 13.2 site with 206 proposed dwelling units, or which 51 units are located within Compatibility Zone D which prohibits residential units. The remaining 155 units are located within Compatibility Zone E which normally allows residential units, however Parcel A's hilltop location penetrates navigable airspace requiring scrutiny to ensure the project does not result in significant hazards to aircraft and persons on the ground. Parcel B, comprising 7.2 acres and 85 dwelling units, is located within Compatibility Zone E and below navigable airspace where residential uses are normally acceptable.

Based on the current design of the project, and the deficiencies in the review of potential impacts conducted by the City of American Canyon, ALUC Staff are recommending that the project be found inconsistent with the ALUCP. The project contains 51 residential dwelling units located within Compatibility Zone D where residential units are prohibited. This is inconsistent with both the ALUCP and the City of American Canyon's General Plan.

Furthermore, hazard evaluation for the new structures on Parcel A located within navigable airspace has not yet occurred and the project's noise analysis does not address potential for single-event overflight noise impacts. Therefore it is premature for the City to have issued a draft Mitigated Negative Declaration, and the City has not demonstrated that the project conforms to ALUCP policies addressing noise, safety/hazards and overflight compatibility. As noted in the background section of this project, there are other aspect of the City's review which should be updated before ALUC Staff would be in a position to recommend the project be found consistent with the ALUCP.

In summary, consistency can be achieved by redesigning the project to eliminate residences from Zone D, and potential for noise and hazard evaluations need to occur and project design adjusted accordingly, if necessary. In addition, the City's processing documents should be updated to ensure internal consistency of the City General Plan and zoning. ALUC Staff has offered to work with the City on revising the project such that ALUC could support a revised proposal, but City representatives expressed that they would like the matter to be brought forward to the ALUC for action as currently proposed. ALUC Staff see no way for the ALUC to find the project consistent given the items noted above and ALUCP Policy 3.4.2 which mandates that any proposal for residential uses within Zones A, B, C and D shall be found inconsistent with the ALUCP.

FISCAL & STRATEGIC PLAN IMPACT

Is there a Fiscal Impact? No

County Strategic Plan pillar addressed:

ENVIRONMENTAL IMPACT

The City of American Canyon is the Lead Agency responsible for implementing the project and has prepared a draft Mitigated Negative Declaration. The draft document is inadequate in its evaluation of potential for aviation

related noise impacts and aviation-related hazards. See Background Section below regarding action necessary to achieve consistency with the ALUCP, including recommendations update CEQA analysis.

BACKGROUND AND DISCUSSION

Airport Land Use Compatibility Factors:

1. Location –The 20.8 acre project site is located on the land feature commonly known as Oat Hill about a quarter mile west of State Route 29 (Broadway) and Napa Junction Road. The site ranges from approximately 9,400 feet to 10,800 feet south of the Napa County Airport. Development will occur on two parcels. Parcel A is 13.6 acres and located on the upper reaches of Oat Hill, and would contain 206 residential units of which 51 units fall within Compatibility Zone D, and the remaining 155 units lie within Compatibility Zone E. Parcel B, which is located at the eastern base of Oat Hill contains 85 dwelling units that are entirely within Compatibility Zone E although the northern portions of the parcel lie under Zone D.

Zone D represents the Common Traffic Pattern, which is an area of common overlight at elevations typically ranging from 300 ft. to 1,000 ft. above ground level. Zone E is the Outer Airport Environ where overflights more commonly consist of aircraft entering or existing airport approach and departure paths. Typical overflights of the project site consist of aircraft departures from the main runways (Runway 1L and 1R) for traffic heading southeast or east, and downwind circling to land approach traffic to Runway 6/24, which is the less frequently used crosswind runway.

Oat Hill is a natural feature that penetrates navigable airspace. Navigable airspace within 10,000 ft of the runways is defined as a horizontal surface 150 ft. above the height of the runways, or in this case 183 ft. above Mean Sea Level (MSL). Beyond 10,000 ft. is the conical surface where navigable airspace rises by 1 ft. for every 20 ft. beyond the 10,000 foot arc. The runways have a defined MSL of 33 feet. Structures are allowed on such natural features that penetrate navigable airspace but the Federal Aviation Administration (FAA) regulations requires evaluation of structures for hazards and determines if structures must be marked as an obstruction.

2. Land Use – The project site lies within Compatibility Zones D and E. Zone D prohibits residential uses, whereas residential uses are "normally acceptable" within Zone E. It should be noted that normally acceptable uses does not mean that the land use is automatically consistent. A normally acceptable use may still be inconsistent with airport operations based on the nature of the proposal and its location in relation to airport operations. Oat Hill, given its penetration of navigable airspace and relationship to overflights, is an area that warrants thoughtful attention and substantive evidentiary support to conclude that residential uses are suitable within those portions of the site that are within the Zone E environ.

In 2010, the ALUC found the City of American Canyon General Plan consistent with the ALUCP. The Land Use and Noise Elements of that plan contain policies, figures, and tables referencing and tiering in the ALUCP, which formed the basis for the ALUC to find the General Plan consistent with the ALUCP. The proposed project directly conflicts with several of the City's requirements addressing airport land use compatibility as follows. See attachments F and G for the relevant sections of the City's General Plan.

City of American Canyon Genera Plan Land Use Element:

Objective 1.27 - This objective calls for the City to ensure that development protects citizens from noise and operational impacts of the airport while not adversely constraining the Napa County Airport. The City has prepared a Mitigated Negative Declaration concluding the project has no potential for its citizens to be impacted by aviation, but as noted in this report, aviation related noise and hazard evaluations are incomplete or have not yet been conducted.

Policy 1.27.1 - This policy requires the development to comply with City General Plan Tables 1-1, 1-2 and Figure 1-3. These tables and figure match the ALUCP and state that residential uses are prohibited within Zone D. The project results in residential units within Zone D.

Policy 1.27.7 - This policy calls for the City to recognize the importance of the Napa County Airport to City residents and ensure land use decisions do not negatively impact Airport operations. This policy appears to have not been addressed as all potential for aviation-related noise and hazard impacts have not been conducted, and residential land uses are proposed in a location where the ALUCP and City General Plan prohibit the use.

Figure 1-3 - This figure depicts the Napa County Airport Land Use Compatibility Zones matching those contained in the ALUCP. The Oat Hill project plans filed by the City of American reflect that the project site lies within both Zones D and E.

Table 1-1 - This tables states the definitions of the Compatibility Zones matching those definitions contained in the ALUCP. The City's General Plan states that areas meeting the definition of Zone D as shown in Figure 1-3 constitute the Common Traffic Pattern where residential uses are a prohibited use. Subsequent ALUC application materials (City Attorney letter date May 7, 2021) assert that the Oat Hill should be found consistent by the ALUC because there is evidence in the record that the Zone D boundary line should be changed. However, that boundary has not changed in either the ALUCP or City General Plan.

Table 1-2 - This table states the Airport Vicinity Land Use Compatibility Criteria matching those criteria contained in the ALUCP. The criteria state that residential uses are prohibited in Zone D.

City of American Canyon General Plan Noise Element:

Figure 11-1 - This figure depicts the Napa County Airport Land Use Compatibility Zones matching those contained in the ALUCP. The Oat Hill project plans filed by the City of American reflect that the project site lies within both Zones D and E.

Table 11-1 - This tables states the definitions of the Compatibility Zones matching those definitions contained in the ALUCP, and as noted for Table 1-1, the boundary has not changed so assertions from the City that the boundary should be changed are not relevant to the consistency of the proposal to the currently adopted ALUCP and City General Plan. The City is not proposing to change Tables 1-1 or 11-1, or Figures 11-1 and 1-3 as part of the project submitted to the ALUC for a consistency determination.

Table 11-2 - This table states the Airport Vicinity Land Use Compatibility Criteria matching those criteria contained in the ALUCP. Residential uses are prohibited in Zone D.

Policy 11.1.1 - This policy calls for the implementation of the noise standards identified in Figure 11-2 for design of new developments. This figure states in three locations that all residential land uses are prohibited in Zone D.

Objective 11.4 - This objective seeks to minimize adverse impacts of aircraft noise on residential uses. Allowing residences closer to an airport than City General Plan and ALUCP policies permitconflict with this objective.

Policy 11.4.2 - This policy requires new development to comply with the noise standards of the ALUCP. The noise standards of the ALUCP prohibit residential uses within Zone D due to the inherent conflicts between residential uses and airport operations.

Policy 11.4.3 - This policy calls for the City to work closely with the Napa County Airport to ensure that airport operations do not cause adverse noise conditions in the City. No evidence has been presented to the ALUC that

the City has worked with the Napa County Airport regarding this project. The project could result adverse aviation related noise impacts upon the future residents of the project resulting in placing homes closer to the airport than what the City General Plan and ALUCP allow.

3. Lighting and Glare – The City of American Canyon will impose conditions of approval that specify that all exterior lighting, including landscape lighting, shall be shielded so as not to create offside glare which is consistent with airport compatibility requirements. Night-time lighting should not result in light and glare impacts to airport operations.

4. Communications – No electronic equipment is proposed as part of this facility that could interfere with airport communication.

5. Building Materials – Proposed structures will feature a wide variety of common muted building materials including concrete last and metal roofing, and stucco and cement board and batten siding. These materials are non-reflective and comply with the Airport Land Use Commission's requirements. The project building materials are compatible with airport operations.

6. Caltrans Aeronautics – It is unknown if the City referred the application to Caltrans Division of Aeronautics. In the event the ALUC finds the project inconsistent with the ALUCP and the City moves forward to override/overrule the ALUC, the City is obligate to under State Aeronautic Act to provide the ALUC and Division of Aeronautics a copy of the proposed decision and their findings in advance of considering the override.

7. Processing – ALUCP Policy 2.1.9 requires referral of a project to the ALUC prior to the local governing body's final action to allow the local jurisdiction to consider the ALUC's finding prior to acting on a project. The project was reviewed by the City of American Canyon Planning Commission in March, 2021, and on March 26, 2021 an incomplete referral application to the ALUC was filed by the City of American Canyon. ALUC issued a formal application status letter on April 23, 2021 listing items necessary for a complete submittal. On May 6 and 7, 2021, the City of American Canyon filed responses to the April 23, 2021 ALUC letter, which did not provide all of the information requested. On May 21, 2021, ALUC Staff issued a second application status letter requesting required information be provided and setting a June 23, 2021 ALUC hearing date. Due to the lack of essential information in the incomplete referral, ALUC Staff was unable to fully review the Project for consistency with the ALUCP. ALUC Staff offered to assist the City in providing the necessary information, but the City requested that the ALUC consider the referral as submitted.

After the ALUC's action, the American Canyon City Council will consider the project. If the City chooses to revise the project to address recommended actions to achieve consistency, a new ALUC referral application will need to be filed. ALUCP Policy 1.4.2 requires the ALUC to make its consistency finding on the project as it has been proposed. The ALUC does not have the ability to require changes to the project, offer conditional approval, or modify proposed conditions of approval. The ALUC's range of decision making options are limited to either finding the project consistent or inconsistent with the ALUCP.

8. Airport Land Use Compatibility Plan Policies - Listed below are the noise, safety, airspace protection and overflight criteria from Chapter 3 of the Airport Land Use Compatibility that shall be considered when evaluating projects for consistency. These policies are considered in concert with Tables 3.1 and 3.2 which are Airport Vicinity Land Use Compatibility Criteria. Following each Policy is ALUC Staff's consistency finding recommendation, as well as recommendations on actions to achieve consistency for those policies where the project results in conflicts. When finding a project inconsistent with the ALUCP, Policy 1,4,2 directs that that ALUC may provide direction to the local agency on the steps that can be taken to achieve consistency.

3.1 Noise

3.1.1 The evaluation of airport/land use noise compatibility shall consider the future Community Noise Equivalent Level (CNEL) contours of each airport. These contours are calculated based upon aircraft activity forecasts which are set forth in adopted airport master plans or which are considered by the Commission to be plausible (refer to Part II for noise exposure maps).

Finding: Consistent – The noise analysis prepared for the project relies upon the CNEL contours depicted in the ALUCP and airport master plan.

3.1.2 The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. Noise compatibility criteria should be applied at the general plan or specific plan level. Because of the inherent variability of flight paths, the depicted contour boundaries are not absolute determinants of the compatibility or incompatibility of a given land use. For this reason, noise contours should not be used as site design criteria. Noise contours can only quantify noise impacts in a general manner. Site conditions, terrain, and actual flight patterns and frequency should also be evaluated.

Finding: Inconsistent – The City's environmental impact evaluation of aviation related noise impacts is incomplete as it relies solely on the CNEL contours and does not consider potential overflight noise impacts relating to the site's conditions, terrain and elevation relative to flight patterns. The project site is elevated on a hill directly under common flight paths. Noise levels from aircraft overflights are often more noticeable in hillside and hill top properties. On several occasions ALUC Staff has requested that the City conduct a complete noise analysis, and the City has responded that the CNEL contour analysis was sufficient. Therefore, the City's conclusion that the project results in no potential noise impacts is based on an incomplete analysis.

Further, the proposal is inconsistent with the City's Noise Element and Land Use Element, which were previously found by the ALUC to be consistent with the ALUCP in 2010. The City's Land Use and Noise Elements contain the same Airport Vicinity Land Use Compatibility Criteria (Tables 3.1, 3.2, and Figure 3A) as contained in the Napa County ALUCP (See City General Plan Figures 1-3 and 11-1, and Tables 1-1 and 1-2 attached). The City's General Plan Figures 1-3 and 11-1 also depict Airport Land Use Compatibility Zones (A through E) matching those contained the ALUCP, and thus the ALUC was able to find the documents consistent with the ALUCP.

City General Plan Table 1-1 states that the maximum allowable residential density within Compatibility Zone D is zero persons per acre, which correlates with City General Plan Table 1-2 that states that all residential uses are prohibited in Zone D, which again aligns with the ALUCP. Residential uses are prohibited within Compatibility Zone D due in part to the inherent conflict between residential uses and aviation overflights and noise. However, this proposed General Plan Amendment and Rezoning changes the City's Land Use and Zoning Map boundaries to allow residential in an area where the City's General Plan (Tables 1-1, 1-2, and 11.1) clearly indicates that the residential uses are prohibited. This is not only inconsistent with ALUCP, but inconsistent with State Planning and Zoning Law, which require a city/county General Plan to be internally consistent (Gov. Code § 65300.5; *Sierra Club v. Board of Supervisors of Kern County (1981) 126 Cal.App.3d 698*), and requires a zoning ordinance to be consistent with the General Plan.

Actions to Achieve Consistency: The project should be re-designed such that no residential units are located within Compatibility Zone D. For the remaining residential uses within Zone E, the draft Mitigated Negative Declaration and supporting noise analysis should be updated to address potential for significant noise impacts resulting from single-event overflights and any potential for CNEL noise impacts resulting from unique site/terrain characteristics.

3.1.3 The maximum CNEL considered normally acceptable for most residential uses in the vicinity of the airports covered by this plan is 55 dBA. This standard is appropriate for areas with low ambient noise levels. In areas with higher ambient noise levels, the maximum CNEL considered normally acceptable for residential uses shall be 60 dBA. Factors which determine whether to apply the higher standard include the presence of: major highways, large concentrations of residences, or large-scale commercial and industrial uses.

Finding: Partially consistent – The noise analysis for this project is inadequate in addressing potential for aviation related noise impact. The City's draft Mitigated Negative Declaration dedicates a paragraph to the topic, and bases its conclusion of less-than-significant impacts solely on the CNEL contour exhibit. This information is partially correct, but it falls short of capturing the full range of potential aviation related noise impacts. The aviation analysis does not account for site conditions, most notably the elevated terrain (for Parcel A), where CNEL noise levels can be higher. The analysis also does not address nighttime aviation noise impacts to proposed residential uses. Lastly, the Land Use and Planning Impact Section of the Mitigated Negative Declaration (Section XI.b) fails to acknowledge the direct conflicts the project has with both the ALUCP and the City's General Plan Land Use and Noise Elements pertaining the airport land use compatibility. The direct conflict (i.e. - residences proposed where they are expressly prohibited) is a significant impact.

Actions to Achieve Consistency: The City should prepare a comprehensive evaluation of aviation-related noise impacts including a CNEL evaluation that is updated to address site conditions and terrain. The City's CEQA document should be updated to fully disclose the requirements of Tables 1-1, 1-2, and 11-1, and note the direct conflict between adopted land use regulations and the proposed project.

3.1.4 This policy does not apply because it relates to non-residential land uses.

3.1.5 The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise. In most locations, noise level reduction measures are only effective in reducing interior noise levels. Also, source reduction measures implemented by airport authorities are not within the scope of this plan.

Finding: Inconsistent – The noise analysis does not address potential noise impacts to project residents when located outside of their homes.

Actions to Achieve Consistency: The noise analysis should be updated to address potential for aviation related noise to impact project inhabitants when they are not within their residences.

3.1.6 Single-event noise levels should be addressed when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, and outdoor theaters. Single-event noise levels are particularly important in areas which are regularly overflown by aircraft, but which do not produce significant CNEL contours. Flight patterns for each airport (illustrated in Part II) should be considered in the review process for such uses. Noise attenuation measures may be required based upon the criteria contained in Appendix C.

Finding: Inconsistent – Potential for single-event noise impacts has not been addressed. City responses to ALUC Staff's request that this be addressed are attached and simply reiterate the City's view that potential for noise impacts are limited to CNEL contours. CNEL is a form of noise measurement that looks at the composite noise levels over a 24 hour period of time. It is quite different than a Single Event Noise Exposure Level (SENEL) evaluation, which captures the sound level of a single noise event, such as an aircraft overflight, measured over the time interval for which the sound exceeds a designated threshold, which is 55 dBA in relation to indoor/outdoor residential uses, and 50 dBA for sleeping quarters. The City has not conducted a SENEL evaluation. Frequent single event noise intrusions upon residents of projects in proximity to an airport are a significant factor that can result in erosion of compatibility between airports and nearby land uses.

Residential uses are considered a highly noise-sensitive land use, especially in relation to an airport that is open 24 hours a day. Single-event overflights can occur at any point in the day or night. Aircraft departing from the main runways (Runway 1R and 1L) regularly overfly the property on southeastern and eastern departure paths. Approach traffic over the site also occurs for aircraft circling to land on Runway 24, although this is a less frequently used pattern due to prevailing wind conditions at the airport. Departure overflight noise tends to be significantly louder than overflight noise for aircraft on approach, because engines are operating at higher intensity as the aircraft

climbs.

Actions to Achieve Consistency: The project should be re-designed such that no residential units are located within Compatibility Zone D. The draft Mitigated Negative Declaration and supporting noise analysis should be updated to address potential for significant noise impacts resulting from single-event overflights. This analysis should factor in the site's conditions, terrain and actual flight patterns.

3.2 Safety

3.2.1 The intent of land use safety compatibility criteria is to minimize the risks with an off-airport aircraft accident or emergency landing. (a) Risks both to people and property in the vicinity of an airport and to people on board the aircraft shall be considered. (b) More stringent land use controls shall be applied to the areas with greater potential risk.

Finding: Inconsistent – A large portion of the project site lies upon a land feature that penetrates navigable airspace. Generally all areas of the project site that are above 183 ft. and ranging to approximately 200 ft. MSL, which corresponds roughly to the 206 units on the upper 13.6 acre Parcel A, fall within this sensitive area. Construction is generally permissible within these areas, however, pursuant to FAA regulations an evaluation of obstruction hazards to aircraft needs to be performed and the project designed so as not to result in hazards to persons on the ground or aircraft. Obstruction hazards increase potential for aircraft accidents, and thus increase risks to people and property. That required analysis has not been performed nor addressed in the City's CEQA document. Instead, the City is requesting conditional approval from the ALUC based on the analysis being conducted at a later date. The City's last correspondence indicated that the applicant has prepared this information and submitted it to the FAA but that documentation was not provided to ALUC Staff.

This approach is not permissible under ALUCP Policy 1.4.2, and is inconsistent with State Aeronautic Law, FAA Regulations and CEQA. The City has a responsibility to conduct a meaningful and adequate analysis of all potential environmental impacts prior to project approval. Policy 1.4.2 expressly states that ALUC cannot find a project conditionally consistent subject to inclusion of certain conditions. The ALUC's action choices are to find the project, as submitted, either consistent or inconsistent with the ALUCP.

Actions to Achieve Consistency: The obstruction hazard evaluation needs to be conducted, and the project design and supporting CEQA document updated accordingly based on the outcome of the obstruction hazard evaluation.

3.2.2 The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people permitted to occupy a given area. Methods for determining the concentration of people for various land uses is provided in Appendix D. (a) Greater restrictions shall be placed upon the number of people permitted in a building than upon the number within an open area because of the greater difficulty of evacuating a building in the event of its involvement in an aircraft accident.

Finding: Inconsistent – The portion of the proposed project that lies within Compatibility Zone D exceeds the allowable density. Zone D sets a maximum residential density of zero persons per acre (residential uses are prohibited). The project will result in 52.9 persons per acre on Parcel A where the encroachment into Zone D occurs. As noted in Policy 3.2.1, the upper portion of the project site also lies within navigable airspace, and required FAA obstruction hazard analysis has not occurred. Residential densities within the portions of the site lying within Compatibility Zone E and within navigable airport may also require limitations, but that cannot be determined until the required review occurs. Potential for an off airport aircraft incident has not been addressed in the Mitigated Negative Declaration as well.

Actions to Achieve Consistency: The project should be re-designed such that no residential units are located within Compatibility Zone D. The required FAA obstruction analysis should be conducted and any hazards should be

addressed in the re-design.

3.2.3 This Policy does not apply because it relates to land uses with occupants that have reduced effective mobility.

3.2.4 This Policy does not apply because relates to land uses with potential for aboveground explosions.

3.2.5 In the event that an aircraft is forced to land away from an airport, the risks to people on board aircraft and damage to property can best be minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the large majority of aircraft accidents occurring away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to select the landing site. (a) For purposes of this Plan, "open land" shall be defined as an area that is typically: (1) free of structures and other major obstacles such as walls, large trees, and overhead wires; and (2) have minimum dimensions of at least 75 feet wide, and at least 300 feet or more in length. Certain roads are acceptable as open land areas if they meet the preceding criteria.

Finding: Consistent – The overall project site contains a large open area meeting the criteria, which is located generally between lower and upper portions of the development.

3.2.5(b) The most critical areas for preserving open land are within the approach zones and beneath the traffic pattern (Zones A, B, C, and D). Within an airport's traffic areas, land presently designated for open space uses (i.e., agricultural lands, golf courses, etc.) should be preserved as open land areas to the maximum extent feasible. The following criteria should be used to retain/preserve open land areas within proposed development. (1) Within the approach/departure zones (Zones A, B, C and [D}), buildings should be set back from the extended runway centerline to the maximum extent feasible. (2) Within the traffic pattern areas (Zone D), open land areas at the periphery of the traffic pattern areas should be preserved.

Finding: Consistent – The project is not located within extended runway centerline areas. It is located within outer departure and approach paths, and contains substantial consolidated open land area located generally on the hillside located between the upper and lower portions of the development.

3.2.5(c) Clustering of development and providing contiguous landscaped and parking areas is encouraged as a means of maximizing open land and providing continuity of open land areas between developments.

Finding: Partially Consistent – As noted in the finding for Policy 3.2.5(b), the project contains a large open land area between the upper and lower portions of the development that maximizes open land area. The project represents clustered development, except that the location of clusters should be adjusted to remove prohibited residential units from the portion of the project site that falls within Compatibility Zone D.

Actions to Achieve Consistency: Project redesign should be undertaken to eliminate residential units from Compatibility Zone D. This could be achieved by either eliminating the residential units within Zone D from the project or shifting those units to portions of the site within Zone E, or some combination of both. There is sufficient open land area between the upper and lower portions should reductions of these areas be necessary to accommodate units shifted into Zone E, although it is recognized that the property contains slopes that may pose challenges for increasing densities in those areas.

3.2.5(d) This Policy does not apply as it pertains to projects within 100 ft. of an approach zone.

3.3 Airspace Protection

3.3.1 The criteria for limiting the height of structures, trees, and other objects in the vicinity of an airport shall be set

in accordance with Part 77, Subpart C, of the Federal Aviation Regulations and within the United States Standard for Terminal Instrument Procedures (TERPS). Airspace plans for each airport which depict the critical area for airspace protection are provided in Part III. TERPS height limitation are only applicable at Napa County Airport where an instrument approach has been established. The private airfield has only visual approaches.

Finding: Inconsistent – The project submitted for ALUC review did not address compliance with FAA FAR Part 77, Subpart C standards or TERPS.

Action to Achieve Consistency: The evaluation needs to be conducted, and the project redesigned if conflicts result.

3.3.2 With the approaches to a public airport, the owner of any property proposed for development should be required to dedicate an avigation easement to the jurisdiction owning the airport. In the case of a private airport, a height-limit easement should be dedicated to the jurisdiction controlling the land use. Examples of these easements are provided in Appendix E.

Finding: Consistent – The project's proposed conditions of approval require the dedication of an easement to Napa County airport prior to commencing construction. However, see Policy 3.3.3 discussion below because application of the standard overflight easement does not fully address those portions of the site that penetrate navigable airspace.

3.3.3 Other than within the approach/departure zones, Compatibility Zones A, B and C, height restrictions may allow up to 35 feet above the level of the ground on which are located, or as similarly provided by local ordinance. (a) In locations where terrain, structure, or any object (including clearances over roads and railroads) penetrate Federal Aviation Regulations Part 77 surfaces, an avigation easement shall be required in accordance with Policy 3.3.2 which limits the height to 35 feet above the ground and enables the marking or lighting of any potential hazard to air navigation. Trees or other natural material may exceed the height limitation provided that the avigation easement allows for removal, making, or lighting of potential aircraft hazards.

Finding: Inconsistent – The proposed project conditions of approval do not require an avigation (aviation) easement that limits structure height to 35ft as required by 3.3.3(a), nor addresses marking or lighting of any potential hazards to air navigation. As currently proposed, apartment buildings exceed the 35 ft. height limit. Furthermore, an assessment of the project's potential to result in hazards to air navigation has not occurred as previously noted.

Actions to Achieve Consistency: The required FAA FAR Part 77 evaluation needs to occur and the project needs to be redesigned if necessary to avoid the need for marking, lighting and/or special flight procedures. In addition, project conditions of approval should be amended to reflect that the required avigation easement limits buildings to 35 ft. in height, and that enables the Napa County Airport to mark or light any potential hazard to air navigation within the portions of the site penetrating navigable airspace.

3.3.4 Proponents of a project which may exceed a Part 77 Surface must notify the Federal Aviation Administration as required by FAA Part 77, Subpart B, and by the California State Public Utilities Code 21658 and 21659. (Notification to the Federal Aviation Administration under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix B for the specific Federal Aviation Administration notification requirements.)

Finding: Inconsistent – The required FAA FAR Part 77 notification and analysis has not occurred. The City proposes that such review occur after ALUC review occurs.

Actions to Achieve Consistency: The required FAA FAR Part 77 evaluation needs to occur and the project

redesigned if necessary to avoid the need for marking, lighting and/or special flight procedures.

3.3.4(a) Local jurisdictions shall inform project proponents of the requirements for notification to the Federal Aviation Administration.

Finding: Possibly Inconsistent – ALUC Staff informed the City and applicant that this requirement had not been accomplished, and requested it be addressed. City responses, attached, incorrectly assert that the review can be deferred until after ALUC review, and that the ALUC can grant a conditional endorsement of the project, which is inconsistent with ALUCP Policy 1.4.2 and State Aeronautics Act. The City's May 5, 2021 letter indicates that the project proponent has moved forward with the FAA documentation, but that information has not been provided to the ALUC nor addressed in the City's processing documents.

Actions to Achieve Consistency: The City should require the review to be performed, and then update the project, project conditions of approval, and CEQA document based on the results of the evaluation. Upon completion of those tasks, the project should be referred back to the ALUC to enable the ALUC to conduct on evaluation on a complete application submittal.

3.3.4(b) The requirement for notification to the Federal Aviation Administration shall not necessarily trigger review of an individual property by the Airport Land Use Commission if the project is otherwise in conformance with the compatibility criteria established in the Airport Land Use Plan.

Finding: Not applicable – State Law mandates that any General Plan Amendment and Rezoning within an Airport Influence Area is subject to ALUC review, and therefore this Policy, which calls for ALUC review of projects subject to FAA evaluation that are not otherwise required to be reviewed, is not applicable. The project is subject to ALUC review with or without the FAA FAR Part 77 requirement.

3.3.4(c) – Any project coming before the Airport Land Use Commission for reason of height-limit issues shall include a copy of FAR Part 77 notification to the Federal Aviation Administration.

Finding: Inconsistent – The upper portion of the site generally above 183 ft. MSL lies within navigable airspace as noted previously. Policy 3.3.3 limits building heights to 35 ft. in these areas. The proposed buildings have a total height of 38 ft. 2 in., exceeding the maximum height by 3 ft. 2 inches. The required FAR Part 77 review has not occurred, but apparently was started on May 10, 2021. Therefore, the ALUC cannot determine that the project is consistent with this Policy until the required documentation has been prepared and submitted.

Actions to Achieve Consistency: The required FAA FAR Part 77 evaluation needs to occur and the project must be redesigned if necessary to avoid the need for marking, lighting and/or special flight procedures, and the evaluation and project should be re-referred to the ALUC for review.

3.3.5 Land uses which may produce hazards to aircraft in flight shall not be permitted within any airport's planning area. Specific characteristics to be avoided include: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam, or smoke which may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; and (4) any use which may attract large flocks of birds, especially landfills and certain agricultural uses.

Finding: Partially Consistent – The project does not include aspects that would cause substantial glare, distracting lights, dust, steam, smoke, electrical or communication interference, or potential to attract large flocks of birds. The project is consistent as it pertains to these aspects. However, as noted previously, the required FAA FAR Part 77 hazard/obstruction analysis has not occurred, so it is unknown if the project will produce hazards to aircraft in flight.

Actions to Achieve Consistency: The required FAA FAR Part 77 evaluation needs to occur and the project redesigned if necessary to avoid the need for marking, lighting and/or special flight procedures.

3.4 Overflight

3.4.1 All locations within an airport's planning area are regarded as potentially subject to routine aircraft overflight. Although sensitivity to aircraft overflights varies from individual to individual, overflight sensitivity is particularly important with respect to residential land uses. (a) Local jurisdictions shall establish some method of providing notification to prospective buyers of new residential uses within an airport's planning area (all compatibility zones). Appropriate measures may include requiring the dedication of avigation or overflight easements, deed noticing, or real estate disclosure statements. Regardless of the method chosen, the notification shall: (1) note that the property is subject to routine overflight by aircraft at low altitudes; and (2) provide positive assurance that a prospective buyer has received this information. Refer to Appendix E for sample easements and deed notices. (b) Local jurisdictions are encouraged to extend the above or similar buyer awareness program to existing residential uses within the airport planning areas.

Finding: Partially Consistent - The proposed conditions of approval require standard overflight easement requirements which serves as an adequate buyer awareness measure for properties where there is not an inherent conflict with ALUCP. Parcel B represents one of these typical properties where the residential uses are located in an area that normally allows these uses, and the project design on Parcel B contains no conflicts with ALUCP Policies. As noted earlier, standard overflight easement requirements are inadequate for Parcel A due to the site's penetration of navigable airspace, and the project design that involves placement of residential units within an area where they are prohibited. Recordation of a standard overflight easement does not ameliorate those issues.

Action to Achieve Consistency: The project should be redesigned to eliminate residential units from Zone D, and project conditions of approval updated to require recordation of an avigation easement for all condominiums located within that portion of Zone E that penetrates navigable airspace to provide Napa County Airport the ability to mark and/or light hazards.

3.4.2 The compatibility of uses in the airport planning areas shall be preserved to the maximum feasible extent. There is presently a high degree of land use compatibility among the existing and planned land uses in the vicinity of airports within Napa County, primarily because no residential land uses are designated within the traffic area. The proposed conversion of land to residential use within any airport's traffic area (Compatibility Zones A, B, C and D) shall be deemed inconsistent with the Airport Land Use Compatibility Plan.

Finding: Inconsistent – This project includes conversion of property within Compatibility Zone D to residential use, which is prohibited. The policy mandates that any proposal to convert land within Zones A through D to residential use shall be deemed inconsistent.

Actions to Achieve Consistency: The project must be redesigned to eliminate residential units from that portion of the site that lies within Compatibility Zone D.

3.4.3 This Policy is not applicable because it pertains to proposals to convert agricultural land to residential use within Airport Influence Areas, and this project does not involve conversion of agricultural lands.

Attachments to this Report

Listed below are attachments containing City of American Canyon submittal materials and documents related to airport land use compatibility review. Additional application materials from the City of American, which appear to be a complete accounting of the project's overall administrative record at the time of application submittal to the ALUC

including traffic, geologic, biological studies, technical appendices to those studies, public comments, etc. can be accessed from this County ALUC link: Oat Hill Residential project

The City of American Canyon's Oat Hill Project webpage containing all project documents is accessible from this link: Oat Hill Multifamily PL20-0022 (cityofamericancanyon.org)

SUPPORTING DOCUMENTS

A . Oat Hill ALUC Application Letter and Project Plans

B . Oat Hill Subsequent ALUC Application Letters

C . City of American Canyon Planning Commission Staff Report

D . Oat Hill Mitigated Negative Declaration Noise and Land Use Sections

E . Oat Hill Noise Study

F . City of American Canyon Land Use Element Aviation Related Excerpts

G . City of American Canyon Noise Element

Airport Land Use Commission: Approve

Reviewed By: John McDowell

CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Sent by USPS

Sent by e-mail to:
John McDowell, john.mcdowell@countyofnapa.org

March 24, 2021

John McDowell
Napa County Airport Land Use Commission Staff
Napa County Planning, Building and Environmental Services Department
1195 Third St – Suite 210
Napa, CA 94559

Subject: Oat Hill Project Application for the Napa County Airport Land Use Commission

Dear Mr. McDowell,

The City of American Canyon received an application from RH Hess Development Company for development of apartment units on Oat Hill. The Oat Hill Project is located on the east side of Oat Hill south of Napa Junction Rd and consists of two Parcels, A and B. Parcel A includes 206 dwelling units on a 13.6-acre parcel and Parcel B includes 85 dwelling units on 7.2-acres. Three residential buildings in Parcel A (buildings #K, L, and M) are located in the Napa County Airport Land Use Compatibility Plan. The applicant requests the earliest available ALUC meeting for consideration of approval of the project. Please see the attached files for the submittal of the Oat Hill Project for the Napa County Airport Land Use Commission.

All submittal items are available in the March 25, 2021 Planning Commission Packet, item #4.1, link here: https://cityofamericancanyon.civicweb.net/Portal/MeetingInformation.aspx?Id=789 . The following items are submitted in accordance with the application:

1. Project Description
2. Identification of specific potential aircraft hazards – N/A, the project did not identify any potential aircraft hazards.
3. Copy of local planning agency staff report
4. Copy of Initial Study / Mitigated Negative Declaration
5. Avigation Easement – The applicant will agree to recording an avigation easement in favor of the Napa County Airport, see Parcel A/B Tentative Map condition of approval #15.
6. Site Plans
7. Plan Sets – Items #1 to 6 has been printed for submittal
8. Address labels
9. Submittal Fee – Check for $4,994.56

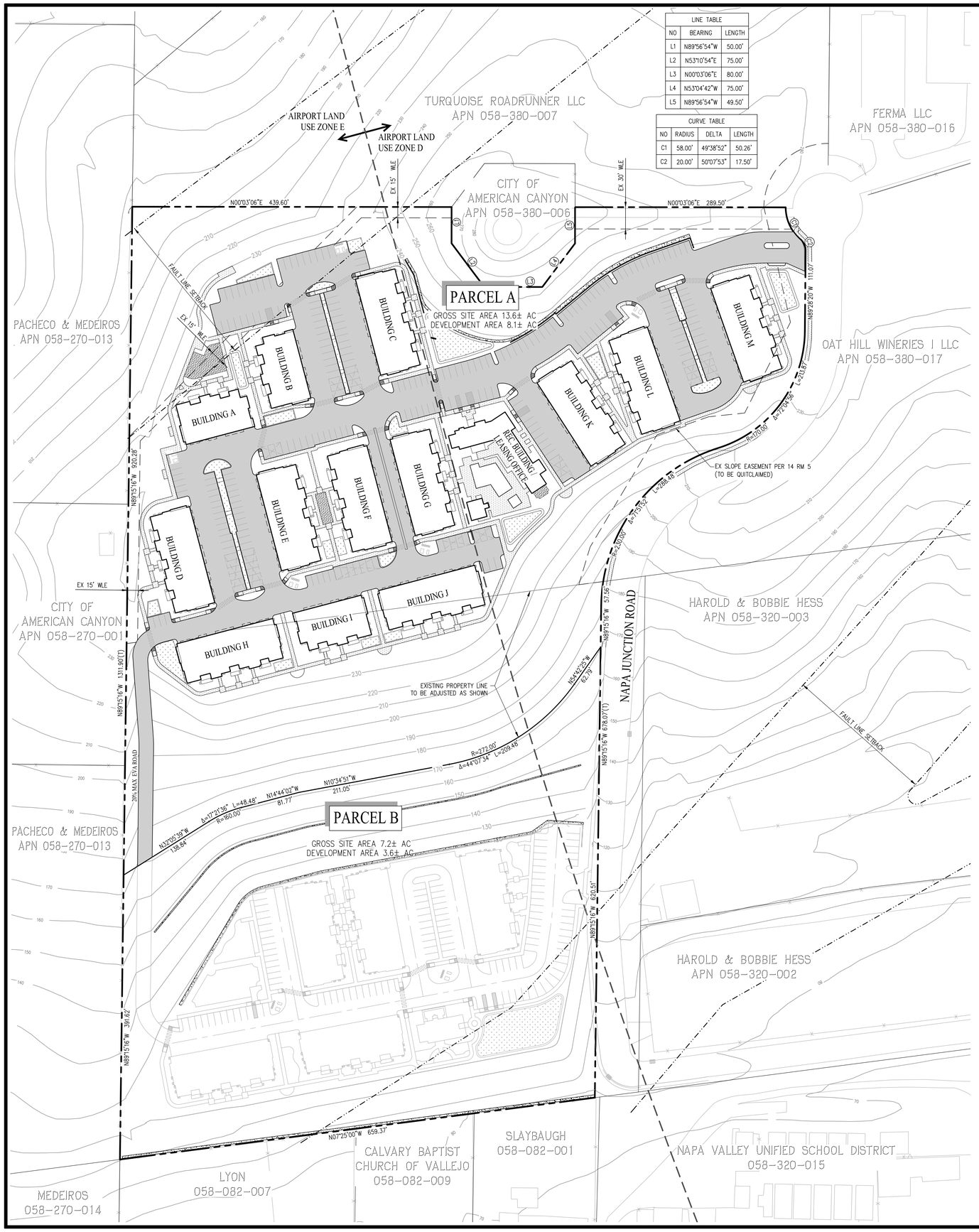
Sincerely,



William He, AICP
Associate Planner, Community Development Department

Attachments: 1st Submittal of Oat Hill Project

EC: Rick Hess, RH Hess Development Co.
Brent Cooper, AICP, Community Development Director



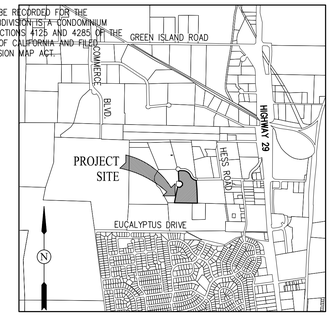
LINE TABLE		
NO	BEARING	LENGTH
L1	N89°56'54"W	50.00'
L2	N53°10'54"E	75.00'
L3	N00°03'06"E	80.00'
L4	N53°04'42"W	75.00'
L5	N89°56'54"W	49.50'

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	58.00'	49°38'52"	50.26'
C2	20.00'	50°07'53"	17.50'

GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES II, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5.	ARCHITECT:	WILLIAM HEZMALHALCH ARCHITECTS 6111 BOLLINGER CANYON ROAD, SUITE 495 SAN RAMON, CA 94583 PHONE: (925) 463-1700
6.	LANDSCAPE ARCHITECT:	VANDERTOOLEN ASSOCIATES 855 BORDEAUX WAY, SUITE 240 NAPA, CA 94558 PHONE: (707) 224-2299
7	ASSESSORS PARCEL NO.	058-380-008 & 058-320-001 (PORTION)
8.	SITE AREA:	13.6± ACRES
9.	LOTS:	1
10.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	COMMERCIAL SPECIALTY (CS) RESIDENTIAL HIGH (RH-1)
11.	EXISTING ZONING: PROPOSED ZONING:	LIGHT INDUSTRIAL (LS) RESIDENTIAL HIGH (RH)
12.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
13.	DWELLING UNITS:	206
14.	SITE DENSITY:	15.1 DU/AC
15.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET (NGVD29) NAVD88 = NGVD29 + 2.4
16.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
17.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
18.	UTILITIES: WATER: SEWER: STORM DRAIN: GAS & ELECTRIC: TELEPHONE:	 CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON CITY OF AMERICAN CANYON PG&E PACIFIC BELL
19.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
20.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.

Attachment 5, Exhibit A: Design Permit Plans



VICINITY MAP
NOT TO SCALE

RH ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	13.6 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/ REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM FLOOR AREA RATIO	50 %	17%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

DEVELOPMENT AREA SUMMARY - 13.6± ACRES

(AFTER LOT LINE ADJUSTMENT)

BUILDING FOOTPRINT:	97,930± SF	2.24± AC
PARKING/ASPHALT:	138,146± SF	3.17± AC
SIDEWALK/OTHER CONCRETE:	30,469± SF	0.70± AC
TRASH ENCLOSURE	1,290± SF	0.03± AC
LANDSCAPED AREA:*	94,923± SF	2.17± AC
WATER QUALITY BASIN (OFF-SITE):	N/A	N/A
OPEN SPACE:	229,421± SF	5.28± AC
TOTAL:	592,179± SF	13.6± AC
TOTAL IMPERVIOUS AREAS:	267,835± SF	6.15± AC
BUILDING COVERAGE:	17%	
*REQUIRED LANDSCAPED AREA (10% OF PARKING/ASPHALT AREA):	13,814 SF	0.31 AC

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- 11 — LOT NUMBER
- FF 23.0 — FINISHED FLOOR ELEVATION
- 210 — 10' CONTOUR
- 6C — PARKING COUNT
- COVERED PARKING
- 100' — LOT DIMENSION
- 12" SD — STORM DRAIN AND CATCH BASIN
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W-PU — PUBLIC WATER MAIN AND VALVE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- PR JT — JOINT TRENCH
- LATERAL SERVICE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

C	COMPACT
DDCV	DOUBLE DETECTOR CHECK VALVE
EVA	EMERGENCY VEHICLE ACCESS
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SERVICE CLEAN OUT
TE	TRASH ENCLOSURE
WLE	WATER LINE EASEMENT

EXISTING

- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- EX 30" SD — STORM DRAIN AND CATCH BASIN
- UTILITY POLE
- FIRE HYDRANT

SHEET INDEX

1 PROJECT OVERVIEW
2 TECHNICAL SITE PLAN
3 PRELIMINARY GRADING & DRAINAGE PLAN
4 PRELIMINARY UTILITY PLAN
5 STREET SECTIONS & TRUCK TURNING PLAN
6 GRADING CROSS SECTIONS
7 PRELIMINARY STORMWATER CONTROL PLAN

DESIGN REVIEW

PROJECT OVERVIEW

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 60' DATE: FEBRUARY 2021

0 60 120 180

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SHEET NO. C-1 OF 7 SHEETS



LINE TABLE		
NO	BEARING	LENGTH
L1	N89°56'54"W	50.00'
L2	N53°10'54"E	75.00'
L3	N00°03'06"E	80.00'
L4	N53°04'42"W	75.00'
L5	N89°56'54"W	49.50'

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	58.00'	49°38'52"	50.26'
C2	20.00'	50°07'53"	17.50'

LEGEND

- PROPOSED BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- BUILDING L — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- (14C) — PARKING COUNT
- C — COMPACT PARKING STALL
- PROPOSED ON STREET PARKING
- COVERED PARKING
- TRASH ENCLOSURE
- 100' — LOT DIMENSION
- EV — ZERO EMISSIONS VEHICLE CHARGING STALL
- ACCESSIBLE PARKING (CALTRANS STD PLAN A90A)
- VAN — VAN ACCESSIBLE STALL

RH ZONING STANDARDS

MINIMUM STANDARDS	ZONING	PROJECT
MINIMUM LOT AREA	20,000 SF	13.6 ± AC
MINIMUM LOT WIDTH	100 FT	100 FT +
MINIMUM LOT DEPTH	100 FT	100 FT +
MINIMUM SETBACK		
FIRST STORY	5 FT	20 FT
SECOND STORY/ REAR/STREET	10 FT	20 FT
MINIMUM BUILDING SEPARATION	-- FT	20 FT
MAXIMUM FLOOR AREA RATIO	50 %	17%
MAXIMUM BUILDING HEIGHT	42 FT	40 FT

UNIT SUMMARY			
	UNITS	BLDGS	TOTAL UNITS
12-UNIT BLDG	12	3	36
17-UNIT BLDG	17	10	170
TOTAL		13	206

PARKING SUMMARY - REQUIRED						
UNIT TYPE	QTY	RATIO	COVERED PARKING REQUIRED	OPEN PARKING REQUIRED	GUEST PARKING REQUIRED	TOTAL REQUIRED
1 BED	52	1 COVERED SPACE, PLUS 0.5 UNCOVERED SPACES	52	26	13	91
2 BED	108	1 COVERED SPACE, PLUS 1 UNCOVERED SPACE, PLUS 1 GUEST SPACE PER 4 UNITS	108	108	27	243
3 BED	46		46	46	12	104
TOTALS	206		206	180	52	438

PARKING SUMMARY - PROVIDED				
GARAGE	CARPORTS	HEAD IN	OFF SITE	TOTAL
157	49	222	23	451

PARKING NOTES:
7 TOTAL ADA PARKING STALLS PROVIDED (1 VAN)
7 TOTAL ELECTRIC VEHICLE STALLS PROVED

DESIGN REVIEW

TECHNICAL SITE PLAN

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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SHEET NO.
C-2
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LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- FF 237.0 — FINISHED FLOOR ELEVATION
- P 236.0 — PAD ELEVATION
- BUILDING G — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- CUT-FILL LINE
- 12" SD — STORM DRAIN, CATCH BASIN AND MANHOLE
- EX 30" SD — STORM DRAIN, CATCH BASIN AND MANHOLE
- FG — FINISHED GRADE
- FL — FLOW LINE
- TC — TOP OF CURB
- HP — HIGH POINT
- INV — INVERT
- LP — LOW POINT

EARTHWORK SUMMARY

DESCRIPTION	CUT (C.Y.)	FILL (C.Y.)
ROUGH GRADING	15,000	15,000

EARTHWORK NOTES:

1. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH UTILITY CONTRACTOR TO DETERMINE STREET UNDERCUT AND TO BALANCE SITE AS NEEDED. UTILITY CONTRACTOR TO DETERMINE ANTICIPATED SPOILS BASED ON CONSTRUCTION METHOD.
2. CONTRACTOR TO DETERMINE EARTHWORK QUANTITIES AND SHALL NOTIFY ENGINEER AND OWNER PRIOR TO STARTING CONSTRUCTION.
3. ADDITIONAL MATERIALS MAY BE REQUIRED TO BALANCE.
4. EARTHWORK QUANTITIES DO NOT INCLUDE ANY REMEDIAL GRADING AND/OR OVER-EXCAVATION THAT MAY BE NECESSARY.
5. EARTHWORK QUANTITIES ASSUME THAT SITE WILL BE PREVIOUSLY MASS GRADED.

NOTES:

1. ALL STREET ELEVATIONS ARE PAVEMENT GRADES UNLESS NOTED OTHERWISE.
2. ALL EXISTING TREES AND/OR VEGETATION WITHIN GRADING LIMITS TO BE REMOVED.
3. THE ROOF DRAINS WILL DISCHARGE EITHER DIRECTLY TO A PAVED SURFACE OR TO THRU-THE-CURB DRAINS. FINAL ROOF DRAIN LOCATIONS TO BE DETERMINED WITH FINAL DESIGN.
4. DRIVE ISLES WILL HAVE A CROSS SLOPE BETWEEN 1% AND 4%.
5. THE PROJECT IS NOT LOCATED WITHIN A FEMA FLOODPLAIN.
6. SEE SHEET C-6 FOR GRADING CROSS SECTIONS

DESIGN REVIEW

PRELIMINARY GRADING & DRAINAGE PLAN

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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NOTES:

1. ELECTRIC, TELEPHONE, AND CABLE SERVICE WILL BE PROVIDED FROM EXISTING FACILITIES ON NAPA JUNCTION ROAD. FINAL POINTS OF CONNECTION TO BE DETERMINED AT FINAL DESIGN.
2. EXISTING OVERHEAD LINES ON NAPA JUNCTION ROAD WILL REMAIN.
3. PROPOSED SANITARY SEWER MANHOLE CONNECTION ON NAPA JUNCTION ROAD MAY INCORPORATE A DROP STRUCTURE TO BE DETAILED ON THE CONSTRUCTION PLANS.

LEGEND

PROPOSED

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP/TOE OF SLOPE
- PROPOSED RETAINING WALL
- BUILDING L — BUILDING DESIGNATION
- 210 — 10' CONTOUR
- 12" SD — STORM DRAIN, CATCH BASIN & MANHOLE
- 8" SS — SANITARY SEWER AND MANHOLE
- 8" W — PRIVATE WATER MAIN AND VALVE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- 8" W-PR — PRIVATE PUMP SUPPLY WATER MAIN AND VALVE
- PR JT — JOINT TRENCH
- LATERAL SERVICE
- FIELD INLET
- FIRE HYDRANT
- STREET LIGHT
- PIV
- FDC

DDCV	DOUBLE DETECTOR CHECK VALVE
FDC	FIRE DEPARTMENT CONNECTION
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
TC	TOP OF CURB
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PIV	POST INDICATOR VALVE
SSCO	SANITARY SERVICE CLEAN OUT
WLE	WATER LINE EASEMENT

EXISTING

- EX 30" SD — STORM DRAIN, CATCH BASIN & MANHOLE
- EX 12" W — WATER MAIN AND VALVE
- EX 8" SS — SANITARY SEWER AND MANHOLE
- UTILITY POLE
- FIRE HYDRANT
- 210 — EXISTING 10' CONTOUR
- 210 — PROPOSED 10' CONTOUR

DESIGN REVIEW
PRELIMINARY UTILITY PLAN
OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

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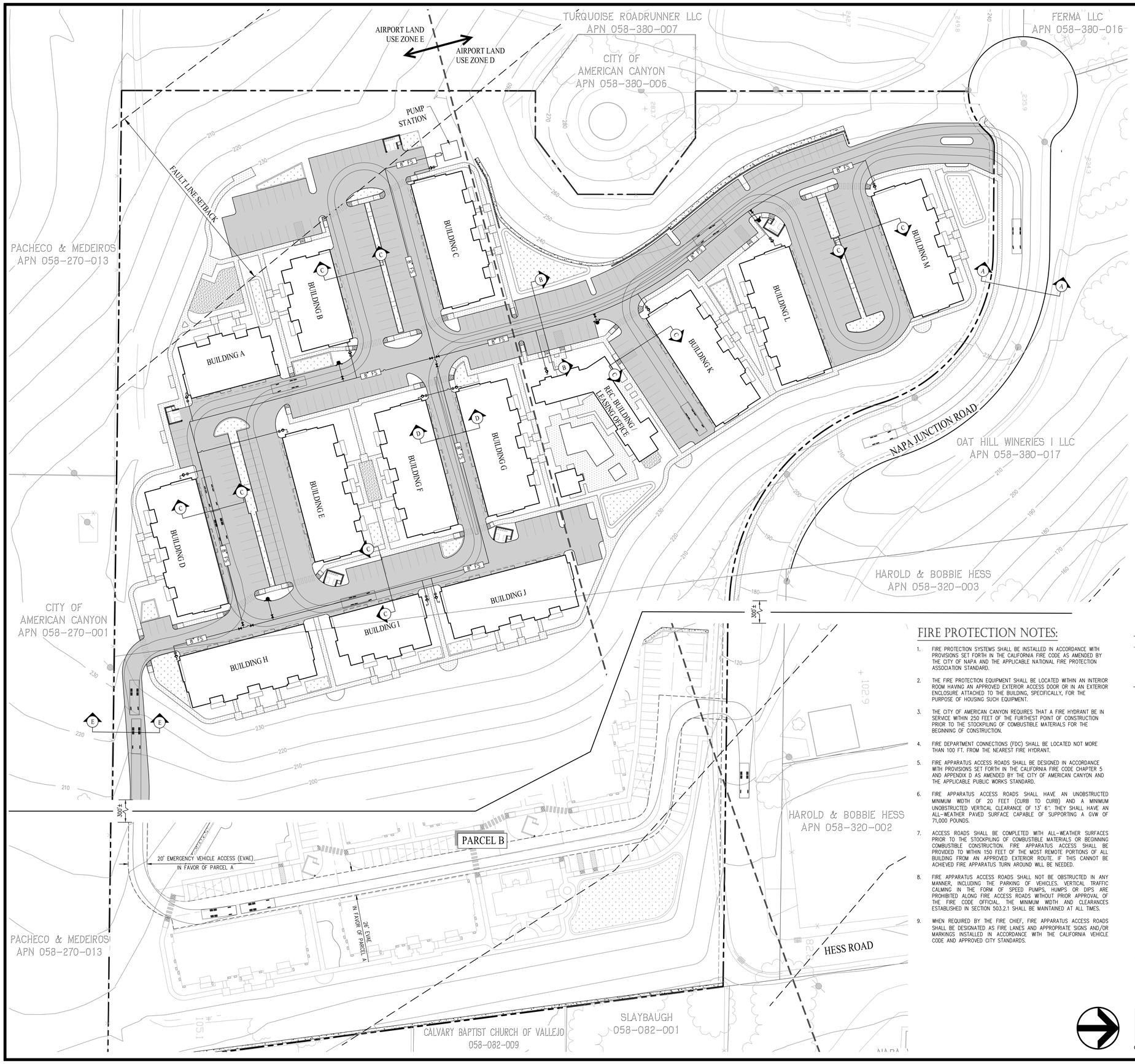
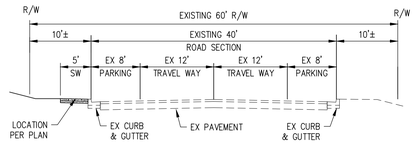
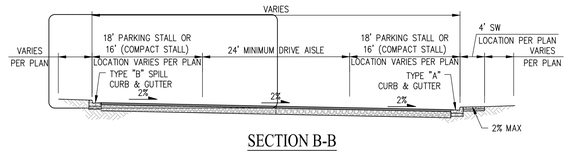


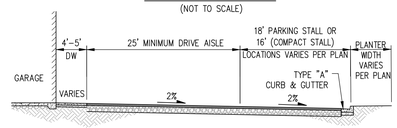
PROJECT SITE



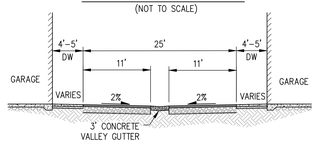
SECTION A-A
EXISTING NAPA JUNCTION ROAD
(NOT TO SCALE)



SECTION B-B
MAIN DRIVE AISLE
(NOT TO SCALE)



SECTION C-C
BUIDLING DRIVE AISLE
(NOT TO SCALE)



SECTION D-D
BUIDLING DRIVE AISLE
(NOT TO SCALE)

SECTION E-E
16' EVA ROAD
(NOT TO SCALE)

LEGEND

- FRONT TIRE PATH OF TRAVEL
- REAR TIRE PATH OF TRAVEL
- TRASH ENCLOSURE
- 8" FS — PRIVATE FIRE SERVICE WATER MAIN AND VALVE
- FIRE HYDRANT

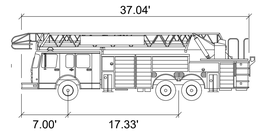
FIRE PROTECTION NOTES:

1. FIRE PROTECTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE AS AMENDED BY THE CITY OF NAPA AND THE APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD.
2. THE FIRE PROTECTION EQUIPMENT SHALL BE LOCATED WITHIN AN INTERIOR ROOM HAVING AN APPROVED EXTERIOR ACCESS DOOR OR IN AN EXTERIOR ENCLOSURE ATTACHED TO THE BUILDING, SPECIFICALLY, FOR THE PURPOSE OF HOUSING SUCH EQUIPMENT.
3. THE CITY OF AMERICAN CANYON REQUIRES THAT A FIRE HYDRANT BE IN SERVICE WITHIN 250 FEET OF THE FURTHEST POINT OF CONSTRUCTION PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS FOR THE BEGINNING OF CONSTRUCTION.
4. FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE LOCATED NOT MORE THAN 100 FT. FROM THE NEAREST FIRE HYDRANT.
5. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED IN ACCORDANCE WITH PROVISIONS SET FORTH IN THE CALIFORNIA FIRE CODE CHAPTER 5 AND APPENDIX D AS AMENDED BY THE CITY OF AMERICAN CANYON AND THE APPLICABLE PUBLIC WORKS STANDARD.
6. FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED MINIMUM WIDTH OF 20 FEET (CURB TO CURB) AND A MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF 13' 6". THEY SHALL HAVE AN ALL-WEATHER PAVED SURFACE CAPABLE OF SUPPORTING A GVW OF 71,000 POUNDS.
7. ACCESS ROADS SHALL BE COMPLETED WITH ALL-WEATHER SURFACES PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS OR BEGINNING COMBUSTIBLE CONSTRUCTION. FIRE APPARATUS ACCESS SHALL BE PROVIDED TO WITHIN 150 FEET OF THE MOST REMOTE PORTIONS OF ALL BUILDING FROM AN APPROVED EXTERIOR ROUTE. IF THIS CANNOT BE ACHIEVED FIRE APPARATUS TURN AROUND WILL BE NEEDED.
8. FIRE APPARATUS ACCESS ROADS SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING THE PARKING OF VEHICLES. VERTICAL TRAFFIC CALMING IN THE FORM OF SPEED PUMPS, HUMPS OR DIPS ARE PROHIBITED ALONG FIRE ACCESS ROADS WITHOUT PRIOR APPROVAL OF THE FIRE CODE OFFICIAL. THE MINIMUM WIDTH AND CLEARANCES ESTABLISHED IN SECTION 503.2.1 SHALL BE MAINTAINED AT ALL TIMES.
9. WHEN REQUIRED BY THE FIRE CHIEF, FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNATED AS FIRE LANES AND APPROPRIATE SIGNS AND/OR MARKINGS INSTALLED IN ACCORDANCE WITH THE CALIFORNIA VEHICLE CODE AND APPROVED CITY STANDARDS.

FIRE FLOW NOTES:

1.	BUILDING CONSTRUCTION TYPE:	TYPE VA
2.	MAXIMUM BUILDING SQUARE FOOTAGE:	23,712 SF
3.	REQUIRED FIRE FLOW PER CFC, APPENDIX B:	2,750 GPM
	FULLY SPRINKLERED*:	1,500 GPM
4.	AVAILABLE FIRE FLOW AT PROJECT SITE:	TBD
5.	MINIMUM NUMBER OF HYDRANTS:	1
6.	AVERAGE HYDRANT SPACING:	500 FEET
7.	PROJECT TO PROVIDE INCREASED NUMBER OF FIRE SPRINKLER HEADS OR OTHER APPROVED ALTERNATIVE.	

* CANNOT BE REDUCED TO LESS THAN 1,500 GPM



AMERICAN LA FRANCE 75'AERIAL

Width	: 10.00'
Track	: 8.50'
Lock to Lock Time	: 6.00'
Steering Angle	: 45.00

TRUCK DIMENSIONS
DETAIL NOT TO SCALE

DESIGN REVIEW
STREET SECTIONS & TRUCK TURNING PLAN
OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

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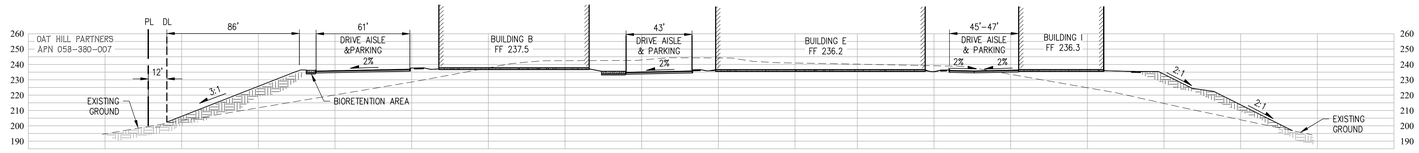


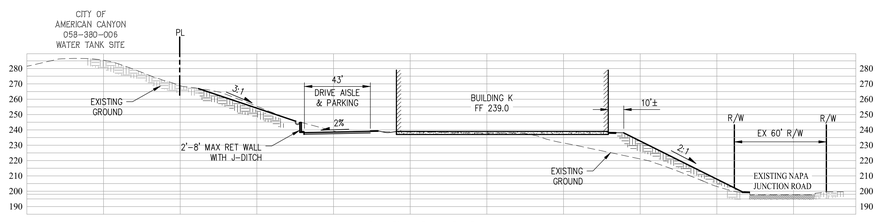
SECTION A-A

SCALE: 1" = 40'



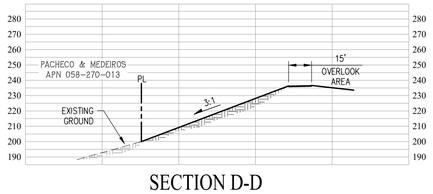
SECTION B-B

SCALE: 1" = 40'



SECTION C-C

SCALE: 1" = 40'



SECTION D-D

SCALE: 1" = 40'

NOTES:

1. SECTION LOCATIONS ARE SHOWN ON SHEET C-3

DESIGN REVIEW

GRADING CROSS SECTIONS

OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

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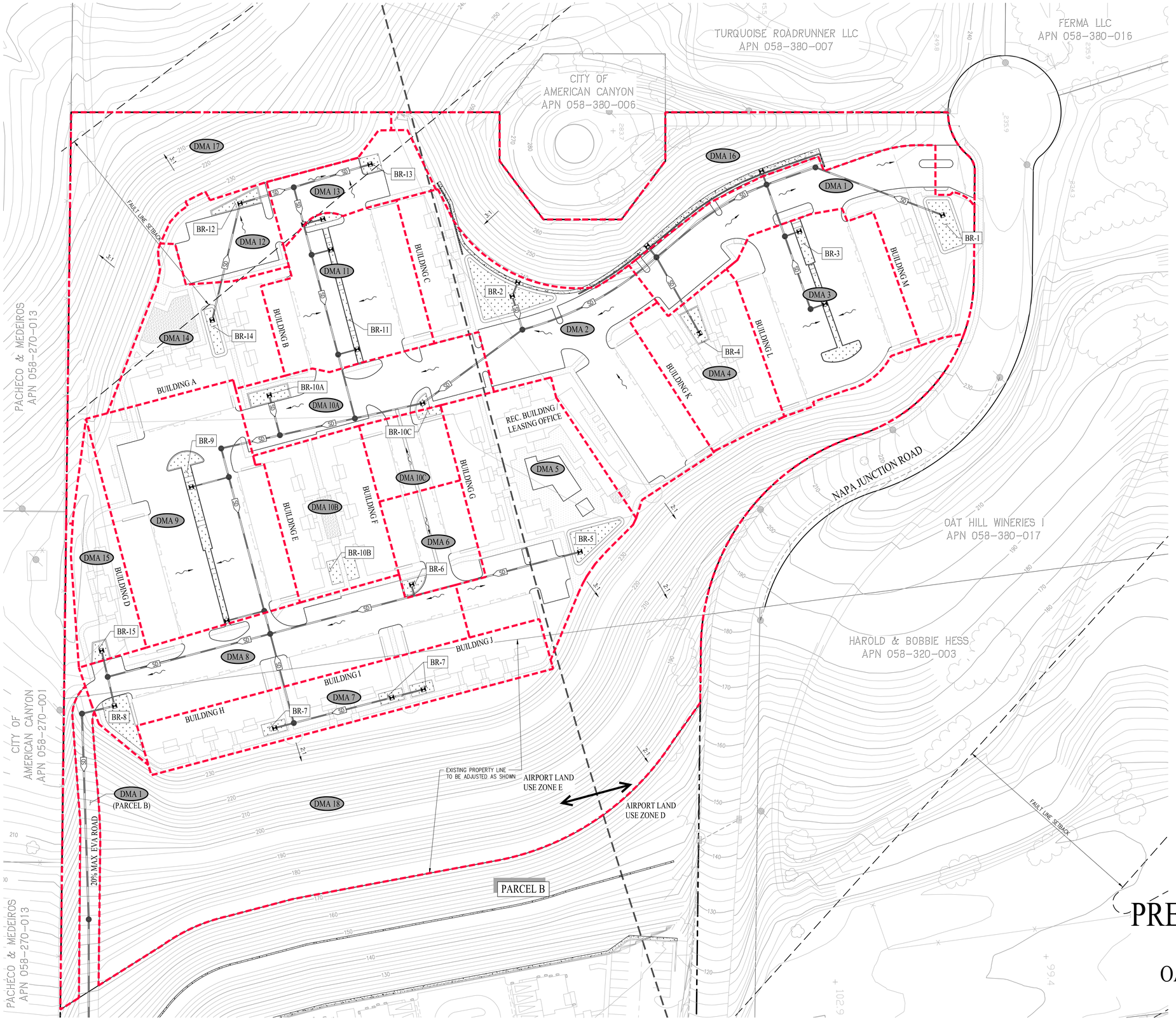


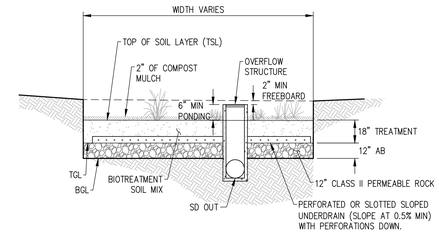
LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- TOP OF SLOPE/DAYLIGHT
- PROPOSED RETAINING WALL
- DRAINAGE AREA BOUNDARY
- BIORETETION AREA
- DMA 1 — DRAINAGE MANAGEMENT AREA
- BR-1 — BIORETENTION AREA
- SD — PROPOSED STORM DRAIN

DRAINAGE MANAGEMENT AREA (DMA)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	DRAINAGE AREA (SF)	REQUIRED TREATMENT AREA (SF)	PROVIDED TREATMENT AREA (SF)	TREATMENT TYPE
DMA 1	22,718	7,560	30,278	939	1,146	BIORETENTION
DMA 2	29,698	10,080	39,778	1228	2,266	BIORETENTION
DMA 3	24,712	2,200	26,912	997	1,244	BIORETENTION
DMA 4	10,580	4,673	15,253	442	537	BIORETENTION
DMA 5	22,033	11,350	33,383	927	988	BIORETENTION
DMA 6	7,795	1,005	8,800	316	316	BIORETENTION
DMA 7	14,957	7,623	22,580	629	876	BIORETENTION
DMA 8	25,645	4,278	29,923	1043	1,177	BIORETENTION
DMA 9	33,553	5,230	38,783	1363	1,477	BIORETENTION
DMA 10A	14,484	2,142	16,626	588	588	BIORETENTION
DMA 10B	10,280	6,127	16,407	436	588	BIORETENTION
DMA 10C	6,205	695	6,900	251	251	BIORETENTION
DMA 11	20,057	1,826	21,883	810	927	BIORETENTION
DMA 12	6,984	2,372	9,356	289	494	BIORETENTION
DMA 13	6,463	2,868	9,331	270	336	BIORETENTION
DMA 14	8,562	8,688	17,250	377	476	BIORETENTION
DMA 15	4,136	6,246	10,382	190	302	BIORETENTION
DMA 16	–	42,364	42,364	–	–	SELF-TREATING
DMA 17	–	42,685	42,685	–	–	SELF-TREATING
DMA 18	–	147,133	147,133	–	–	SELF-TREATING

NOTES

- VALUES IN THE TABLE ABOVE ARE ESTIMATED BASED UPON THE AVAILABLE INFORMATION AT THE TIME OF THIS MAP.
- REQUIRED TREATMENT AREAS CALCULATED USING THE 4% RULE WITH A FACTOR OF 1.0 FOR IMPERVIOUS AREAS AND 0.1 FOR PERVIOUS AREAS (NAPA COUNTY IMP SIZING TOOL).



BIORETENTION AREA

DESIGN REVIEW
PRELIMINARY STORMWATER CONTROL PLAN
OAT HILL MULTI-FAMILY - PARCEL A

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1" = 40' DATE: FEBRUARY 2021

0 40 80 120

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS
SAN RAMON • (925) 866-0322
SACRAMENTO • (916) 375-1877
WWW.CBANDG.COM

SHEET NO. C-7 OF 7 SHEETS

2/17/2021 11:05 AM

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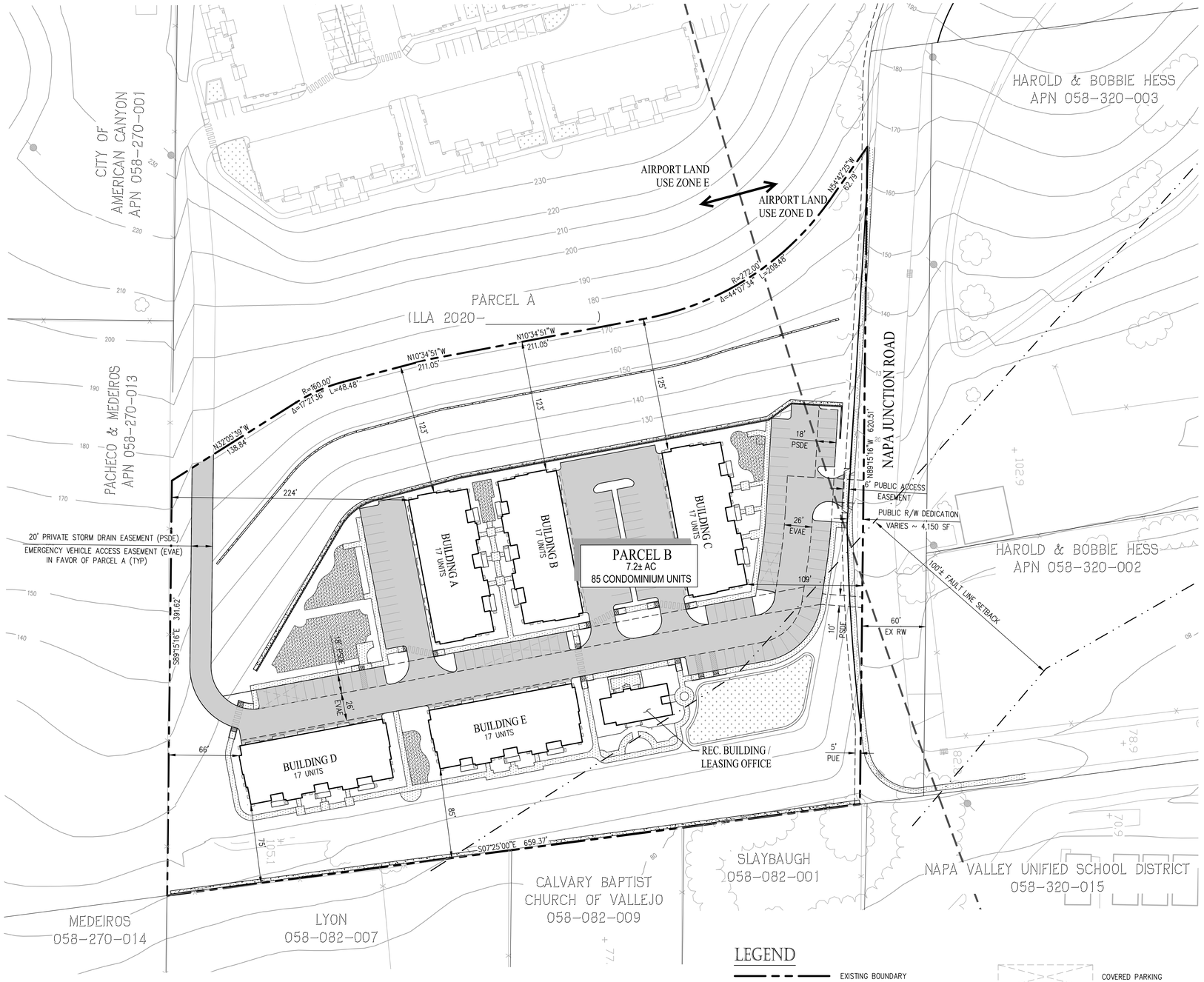
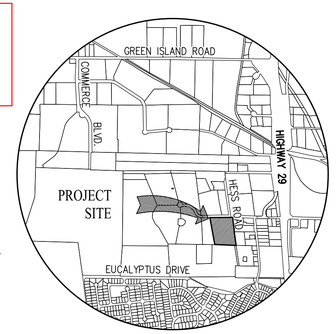
Attachment 8, Exhibit A: Tentative Map Plans



GENERAL NOTES

1.	OWNER:	OAT HILL PROPERTIES III, LLC PO BOX 3438 NAPA, CA 94558
2.	DEVELOPER:	RH HESS DEVELOPMENT 3423 BROADWAY, SUITE D-5 AMERICAN CANYON, CA 94503
3.	CIVIL ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON SAN RAMON, CA 94583 COLT ALVERNAZ P.E. #75740 PHONE: (925) 866-0322
4.	SOIL ENGINEER:	REESE & ASSOCIATES 134 LYSTRA COURT SANTA ROSA, CA 95403 PHONE: (707) 528-3078
5	ASSESSORS PARCEL NO.	058-320-001 (PORTION)
6.	SITE AREA:	7.2± ACRES
7.	LOTS:	1
8.	EXISTING GENERAL PLAN: PROPOSED GENERAL PLAN:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
9.	EXISTING ZONING: PROPOSED ZONING:	RESIDENTIAL ESTATE (RE) RESIDENTIAL MEDIUM (RM)
10.	EXISTING LAND USE: PROPOSED LAND USE:	VACANT LAND MULTI-FAMILY RESIDENTIAL
11.	DWELLING UNITS:	85
12.	SITE DENSITY:	11.8 DU/AC
13.	BENCHMARK:	NAPA COUNTY BENCHMARK BM 934C. STATE WELL MONUMENT STAMPED B-55 IN CUL DE SAC AT NORTH END OF LOMBARD ROAD. EL = 58.37 FEET
14.	BASIS OF BEARINGS:	BETWEEN TWO FOUND MONUMENTS IN EUCALYPTUS DRIVE, THE BEARING BEING N89°26'36"W, PER 23 RM 25, RECORDED JUNE 28, 2002, IN THE OFFICE OF THE COUNTY RECORDER
15.	FLOOD ZONE:	ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06055C0617F DATE: AUGUST 3, 2016
16.	UTILITIES:	
	WATER:	CITY OF AMERICAN CANYON
	SEWER:	CITY OF AMERICAN CANYON
	STORM DRAIN:	CITY OF AMERICAN CANYON
	GAS & ELECTRIC:	PG&E
	TELEPHONE:	PACIFIC BELL
17.	BOUNDARY:	AS SHOWN WAS COMPILED FROM RECORD INFORMATION AND DOES NOT REPRESENT A SURVEY OF THE PROPERTY.
18.	CONDOMINIUM MAP:	A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.
19.	RECIPROCAL EASEMENT:	PRIOR TO THE RECORDATION OF THE FINAL MAP ALL RECIPROCAL EASEMENTS REQUIRED ON PARCEL A MUST BE RECORDED IN FAVOR OF PARCEL B OR THE FINAL MAPS MUST BE RECORDED CONCURRENTLY



VICINITY MAP
NOT TO SCALE

LEGEND

- EXISTING BOUNDARY
- RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- TOP OF CURB
- CENTERLINE
- EASEMENT LINE
- FAULTLINE SETBACK
- AIRPORT LAND USE ZONE LINE
- PROPOSED RETAINING WALL
- 210 10' CONTOUR
- COVERED PARKING
- ASPHALT PAVEMENT
- CONCRETE WALKWAY
- BIORETENTION AREA
- TURF AREA

TENTATIVE MAP FOR CONDOMINIUM PURPOSES

OAT HILL MULTI-FAMILY

PARCEL B - LLA 2020-_____

CITY OF AMERICAN CANYON NAPA COUNTY CALIFORNIA

SCALE: 1"=50' DATE: FEBRUARY 2021

0 50 100 150

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SACRAMENTO ▪ (916) 375-1877
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JOB NO.: 1305-050

G:\1305-050\ACAD\TM\PARCEL B\TM01_SITE PLAN.DWG

Attachment 5, Exhibit A:
Architectural Plans



17-Plex
Color Scheme #3

12-Plex
Color Scheme #2

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

October 19, 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2

ARCHITECTURE

Recreation Building: Floor Plan A1
Recreation Building: Elevations A2
12 Plex | Building Plan.....A3
12 Plex | Building Plan.....A4
12 Plex | Building Elevations.....A5
17 Plex | Building Plan.....A6
17 Plex | Building Plan.....A7
17 Plex | Building Elevations.....A8
Unit Plans | Plan 1.....A9
Unit Plans | Plan 1X.....A10
Unit Plans | Plan 2.....A11
Unit Plans | Plan 3.....A12
Unit Plans | Plan 4.....A13
Unit Plans | Plan 5.....A14
Unit Plans | Plan 6.....A15
Trash Enclosure & Carport Sample.....A16
Exterior Color & Materials | Lighting Fixture.....A17

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

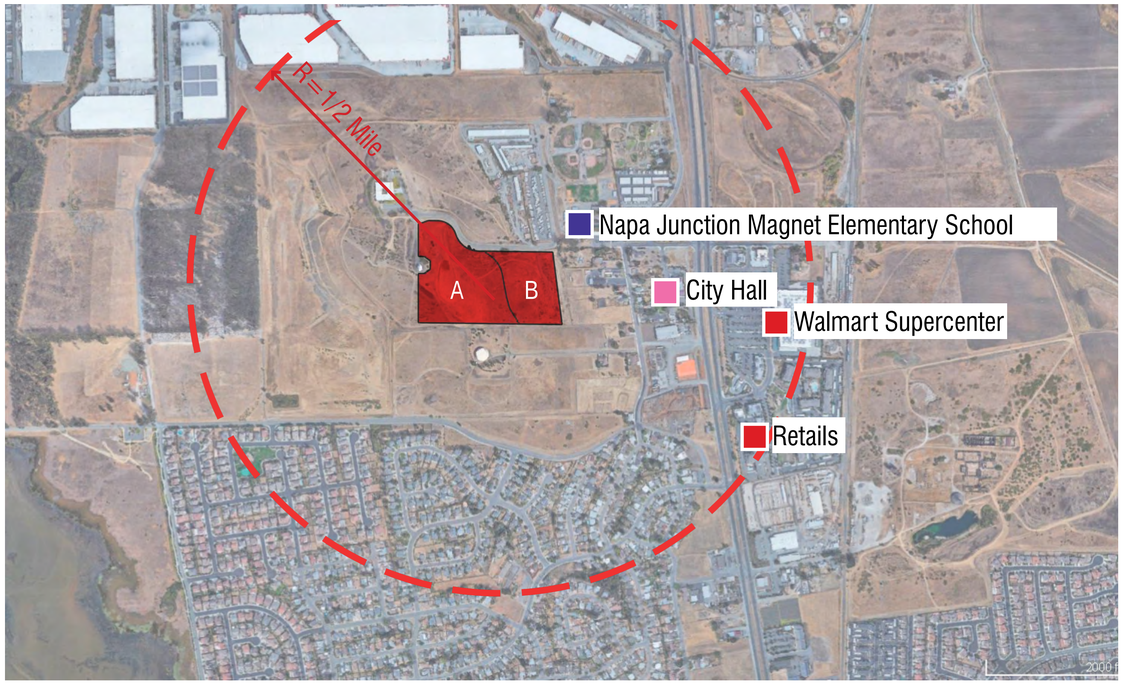
ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA



BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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Project Summary

Parcel A

Gross Site Area: ± 13.6 Acres

Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 15.1 DU per Gross Acre

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces
- 5 Handicapped + 2 Van Required

Provided: 454 On-site & Off-site Spaces

431 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 225 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 52,245 SF
- Hillside Slope Area: 140,718 SF



KEY MAP
N.T.S

Notes:
1. Site plan must be reviewed by planning, building, and fire departments for code compliance.
2. Base information per civil engineer.
3. Civil engineer to verify all setbacks and grading information
4. Please refer to landscape plan for final landscape details.
5. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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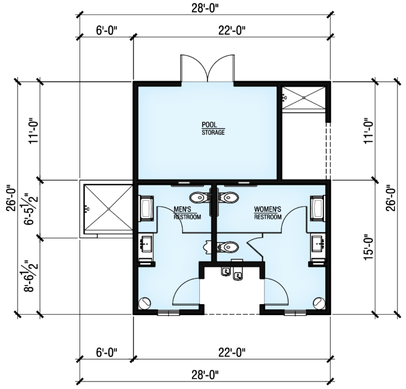
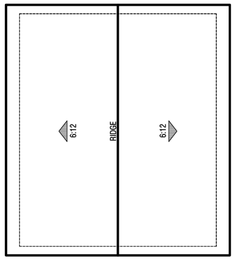
PLAN KEY: Pool Building

611 SF



Pool Building Floor Plan: Parcel A

611 SF Total



Pool Building Roof Plan: Parcel A

Recreation Building Floor Plan: Parcel A

3,335 SF Total

Recreation Building Roof Plan: Parcel A

PLAN KEY: Recreation Building

- Conditioned Space: 3,335 SF
- Entry Porch: 96 SF
- Covered Patio & Porch: 1,175 SF
- Covered Outdoor Fitness: 384 SF

RECREATION BUILDING FLOOR PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A1

0 4 8 16

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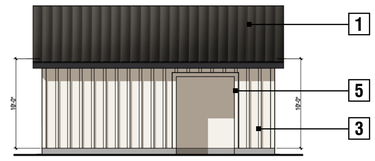
6669



Recreation Building Right



Pool Building Right



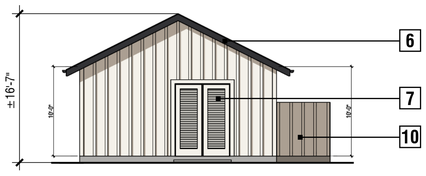
Recreation Building Left



Pool Building Left



Recreation Building Rear



Pool Building Rear



Recreation Building Front



Pool Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem
9. Fiber Cement Louvered Panels
10. Shower Enclosure

RECREATION BUILDING ELEVATIONS

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A2

0 4 8 16

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6670



Second Floor



First Floor

Note: 8'-6" Ceiling at Garages

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

12-Plex Total Building Area: 16,478 SF
(Includes all covered areas on all three levels)

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A3

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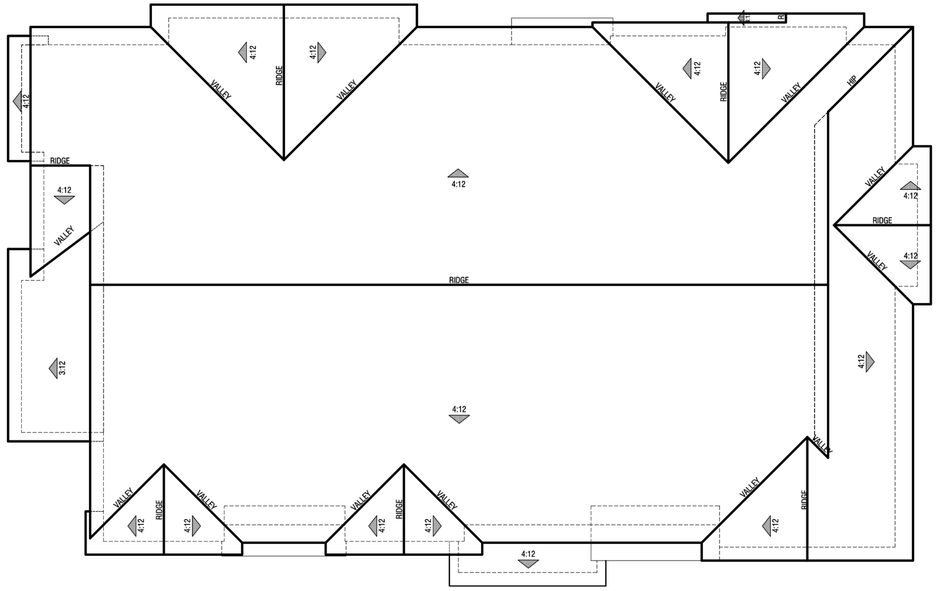

Roof Plan

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio



Third Floor

12-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A4

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Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #2

1. Concrete Slate Roofing - *Eagle, Sierra Madre*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A17

12-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A5

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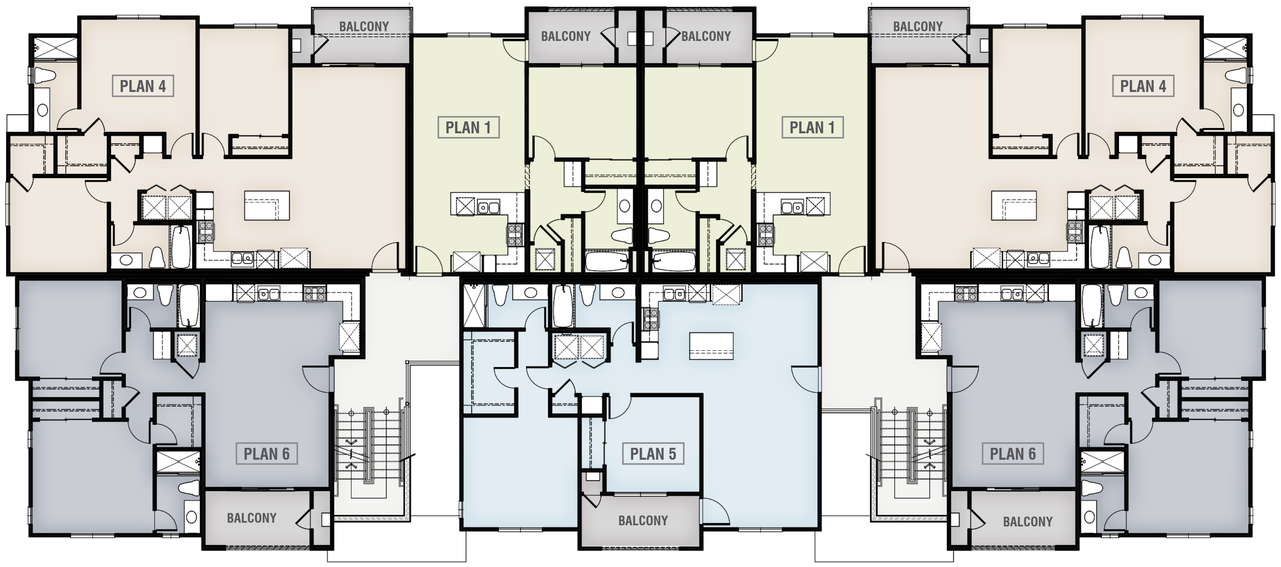
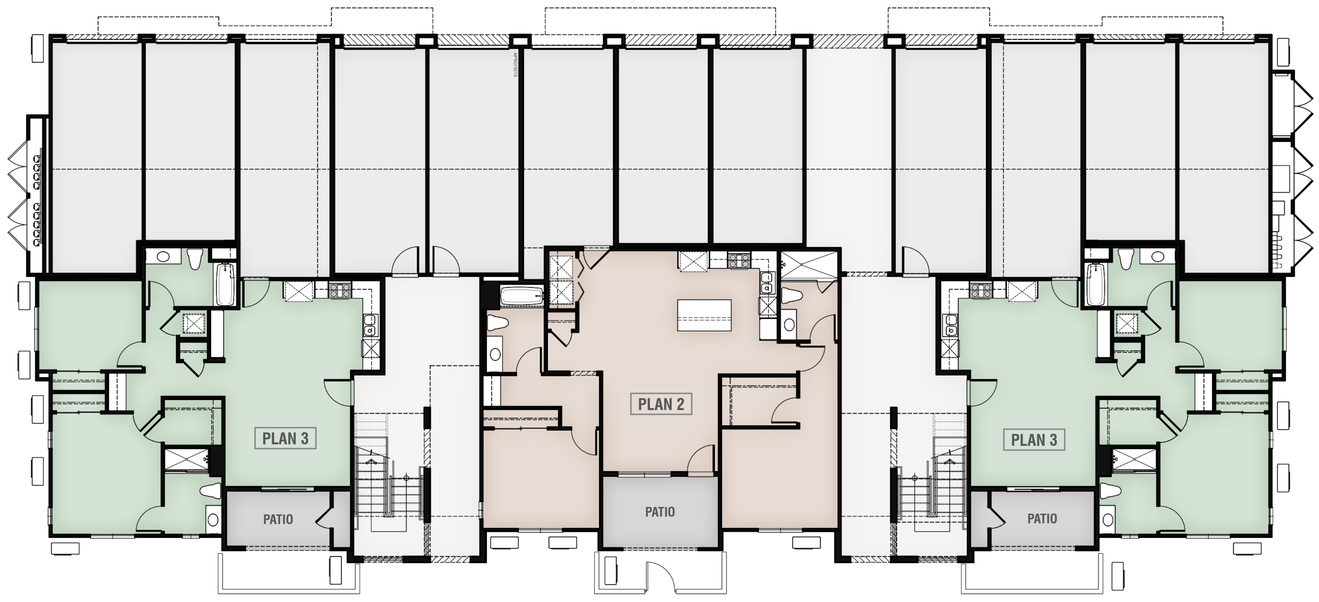
ORANGE COUNTY . LOS ANGELES . BAY AREA

6673



Second Floor



First Floor

Note: 8'-6" Ceiling at Garages

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-Plex Total Building Area: 23,712 SF
(Includes all covered areas on all three levels)

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A6

0 4 8 16

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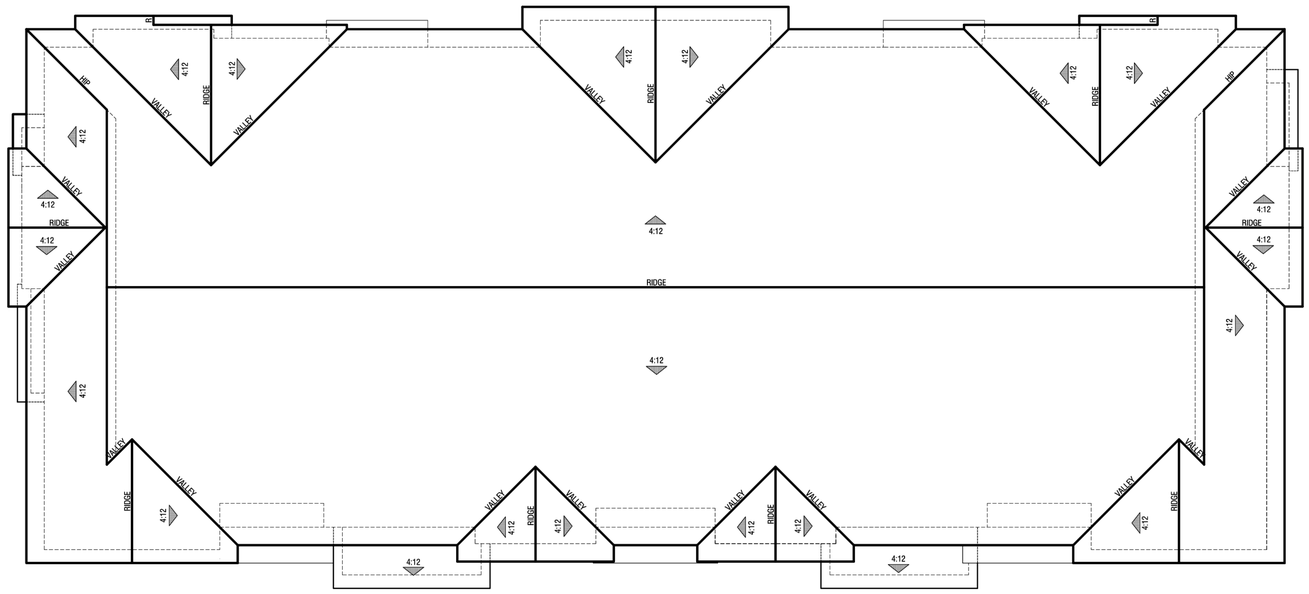

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A7

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6675



Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A17

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A8

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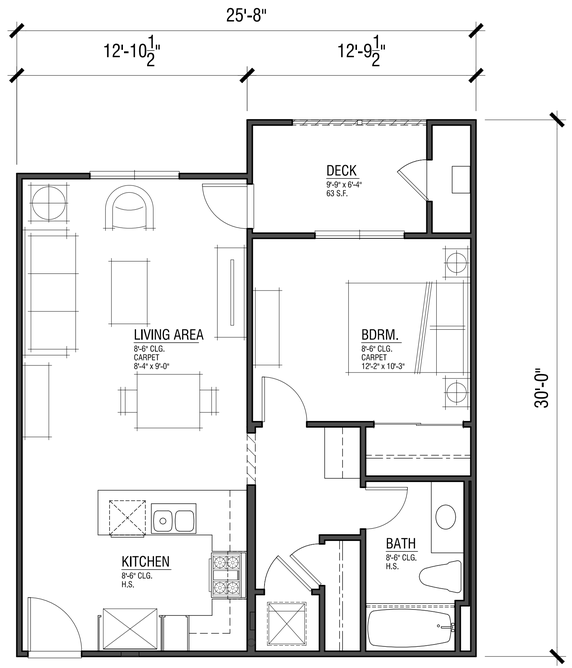
6676



Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

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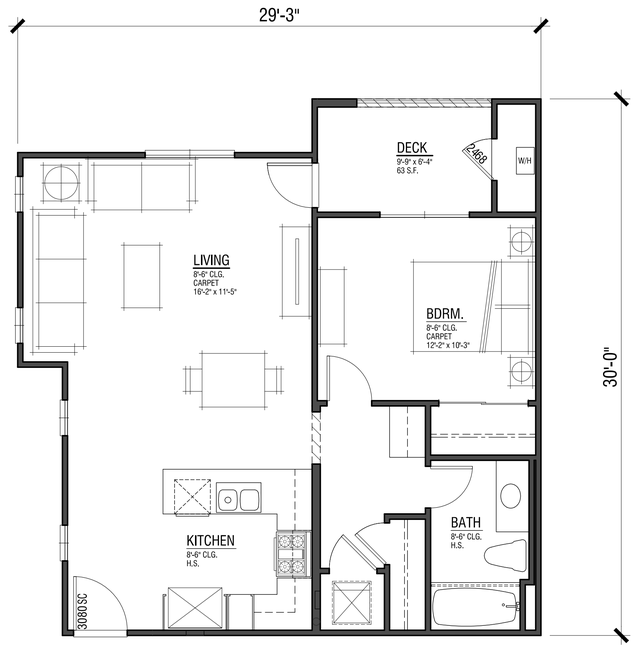

Plan 1X
672 SF
1 Bdrm | 1 Bath

UNIT PLANS| Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A10

0 4 8 16

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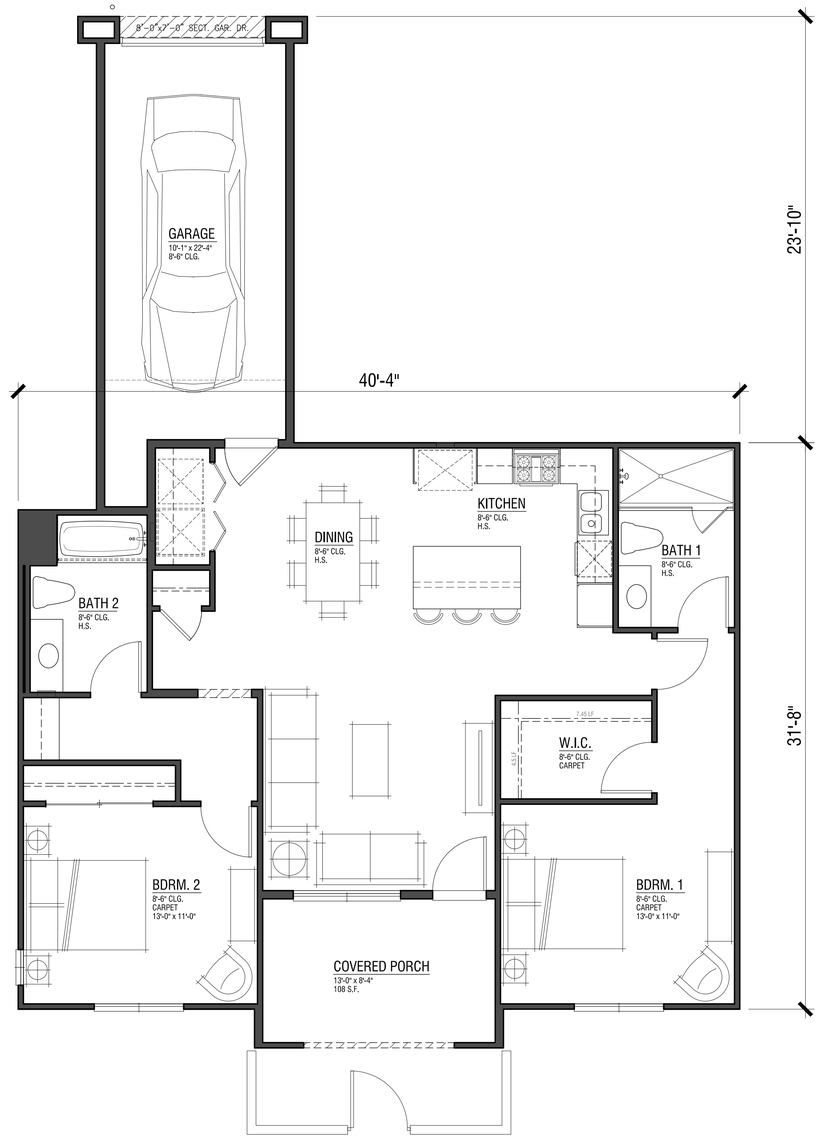

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A11

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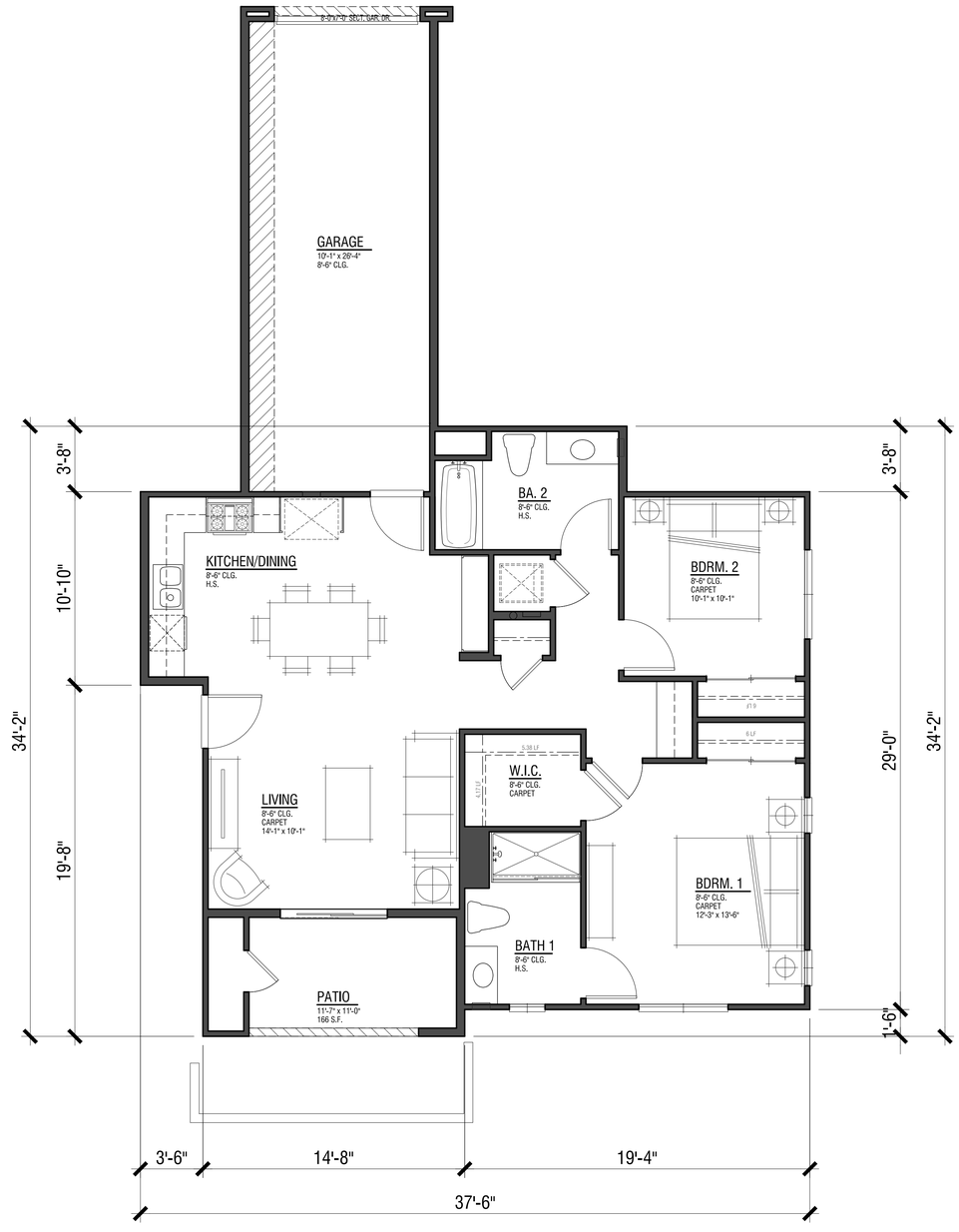

Plan 3
932 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A12

0 4 8 16

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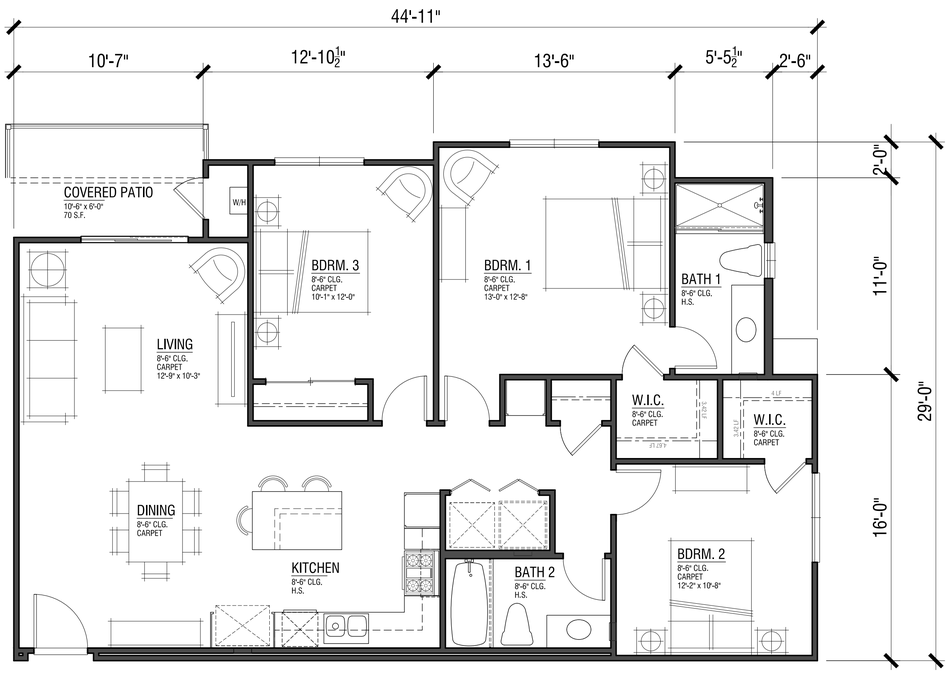

Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A13

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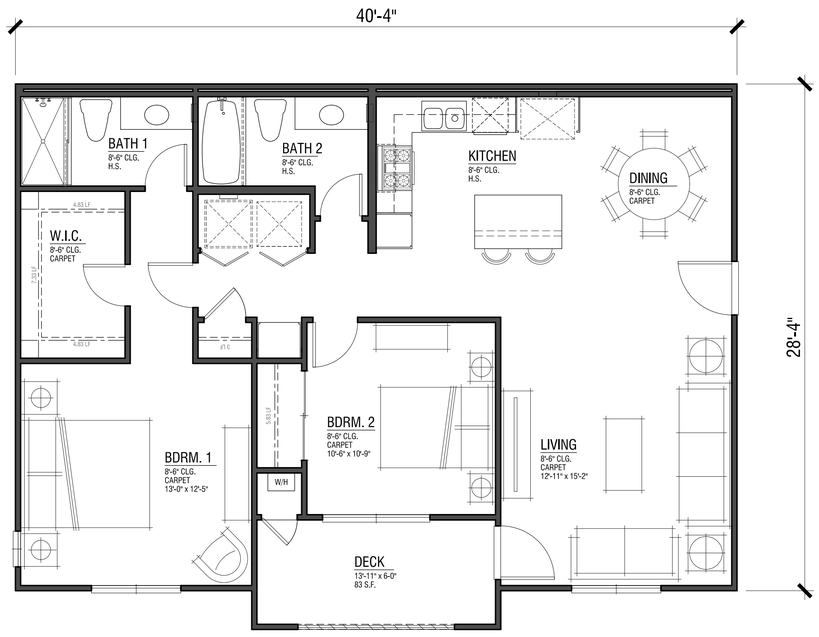

Plan 5
1,024 SF
2 Bdrm | 2 Bath

UNIT PLANS| Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

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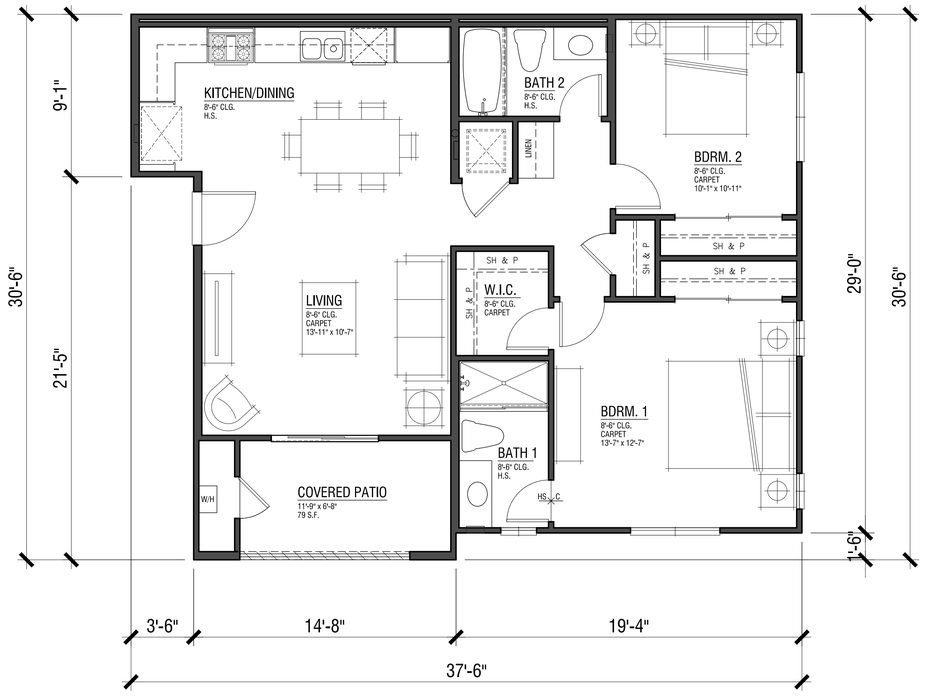

Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS| Plan 6

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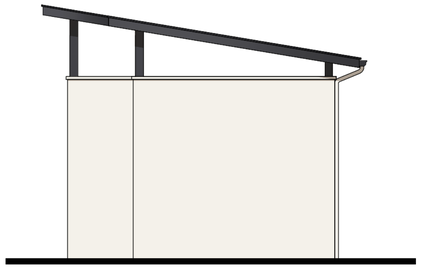
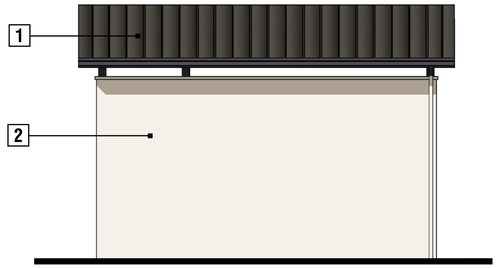
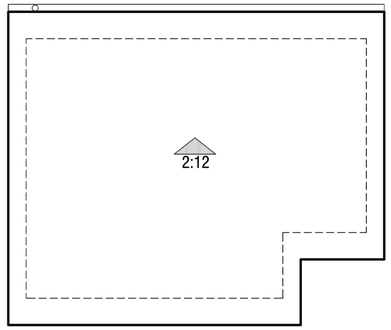


Trash Enclosure Left



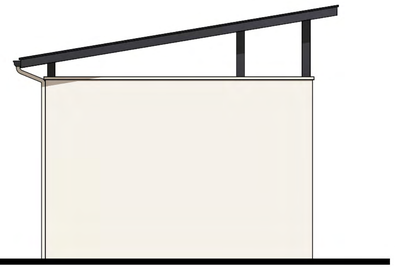
Trash Enclosure Front



Trash Enclosure
Roof Plan



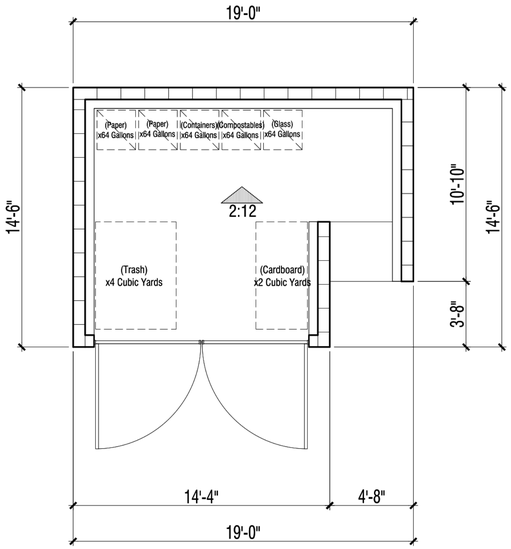
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A16

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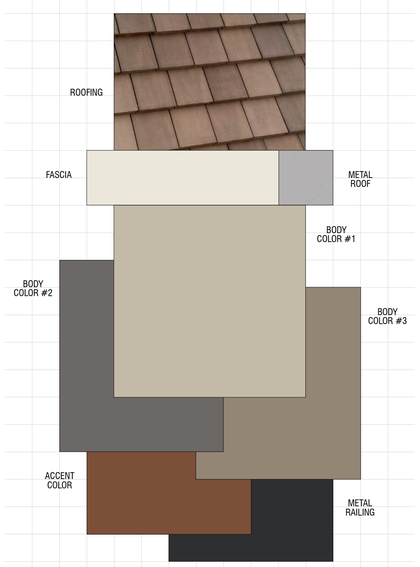
6684

Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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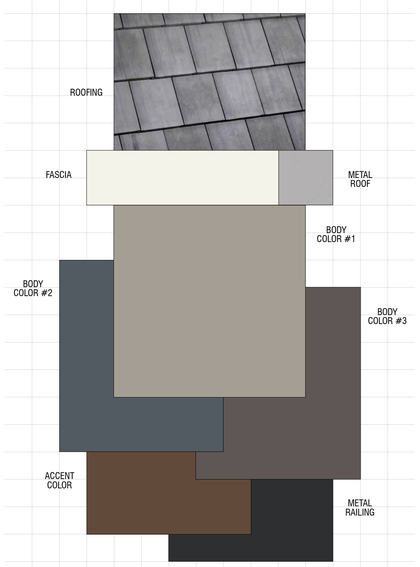
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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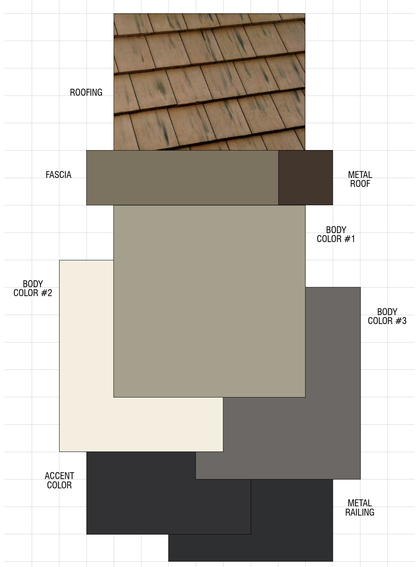
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to):* Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to):* Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to):* Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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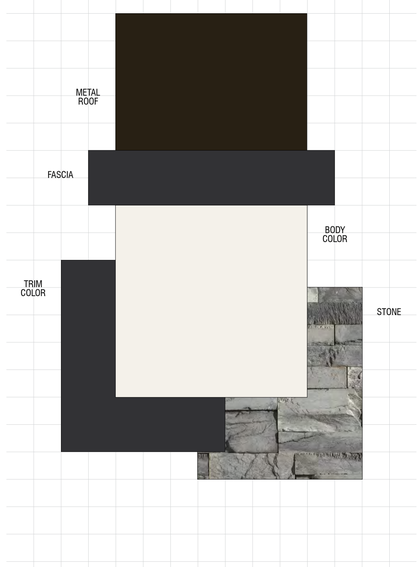
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to):* Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to):* Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL A

AMERICAN CANYON, CALIFORNIA

A17

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Attachment 9, Exhibit A:
Architectural Plans



17-Plex

Color Scheme #3

CONCEPTUAL STREETSCENE

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

October 19 , 2020

SITE PLAN

Context SP1
Conceptual Site Plan SP2

ARCHITECTURE

Recreation Building: Floor Plan A1
Recreation Building: Elevations A2
17 Plex | Building Plan.....A3
17 Plex | Building Plan.....A4
17 Plex | Building Elevations.....A5
Unit Plans | Plan 1.....A6
Unit Plans | Plan 1X.....A7
Unit Plans | Plan 2.....A8
Unit Plans | Plan 3.....A9
Unit Plans | Plan 4.....A10
Unit Plans | Plan 5.....A11
Unit Plans | Plan 6.....A12
Trash Enclosure & Carport Sample A13
Exterior Color & Materials | Lighting Fixture A14

Project Information

Building Type: V-A
NFPA 13R Sprinkler

RH HESS DEVELOPMENT

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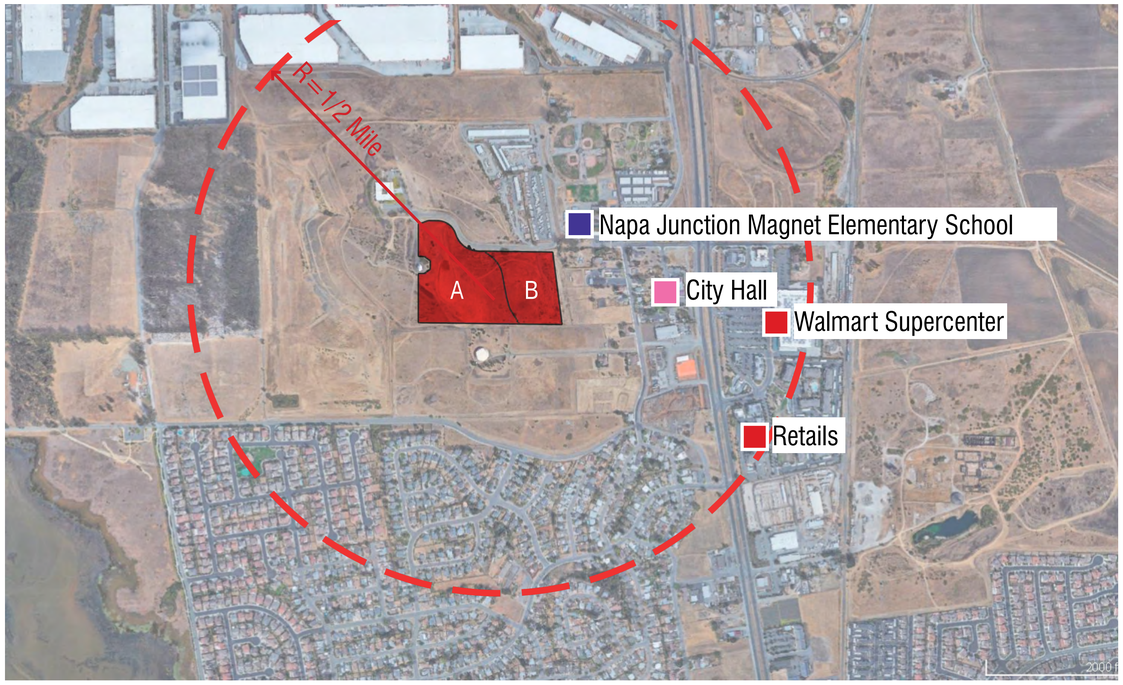
BUS ROUTE (American Canyon Transit - Monday - Friday)

- AM Timepoint Stops within 1/2 Mile
- PM Timepoint Stops within 1/2 Mile
- AM Timepoint Bus Route (4 Trips per Day except Wed, 5 Trips on Wed)
- AM Loops Timepoint Bus Route (1 Trip per Day)

Note:
More Details about Bus Schedule is available at American Canyon Transit Website



Context

- School
- Institution
- Commercial

Note:
More Details about Bus Schedule is available at American Canyon Transit Website

CONTEXT

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

SP1
N.T.S

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Project Summary

Parcel B

Gross Site Area: ± 7.2 Acres

Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

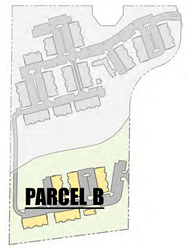
Density: 11.8 DU per Gross Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces
- 4 Handicapped + 1 Van Required

Provided: 182 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 97 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF



KEY MAP
N.T.S

Notes:
1. Site plan must be reviewed by planning, building, and fire departments for code compliance.
2. Base information per civil engineer.
3. Civil engineer to verify all setbacks and grading information
4. Please refer to landscape plan for final landscape details.
5. Building setbacks are measured from property lines to building foundation lines.

CONCEPTUAL SITE PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

SP2

0 25 50 100

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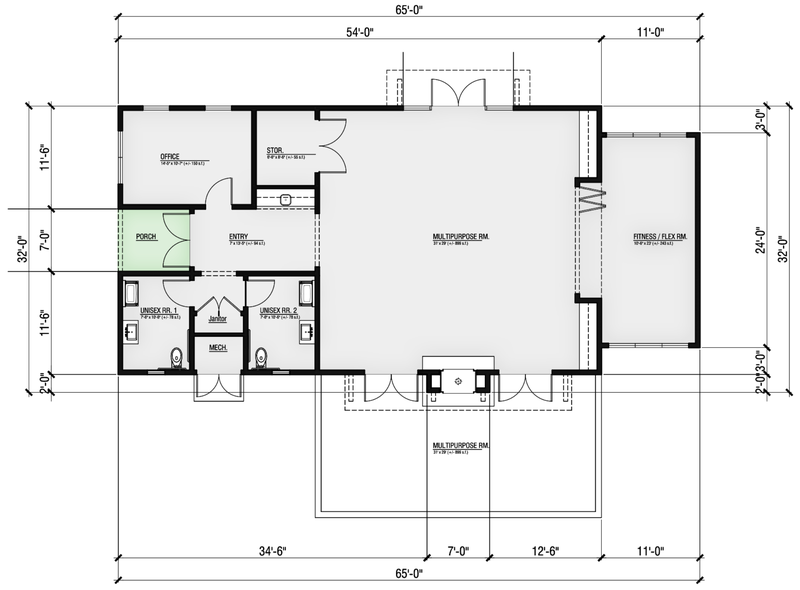
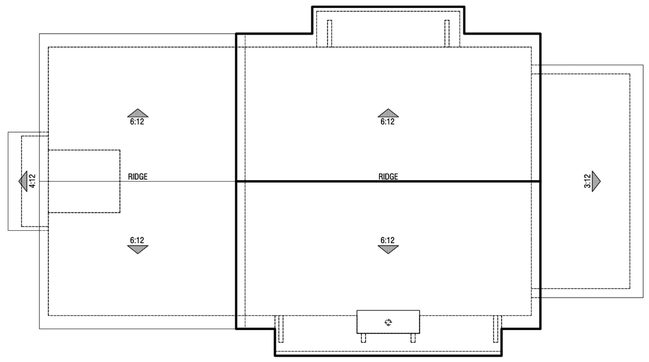
6688

PLAN KEY: Recreation Building

- Conditioned Space: 1,842 SF
- Entry Porch: 56 SF



Recreation Building Floor Plan: Parcel B
1,842 SF Total



Recreation Building Roof Plan: Parcel B

RECREATION BUILDING FLOOR PLAN

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A1

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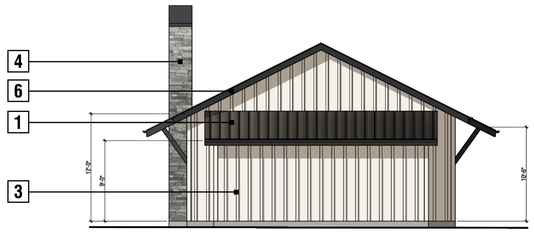
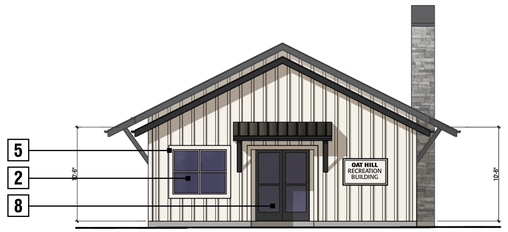


Recreation Building Right



Recreation Building Rear



Recreation Building Left



Recreation Building Front

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1. Metal Roof - *Dark Bronze (50)*
2. Insulated Vinyl Windows
3. Board & Batten Vertical Fiber Cement Siding With Corner Boards
4. Stone - *Creative Mines Craft Split Modular (Shadowplay)*
5. Fiber Cement Trim
6. Wood Fascia
7. Utility Doors
8. Fiberglass Door with Panel Sytem

RECREATION BUILDING ELEVATIONS

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A2

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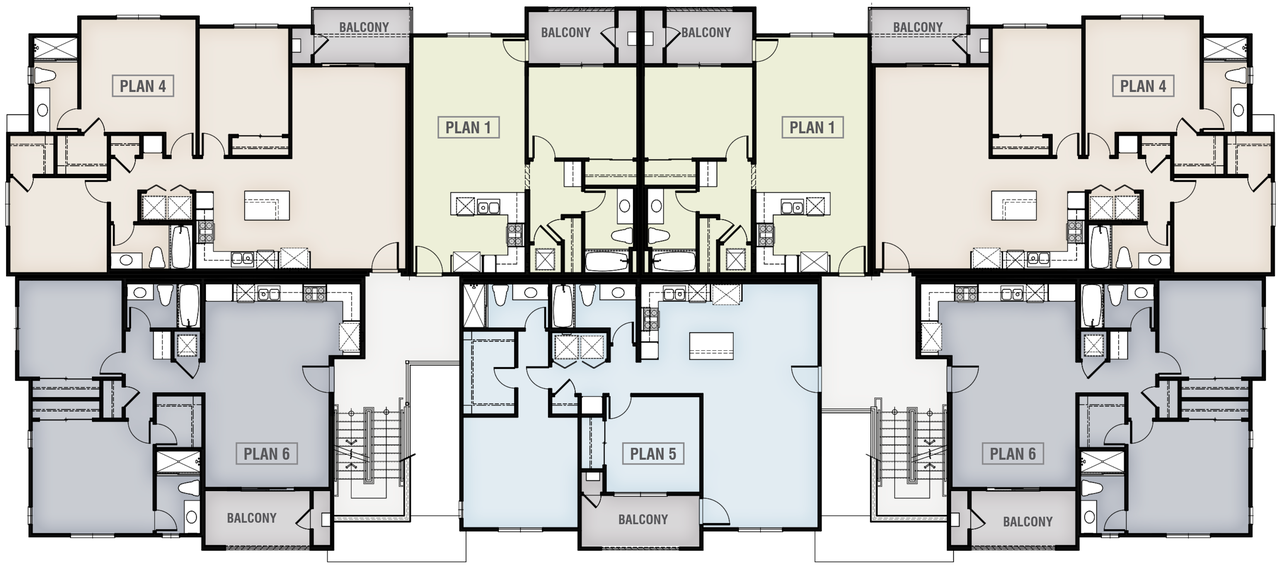
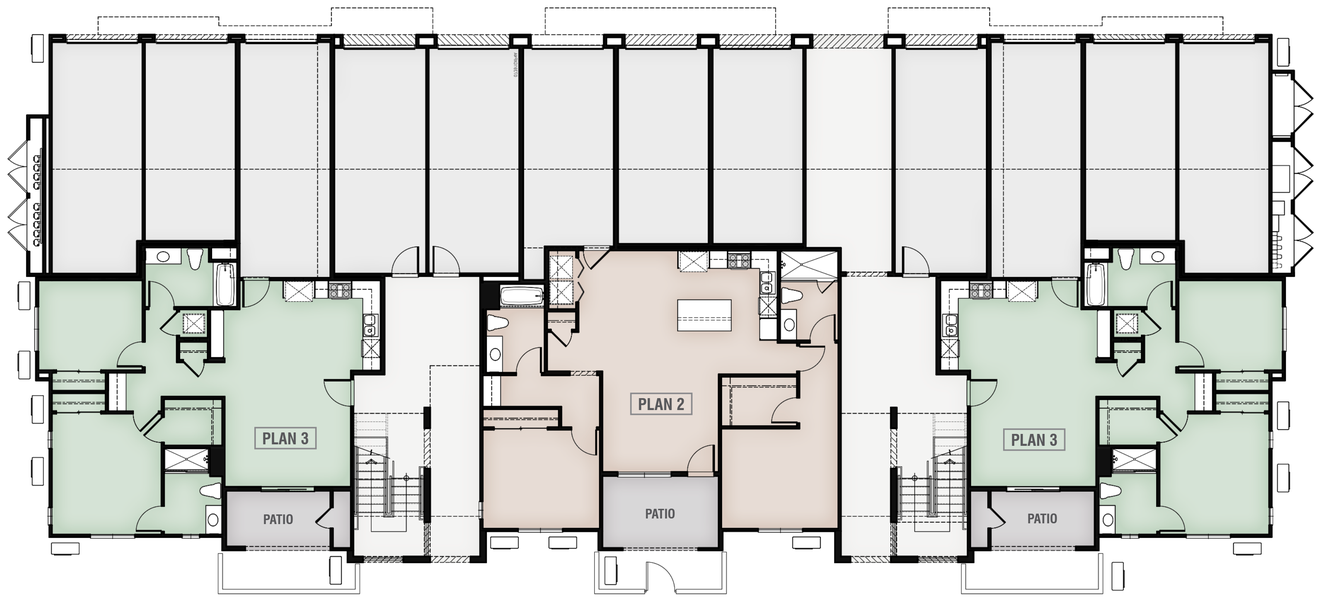
6690



Second Floor



First Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-Plex Total Building Area: 23,712 SF
(Includes all covered areas on all three levels)

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A3

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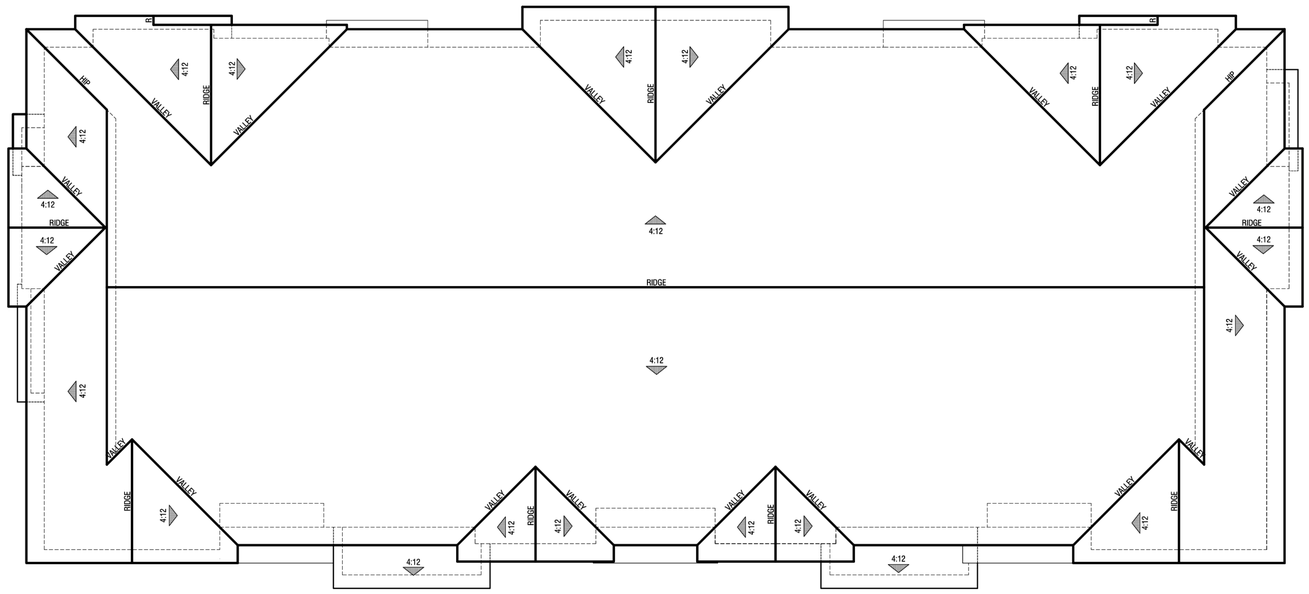

Roof Plan



Third Floor

PLAN KEY

- Plan 1X
- Plan 1
- Plan 2
- Plan 3
- Plan 4
- Plan 5
- Plan 6
- Garages
- Common Space
- Balcony / Patio

17-PLEX | Building Plan

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A4

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6692



Right



Rear



Left



Front

EXTERIOR COLORS & MATERIALS

Color Scheme #1

1. Concrete Slate Roofing - *Eagle, Brown Range*
2. Metal Roof - *Mettalic Silver (K7)*
3. Stucco
4. Insulated Vinyl Windows
5. Board & Batten Vertical Fiber Cement Siding With Corner Boards
6. Board & Batten Gable Siding
7. Fiber Cement Trim
8. Stucco Over Foam Trim
9. Metal Railing
10. Unit Doors
11. Utility Doors
12. Wood Fascia
13. Garage Door: Metal Sectional Roll-up
14. Light Fixture, Refer to Sheet A14

17-PLEX | Building Elevations

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A5

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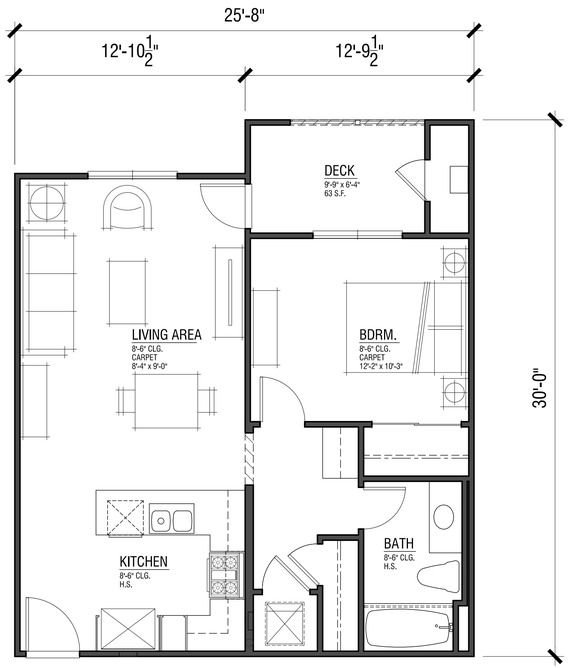

Plan 1
611 SF
1 Bdrm | 1 Bath

UNIT PLANS | Plan 1

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A6

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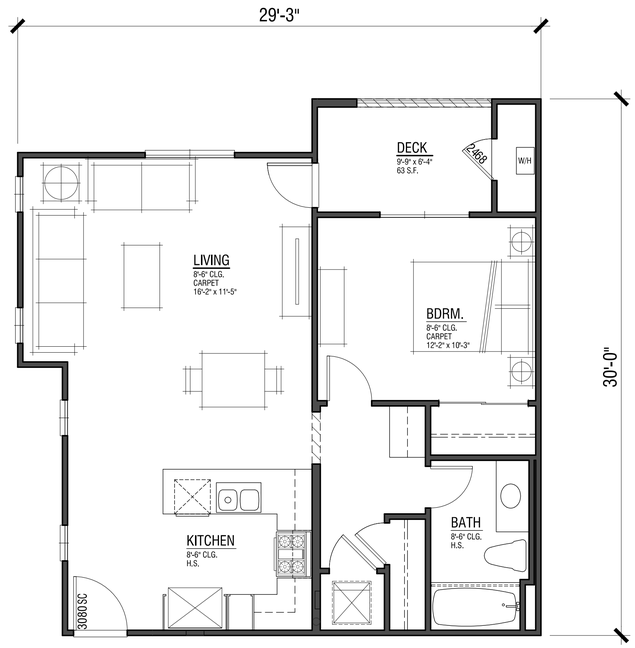

Plan 1X
672 SF
1 Bdrm | 1 Bath

UNIT PLANS| Plan 1X

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A7

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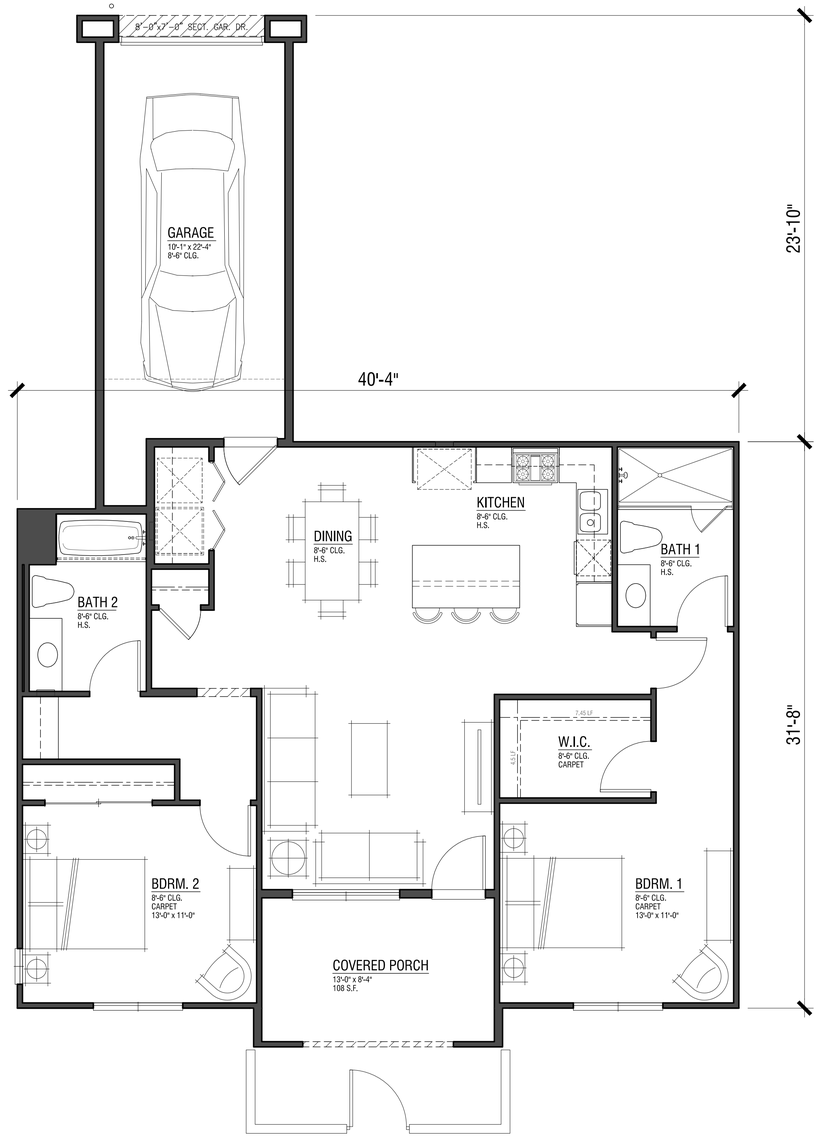

Plan 2
1,106 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 2

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A8

0 4 8 16

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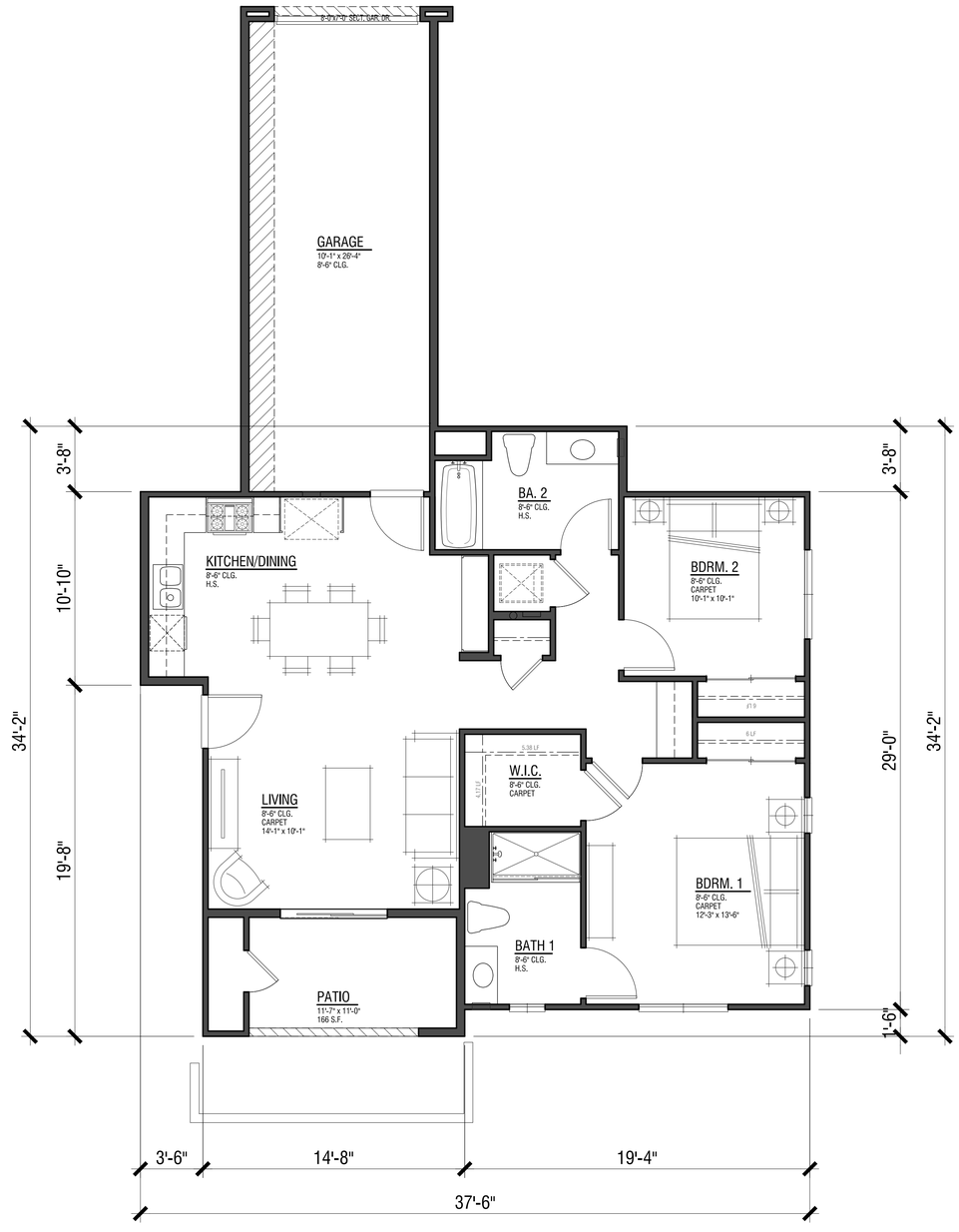
6696



Plan 3
932 SF
2 Bdrm | 2 Bath

UNIT PLANS | Plan 3

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A9

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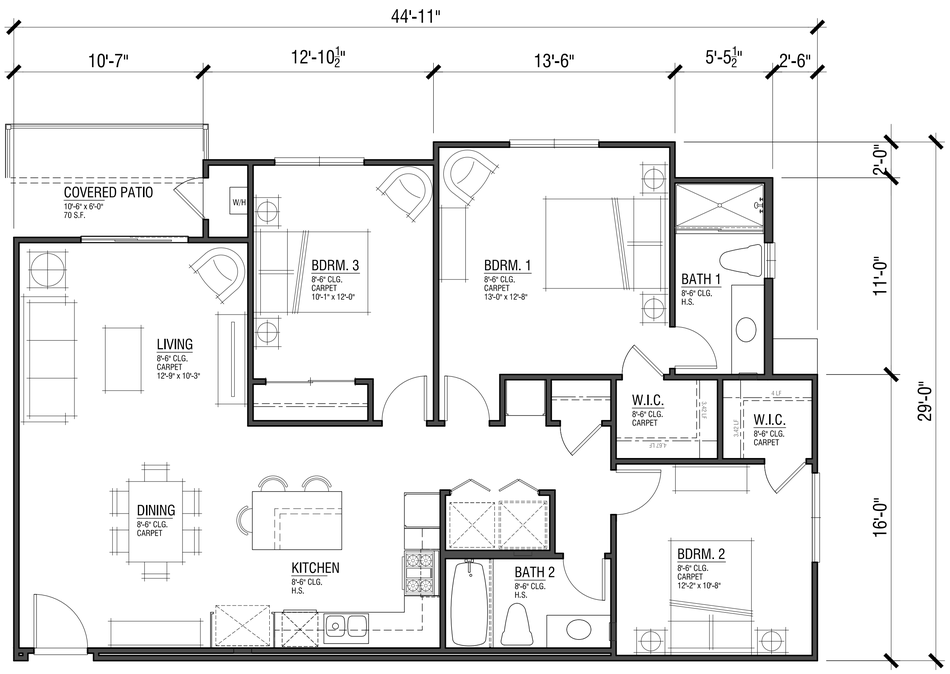

Plan 4
1,113 SF
3 Bdrm | 2 Bath

UNIT PLANS | Plan 4

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

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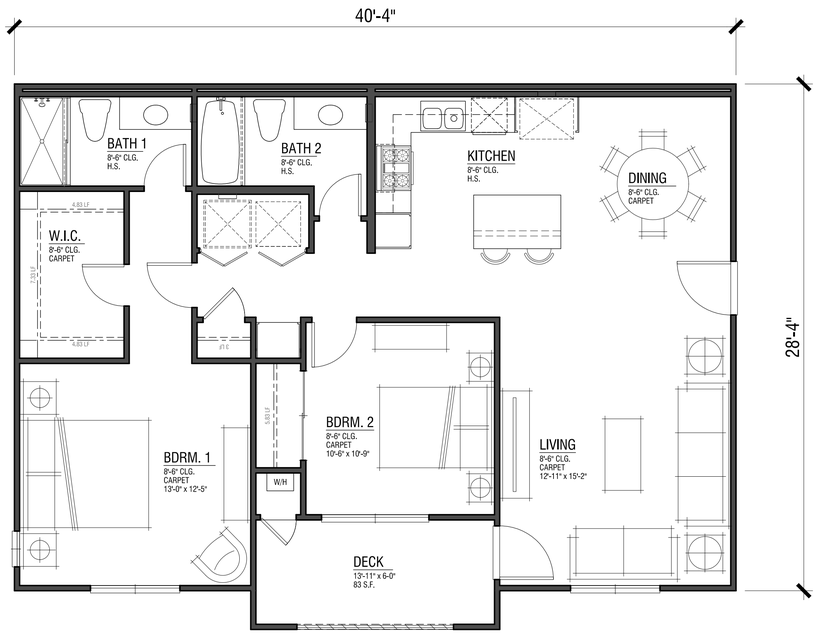

Plan 5
1,024 SF
2 Bdrm | 2 Bath

UNIT PLANS| Plan 5

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

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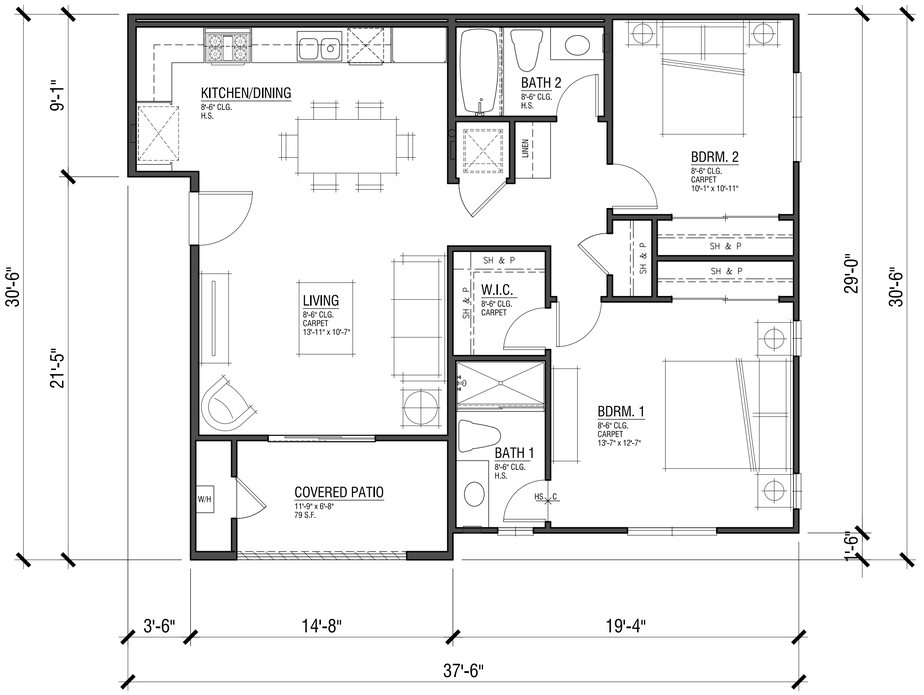

Plan 6

883 SF

2 Bdrm | 2 Bath

UNIT PLANS | Plan 6

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A12

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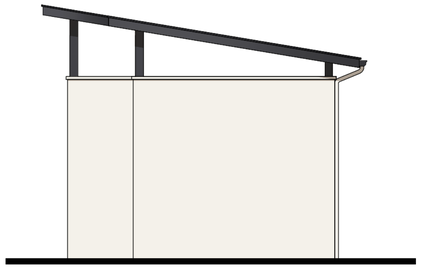
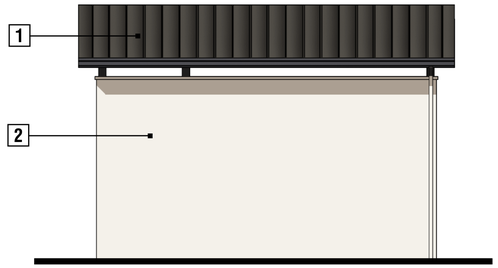
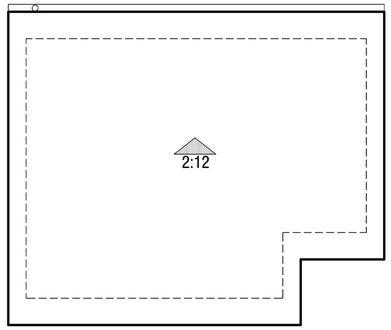


Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Roof Plan



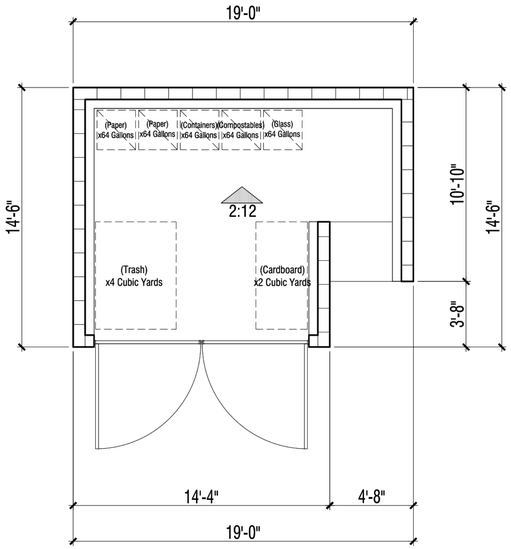
Carport Sample



Trash Enclosure Left



Trash Enclosure Front



Trash Enclosure
Floor Plan

EXTERIOR COLORS & MATERIALS

Color Scheme #4

1 Metal Roof - *Dark Bronze (50)*
2 Stucco over CMU
3 Metal Door
4 Cane Bolt

Trash Enclosure & Carport Sample

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A13

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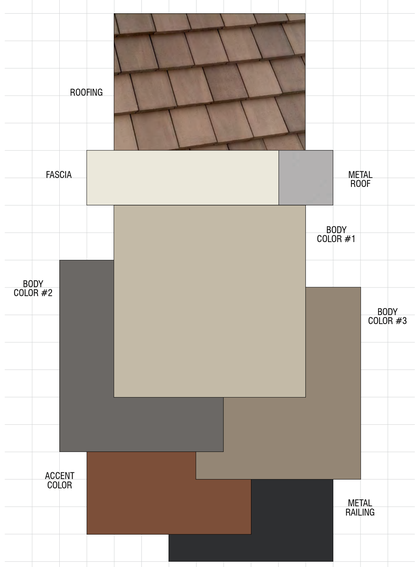
Muli-Family
Color Scheme #1



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4689 Brown Range Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0026	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to)*: Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4704 Dusty Trail Rider	Kelly Moore
Body Color #2 *(applied to)*: Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 5826 Volcanic Rock	Kelly Moore
Body Color #3 *(applied to)*: Stucco	KM 5785 Country Club	Kelly Moore
Trim Color *(applied to)*: Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 4786 Fresh Linen	Kelly Moore
Accent Color *(applied to)*: Unit Doors	KM A68 Leather Satchel	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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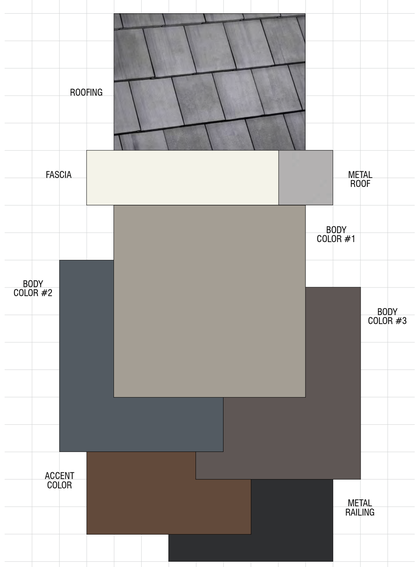
Muli-Family
Color Scheme #2



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4503 Sierra Madre Ref: .11 Emi: .92 A.SRI: 12 CRRC: 0918-0111	Eagle
Metal Roof *(factory finish)*	Metallic Silver (K7)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to)*: Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 4936 Smoky Day	Kelly Moore
Body Color #2 *(applied to)*: Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM 4882 Titanium Gray	Kelly Moore
Body Color #3 *(applied to)*: Stucco	KM 4924 Thunderstruck	Kelly Moore
Trim Color *(applied to)*: Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM W48 Whipped Cream	Kelly Moore
Accent Color *(applied to)*: Unit Doors	KM A76 Log Cabin	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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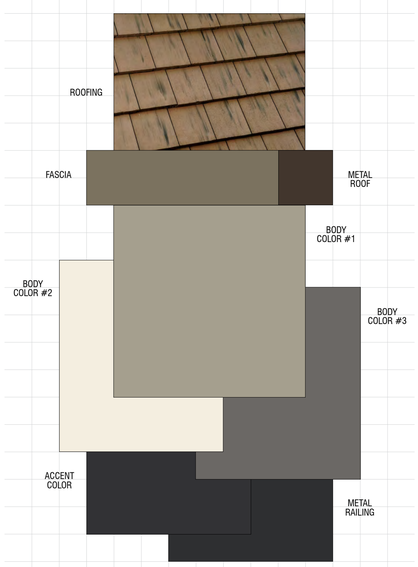
Multi-Family
Color Scheme #3



Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4502 Arcadia Canyon Brown Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0043	Eagle
Metal Roof *(factory finish)*	Medium Bronze (H4)	Metal Sales or Equal
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Body Color #1 *(applied to)*: Low Wall @ Covered Patio Entry, Stucco Columns, Stucco, Trim Band @ Stucco	KM 5771 Apple Hill	Kelly Moore
Body Color #2 *(applied to)*: Board & Battens, Corner Boards @ Board & Battens, Gable Siding, Trim Band @ Board & Battens	KM W23 Bechamel	Kelly Moore
Body Color #3 *(applied to)*: Stucco	KM 5826 Volcanic Rock	Kelly Moore
Trim Color *(applied to)*: Barge Boards, Eaves, Fascia, Garage Doors, Utility Doors, Stucco, Trim Band @ Stucco, Trim	KM 5769 Backcountry	Kelly Moore
Accent Color *(applied to)*: Unit Doors	KM A87 Stiletto	Kelly Moore
Metal Railing	KM 4883 Black Cat	Kelly Moore
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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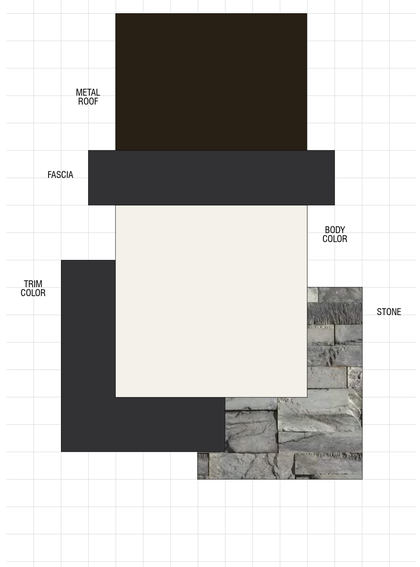
Recreation Buildings
Color Scheme #4



Material	Color	Manufacturer
Metal Roof *(factory finish)*	Dark Bronze (50)	Metal Sales or Equal
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	Kelly Moore
Vinyl Windows *(factory finish)*	White	Ply Gen or Equal
Manufactured Stone *(1/8" standard raked joints)*	Shadowplay Craft Split Modular	Creative Mines or Equal
Mortar @ Stone	Misty Cove	Orco
Body Color *(applied to)*: Board & Battens, Corner Boards @ Board & Battens, Louvered Panels, Posts, Stucco, Utility Doors, Trim	KM W46 Picker Fence	Kelly Moore
Trim Color *(applied to)*: Barge Boards, Braces, Chimney Cap, Eaves, Entry Door w/ Panel System, Fascia, Metal Door @ Trash Enclosure, Steel Beams @ Trash Enclosure	KM A87 Stiletto	Kelly Moore

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Corie Rath (925) 463-1700

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Lighting Fixture

Manufacturer: Sea Gull Lighting
Product Name: Bancroft Collection
(One Light Outdoor Wall Lantern)
Product Number: 89316PBLE-12
Finish: Black Finish, Smooth White Glass
Dimensions: W 9” x H 12-1/2”

Exterior Color & Materials | Lighting Fixture

RH HESS DEVELOPMENT

OAT HILL MULTI-FAMILY – PARCEL B

AMERICAN CANYON, CALIFORNIA

A14

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CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Sent by e-mail to:
John McDowell, john.mcdowell@countyofnapa.org

May 6, 2021

John McDowell
Napa County Airport Land Use Commission Staff
Napa County Planning, Building and Environmental Services Department
1195 Third St – Suite 210
Napa, CA 94559

Subject: Oat Hill Project Application (P21-00056) for the Napa County Airport Land Use Commission – 2nd Response

Dear Mr. McDowell,

Staff received the incompleteness letter for the Oat Hill Project dated April 23, 2021. Please see the following for responses.

1. Please provide the Land Use and Noise Element of the current City of American Canyon General Plan, either by publicly accessible link to the City's webpages or as a PDF document. In addition, please verify that the proposed General Plan Amendment for the project is limited to a land use map change with no corresponding changes to current General Plan's airport compatibility related policies, exhibits and tables which indicate residential uses as prohibited within Airport Land Use Compatibility Zone D.

Response #1: Electronic copies of the Land Use and Noise Elements of the current American Canyon General Plan was provided to Mr. John McDowell by sharefile on April 26, 2021. Staff confirms that the Oat Hill project is limited to a land use map change with no corresponding changes to the City's General Plan airport compatibility related policies, exhibits, and tables.

2. Please provide the ordinance and City Council staff report for the City's previous action rescinding the Airport Compatibility Overlay Zoning District, which once applied to all City parcels located within the Airport Influence Area for Napa County Airport including the subject property for this proposal.

Response #2: To be provided separately by the City Attorney.

3. The upper portion of the project site penetrates navigable airspace generally above 183 ft. in elevation which triggers FAA (FAR Part 77) aircraft hazard obstruction review, and as set forth in

ALUCP Policy 3.3.4. Please provide documentation of compliance with the FAA (FAR Part 77) notice of proposed construction process.

Response #3: To be provided separately by the Applicant's CEQA consultant.

4. Please provide copies, preferably as a PDF, of the Mead & Hunt (2005) and Walter Gillfilland and Associates (2005) studies and the City's September 18, 2020 comment letter titled *Item 9A – Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND)* cited in your documents as supporting conversion of this project site to residential uses.

Response #4: Applicant's CEQA consultant will provide the Mead & Hunt (2005) and Gillfilland (2005) studies. See attached file for the City's comment letter on the ISMND for the Terminal Area Redevelopment.

5. Please update the noise impact analysis to address potential for noise impacts resulting from single event aircraft overflight.

Response #5: To be provided separately by the Applicant's CEQA consultant.

6. Please provide building and site densities (persons per acre) calculations.

Response #6: Please see the table below for density and other site related information. For persons per acre, staff used ACMC Chapter 18.44, which estimates population at 3.49 persons per dwelling unit.

Table 1 – Parcel A (206 units) Development Standards

Development Standard (RH-1 Zone)	**Required**	**Provided**
Minimum Lot Size	20,000 SF	13.6 acres
Max Density (dwelling units per acre)	16 DU/AC	15.1 DU/AC
Persons per acre (estimated at 719 people)	N/A	52.9 persons / AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	900+ feet
Max Lot Coverage	50%	17.6%
Max Building Height	42 feet	40 feet

Table 2 – Parcel B (85 units) Development Standards

Development Standard (RM Zone)	**Required**	**Provided**
Minimum Lot Size	20,000 SF	7.2 acres
Max Density	12 DU/AC	11.8 DU/AC
Persons per acre (estimated at 297 people)	N/A	41.2 persons / AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	300+ feet
Max Lot Coverage	50%	13%
Max Building Height	42 feet	40 feet

Sincerely,



William He, AICP
Associate Planner, Community Development Department

Attachments: 1. City's comment letter on the ISMND for the Terminal Area Redevelopment.

EC: Rick Hess, RH Hess Development Co.
Brent Cooper, AICP, Community Development Director
William D. Ross, City Attorney

CITY OF AMERICAN CANYON
CITY MANAGER'S OFFICE

DATE: September 18, 2020

TO: Minh Tran, County Executive Officer

C/C: Greg Baer, Airport Manger
Steve Lederer, Public Works Director

RE: Item 9A – Comments on the *Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND)*

As Napa County's largest aviation asset, the City of American Canyon recognizes the importance of the Napa County Airport and supports efforts to chart a course for its long-term economic sustainability. Given the fervent pace of technological innovation occurring in the Personal Aerial Vehicle space and its location proximate to potential future extension of Sonoma-Marin Area Rail Transit (SMART) to Solano County[1], it is exciting to consider the future of a re-imagined Napa County Airport from a regional context and the City applauds the Board of Supervisor's desire to invest in South County transportation infrastructure.

Notwithstanding the excitement of future expansion of the Airport, the City submits the following comments regarding the *Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND).* Specifically, our comments relate to the following issues: water and noise.

As the potable water purveyor to the Airport, the City is unable to determine the amount of water needed by the future uses based on the information provided in the IS/MND. While the IS/MND analyzes the amount of *solid* waste generated by the land use increase (Table 26), it does not analyze the amount potable water needed. Thus, the statement that the potential impact is "Less Than Significant" is not supported by substantial evidence.

While consistency with the City's Zero Water Footprint Policy (ZWF Policy) is a perquisite for the issuance of a Will-Serve Letter, without sufficient analysis of water demand, it is not possible to determine whether this reasonably achievable. Importantly, consistency with the City's ZWF Policy is not also identified as a Mitigation Measure. The City respectfully suggests a different approach to environmental review on this topic – namely, the IS/MND should identify the impact as "Less than Significant with Mitigation Incorporated" and identify a Mitigation Measure requiring consistency with American Canyon's ZWF Policy.

[1] https://scta.ca.gov/wp-content/uploads/2019/09/SMART-Passenger-Rail-Service-Novato-to-Suisun-City-Report_reduced.pdf

Regarding potential noise impacts, it is noted residential uses are considered "noise-sensitive" and there are several existing residences south of the Airport. The IS/MND demonstrates the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. The IS/MND concludes that in areas where the 65 CNEL threshold is exceeded, noise-sensitive land uses are compatible only if specified noise level reductions are secured, but further concludes all types of land uses are acceptable in areas outside the Noise Annoyance Zone (ie. below the 65 CNEL threshold)[2]. It is worth noting the Airport Land Use Compatibility Plan includes a significantly larger boundary for Zone D – including lands within American Canyon - that are well below the 65 CNEL threshold.

The City is in the process of considering residential development on a portion of these lands. The City agrees the IS/MND contains the substantial evidence to support a reduced "Zone D" and notes this evidence forms the basis for "Impact Analysis XIV.(a-b): No Impact"[3]. Likewise, this evidence provides the basis for subsequently accurately depicting a reduced Zone D through revisions to the Airport Land Use Compatibility Plan – albeit by separate action at a later date by the Board.

Thank you for the opportunity to provide comment on the IS/MND and best of luck in your pursuant of a second Fixed Base Operator.

Regards,



Jason B. Holley, City Manager

[2] 14 CFR 150, Airport Noise Compatibility Planning.

[3] *"…… The proposed Project is Non-Residential in nature and will provide facilities for up to two FBOs. It will not cause displacement of existing community members or housing, nor will it necessitate the construction of temporary housing*

May 7, 2021

VIA E-MAIL

John McDowell
ALUC Staff Liaison
Napa County Airport Land Use Commission
1195 Third Street, Room 210
Napa, California 94559

Re: Supplement to May 6, 2021 Letter of William He Re: Oat Hill Project Application (P21-00056) for the Napa County Airport Land Use Commission - 2nd Response

Dear Mr. McDowell:

This communication supplements and incorporates the May 6, 2021 communication from William He, Associate Planner, Community Development Department of the City of American Canyon ("City"), specifically responding to questions from your April 23, 2021 communication related the referral to the Napa County Airport Land Use Commission ("ALUC") of the Oat Hill Multi-Family Project ("Project") for a consistency determination with the Napa County Airport Land Use Compatibility Plan ("ALUCP").

SCOPE OF ALUC REVIEW

The Public Utilities Code ("PUC"), specifically the State Aeronautics Act gives the ALUC the ability to review local land use decisions such as the Project.

Under PUC Section 21676(b), prior to the amendment of its general plan related to a project within the vicinity of the Napa Airport identified in the ALUCP, the City must refer the proposed action to the ALUC. As part of this referral, the City must provide analysis of project consistency with the ALUCP.

PUC Section 21670 provides that the intent of the Aeronautics Act is to prevent the creation of new noise and safety problems and to protect public health, safety, and welfare by ensuring the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards.

The ALUC thus reviews proposed projects for consistency; it does not approve or deny the projects.

SUPPLEMENT TO RESPONSES

The following are responses 2, 3, 4, and 5 referenced in the He communication:

2. Please provide the ordinance and City Council staff report for the City's previous action rescinding the Airport Compatibility Overlay Zoning District, which once applied to all City parcels located within the Airport Influence Area for Napa County Airport including the subject property for this proposal.

Response 2: There are no official records of a City action rescinding the Airport Compatibility Overlay Zoning District.

The General Plan and Zoning Code was brought into conformance with the ALUCP back in 2010. Attached as Exhibit A are the General Plan Amendment and Zoning Ordinance that brought about the conformance. There is no action creating the Airport Compatibility Overlay Zoning District.

Prior to Council adoption but after Planning Commission review, per ALUC policy, the ALUC considered these changes and deemed them consistent with the ALUCP on February 3, 2010. Attached as Exhibit B is a copy of the confirming ALUC letter.

On January 21, 2020 the City Council adopted a resolution (Resolution 2020-06) declaring that residential uses are the best use of the Rick Hess property on Oat Hill. In that resolution the City noted the next steps that require a full project approval process be followed to allow for any proposed change of use. The request for an ALUC consistency determination is part of that process. Attached as Exhibit C is a copy of the January 21, 2020 resolution.

3. The upper portion of the project site penetrates navigable airspace generally above 183 ft. in elevation which triggers FAA (FAR Part 77) aircraft hazard obstruction review, and as set forth in ALUCP Policy 3.3.4. Please provide documentation of compliance with the FAA (FAR Part 77) notice of proposed construction process.

Response 3: The applicant will be conditioned by the City to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration and to receive an FAA Determination of No Hazard to Air Navigation, prior to receiving any permits associated with the Project. The applicant has indicated that they will be submitting the FAA Form 7460-1 for the project in the coming week and will provide the FAA Aeronautical Study numbers for each of these cases as information to the ALUC. While it is unlikely that the FAA Determination of No Hazard will be received by the June 16, 2021 ALUC hearing on the

Project, the City would accept a conditionally consistent determination from the ALUC reiterating the City's requirement for an FAA Determination of No Hazard to Air Navigation.

> *4. Please provide copies, preferably as a PDF, of the Mead & Hunt (2005) and Walter Gillfilland and Associates (2005) studies and the City's September 18, 2020 comment letter titled Item 9A - Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND) cited in your documents as supporting conversion of this project site to residential uses.*

Response 4. Attached as Exhibits D and F are the referenced Mead & Hunt and Gillfilland studies and supporting communications. The IS/MND for the Terminal Area Redevelopment was provided in the referenced communication by Mr. He.

> *5. Please update the noise impact analysis to address potential for noise impacts resulting from single event aircraft overflight.*

Response 5. There is no new updated analysis regarding noise impacts resulting from single event aircraft overflight.

As previously furnished to the ALUC Staff, a portion of the Oat Hill Project Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses.[1] Noise and safety criteria were analyzed in the IS/MND prepared for the Project that determined that, based on the IS/MND recently prepared for the Napa County Airport Terminal Area Redevelopment project ("Terminal IS/MND"), the Airport's 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary is located entirely within the Airport property and does not cover any area of the Oat Hill Project.[2]

Stated differently, evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the Project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D.

[1] ALUCP, Table 3-2, p. 46.

[2] Neither the ALUC nor ALUC Staff commented on the Project MND, during the public review period, and the City was entitled to assume that the ALUC Staff silence indicated it had no comment. *Cf. Cleary v. County of Stanislaus,* 118 Cal.App.3d 348, 355 (1981).

As previously indicated, the City Manager pointed this out in a September 20, 2020 comment to on the Draft Terminal IS/MND[3] for the Napa County Terminal Area Redevelopment project:

> Regarding potential noise impacts, it is noted residential uses are considered "noise-sensitive" and there are several existing residences south of the Airport. The IS/MND demonstrates the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under *existing* and future conditions. *The IS/MND concludes that in areas where the 65 CNEL threshold is exceeded, noise-sensitive land uses are compatible only if specified noise level reductions are secured, but further concludes all types of land uses are acceptable in areas outside the Noise Annoyance Zone (i.e., below the 65 CNEL threshold)*[4]. It is worth noting the Airport Land Use Compatibility Plan includes a significantly larger boundary for Zone D – including lands within American Canyon - that are well below the 65 CNEL threshold. (Emphasis added).

Anticipating the City need for new housing consistent with its current Housing Element, the City Manager pointed out that the existing ALUCP Zone D was acknowledged by the Terminal IS/MND to provide substantial evidence supporting a reduced Zone D:

> The City is in the process of considering residential development on a portion of these lands. The City agrees the IS/MND contains the substantial evidence to support a reduced "Zone D" and notes this evidence forms the basis for "Impact Analysis XIV.(a-b): No Impact". Likewise, this evidence provides the basis for subsequently accurately depicting a reduced Zone D through revisions to the Airport Land Use Compatibility Plan – albeit by separate action at a later date by the Board.

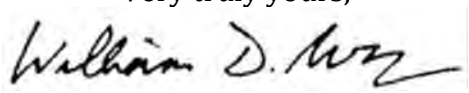
Further, a noise report prepared for the Project by Saxelby Acoustics demonstrates that the exterior noise levels within the Project would not exceed 65 dBA for outdoor activity areas, nor would interior noise levels within both parcels exceed the 45 dBA standards for interior noise exposure levels. Thus, noise impacts typically associated with Zone D *do not impact the Project*. The Saxelby Acoustics report is part of the Project MND which was furnished to the ALUC Staff on February 8, 2021.

[3] The City Comment Letter was provided in the communication by Mr. He.

[4] This footnote from the quoted text references 14 CFR 150, Airport Noise Compatibility Planning.

If there are any additional questions prior to the June 16, 2021 ALUC review, please contact any of the City or applicant representatives.

Very truly yours,



William D. Ross
City Attorney

enclosures

cc: Jason B. Holley, City Manager

Brent Cooper, Community Development Director

William He, Associate Planner

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EXHIBIT A

RESOLUTION # 2010-47

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING GENERAL PLAN AMENDMENT GP10-0001 TO ACHIEVE CONSISTENCY WITH THE NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the city's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, Section 65358 of the State Planning and Zoning Law provides that the City Council may amend all or part of the General Plan if it deems the amendment to be in the public interest; and

WHEREAS, the City's General Plan is inconsistent with the County's Airport Land Use Compatibility Plan as revised in 1999, requiring the revision and addition of policies related to Airport Land Use Compatibility; and

WHEREAS, pursuant to the California Environmental Quality Act, the proposed General Plan Amendments are exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies; and

WHEREAS, the City of American Canyon Planning Commission unanimously recommended adoption of General Plan Amendment GP-10-0001 on December 17, 2009; and

WHEREAS, the Napa County Airport Land Use Commission unanimously deemed General Plan Amendment GP-10-0001 consistent with the Napa County Airport Land Use Compatibility Plan on May 3, 2010; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon City Council on May 18, 2010, at which time all those in attendance were given the opportunity to speak on the proposal; and

WHEREAS, the City Council considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT RESOLVED that the City Council does hereby:

1. Find, based on the following evidence and as required by State Law on General Plan Amendments:
   a. The proposed amendment is deemed to be in the public interest.

      The proposed amendment is in the public interest, as it will render the General Plan consistent with state law concerning airport compatibility, and county polices and regulations of the Airport Land Use Commission and the Airport Land Use Compatibility Plan.

   b. The proposed amendment is consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

      Objective 1.27 states: "Ensure that lands in American Canyon are developed in a manner which protects them from the noise and operational impacts of and does not adversely constrain the Napa County Airport." The revisions to the General Plan make the plan consistent with currently applicable policies and regulations within areas affected by the airport. The amendments are compatible with and there are no conflicts with the rest of the General Plan.

   c. The potential impacts of the proposed amendment in the land use designation have been assessed, and have been determined not to be detrimental to the public health, safety, or

welfare.

There are no changes to the land use designations of the General Plan. When the amendment is adopted, the plan will be consistent with state law and current county regulations for the Airport Compatibility Zones. Potential impacts will not be detrimental to the public health, safety, or welfare.

d. The proposed amendment has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

The amendment has been processed in accordance with CEQA. The project is exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies, as the authority for reviewing land use compatibility for discretionary applications is moving from the County to the City as a result of this amendment making the General Plan consistent with the County Airport Land Use Compatibility Plan.

2. Adopt the following General Plan Amendment (GP10-0001):

Land Use Element:

CITYWIDE LAND USE POLICY: KEY ISSUES

The following prescribes goals, objectives, and policies applicable to development in general, regardless of type, density, or location. Pertinent policies must be considered for any land use or development activity.

AIRPORT COMPATIBILITY

Goal

1N **Ensure the compatibility of development within American Canyon with the Napa County Airport.**

Objective

1.27 Ensure that lands in American Canyon are developed in a manner which protects them from the hazards, noise and operational impacts of, and does not adversely constrain, the Napa County Airport.

Policies

1.27.1 Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Compatibility Plan (ALUCP) and **Tables 1-1** and **1-2** for areas within the jurisdiction of the Napa County Airport Land Use Commission (ALUC), as depicted on **Figure 1-3**. (*I 1.1, I 1.4, I 1.5, I 1.8,* and *I 1.11*)

1.27.2 Review all discretionary applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate compatibility policies, use, density and design criteria provided in the ALUCP through Design Permit and/or Conditional Use Permit reviews. (*I 1.11*)

1.27.3 Require the dedication of avigation or overflight easements and/or deed restrictions and real estate disclosure notifications, consistent with the requirements of the ALUCP, when new development or subdivisions are permitted on property within the jurisdiction of the Napa County Airport Land Use Commission (ALUC).

1.27.4 Limit building heights for airspace protection in accordance with Federal Aviation Regulations (FAR) Part 77.

1.27.5 To the extent feasible, development in Zones C and D shall be clustered to preserve open land for safety purposes in accordance with the ALUCP.

1.27.6 Give consideration to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining the acceptable locations for residential uses in Zone E.

1.27.7 Refer helipad proposals anywhere within the City's Planning Area to the ALUC for a consistency determination.

1.27.8 Refer all General Plan, Zoning Ordinance, Subdivision Ordinance, Specific Plan and building regulation amendments that affect areas within the ALUCP zones to the ALUC for a consistency determination.

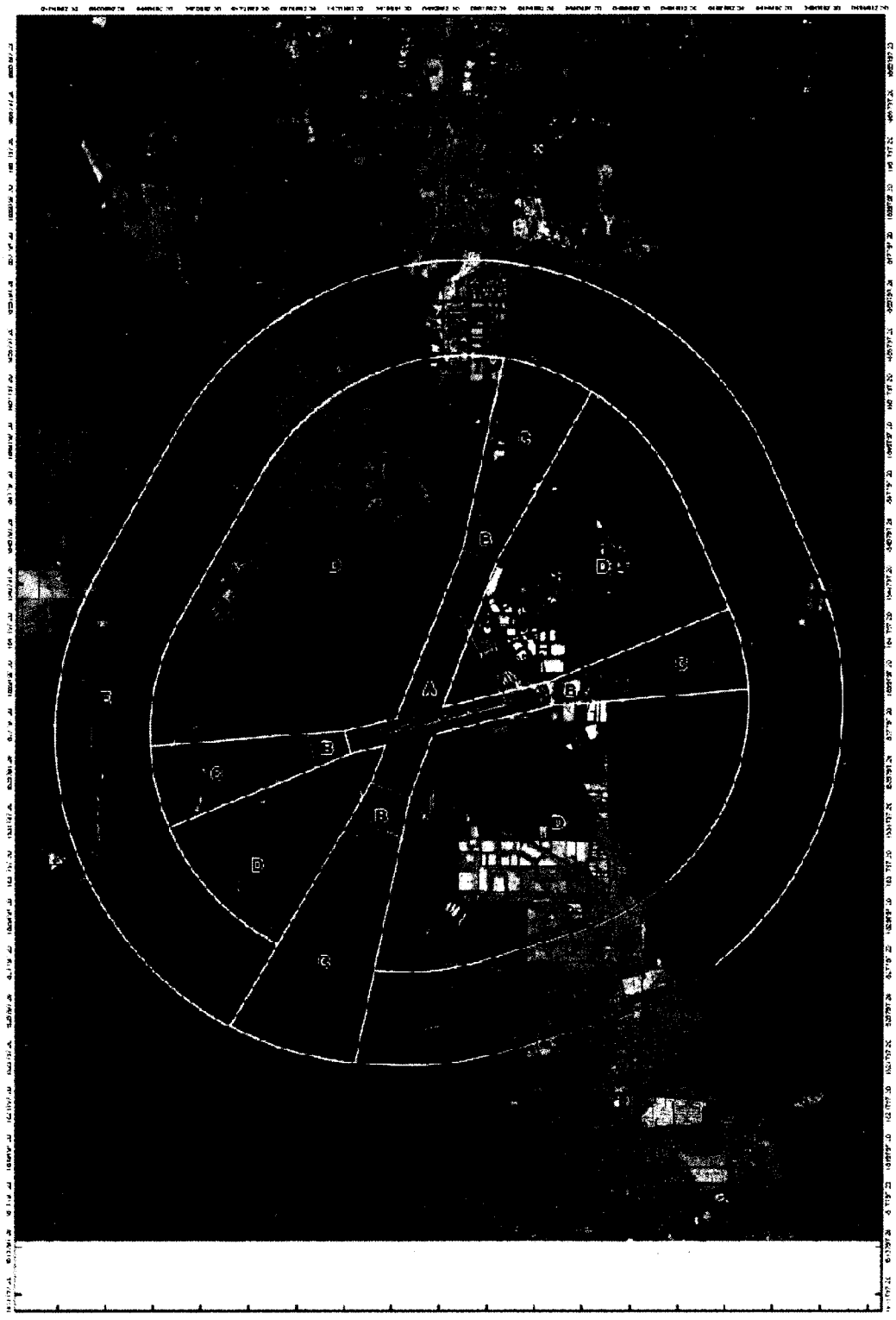
1.27.9 Coordinate with the Napa County Airport Land Use Commission (ALUC) to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) businesses or residents of the City of American Canyon. (*I 1.22*)

1.27.10 Work with the ALUC to ensure that airport vehicular access does not adversely impact the City of American Canyon. (*I 1.22*)

1.27.11 Coordinate with the ALUC to ensure that any expanded operations of the Airport do not adversely impact existing land uses and development in the City of American Canyon. (*I 1.22*)

1.27.12 Work with the ALUC and other appropriate agencies to ensure that emergency preparedness plans are maintained to protect American Canyon residents and development. (*I 1.22*)

1.27.13 Recognize the importance of the Napa County Airport to City residents, including the economic, transportation and recreational benefits, and ensure that land use decisions rendered for this area do not negatively impact Airport operations (*I 1.22*).



Napa County Airport
Land Use Compatibility Zones

FIGURE 1-3

TABLE 1-1
Compatibility Zone Definitions

ZONE A	Runway Protection Zone: Dimensioned to encompass the current and future Runway Protection Zones for the runways of the Napa County Airport, as defined under FAA regulations and shown on Figure 3. The zones also include areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
ZONE B	Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway. Approach slopes are designated on the Airport Compatibility Zones map, Figure 1-3. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
ZONE C	Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for the Napa County Airport as illustrated on Figure 1-3. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

TABLE 1-2

Airport Vicinity Land Use Compatibility Criteria

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES[8]		
			Residential[1]	Other Users (people/ac)[2]	
				In Structures	Total in and out of Structures
A[9]	Runway Protection Zone and Primary Surface	• High Risk • High noise levels • Low overflights below 50' AGL	0	0	10
B	Inner Approach/ Departure Zone	• Substantial risk • High noise levels • Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	• Moderate risk • Substantial noise • Low overflights below 300' AGL	0	50	75
D	Common Traffic Pattern	• Moderate risk • Frequent noise intrusion • Routine overflights below 1000' AGL	0	100	150
E	Other Airport Environs	• Low risk • Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.
3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.
6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive uses (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable locations of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or are designated for acquisition in the Airport Master Plan.
10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g. landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.
11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

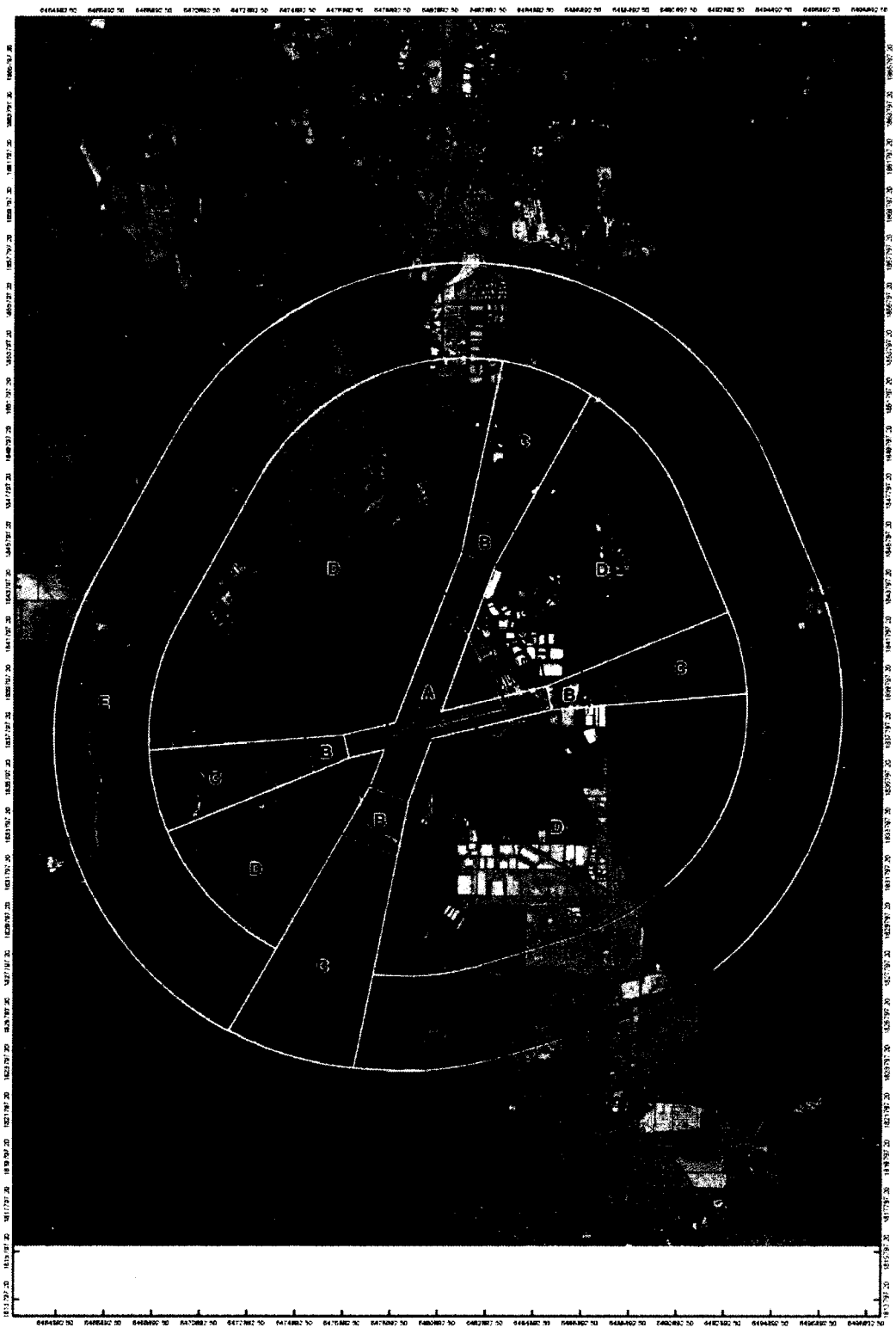
TABLE 1-2 (cont.)

Zone	Prohibited Uses	Other Development Conditions[3]	Examples of Normally Acceptable Uses[4]	Examples of Uses not Normally Acceptable[5]
A	• All residential uses • Any assemblage of people • Any new structure which exceeds height limits • Noise-sensitive uses • Uses hazardous to flight[10]	• Avigation easement required	• Pasture, open space • Aircraft tiedowns • Auto parking • Most agricultural uses	• Heavy poles, signs, large trees, etc. • Ponds
B	• All residential uses • Any noise-sensitive uses •Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10]	• Avigation easement required • Structures to be as far as possible from extended runway centerline • Clustering is encouraged to maximize open land areas • Minimum NLR of 25 dBA in office buildings[6] • Building envelopes and approach surfaces required on all subdivision maps and development plans	• All uses from Zone A • Parks with low-intensity uses, golf courses • Nurseries • Mini-storage	• Retail uses • Office uses (except as accessory uses) • Hotels, motels, resorts • Theaters, assembly halls, and conference centers • Ponds
C	• All residential uses • Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10] • Landfills	• Avigation easement required • Structures to be set back as far as possible from extended centerline • Clustering is encouraged to maximize open land areas • Building envelopes and approach surfaces required on all subdivision maps • NLR measures may be required for noise-sensitive uses (offices)[6]	• All uses from Zone B • Warehousing and low-intensity light industrial • Small retail uses • Outdoor recreation uses; marina, ballpark • Office uses	• Large retail buildings • Hotels, motels, resorts, health clubs • Restaurants, bars • Multi-story buildings • Theaters, assembly halls, and conference centers • Ponds
D	• All residential uses • Uses hazardous to flight[10]	• Overflight easement or deed notice required[11] • Building envelopes and approach surfaces required on all development plans within 100 feet of approach zones • Clustering is encouraged to maximize open land areas • NLR measures may be required for noise-sensitive uses[6]	• All uses from Zone C • Most nonresidential uses • Accessory daycare centers	• Schools, libraries, hospitals, nursing homes • Large shopping malls • Amphitheaters • Ponds
E	• Noise-sensitive outdoor uses	• Overflight easement or deed notice required[11]	• Any permitted use	• Amphitheaters • Landfills • Ponds

Noise Element:

STATUTORY REQUIREMENTS
[no changes]

OPPORTUNITIES AND CONSTRAINTS (ISSUES)
[no changes]



Napa County Airport
Land Use Compatibility Zones

FIGURE 11-1

OVERVIEW OF NOISE POLICIES

[no changes]

GOALS, OBJECTIVES AND POLICIES

[no changes]

NOISE ORDINANCES, REGULATIONS, AND GUIDELINES

[no changes]

AMBIENT NOISE IMPACTS ON THE COMMUNITY

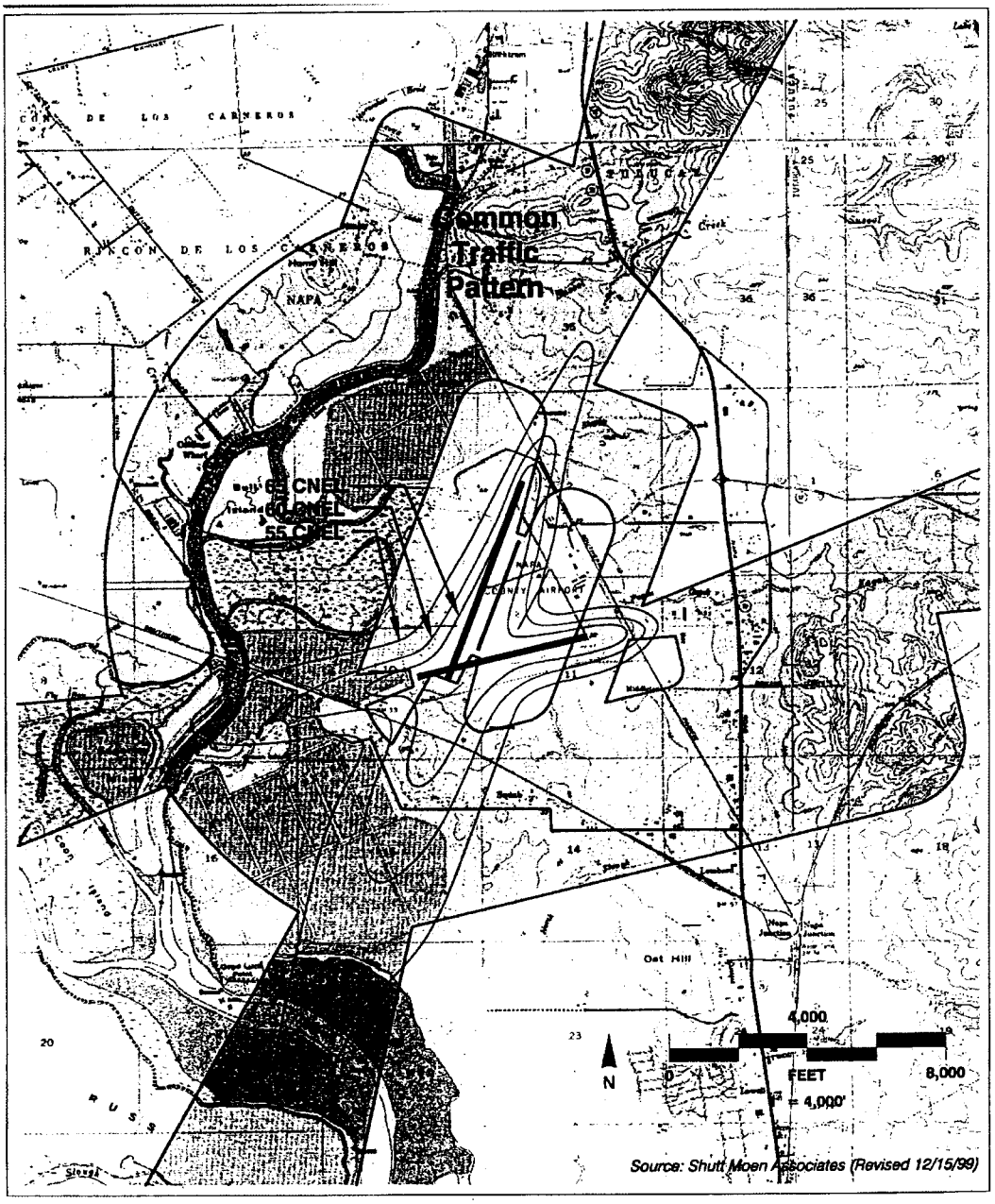
[no changes].

FIGURE 11-2 *[no changes]*

FIGURE 11-3 *[no changes]*

FIGURE 11-4 *[no changes]*

FIGURE 11-4a *[no changes]*



NAPA COUNTY
AIRPORT NOISE IMPACTS

FIGURE 11-5

TRAFFIC-RELATED NOISE IMPACTS
[no changes]

AIRCRAFT-RELATED NOISE IMPACTS

Objective

11.4 Minimize the adverse impacts of aircraft generated noise on residential and other "noise-sensitive" uses.

Policies

11.4.1 Restrict the development of uses located within the 65 CNEL contour of Napa Airport to industrial, agricultural, or open space uses (see **Figure 11-5**). (*I 11.23*)

11.4.2 Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Napa County Airport Land Use Compatibility Plan (ALUCP). (*I 11.24*)

11.4.3 Work closely with the Napa County Airport to ensure that the airport's operations do not generate adverse noise conditions in the City of American Canyon. (*I 11.21*)

[No changes to remaining sections of Noise Element.]

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of American Canyon on the 18th day of May, 2010, by the following vote:

AYES: Council Members Bennett, Callison, Coffey, Vice Mayor West & Mayor Garcia
NOES:
ABSTAIN:
ABSENT:

Leon García

Leon Garcia, Mayor

ATTEST:

Rebekah Barr, CMC, City Clerk

APPROVED AS TO FORM:

William D. Ross, City Attorney

ORDINANCE #2010-03

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING ZONING ORDINANCE AMENDMENT PL09-0035 TO ACHIEVE CONSISTENCY WITH THE NAPA COUNTY AIRPORT COMPATIBILITY PLAN

WHEREAS, pursuant to Section 65850 of the State Planning and Zoning Law, the City of American Canyon adopted a Zoning Ordinance in 1996 to implement the General Plan and regulate the use of land, buildings and structures, the size and use of lots; the intensity of land uses; and to establish other requirements to provide a clear and concise guide for the physical development of the City and to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare; and

WHEREAS, Zoning Ordinance Chapter 19.48 provides that the City Council may amend the Zoning Ordinance after the amendment is referred to the Planning Commission for review and recommendation to the City Council; and

WHEREAS, minor revisions are being proposed to the Zoning Ordinance to meet state and county requirements for airport land use compatibility; and

WHEREAS, pursuant to the California Environmental Quality Act, the proposed Zoning Ordinance Amendments are exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies; and

WHEREAS, the City of American Canyon Planning Commission unanimously recommended City Council approval of the draft ordinance on April 22, 2010; and

WHEREAS, the Napa County Airport Land Use Commission unanimously found the draft ordinance consistent with the Napa County Airport Land Use Compatibility Plan on May 5, 2010; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon City Council on May 18, 2010, at which time all those in attendance were given the opportunity to speak on the proposal; and

WHEREAS, the City Council considered all of the written and oral testimony presented at the public hearing in making its decision.

NOW, THEREFORE, BE IT ORDAINED that the City Council does hereby approve and adopt Zoning Ordinance Amendment PL09-0035 based on the following:

SECTION 1: Compliance with California Environmental Quality Act
The City Council finds that this Ordinance is not subject to the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines Section 15320, Changes in Organization of Local Agencies.

SECTION 2: Findings. The City Council finds, based on the following evidence and as required by Zoning Ordinance Section 19.48.040 C, that:

1. The amendments are consistent with the goals and policies of the General Plan.

   The proposed amendment complies with the goals and policies of the General Plan, including Goal 1N, to "Ensure the compatibility of development within American Canyon with the Napa County Airport," and Policy 1.27.2, to "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "F" for compliance with the appropriate use and development conditions."

2. The amendments are consistent with the purposes of the Zoning Ordinance, as set forth in Chapter 19.01, *Authority, Purposes, and Effects of the Zoning Ordinance.*

The amendment is consistent with the purpose of the Zoning Ordinance to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare. More specifically, the amendments serve to establish clear, understandable and applicable land use regulations that comply with state law.

SECTION 3: Zoning Amendment. The City Council of the City of American Canyon hereby amends the Zoning Ordinance as follows:

1. **Chapter 19.10 Residential Districts**

19.10.040 Permitted uses.

Table 19.10.040 of this section sets forth the permitted and conditionally permitted uses for each residential district. A "P" designates a permitted use. A "C" indicates a conditionally permitted use subject to approval of a use permit by the planning commission. An "M" indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

Table 19.10.040

PERMITTED AND CONDITIONALLY-PERMITTED USES
RESIDENTIAL DISTRICTS[1]

RESIDENTIAL DISTRICT	ZONING DISTRICTS					
Use Classifications	**RE**	**RR**	**RS**	**RM**	**RH**	**Related Provisions**
Residential						
[Note to Codifier: *only the sections of the table that have been modified are included below*]						
Single-family residential	-	-	-	-	-	
- Detached	P	P	P	P[2]	P[2]	[2] GP Policy 1.8.3
- Semidetached	-	P[3]	P[4]	P	P	[3] GP Policy 1.7.1 [4] GP Policy 1.7.2
Townhouses	-	-	-	P	P	

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

2. **Chapter 19.11: Community Commercial and Neighborhood Commercial Districts**

19.11.040 Permitted uses.

Table 1 of this section sets forth the permitted and conditionally permitted uses for each commercial district. A "P" designates a permitted use. A "C" indicates a conditionally permitted use subject to approval of a use permit by the planning commission. An "M" indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

Table 1
PERMITTED AND CONDITIONALLY PERMITTED USES[1]
COMMUNITY COMMERCIAL AND NEIGHBORHOOD COMMERCIAL DISTRICTS

Use Classification	Zoning District		Related Provision
	CN	CC	
Residential			
[Note to Codifier: *only the sections of the table that have been modified are included below*]			
Congregate living facility	-	-	
Farm employees housing	-	C	
Garden apartments	-	-	
Mobilehome	-	-	
Mobilehome park	-	-	
Multifamily residential	P[2]	P[3]	[2]GP Policy 1.14.1 [3]GP Policy 1.15.1
Residential care home	-	-	
Second residential unit	-	-	
Single-family residential			
- Detached	-	-	
- Semidetached	-	-	
Townhouses	-	-	
Accessory			
Accessory dwelling unit	C	C	Chapter 19.10
Livestock keeping	-	-	
Cafeteria	-	P	
Caretaker's quarters	-	-	
Family Child care home, large	-	-	
Family Child care home, small	-	-	
Guest house	-	-	
Home occupation	-	-	Chapter 19.29
Horticulture, limited	P	P	
Recreational facilities, private	-	-	
Room rentals	-	-	

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

3. **Chapter 19.13 Public District**

19.13.020 Permitted uses.
Table 19.13.020 of this chapter sets forth the permitted and conditionally-permitted uses for each public district. A "P" designates a permitted use. A "C" indicates a conditionally permitted use subject to approval of a use permit by the planning commission. If no letter is found opposite a particular use, it is not permitted in that district.

Table 19.13.020 PUBLIC DISTRICT[1]

[*No changes to table—add note after end of table*]

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

4. **Chapter 19.14 Industrial Districts**

19.14.050 Permitted uses.

Table 19.14.050 of this section sets forth the permitted and conditionally permitted uses for each industrial district. A "P" designates a permitted use. A "C" indicates a conditionally-permitted use subject to approval of a use permit by the planning commission. An "M" indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

Table 19.14.050
PERMITTED AND CONDITIONALLY-PERMITTED USES[1]
INDUSTRIAL DISTRICTS

Use Classifications	Zoning District		Related Provisions
	LI	GI	
[Note to Codifier: *only the sections of the table that have been modified are included below*]			
Accessory			
Accessory dwelling unit	-	-	
Livestock keeping	-	-	
Cafeteria	P	P	
Caretaker's quarters	C	C	
Family Child care home, large	-	-	
Family Child care home, small	-	-	
Guest house	-	-	
Home occupation	-	-	
Horticulture, limited	-	-	
Room rentals	-	-	

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

5. **Chapter 19.15: Recreation and Open Space District**

19.15.020 Permitted uses.

Table 19.15.020 of this chapter sets forth the permitted and conditionally-permitted uses for each public district. A "P" designates a permitted use. A "C" indicates a conditionally-permitted use subject to approval of a use permit by the planning commission. If no letter is found opposite a particular use, it is not permitted in that district.

Table 19.15.020
PERMITTED AND CONDITIONALLY-PERMITTED USES[1]
RECREATION AND OPEN SPACE DISTRICT

[**Note to codifier:** *no other changes to table are proposed—modify notes after end of table as follows:*]

Note:
OS denotes Open Space District
OS-CRW denotes Open Space – Clarke Ranch West District
REC denotes Recreation District

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

6. **Chapter 19.16: Planned Community District**

19.16.050 Permitted uses.

There shall be no principally permitted uses other than those approved under a conceptual master plan and approved planned community development permit or modification thereof. (Ord. 2001-02 § 1 (part), 2001)

NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

7. **Chapter 19.19: Specialty Commercial Overlay District**

19.19.020 Allowable uses.

A. Property in the CS overlay district may be used either for industrial purposes, consistent with the permitted and conditionally-permitted uses allowed by this title for the underlying LI base zone district, or for specialty commercial purposes[1].

B. Should the owner of property in the CS overlay district decide to use the property for the purpose set forth in Section 19.19.010, the following uses as defined in use classifications, may be permitted[1]:

1. Public and quasi-public uses:
   a. Public information center,
   b. Public parking,
   c. Utilities, minor;
2. Commercial Uses:
   a. Bank, savings and loan, including walk-up service
   b. Entertainment, indoor,
   c. Lodging services,
   d. Personal services,
   e. Restaurant,
   f. Retail sales, visitor-oriented.

C. Should the owner of property in the CS overlay district decide to use the property for the purpose set forth in Section 19.19.010, the following uses as defined in use classifications, may be permitted subject to a conditional use permit[1]:

1. Public and quasi-public uses:
   a. Charitable uses;

2. Commercial uses:
   a. Entertainment, indoor; amusement center,
   b. Lodging services adjacent to a residential district,
   c. On-premises liquor consumption, tasting room,
   d. Liquor store;
3. Temporary uses:
   a. Commercial filming,
   b. Live entertainment,
   c. Mobile structure (subject to Chapter 19.30),
   d. Tent;
4. Public and quasi-public uses:
   a. Antenna, commercial,
   b. Antenna exceeding height limitations;
5. Commercial uses:
   a. Entertainment, indoor, gaming,
   b. On-premises liquor consumption,
   c. Restaurant, night use adjacent to residential district,
   d. Restaurant, take-out; night use adjacent to residential district.

[1]NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

8. **Chapter 19.41 Design Permits**

19.41.050 Required Findings.

Approval of a design permit application may be granted by the appropriate decision-making authority only if all of the following findings are made:

A. The project complies with all applicable provisions of this Title and any applicable approvals granted for the project by any decision-making authority.
B. The project and its design complies with any applicable design guidelines.
C. The project and its design complies with all applicable General Plan policies.
D. The project complies with applicable policies of the Napa County Airport Land Use Compatibility Plan.
E. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.
F. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.
G. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.
H. The proposed design promotes a harmonious transition in terms of scale and character between areas of different General Plan land use designations and zoning districts.
I. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

9. **Chapter 19.42 Conditional Use Permits**

19.42.020 Review and Approval Procedures.

D. Required Findings. The Planning Commission may approve or conditionally-approve an application for a conditional use permit or minor use permit if it makes all of the following findings:

   1. The proposed use is consistent with the policies and programs of the General Plan and any applicable master or specific plan.

2. The proposed use is consistent with the purpose(s) and standards of the applicable zoning district(s).
3. The proposed use complies with applicable policies of the Napa County Airport Land Use Compatibility Plan.
4. The project site is physically suitable for the type and intensity of land use being proposed.
5. The proposed use will not be a nuisance or materially detrimental to the general health, safety, and welfare of the public or to property and residents in the vicinity.
6. The site for the proposed use has adequate access, and meets parking and circulation standards and criteria.
7. There are adequate provisions for water and sanitary services, and other public utilities to ensure that the proposed use would not be detrimental to public health and safety.

10. **Chapter 19.43 Variances**

19.43.030 Review and Approval Procedures.

C. Required Findings. The Planning Commission may approve or conditionally approve a variance application if it makes all of the following findings:

1. Special circumstances exist applicable to the subject property, including size, shape, topography, location, existing improvements, or surroundings, such that the strict application of this Title deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district(s).
2. Granting of the variance does not constitute a grant a special privileges inconsistent with the limitations upon other properties in the vicinity and zoning district(s) in which such property is located.
3. Granting of the variance will not be materially detrimental to the public health, safety, or welfare or to property or residents in the vicinity.
4. Granting of the variance does not allow a use or activity that is not otherwise expressly authorized by the regulations governing the subject parcel.
5. Granting of the variance will not result in an inconsistency with the General Plan, including policies related to airport compatibility.

11. **Chapter 19.46 Zoning Clearances and Certificates of Occupancy**

19.46.030 Review and Approval Procedures.

A. Zoning Clearances.

1. Prior to the issuance of a business license or building permit for any establishment of use or construction of a building or structure, a zoning clearance shall be issued by the Planning Director, certifying that the business license or building permit complies with all provisions of this Title and any discretionary approvals, and with the Napa County Airport Compatibility Plan policies and regulations where applicable.
2. Prior to the issuance of a zoning clearance, the applicant shall provide evidence to the Director of approval from any appropriate agencies and city departments.

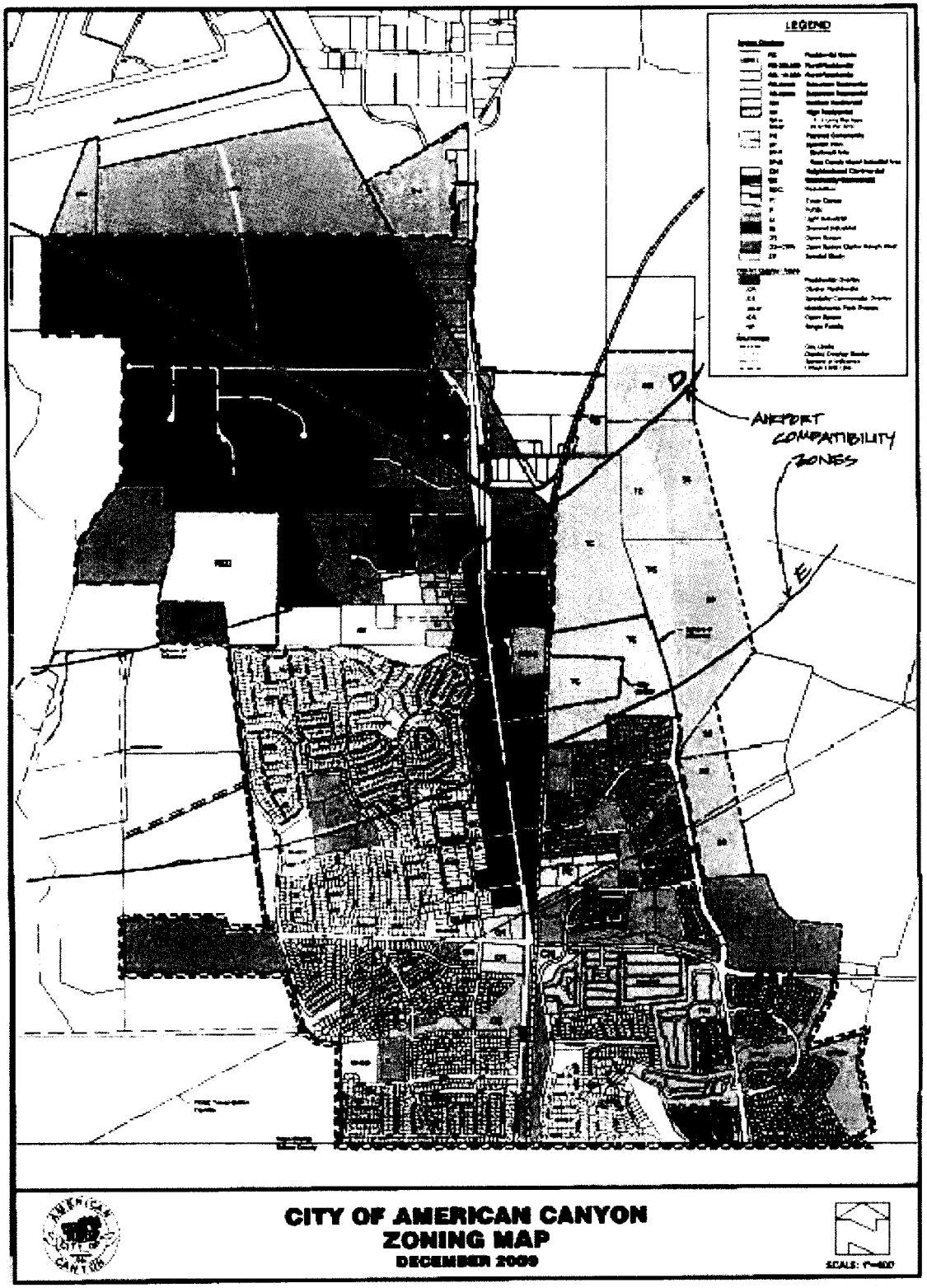
B. Certificates of Occupancy. A certificate of occupancy shall state that the building or proposed use of a building or land complies with all of the provisions of the Municipal Code and all other building codes applicable to occupancies within the City. A record of all certificates shall be kept on file at the City offices and copies shall be furnished on request to any person having a proprietary or tenancy interest in the affected building or land.

1. Building certificates of occupancy. A certificate of occupancy for a new building or the alteration of an existing building shall be applied for concurrently with the application for a final inspection permit. The certificate shall be issued after final

inspection has been completed and it has been determined that construction conforms to the Municipal Code's building regulations, as well as to the provisions of this Title.

2. Use certificates of occupancy. A certificate of occupancy for a change in the use of a building or structure shall be applied for concurrently with an application for a business license before any such new use commences. The certificate shall be issued within 10 days after the application has been made, provided that such use is in conformity with the provisions of this Title and with the Napa County Airport Compatibility Plan policies and regulations where applicable.

Zoning Map with graphic "indicator" lines showing airport zones D & E added:



SECTION 4: Severability

The City Council hereby declares that if any section, subsection, sentence, clause or phrase of this Ordinance is, for any reason, held to be invalid or unconstitutional such decision shall not affect the validity or constitutionality of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase hereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases may be declared invalid or unconstitutional.

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of American Canyon on June 1, 2010, by the following vote:

AYES: **Council Members Bennett, Callison, Coffey, Vice Mayor West & Mayor Garcia**
NOES:
ABSTAIN:
ABSENT:

Leon Garcia
Leon Garcia, Mayor

ATTEST:

Rebekah Barr, CMC, City Clerk

APPROVED AS TO FORM:

William D. Ross, City Attorney

EXHIBIT B

Conservation, Development and Planning

1195 Third Street, Suite 210
Napa, CA 94559
www.co.napa.ca.us

Main: (707) 253-4417
Fax: (707) 253-4336

Hillary Gitelman
Director

A Tradition of Stewardship
A Commitment to Service

NAPA COUNTY AIRPORT LAND USE COMMISSION

May 6, 2010

Mr. Brent Cooper, AICP
City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503
bcooper@cityofamericancanyon.org

E-mail and Hard Copy Sent

City of American Canyon General Plan and Zoning Consistency Determination
Airport Land Use Consistency Determination # P109-0002-ALUC
City of American Canyon Files # PL 09-0035; GP 09-0002

Dear Mr. Cooper,

The Napa County Airport Land Use Commission (ALUC) considered the referral of the City of American Canyon General Plan and Zoning Consistency Determination at a public hearing on May 5, 2010, pursuant to the requirements of Section 21676.5 of the California Public Utilities Code.

The project amends and updates the City of American Canyon General Plan to bring it into compliance with the Napa County Airport Land Use Compatibility Plan (ALUCP). Included are concurrent Zoning Amendments to implement ALUCP policies. These changes affect all parcels located in approximately the north half of the City that are located within Napa County Airport Influence Areas Zone D, the Common Traffic Pattern, and Zone E, Other Airport Environs. Zone D extends approximately 1.9 miles (10,000 feet) south of the centerline of Runway 6/24 and 2.0 miles southeast of the centerline of Runway 18/36. Zone E extends an additional 4,000 feet beyond the Zone D boundary.

Please be advised that the Commission, by a unanimous vote (5-0-2 excused), found the proposed project to be **CONSISTENT** with the Napa County Airport Land Use Compatibility Plan (ALUCP). This finding of consistency with the ALUCP is limited to the specific project reviewed by the ALUC on May 5, 2010. Any variation in the plans, elevations, or other aspects of the project could affect ALUCP consistency.

Should you or the project proponent have any questions regarding compatibility for any project changes, please feel free to contact me or ALUC staff, Ronald Gee, at (707) 299-1351 or ronald.gee@countyofnapa.org.

Very truly yours,

John McDowell
Deputy Executive Officer

cc: Sandra Cleisz, City of American Canyon, Senior Planner
Martin Pehl, Napa County Airport Manager
Susan McGuigan, ALUC Counsel

EXHIBIT C

RESOLUTION NO. 2020-06

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON DECLARING THAT RESIDENTIAL USES ARE THE BEST USE OF THE RICK HESS PROPERTY ON OAT HILL

WHEREAS, there is a critical shortage of residential housing for all levels of affordability in California; and,

WHEREAS, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish Regional Housing Needs Allocations ("RHNA") for the greater San Francisco Bay Area and possibly Napa County as a Subregion; and,

WHEREAS, in light of the State's housing shortage, HCD and ABAG are expected to continue to emphasize the need for residential housing in Napa County and in the City of American Canyon ("City") within its municipal boundaries; and,

WHEREAS, at least since 2005, the City has considered the possibility of designating and rezoning the Hess Property and certain surrounding properties for residential uses but, to date, has not yet completed an evaluation of such an action; and,

WHEREAS, on August 20, 2019, the City Council considered the possibility of designating and rezoning approximately 30 acres on the east side of Oat Hill south of Napa Junction Road (the "Hess Property") for residential uses; and

WHEREAS, the City has commenced an update of the General Plan which could potentially accommodate residential uses on the Hess Property but could take approximately two (2) years to complete; and

WHEREAS, the General Plan update process timeframe is longer than Applicant and Owner, Mr. Hess, is willing to make his property available for residential development; and

WHEREAS, also on August 20, 2019, the Council concluded that residential uses are the best use for the Hess Property and directed Staff to work with Mr. Hess to identify means by which the City might evaluate and consider a residential development proposal for the Hess Property while providing Mr. Hess some certainty that his investment in a planning and California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.*, "CEQA") review process would be brought to completion; and

WHEREAS, on November 6, 2019, Oat Hill Properties II, LLC (Rick Hess) submitted a General Plan Text Amendment and Zoning Code Overlay Study Amendment application which would allow for the filing of a subsequent General Plan Amendment and consistent Zoning Ordinance, which authorize residential development consistent with State law; and

WHEREAS, after consideration of the need for further study of residential development of the Hess Property compatibility with the Napa County Airport Land Compatibility Plan, on January 14, 2020, Mr. Hess transmitted a communication to the City Attorney, City Manager, and City Community Development Director stating that he could be provided with the assurance that he needs to proceed with residential development on the Hess Property if the Council confirms that direction by Resolution rather than General Plan Text Amendment and Zoning Overlay; and

WHEREAS, the Resolution will provide Mr. Hess with the certainty he requested on August 20, 2019 and January 14, 2020; and

WHEREAS, the proposed Resolution is exempt from CEQA. The Resolution does not reclassify or rezone the Hess Property for specific residential uses, but is rather a reflection of the Council's determination that the best use of the Hess Property is for residential uses. For these reasons, the action is not a project under CEQA and is exempt from CEQA review as it has no present potential impact on the physical environment. CEQA Guidelines §§ 15060(b)(3c), 15378(b); and

WHEREAS, the City Council has considered all of the written and oral testimony presented at this public hearing and its prior actions in considering this Resolution.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of American Canyon that:

1. All recitals herein are incorporated and deemed true and correct;

2. The Council declares that residential uses are the best use of the Hess Property on Oat Hill, subject to consideration for General Plan Amendment.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 21st day of January 2020, by the following vote:

AYES:	Council Members Aboudamous, Joseph, Leary, Vice Mayor Oro, Mayor Garcia
NOES:	None
ABSTAIN:	None
ABSENT:	None

Leon Garcia, Mayor

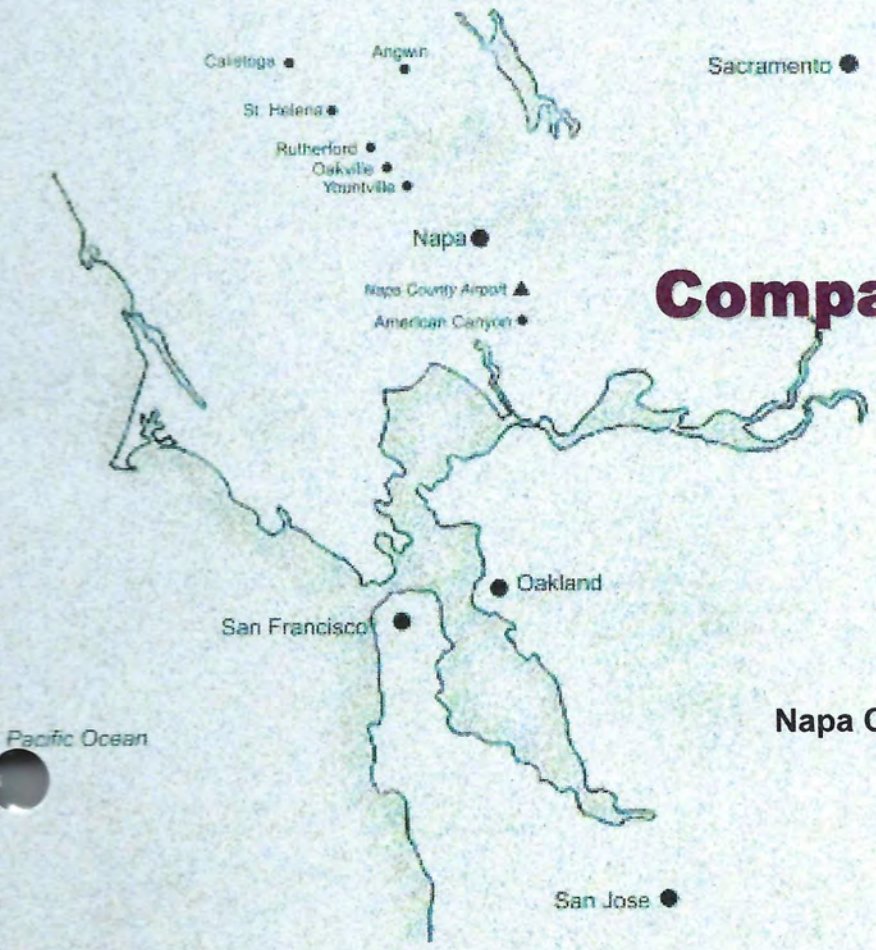
ATTEST:

Suellen Johnston, City Clerk

APPROVED AS TO FORM:

William D. Ross, City Attorney

EXHIBIT D



Oat Hill Development Land Use Compatibility Analysis

Prepared for the
Napa County Airport Land Use Commission

Prepared by

MEAD & HUNT

September 2005

6742

LOCATION 1
ANALYTICAL TASK 1
SOURCES OF DATA 1
ASSESSMENT 3
Safety 3
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Location

The Oat Hill properties are located southeast of the Napa County Airport. The site is on the northern edge of the City of American Canyon, west of Highway 29. At its closest point, the project site is about 7,500 feet from the nearest runway (Runway 6-24) at the Napa County Airport (Figures 1 and 2). The project would consist of a variety of housing types, expansion of an existing school site, and possibly some commercial uses.

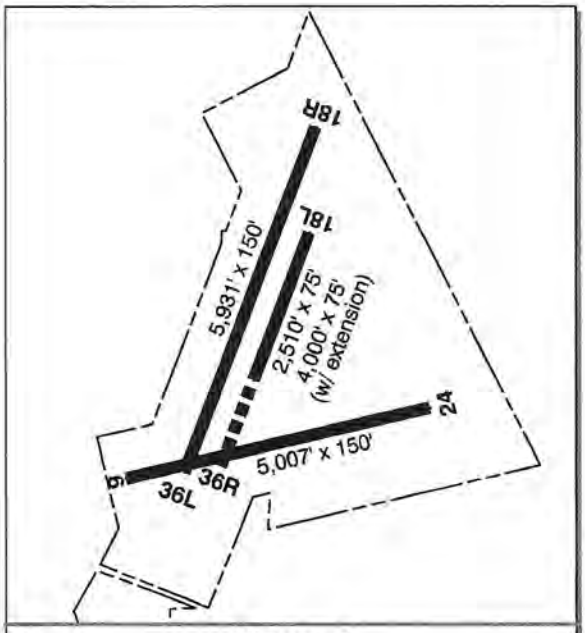


Figure 1

Analytical Task

The Napa County Airport Land Use Commission (ALUC) charged Mead & Hunt with assessing the compatibility of the proposed Oat Hill development with operations at the Napa County Airport. The assessment was to evaluate compatibility based upon:

- Safety
- Noise
- Overflight
- Airspace

Assessment of each of these factors is to be based upon the 2002 *California Airport Land Use Planning Handbook* and current aviation industry practice. The purpose of the analysis is to determine whether the boundaries of compatibility zone "D" should be modified. The boundary of the D Zone passes through the Oat Hill site. Napa County ALUC policies do not permit new residential uses within this zone.

Sources of Data

Data for this analysis came from a variety of sources. Noise contours and airspace surfaces were taken from the draft Napa County Airport Master Plan which was released in June 2004. The 2004 draft *Master Plan* is conceptually identical to the master plan adopted in 1990. Both plans included only one change to the runways at Napa County Airport: extension of the parallel runway (Runway 18L-36R) to accommodate Japan Air Lines (JAL) training operations. The 1990 and 2004 plans differ in the length that the runway would be extended. Under the 1990 plan the parallel runway would be extended to 3,380 feet, under the 2004 plan the length would be increased to 4,000 feet. The greater length is required because the aircraft types and operating requirements used for JAL training have changed. The 2004 version has been used in this analysis because its adoption is expected to occur within a few months. Environmental documentation for the runway extension and other projects is being prepared.

Safety factors were taken from the California Airport Land Use Planning Handbook. Detailed flight tracks developed to assess overflight impacts were developed from interviews with knowledgeable individuals associated with the Napa County Airport on the dates noted, including:

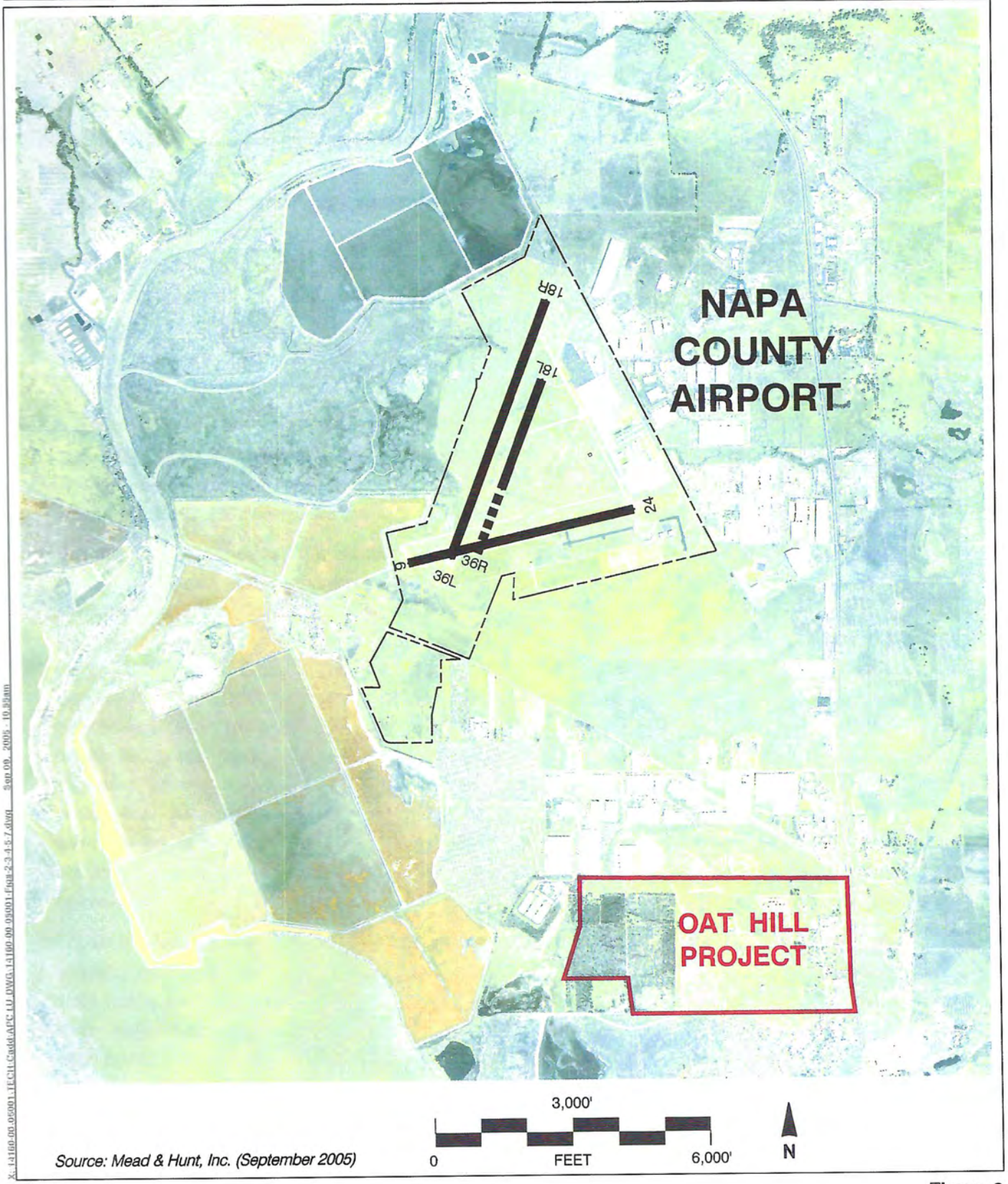


Figure 2

Location Map
Napa County Airport

- Tom Shannon, Air Traffic Manager, Napa Airport Traffic Control Tower, Federal Aviation Administration and his staff (June 20, 2005)
- Bob Berthold, JAL Chief Flight Instructor, IASCO (June 6, 2005)
- Susan Chambers, Chief Flight Instructor, Bridgeford Flying Services (June 6, 2005)
- Wayne Lackey, President, Wine County Helicopters (June 6, 2005 at Airport Advisory Commission meeting)
- Napa County Airport Advisory Commission (at its public meeting on June 6, 2005)
- Members of the Napa Area Pilots Association (June 6, 2005)

The individuals interviewed are aviation professionals with direct, daily experience with flight operations at Napa County Airport. The two chief flight instructors oversee most flight training operations at the airport. The Napa County Airport Advisory Commission was used as a forum for public input. Members of the Napa Area Pilots Association were invited to contribute their insight on flight operations.



Those interviewed were asked to define common flight tracks based upon their experience. In each case, a scaled aerial photograph of the Napa County Airport environs was provided as an aid. In many cases those interviewed sketched the flight tracks on the drawing. Mr. Shannon, Air Traffic Manager was interviewed last. As the air traffic controllers now have radar displays in the tower, they were asked to review the flight tracks suggested by others.

Assessment

Safety

Safety is in many respects a more difficult concern to address in airport land use compatibility policies than noise. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations, whereas noise policies deal with known, more or less predictable events which do occur with every aircraft operation. Because aircraft accidents rarely happen and the time, place, and consequences of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility.

Safety criteria are currently defined in three ways. The Federal Aviation Administration's Airport Design advisory circular (AC 150/5300-13) contains land use policies for runway protection zones. Runway protection zones are areas beyond runway ends in which residences and places of public assembly are prohibited. Under this definition, places of public assembly include churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of people. The Federal Aviation Administration recommends that airports acquire the property within their runway protection zones.

The runway protection zones closest to the Oat Hill project are those for Runways 36L, 36R, and 24. Of these, the future runway protection zone for Runway 36L lies nearest to the project. However, it is over 4,500 feet from this runway protection zone to the project site.

The safety compatibility zones described in the California Airport Land Use Planning Handbook are the next source of guidance on safety policies. In Chapter 9, the Handbook provides examples of various configurations of safety compatibility zones and recommended policies for each zone. Of the five examples provided for general aviation airports (i.e., one without scheduled passenger service), Example 3 in Table 9K best fits the characteristics for Runway 36L. That is, it is a long runway at a general aviation airport with a precision instrument approach. The compatibility policies for this runway would be the most restrictive on the Oat Hill property. If these policies were applied, a portion of the Oat Hill property would lie within the traffic pattern zone (Figure 3). Within the traffic pattern zone, the Handbook would allow residential uses and most nonresidential uses. Uses to avoid include schools, hospitals, and outdoor uses with high occupancy levels.

An emerging trend in California compatibility plans is to directly use national accident data to create accident risk intensity contours. Similar in concept to noise contours, accident risk intensity contours define areas with similar probabilities of an aircraft accident. These zones vary in size based upon various factors. For a busy runway serving both large and small general aviation aircraft, these zones will extend about one mile from the runway end. The outermost accident risk intensity contour for Runway 36L (which would come closest) would be over 3,500 feet from the nearest corner of the Oat Hill project site.

Safety Conclusion: The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility.

Noise

Noise is one of the most basic airport land use compatibility concerns. Moreover, at major airline airports, many busy general aviation airports, and most military airfields, noise is usually the most geographically extensive form of airport impact.

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for airport noise, is the Community Noise Equivalent Level (CNEL). This metric provides a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed. To reflect assumed greater community sensitivity to nighttime and evening noise, events during these periods are counted as being louder than actually measured. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures — ones affected by high concentrations of aircraft takeoffs and landings.

Single-event noise metrics are sometimes used in evaluating impacts of proposed airport modifications. They are rarely used as a means of defining land use compatibility policies.

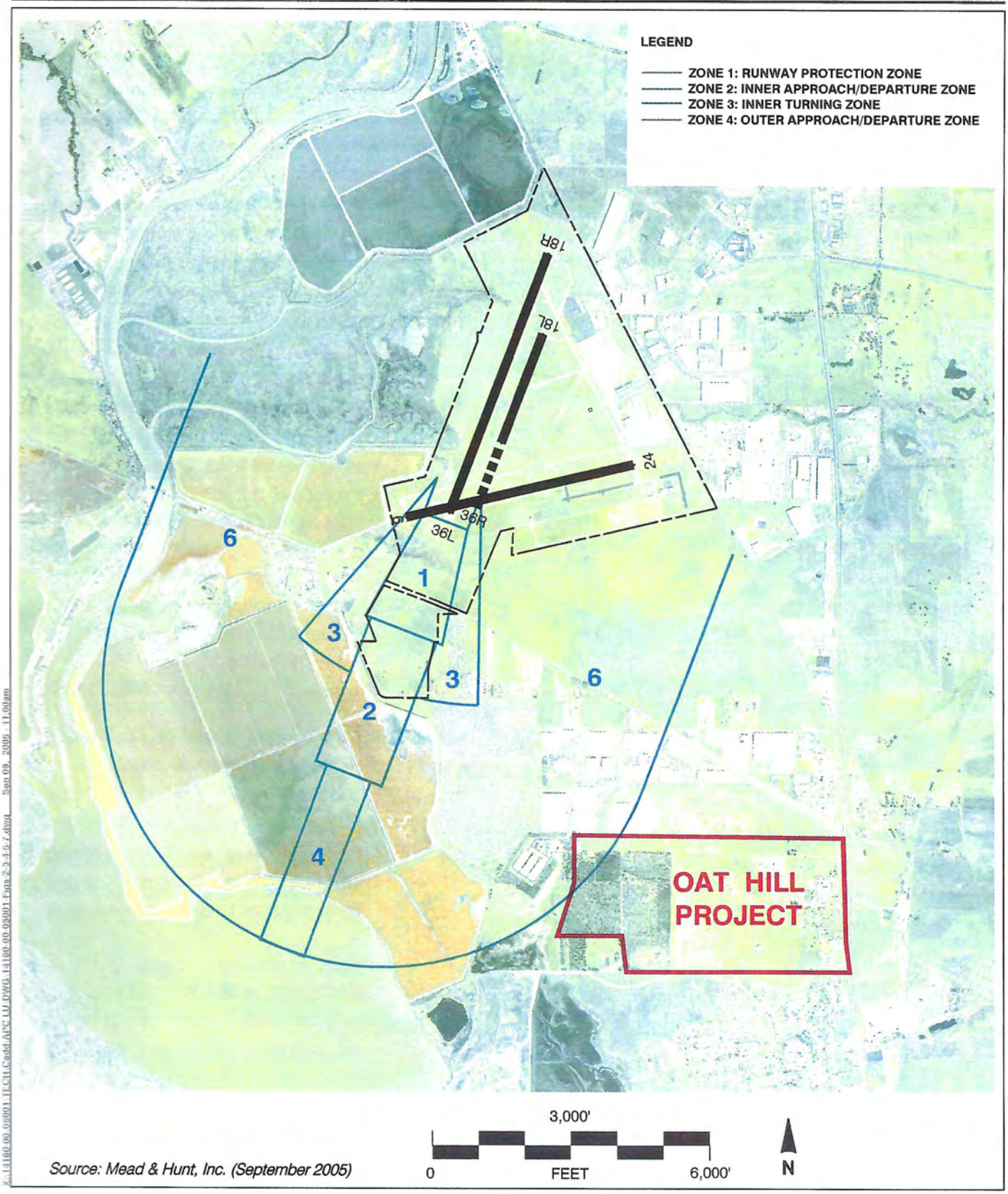


Figure 3

Caltrans Handbook Safety Zones

Napa County Airport

For general aviation airports in rural settings, the 55 CNEL noise contour is commonly used as the threshold for allowing residential uses. In suburban settings, the 60 CNEL contour is typically used. These thresholds are recommended in both the California Airport Land Use Planning Handbook and are consistent with current aviation industry practice. The Federal Aviation Administration generally limits concerns over residential uses to within the 65 CNEL contour. However, the Federal Aviation Administration has supported policies to restrict new residential uses out to the 60 CNEL contour. The nearest edge of the Oak Hill property is over 4,000 feet from the nearest point on the current 55 CNEL contour and about 3,500 feet from the 55 CNEL contour forecast for 2022 (Figure 4).

Noise Conclusion: The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours.

Overflight

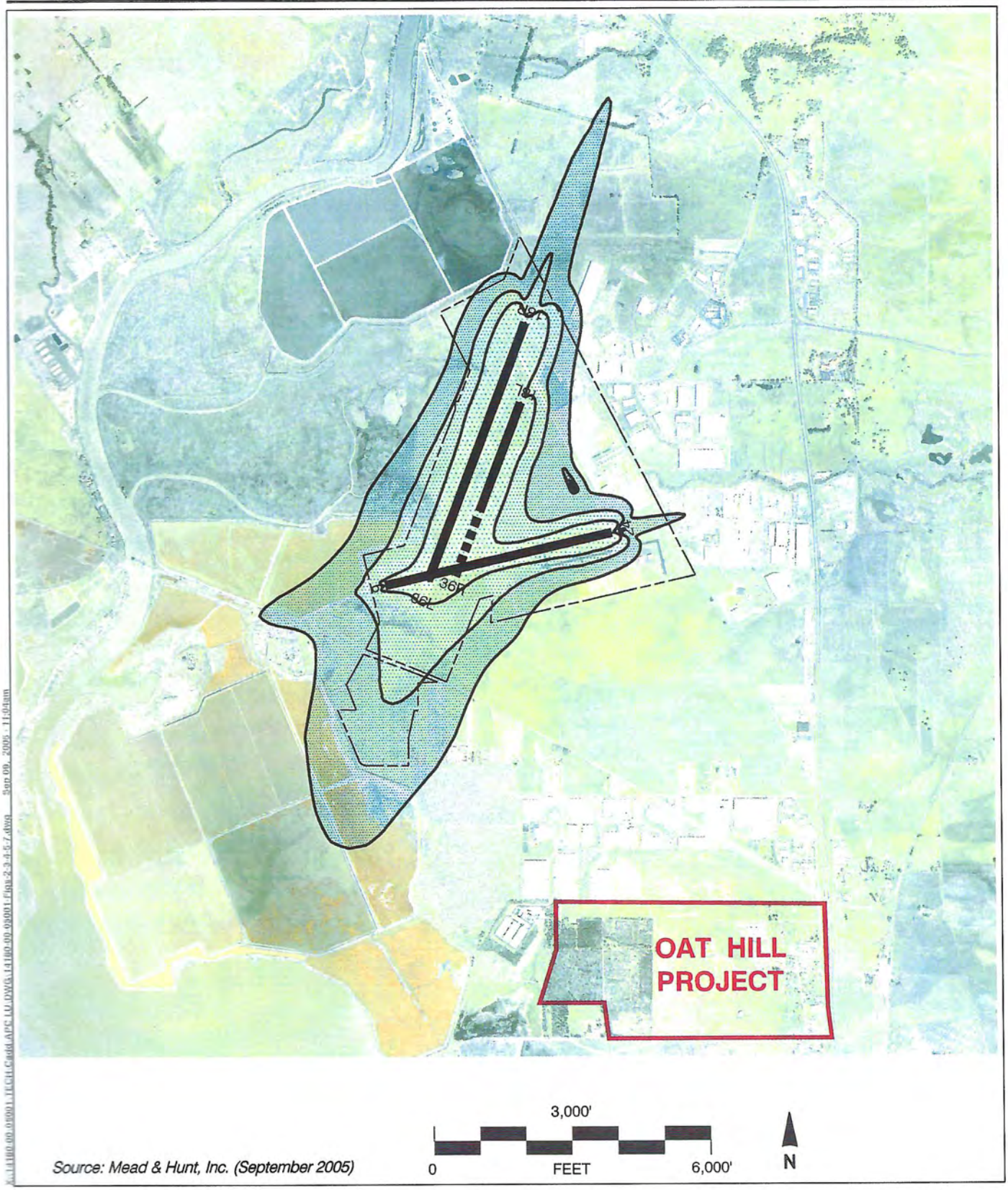
Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contour. Many people are sensitive to the frequent presence of aircraft overhead even at noise low levels. These reactions can mostly be expressed in the form of annoyance.

At many airports, complaints often come from locations beyond any of the defined noise contours. Areas that underlie common flight patterns are likely places for this to occur. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive — or, in some circumstances, even distinctly audible — above background noise levels. The limited numbers of complaints that have been received at Napa County Airport have been almost exclusively from outside the noise contours.

The *Handbook* discusses overflight impacts in terms of both single-event noise impacts (e.g., speech interference or sleep disturbance) and annoyance. The *Handbook* does not recommend specific policies for areas affected by overflights. It mentions excluding residential uses, insulation of residences and schools, and relying upon notification of potential buyers as possible strategies for addressing overflight effects.

Recent industry practice has been to select one of two strategies depending upon the current pattern of development. Where an airport's environs are largely free of sensitive uses (e.g., residences) and not already committed to this type of development, compatibility policies will favor retention of the non-sensitive uses (e.g., agriculture, industrial). Where the areas subject to overflights are already largely developed or are committed to sensitive uses, compatibility policies will favor a high-low strategy. A high-low strategy is based upon the premise that overflight annoyance is less likely to occur in residential areas with higher densities due to higher ambient noise levels. Therefore, in areas subject of overflight impacts can be either at rural densities (e.g., 40 acre parcels) or high densities (e.g., apartments or common-wall residences). The high-low strategy results in either a small pool of potentially annoyed residents (low density) or a large number of residents (high density), but lower likelihood of annoyance occurring.

Current and anticipated flight tracks were mapped using data collected though the interviews described above. Common flight tracks and the most commonly overflown areas associated with Napa County Airport operations are depicted on Figure 5.



Source: Mead & Hunt, Inc. (September 2005)

Figure 4

Noise Contours: 2022

Napa County Airport

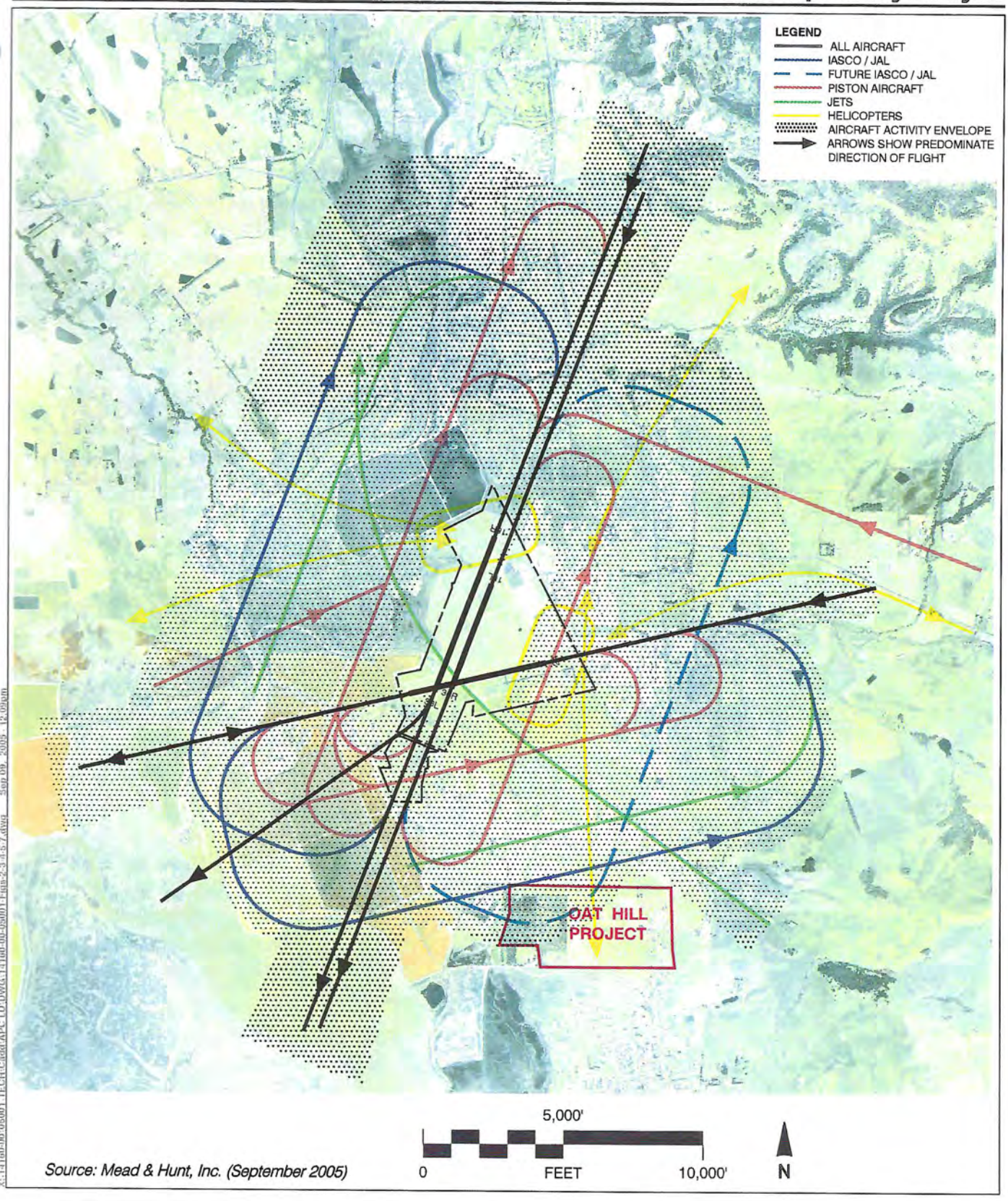


Figure 5

Common Flight Tracks

Napa County Airport

It is important to realize the variability in the flight tracks. Everywhere within five miles of the airport will be overflown in an average year. The graphic depicts only those areas that are commonly overflown near traffic pattern altitude. Typically traffic pattern altitude for small aircraft is 1,000 feet above airport elevation, for large aircraft 1,500 feet above airport elevation. Touch-and-go flight tracks have greater predictability than arrival and departure tracks.

The Oat Hill site is currently overflown during several distinct types of operations. A significant addition in overflights will occur when the parallel runway (Runway 18R-36L) is extended. An extension of this runway is included in both the 1990 and 2004 plans. The extension is expected to be operational in 3 to 5 years. Each operation that commonly overflies the Oat Hill site is discussed below. The standard names for flight track segments used in the discussion are identified in Figure 6.

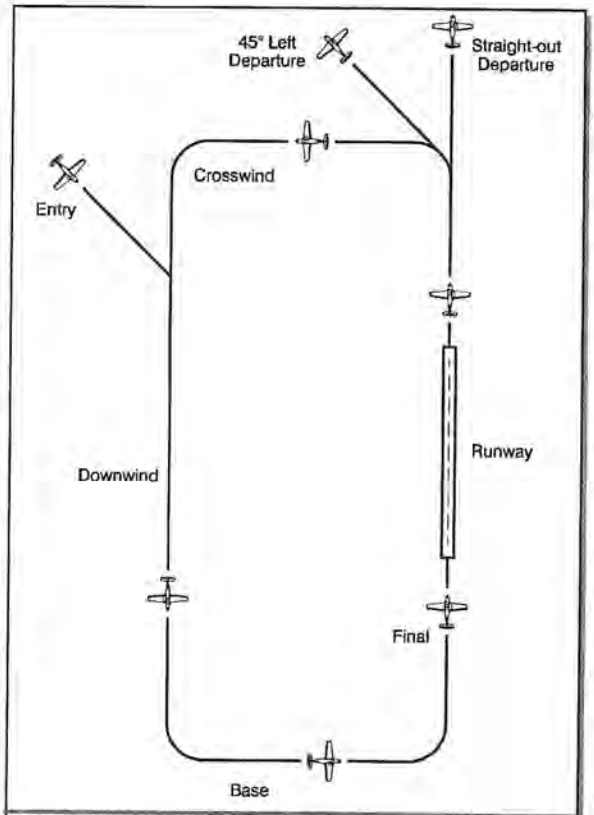


Figure 6

The highest volume of overflights occurs when winds favor the use of Runway 24 (the east-west runway). This occurs regularly during the spring and early summer. It will also occur sporadically during the fall and winter during the passage of storm fronts. When winds favor the use of Runway 24, all classes of aircraft will conduct landings on Runway 24. Tough-and-go operations will also fly a pattern with repeated landings and takeoffs on Runway 24. Most piston aircraft not associated with the JAL training program will fly their downwind leg about one-half nautical mile south of Runway 6-24. Larger turboprops and jets will fly the downwind leg from one to three miles south of the runway. Because of the requirements of its training program, JAL training flights will occur about one and a quarter nautical miles south of the runway. There will typically be several JAL training aircraft in the pattern at the same time.

When winds favor Runways 18L and 18R (the wind condition most commonly experienced), jets arriving from the southeast will overfly the area in and around the Oat Hill site. The flight track shown in Figure 1 is suggestive of the general orientation of these operations. However, the individual flight tracks will vary widely from the generic track shown.

Helicopter air taxi operations to Oakland International Airport commonly overfly the western portion of the Oat Hill site at or below traffic pattern altitude during both arrivals and departures. This track is set by destination not by wind patterns. Helicopter operations by the California Highway Patrol are regularly conducted south of Napa County Airport. However, because their tracks vary greatly, they are not shown in Figure 1.

Runway 18L-36R is planned to be extended to 4,000 feet. An extension to accommodate JAL training flights has been planned since 1990. The 2004 draft master plan changes the length,

but not the purpose. Environmental review is currently being completed to support the extension. When this runway is extended, it is anticipated to be regularly used JAL training flights. Staff with IASCO, that provides the instructors for the JAL flights, indicated that lengthening Runway 18L-36R would make it usable for their tough-and-go operations. There are a couple important benefits. One, it would increase the ease with which larger aircraft could use the main runway (Runway 18R-36L). Second, it would reduce the complexity for air traffic control staff in sequencing aircraft operations on the main runway. As shown in Figure 1, these future JAL operations would overfly the northwestern third of the Oat Hill property.

Overflight Conclusion: The Oat Hill property is subject to regular overflight by a variety of aircraft types. JAL's single-engine piston aircraft will overfly the site during training flights from Runways 18R-16L and 18L-36R when they are flying the pattern east of the airport. JAL training aircraft will also overfly the site when the wind favors the use of Runway 6-24. The noise level of individual aircraft will comparable to a power lawnmower in a neighbor's yard. There will normally be several aircraft training at the same time. This would mean an overflight could occur about every 45 seconds. The site is overflown by helicopters traveling to or from Oakland International Airport (or other destinations south of the airport). At most these would occur a couple of times per day. Jets arriving from the southeast will sometimes overfly the Oat Hill site. Both the flight tracks and altitude will vary significantly. Noise levels will be at or above the levels of piston training aircraft. The volume of overflights is expected to increase in the near future. The extension of Runway 18L-36R is expected to occur within 3 to 5 years. Once operational, the number of JAL training flights east of the airport is expected to increase significantly. Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa County Airport that do not now exist.

Airspace

Relatively few aircraft accidents are caused by land use conditions which are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions which, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics which pose other potential hazards to flight by creating visual or electronic interference with air navigation.

Whether a particular object constitutes an airspace obstruction depends upon the height of the object relative to the runway elevation and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Part 77 of the Federal Aviation Regulations. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an obstruction and may affect the aeronautical use of the airspace. Obstructions are evaluated using guidance contained in *United States Standards for Terminal Instrument Procedures* (called "TERPS" for historical reasons).

The significance of other potential hazards to flight is principally measured in terms of the

hazards' specific characteristics and their distance from the airport and/or its normal traffic patterns. At an airport that regularly receives use by jet aircraft, as Napa County Airport does, hazards are of most concern within 10,000 feet of runways used by jets.

Oat Hill penetrates the horizontal surface for Napa County Airport (Figure 7). This surface overlies the airport 150 feet above the airport's elevation. As the airport's elevation is 35 feet above mean sea level, the top 85 feet of Oat Hill extends past the horizontal surface.

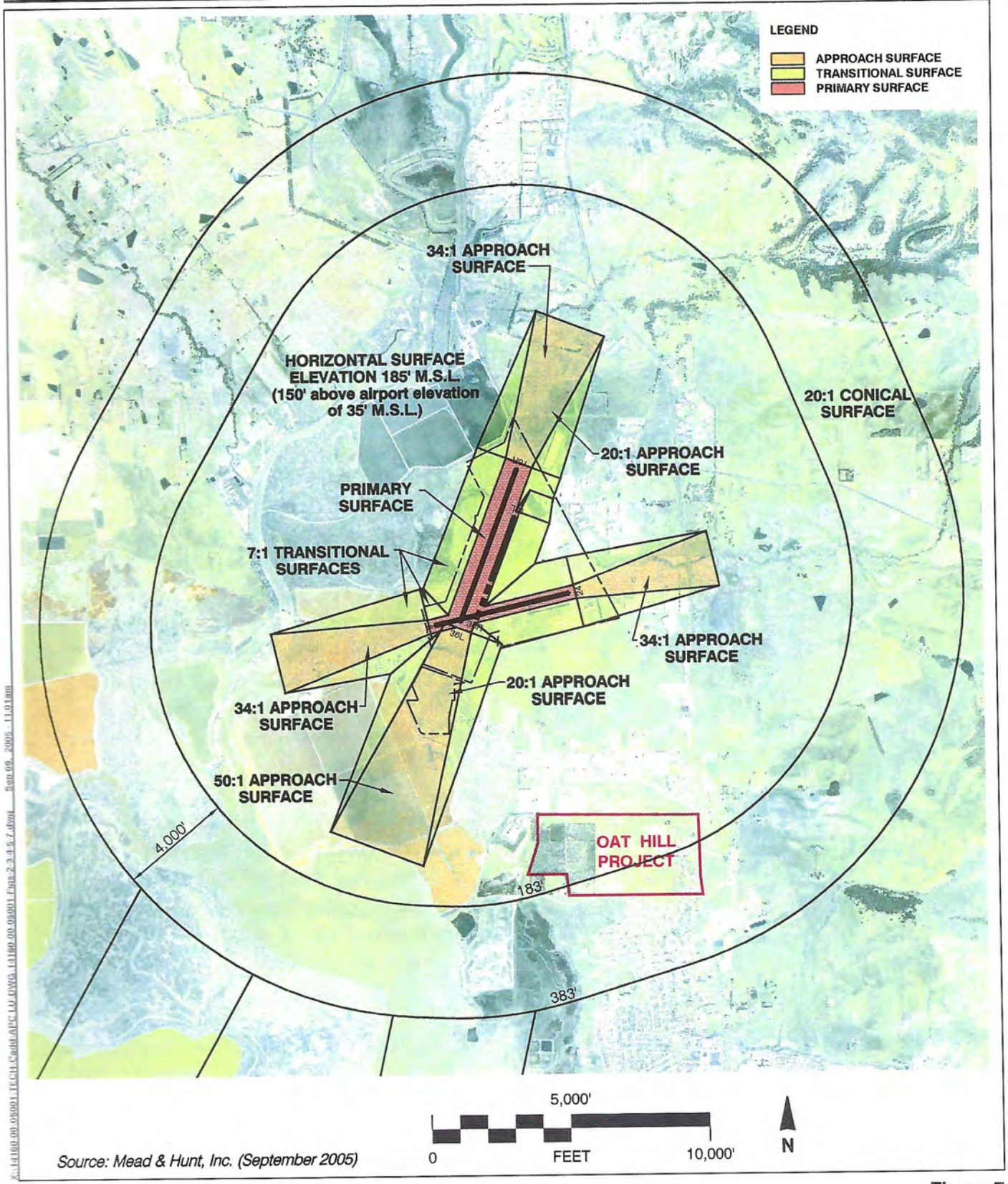
Although a formal site design does not yet exist for the Oat Hill properties, the development team indicated that estate type single-family homes might be planned for portions of this hill. Constructing homes on the hill that extend past the horizontal surface has the potential to affect the instrument approaches to Napa County Airport. A cursory examination using TERPS criteria, suggest that it is likely that a two-story home would not affect the soon-to-be-activated ILS approach to Runway 36L. It is also not likely that a home on the hill would impact the minimums for circle-to-land approaches. However, this can only authoritatively be answered by a formal analysis by the Federal Aviation Administration.

The uses for the Oat Hill property have not been formally defined. Residential uses appear likely to be the dominant use. No uses likely to be significant wildlife attractants (e.g., golf courses or landfills) have been proposed. The project does not appear likely to create sources of visual or electronic interference. An unequivocal conclusion cannot be made until the details of the proposed development are known. Even then, specific future uses might need independent review if they have unusual characteristics that might cause these forms of interference.

It is appropriate to describe the Federal Aviation Administration's (FAA) role in reviewing the Oat Hill development. FAA's only formal role is to review the project for airspace conflicts. Developers of the Oat Hill property are required by federal statutes to have proposed development reviewed if it would penetrate the imaginary surfaces defined in Federal Aviation Regulations Part 77. Structures on Oat Hill or unusually tall structures elsewhere on the property are likely to need review. The review process is started with submission of FAA Form 7460. If the FAA concludes that the proposed development would not be a hazard to aviation, a "no objection" letter will be issued. Alternatively, the FAA can indicate that a red obstruction light is needed or that specific elements of the project would be a hazard.

The FAA does not have any direct enforcement mechanism; as a federal agency it does not have authority over local land use decisions. However, if FAA recommendations in the airspace review are not followed, operations at Napa County Airport could be directly affected. For example, visibility minimums could be raised on an existing instrument approach, existing instrument procedures could be eliminated, or proposed instrument procedures could be prohibited. All of these measures would reduce the utility of the airport.

Airspace Conclusion: Portions of the Oat Hill property penetrate the horizontal surface. A Federal Aviation Administration airspace review should be conducted if any structures would penetrate this horizontal surface. No uses that would likely be wildlife attractants, or would cause visual or electronic interference have been identified. However, a final project description is needed before a conclusion on this topic could be reached.



Source: Mead & Hunt, Inc. (September 2005)

Figure 7

Airspace Plan

Napa County Airport

Implications for the Zone D Boundary

California statutes state that the purpose of airport land use compatibility plans is to "...protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses." Compatibility plans must be guided by airport plans and documentation of each airports noise and safety impacts.

The Napa County Airport has generally enjoyed a high degree of compatibility with adjacent land uses. In fact, the airport is often used as a rare example of a busy metropolitan airport that is largely free from incompatible uses. In part this was due to the luck of the airport being sited in what had been a rural area. Good planning has limited new development near the airport to compatible commercial and industrial uses. As development continues to occur in the vicinity of the Napa County Airport, the challenge will be to prevent the introduction of incompatible uses.

This analysis provides more detailed documentation of the impacts of air operations at Napa County Airport than has been previously available. This information was designed to support a determination of whether the boundaries of compatibility zone "D" should be modified near the Oat Hill property.

Based upon the earlier analysis, safety and noise do not appear to be significant concerns for the proposed uses. Airspace is of modest concern, but it has the potential to effect only structures on Oat Hill itself. On the majority of the property airspace is not a concern. Given what is known of the project's elements, neither wildlife attractants, nor visual or electronic interference are expected to be a concern. However, overflight effects are a compatibility concern today, and are expected to increase. It would be inappropriate to permit introduction of residential uses where overflight impacts are a concern. Therefore, we conclude that there are no grounds to shift Zone D.

EXHIBIT E

October 18, 2005

Napa County Airport Land Use Commission
1125 Third Street, Room 210
Napa, California 94559

Re: Mead & Hunt Land Use Compatibility Report

Dear Members of the Commission:

I write to you on behalf of the City of American Canyon ("the City"). We submit these written comments for consideration at your November 2, 2005 meeting, when the Commission will consider the *Oat Hill Development Land Use Compatibility Analysis* prepared by the firm of Mead & Hunt ("the M&H Report"). The City will submit additional comments at the November 2, 2005 meeting, that we will want the Commission to also consider.

As the Commission may recall, the M&H Report was initiated in response to a joint request from the County of Napa and the City, to review the boundary of Compatibility Zones D and E in the Oat Hill area of the City, as described in the current Airport Land Use Compatibility Plan of the Commission.

The City agrees with much of the analysis in the M&H Report. The City, however, does not agree with the conclusion of the M&H Report, since we believe that there are grounds to move the boundary line between Zones D and E in the Oat Hill area.

We believe that a review of pertinent historical information will help the Commission in its review of the M&H Report.

HISTORICAL CHRONOLOGY

April 22, 1991	Napa County ALUC adopts its Airport Land Use Compatibility Plan ("the Plan") for the Napa County Airport. The Plan established Compatibility Zones A through F, with development restrictions for each zone. Residential uses are significantly restricted in Zones A through D. The boundary line between Zones D and E in the Oat Hill area runs along Green Island Road, with land north of Green Island Road in Zone D, and land south of Green Island Road in Zones E and F. The Oat Hill area was included within Zones E and F. The development of

	residential uses within Zones E and F was allowed in accordance with the adopted general plan for the local jurisdiction.
May 28, 1991	Napa County adopts an update to the Airport Master Plan, for development at the Napa County Airport. The Master Plan proposes an extension of Parallel (General Aviation) Runway 18L-36R from a current length of 2,500 feet to a total length of 3,380 feet.
1992	The City is incorporated.
December 15, 1999	The ALUC amends the Plan ("the 1999 Amendment"). The 1999 Amendment establishes Compatibility Zones A through E. New residential uses are determined to be non-compatible uses in Zones A through D. The Impact Assessment for the 1999 Amendment considers noise, overflight, safety, and flight hazards. The major change is to the location of the boundary line between Zones D and E. As a result, a significant portion of the Oat Hill area is included within Zone D.
January 2002	CalTrans amends its Airport Land Use Planning Handbook ("the 2002 Handbook"). The 2002 Handbook considers risk assessment and determination of risk acceptability as key components in establishing the compatibility zones.
October 2003	Napa County, the City of Napa and the City execute a Memorandum of Agreement ("the Housing MOU"). Relevant portions of the Housing MOU are enclosed with this letter. The Housing MOU provides, in relevant part, that the City will accept a portion of the County's housing allocation to assist the County in meeting its Regional Housing Needs Determination, the City will undertake a planning effort on the Oat Hill area, and the City and the County will conduct a joint study to determine the

	appropriate boundaries for Zones D and E as they affect Oat Hill.
February 2004	Napa County LAFCO approves amendment to the Sphere of Influence boundary for the City, to include the Eucalyptus Grove (which is part of the Oat Hill area) within the Sphere of Influence for the City.
March 2004	The City initiates the Oat Hill planning effort.
June 2004	The City retains Walter Gillfillan as an airport consultant and Gillfillan submits a report ("the Gillfillan Report 1") evaluating the Zone D and E compatibility boundaries as they affect the Oat Hill area. A copy of the Gillfillan Report 1 is enclosed with this letter. The Gillfillan Report 1 concludes that safety, air space intrusion, noise, and overflight considerations would not preclude residential development in the Oat Hill area.
June 2004	Napa County releases a draft amendment to the Napa County Airport Master Plan ("the 2004 Airport Plan"). The 2004 Airport Plan proposes an extension of Parallel (General Aviation) Runway 18L-36R from an approved (but yet to be constructed) length of 3,380 feet to 4,000 feet
March 2005	The ALUC commissions a study on the boundaries of Zones D and E in the Oat Hill area. The study is paid for by Napa County, the City, and the Stakeholders interested in developing the Oat Hill area.
September 2005	The M&H Report is released. The M&H Report indicates that as a result of using the 2002 Handbook criteria, development in the Oat Hill area would not be precluded because of safety, air space intrusion, or noise considerations. The M&H Report concludes, however, that because of potential of overflight resulting from possible future extension of Parallel

	(General Aviation) Runway 18L-36R from 2,500 feet to a total length of 4,000 linear feet, as suggested in the 2004 Airport Plan, there is no basis for moving the Zone D and E boundary line.
September 2005	Walter Gillfillan reviews the M&H Report ("the Gillfillan Report 2"). A copy of the Gillfillan Report 2 is enclosed with this letter. The Gillfillan Report 1 and the Gillfillan Report 2 will collectively be referred to as "the Gillfillan Report".
October 2005	Wanda Kennedy, Napa County Airport Manager, in a meeting with the County Board of Supervisors, indicates that there are no plans to lengthen runways or expand the airport facility.

CRITICAL FACTORS TO CONSIDER

The City is proceeding with a general plan study for the Oat Hill area. This study was contemplated by the City and the County of Napa in the Housing MOU. The City is in the process of conducting environmental analysis of at least two alternative plans. A copy of the two alternative plans is enclosed with this letter.

The 1999 Amendment evaluated the general plans for Napa County and the City of Napa, but did not evaluate the general plan for the City. This omission is significant, since the 1999 Amendment substantially changed the Plan, and its impact on local development.

The 1999 Amendment was primarily concerned with proposed development at Stanly Ranch. No consideration was given to the Oat Hill area or the City. The 1999 Amendment significantly increased the area within which no new residential development would occur. This expanded area covered the Stanly Ranch, and brought the new restrictions to the Oat Hill area. Unfortunately, in addressing the impacts that Stanly Ranch could have on the airport, the 1999 Amendment established policies that significantly impact the City, and will impact the County under the Housing MOU.

The 1999 Amendment was adopted prior to the 2002 Handbook. The 2002 Handbook is now the criterion by which compatibility plans should be based. This point was recognized by Mead & Hunt in the M&H Report, which specifically used the 2002 Handbook in its analysis.

The M&H Report and the Gillfillan Report agree that development in the Oat Hill

area would not be precluded because of safety, noise, and air space intrusion considerations applying the 2002 Handbook criteria and analysis. Orderly residential development of the Oat Hill area would not conflict with airport operations.

Development of Oat Hill would not conflict with any of the established sources of guidance on safety compatibility. The M&H Report acknowledges that the 2002 Handbook would allow residential uses in the Oat Hill area.

Development of Oat Hill would be compatible with existing and forecast aviation noise contours. The Oat Hill area is more than 4,000 feet from the 55 CNEL contour for existing operations, and more than 3,500 feet from the 55 CNEL contour forecast for the year 2022. The 55 CNEL contour is used to determine noise impacts on new residential development.

A portion of the Oat Hill development may penetrate the horizontal surface of the airport. Ultimately, the FAA has jurisdiction on this issue.

The M&H Report focuses on overflight. Overflight impacts are highly subjective. The Plan has taken the position that to avoid any complaints, there should be no new residential development in areas where overflight may occur. Applying this criteria to the Oat Hill area is not appropriate or reasonable.

The M&H Report acknowledges that the recent industry practice in areas that are largely developed is to use a high-low strategy. Areas subject to overflight could be limited to rural densities (one unit for 40 acres) or higher density development (apartments, common-wall developments). The higher density development brings with it higher ambient noise levels, thus making the overflight noise less noticeable and intrusive. Consequently, the overflight becomes less a significant concern with higher density development.

The M&H Report relies upon a proposed extension of Parallel (General Aviation) Runway 18L-36R, as described in the yet to be adopted 2004 Airport Plan, to conclude that overflight would occur with greater frequency. The M&H Report presumes that residential development in Oat Hill would create more conflicts. As a result, on the basis of overflight considerations alone, the M&H Report concludes that there are no grounds to move the Zone D and E boundaries.

The Gillfillan Report notes that overflight considerations would not preclude residential development of the Oat Hill area. New residential uses in areas where overflights will occur are recognized as a compatible use in the 2002 Handbook.

The lesser significance of overflight is further emphasized by the fact it is now accepted practice in preparation of environmental documents for runway extensions that overflights over existing residential areas are **not** a consideration. Rather, the analysis is based upon the 65 CNEL contour. As the M&H Report notes, the Oat Hill area is far from the boundaries of the 65 CNEL contour.

The overflight issue becomes a consideration solely because of the possible extension of the Parallel (General Aviation) Runway 18L-36R from its current length of 2,500 feet to 4,000 feet. This proposed extension is contained in the 2004 Airport Plan. As of this date, however, the 2004 Airport Plan has not completed environmental review, and has not been adopted.

The 1991 Airport Master Plan called for extension of Parallel (General Aviation) Runway 18L-36R from 2,500 feet to 3,380 feet. Fourteen years after this plan was adopted the runway is still only 2,500 feet in length.

The Airport Manager, as recently as October 12, 2005, indicated to the County Board of Supervisors that there are no plans to lengthen runways. These remarks, and the fact no action has been taken to implement the 1991 Airport Master Plan, put into serious question the statements in the M&H Report that the extension of Parallel (General Aviation) Runway 18L-36R would occur within the next 3-5 years.

The adopted 1991 Airport Master Plan proposed increasing the length of Parallel Runway (General Aviation) 18L-36R to shift noise associated with the JAL training flights to the other side of the airport. The training pattern was not as large as that shown in the M&H Report.

Airport activity has not increased significantly since 1975. There is no reason to believe that an expanded overflight area is needed to protect the airport.

The Plan takes the most conservative position possible relative to land use compatibility. The Plan states that **no** new residential development should occur in areas which are subject to overflight, regardless of the frequency, the noise level or surrounding land development patterns. This position disregards provisions of the Plan and the 2002 Handbook that provide for avigation or overflight easements and recorded deed notices as a means of dealing with the overflight issue. The Plan and the M&H Report do not further the orderly development of the Oat Hill area or the City.

The Plan is to provide for the orderly growth of the airport and the surrounding area. The Plan should safeguard the general welfare of the inhabitants within the airport area and the public in general. The Plan can accomplish these goals without an a prohibition of residential development in the Oat Hill area.

State law requires that the ALUC review the Plan in relation to **adopted** plans. The adopted Airport Master Plan calls for expansion of the Parallel (General Aviation) Runway 18-L-36R to a total length of 3,380 feet. This expansion would not cause the overflight problem. Only when looking beyond the guidance set forth in State law and using a proposed unadopted plan is there any arguable basis for maintaining the Zone D and E boundaries in their existing location.

The M&H Report fails to recognize that the Oat Hill Master Plan project is an

infill development. The Oat Hill area is bounded on three sides by development. A graphic depiction of the Oat Hill area, in relation to other development, is enclosed with this letter.

The Zone D development restrictions are designed to prevent incompatible residential uses in rural, undeveloped areas. Application of the Zone D restrictions to the Oat Hill area would be inconsistent with, and would not further, this intent. Residential uses are developed south of Oat Hill. Industrial uses are established directly to the north. There is no rural character in Oat Hill to protect or preserve.

Oat Hill is unique in its location to the airport, and the topography of the area. The Oat Hill area is not in line with the runways. The Oat Hill area is nearly 10,000 feet from the airport. Noise, safety, and airspace intrusion would not preclude development. Oat Hill is an infill development that would not promote urban development into agricultural areas.

The Napa Vallejo Waste Management Authority is one of the major property owners in the Oat Hill area. The Zone D development restrictions on the Authority's property will have significant financial impacts on all County residents.

Development of the Oat Hill area is vital to the growth of the City. The Oat Hill area is the remaining undeveloped area with the City. The Oat Hill area has a variety of existing uses and underutilized land. The City has an opportunity to provide needed resources, including housing, to its residents. The Zone D development restrictions would preclude the orderly growth of the City.

The Board of Supervisors clearly expressed its policy toward housing when it approved and entered into the Housing MOU. Napa County cannot meet its Regional Housing Needs Determination without assistance from the City. The Housing MOU recognizes that development of the Oat Hill area will enhance housing opportunities for all income groups. The Zone D development restrictions, however, would frustrate the County's housing policy.

The M&H Report, if adopted by the ALUC, would substantially preclude the City from accepting the allocation of housing units from Napa County, as is provided in the Housing MOU. There are no other areas within the City where significant residential development can occur. Thus, the M&H Report makes it much more problematic that Napa County could meet its unmet housing needs.

The City believes that the boundary line between Zones D and E in the Oat Hill area should be moved, and that residential development in the Oat Hill area should be permitted. Residential development in the Oat Hill area would not implicate safety, noise, and airspace intrusion considerations.

Furthermore, overflight concerns are not sufficient to keep the Zone D and E boundaries in their present location. The unique location of Oat Hill, the fact that Oat

Hill is an infill development project and not a development in a rural area, the fact that development of the Oat Hill area was contemplated in the Housing MOU, and the fact that higher density residential development is proposed for that portion of the Oat Hill area closest to the airport all indicate that overflight issues in Oat Hill are not significant.

When all the factors are considered, the ALUC should find that there are grounds to move the Zone D and E boundaries around the Oat Hill area. Residential development of Oat Hill will not create compatibility problems associated with safety, noise, airspace intrusion, or overflight. Amending the Plan and moving the Zone D and E boundaries around the Oat Hill area will promote orderly growth, and will provide for the general welfare, while maintaining protection for the airport.

The Zone D and E boundary line should be relocated. The boundary line should be returned to the location prior to the 1999 Amendment, or the boundary line should be moved to the north and west of the Oat Hill area.

Thank you for the opportunity to present this information to you. We look forward to discussing this with you further on November 2, 2005.

Very truly yours,

City of American Canyon

By: _____
Barry Cromartie, Planning Director

BC:RWG
Enclosures
(1) Housing MOU
(2) Gillfillan Report 1
(3) Gillfillan Report 2
(4) Land Use Alternative 1
(5) Land Use Alternative 2
(6) Oat Hill infill

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MEMORANDUM

September 26, 2005

TO: Kristie Wheeler

FROM: Walter Gillfillan

SUBJECT: Initial review of the Mead & Hunt report

Per your request, I have completed an initial review of the Oat Hill Development Land Use Compatibility Analysis report prepared by Mead & Hunt date September 2005. It is important to note that the stated purpose of the Mead & Hunt report is multifaceted. It requires, (1) an assessment the compatibility of the proposed Oat Hill development with operations at the Napa County Airport base on safety, noise, overflight and airspace using the 2002 California Airport Land Use Planning Hand book and (2) a determination whether the boundary of the ALUC compatibility zone "D" should be modified.

ASSESSMENT OF THE COMPATIBILITY

The assessment considered four factors related to land use compatibility - safety, noise, overflight and airspace. The following conclusions were reached in the assessment of these factors:

- **Safety** – "The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility".
- **Noise** – "The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours".
- **Overflight** – "Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa county Airport that do not now exist".
- **Airspace** – "Portions of the Oat Hill property penetrate the horizontal surface".

This assessment identifies two factors that are possible issues – overflight and airspace. The following are points to consider that relate to these two factors:

Overflight

- As noted in the Handbook, overflight is an annoyance issue. There are no metrics or criteria that help define the extent of the problem, except that experience suggests that it is related to frequent, low-altitude aircraft overflight. That activity

can result in noise complaints from residential areas outside of the noise contour boundaries. Aircraft noise is always considered in airport environmental impact evaluations. However, because there are no "levels of significance" for overflight noise, the effect of proposed airport expansion proposals on existing residential land uses is not commonly considered in environmental analysis.

- There is a significant change proposed in the Airport Master Plan now being considered by the County. Runway 18L-36R is currently 2,510 feet in length. The existing, adopted 1990 Master Plan provides for an extension of 870 feet to 3,380 feet of runway length. The Master Plan currently under consideration would provide for an additional extension of 1,490 feet to a length of 4,000 feet. According to the Public Utilities Code, Section 21675, the ALUC is required to base its Land Use Plan on the airport long-range master plan or Airport Layout Plan. In this case, the currently adopted master plan.
- This 60% increase in the length of Runway 18L-36R allows for the shifting of some JAL training flights to Runway 18L-36R, thereby significantly enlarging the traffic pattern on the south side of the airport to accommodate these aircraft. This enlarged traffic pattern will cause some overflight of the proposed Oat Hill project area under certain conditions, by some aircraft types.
- The traffic pattern for piston-powered aircraft would not overfly the Oat Hill project area with either of the runway extensions proposed for Runway 18L-36R.
- Air traffic using Runway 6-24 provides no overflight by piston-powered or jet aircraft, but does have some near-by flights by the JAL training operations.

Airspace

Because the actual finding of compliance with the provisions of Part 77 is a responsibility of the FAA, only the FAA can make a final finding of hazard or non-hazard. The following are important considerations:

- The Airspace Plan developed for the Napa County Airport by the ALUC does note that a portion of natural terrain of Oat Hill extends about 80 feet into the Horizontal Surface as defined by the FAA.
- The elevation of the imaginary Horizontal Surface is 150 feet above the airport elevation, or 183 feet msl. A very small portion of the hill also extends into the Conical Surface, as defined by Part 77. It should be noted that an existing water tank on Oat Hill has a top elevation of approximately 313 feet.
- This obstruction as defined by Part 77 is remote from any of the runway approaches and away from the common traffic pattern areas. As a result, this terrain feature is not likely to affect any of the existing aircraft operations. Proposed structures on the side of the hill are not likely to be found to be an obstruction, since the hill itself is the controlling obstruction in the area.
- However, structures on top of the hill could be a concern if higher that the existing terrain or water tank.
- While the principal focus of Part 77 is on the height of structures/vegetation, there is another element that should be noted. A review of the proposed project must determine that it does not create (*i*) electromagnetic interference with air navigation facilities, nor (*ii*) lighting effects, nor (*iii*) smoke that would interfere with aircraft in flight.

BOUNDARY OF THE ALUC COMPATIBILITY ZONE "D"

The report concludes, ..."that there are no grounds to shift Zone D". This is based principally on the factor of overflight and the annoyance that can result from frequent, low-flying aircraft. Included in the discussion are the following points:

- The preservation of the rural character of the areas surrounding the airport to minimize the public's exposure.
- The Napa County Airport is a rare example of a busy airport that is largely free from incompatible land uses.
- Compatibility plans must be guided by airport plans
- The challenge is to prevent the introduction of incompatible land uses
- It would be inappropriate to permit the introduction of residential uses where overflight impacts are a concern.

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December 10, 2005

To: Lisa Mochizuki

FROM: Walter Gillfillan

SUBJECT: Graphical depiction of Runway 18L-36R traffic pattern issue

Per your request, I have developed a graphical display to highlight the effect of the proposed Runway 18L-36R extension, and proposed traffic pattern changes, would have on the proposed Oat Hill project.

In doing this, I have used information contained in several documents:

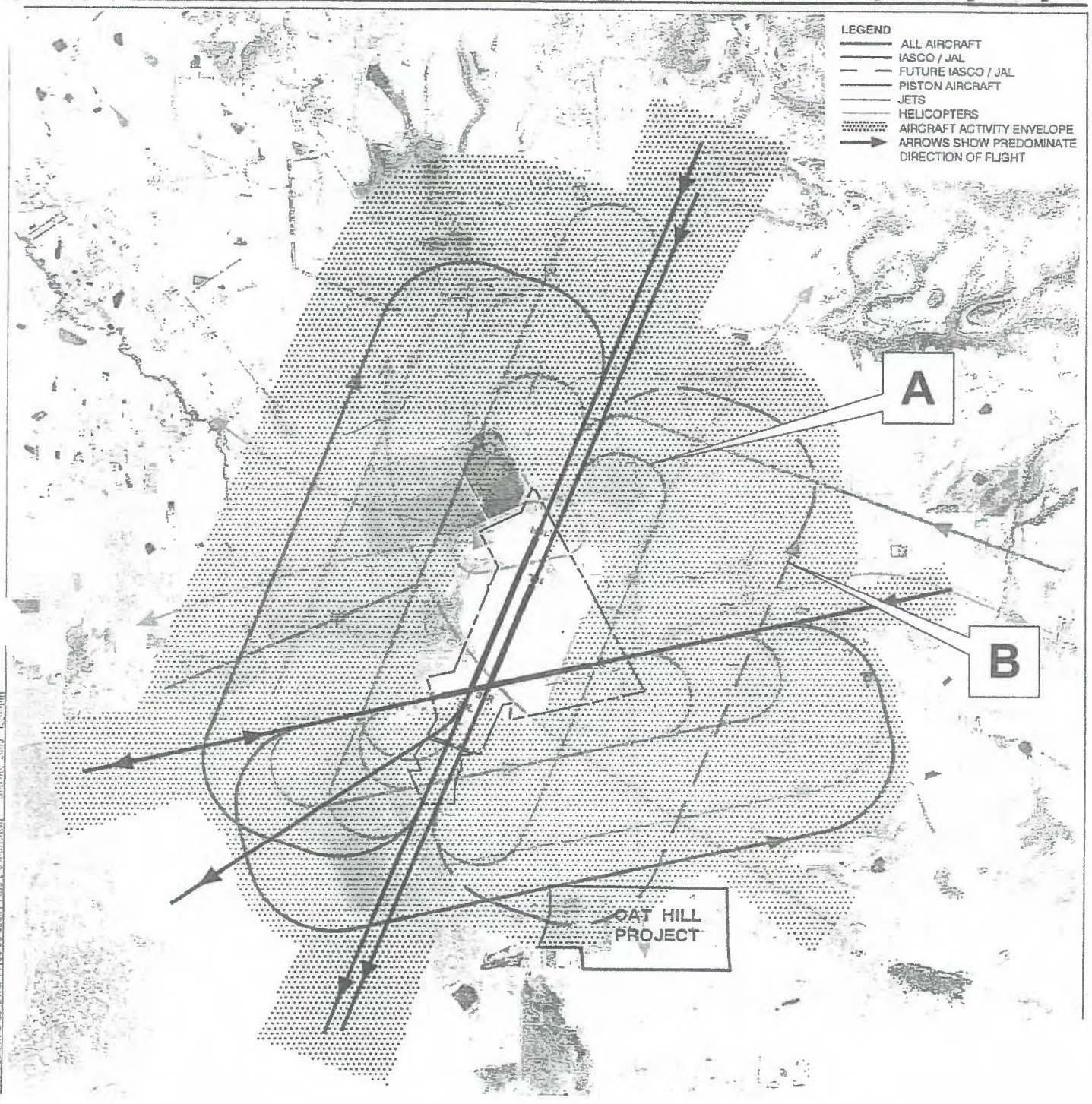
- Hodges& Shutt. Napa County Airport Master Plan Report, Adopted May 1991
- Mead & Hunt. Napa County Airport Master Plan. Revised Draft Report, June 2004
- Mead & Hunt. Oat Hill Development Land Use Compatibility Analysis. September 2005

It is important to note that there is a difference in proposed runway length between the Oat Hill Development Land Use Compatibility Analysis report and the Revised Draft Napa County Airport Master Plan report. The Oat Hill analysis assumed an extension to 4,000 ft. The Revised Draft Master Plan report indicates an extension to 3,380 ft.

Attachment I is Figure 5 from the Oat Hill Development Land Use Compatibility Analysis with notations added to identify the two traffic patterns A and B that are relevant to the proposed Oat Hill project.

Attachment II is a narrative presenting the issues associated with the proposed extension of Runway 18L-36R and the proposed future IASCO/JAL training pattern.

Oat Hill Development Land Use Compatibility Analysis



DESCRIPTION OF TRAFFIC PATTERN ISSUES
Runway 18L-36R

Runway 18L-36R Lengthened

- The source for these comments is Figure 5 from the Oat Hill Development Land Use Compatibility Analysis report.
- The Oat Hill Development Land Use Compatibility Analysis report indicates a runway extension from the present 2510 ft. to 4,000 ft.
- The Revised Draft Napa County Airport Master Plan report indicates an extension to 3,380 ft.

A - Traffic pattern for piston-powered aircraft

- Pattern is located 3,000 ft. from the runway centerline
- Closest point to the Oat Hill project approximately 1,700 ft.; 2,200 ft. if the runway length were 3,380 ft.
- There is no overflight of the Oat Hill project by these aircraft

B - Traffic pattern for future IASCO/JAL

- Pattern is located 7,500 ft. from the runway centerline to simulate large aircraft operations
- This pattern extends approximately 1,500 ft. in to the northwestern portion of the Oat Hill project; approximately 800 ft. if the extension to 3,380 ft. is used.
- The pattern and the aircraft activity envelop would affect approximately one-half of the Oat Hill project area
- There would be IASCO/JAL training overflights of the Oat Hill project. The number or proportion is not evident from the available material.

Runway 18L-36R Unchanged

A - Traffic pattern for piston-powered aircraft

- The current runway length is 2,510 ft.
-
- Closest point to the Oat Hill project approximately 3,200 ft.
- There is no overflight of the Oat Hill project by these aircraft

B - Traffic pattern for future IASCO/JAL

- The shorter length would exclude the IASCO/JAL training pattern
- There is no overflight of the Oat Hill project

Location

The Oat Hill properties are located southeast of the Napa County Airport. The site is on the northern edge of the City of American Canyon, west of Highway 29. At its closest point, the project site is about 7,500 feet from the nearest runway (Runway 6-24) at the Napa County Airport (Figures 1 and 2). The project would consist of a variety of housing types, expansion of an existing school site, and possibly some commercial uses.

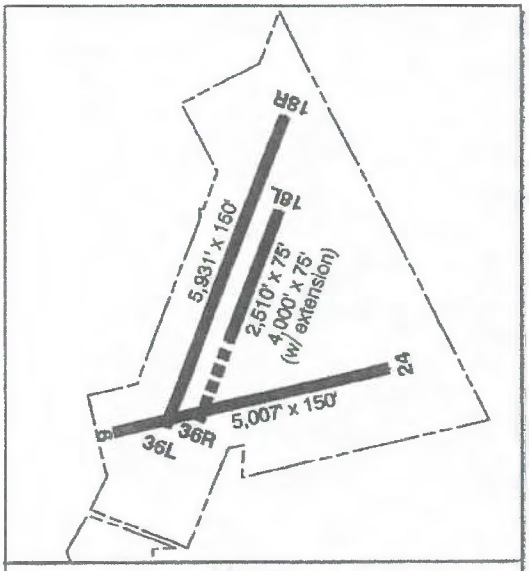


Figure 1

Analytical Task

The Napa County Airport Land Use Commission (ALUC) charged Mead & Hunt with assessing the compatibility of the proposed Oat Hill development with operations at the Napa County Airport. The assessment was to evaluate compatibility based upon:

- Safety
- Noise
- Overflight
- Airspace

Assessment of each of these factors is to be based upon the 2002 *California Airport Land Use Planning Handbook* and current aviation industry practice. The purpose of the analysis is to determine whether the boundaries of compatibility zone "D" should be modified. The boundary of the D Zone passes through the Oat Hill site. Napa County ALUC policies do not permit new residential uses within this zone.

Sources of Data

Data for this analysis came from a variety of sources. Noise contours and airspace surfaces were taken from the draft Napa County Airport Master Plan which was released in June 2004. The 2004 draft *Master Plan* is conceptually identical to the master plan adopted in 1990. Both plans included only one change to the runways at Napa County Airport: extension of the parallel runway (Runway 18L-36R) to accommodate Japan Air Lines (JAL) training operations. The 1990 and 2004 plans differ in the length that the runway would be extended. Under the 1990 plan the parallel runway would be extended to 3,380 feet, under the 2004 plan the length would be increased to 4,000 feet. The greater length is required because the aircraft types and operating requirements used for JAL training have changed. The 2004 version has been used in this analysis because its adoption is expected to occur within a few months. Environmental documentation for the runway extension and other projects is being prepared.

Safety factors were taken from the California Airport Land Use Planning Handbook. Detailed flight tracks developed to assess overflight impacts were developed from interviews with knowledgeable individuals associated with the Napa County Airport on the dates noted, including:



Figure 2

Location Map

Napa County Airport

- Tom Shannon, Air Traffic Manager, Napa Airport Traffic Control Tower, Federal Aviation Administration and his staff (June 20, 2005)
- Bob Berthold, JAL Chief Flight Instructor, IASCO (June 6, 2005)
- Susan Chambers, Chief Flight Instructor, Bridgeford Flying Services (June 6, 2005)
- Wayne Lackey, President, Wine County Helicopters (June 6, 2005 at Airport Advisory Commission meeting)
- Napa County Airport Advisory Commission (at its public meeting on June 6, 2005)
- Members of the Napa Area Pilots Association (June 6, 2005)

The individuals interviewed are aviation professionals with direct, daily experience with flight operations at Napa County Airport. The two chief flight instructors oversee most flight training operations at the airport. The Napa County Airport Advisory Commission was used as a forum for public input. Members of the Napa Area Pilots Association were invited to contribute their insight on flight operations.



Those interviewed were asked to define common flight tracks based upon their experience. In each case, a scaled aerial photograph of the Napa County Airport environs was provided as an aid. In many cases those interviewed sketched the flight tracks on the drawing. Mr. Shannon, Air Traffic Manager was interviewed last. As the air traffic controllers now have radar displays in the tower, they were asked to review the flight tracks suggested by others.

Assessment

Safety

Safety is in many respects a more difficult concern to address in airport land use compatibility policies than noise. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations, whereas noise policies deal with known, more or less predictable events which do occur with every aircraft operation. Because aircraft accidents rarely happen and the time, place, and consequences of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility.

Safety criteria are currently defined in three ways. The Federal Aviation Administration's Airport Design advisory circular (AC 150/5300-13) contains land use policies for runway protection zones. Runway protection zones are areas beyond runway ends in which residences and places of public assembly are prohibited. Under this definition, places of public assembly include churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of people. The Federal Aviation Administration recommends that airports acquire the property within their runway protection zones.

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The runway protection zones closest to the Oat Hill project are those for Runways 36L, 36R, and 24. Of these, the future runway protection zone for Runway 36L lies nearest to the project. However, it is over 4,500 feet from this runway protection zone to the project site.

The safety compatibility zones described in the California Airport Land Use Planning Handbook are the next source of guidance on safety policies. In Chapter 9, the Handbook provides examples of various configurations of safety compatibility zones and recommended policies for each zone. Of the five examples provided for general aviation airports (i.e., one without scheduled passenger service), Example 3 in Table 9K best fits the characteristics for Runway 36L. That is, it is a long runway at a general aviation airport with a precision instrument approach. The compatibility policies for this runway would be the most restrictive on the Oat Hill property. If these policies were applied, a portion of the Oat Hill property would lie within the traffic pattern zone (Figure 3). Within the traffic pattern zone, the Handbook would allow residential uses and most nonresidential uses. Uses to avoid include schools, hospitals, and outdoor uses with high occupancy levels.

An emerging trend in California compatibility plans is to directly use national accident data to create accident risk intensity contours. Similar in concept to noise contours, accident risk intensity contours define areas with similar probabilities of an aircraft accident. These zones vary in size based upon various factors. For a busy runway serving both large and small general aviation aircraft, these zones will extend about one mile from the runway end. The outermost accident risk intensity contour for Runway 36L (which would come closest) would be over 3,500 feet from the nearest corner of the Oat Hill project site.

Safety Conclusion: The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility.

Noise

Noise is one of the most basic airport land use compatibility concerns. Moreover, at major airline airports, many busy general aviation airports, and most military airfields, noise is usually the most geographically extensive form of airport impact.

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for airport noise, is the Community Noise Equivalent Level (CNEL). This metric provides a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed. To reflect assumed greater community sensitivity to nighttime and evening noise, events during these periods are counted as being louder than actually measured. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures — ones affected by high concentrations of aircraft takeoffs and landings.

Single-event noise metrics are sometimes used in evaluating impacts of proposed airport modifications. They are rarely used as a means of defining land use compatibility policies.

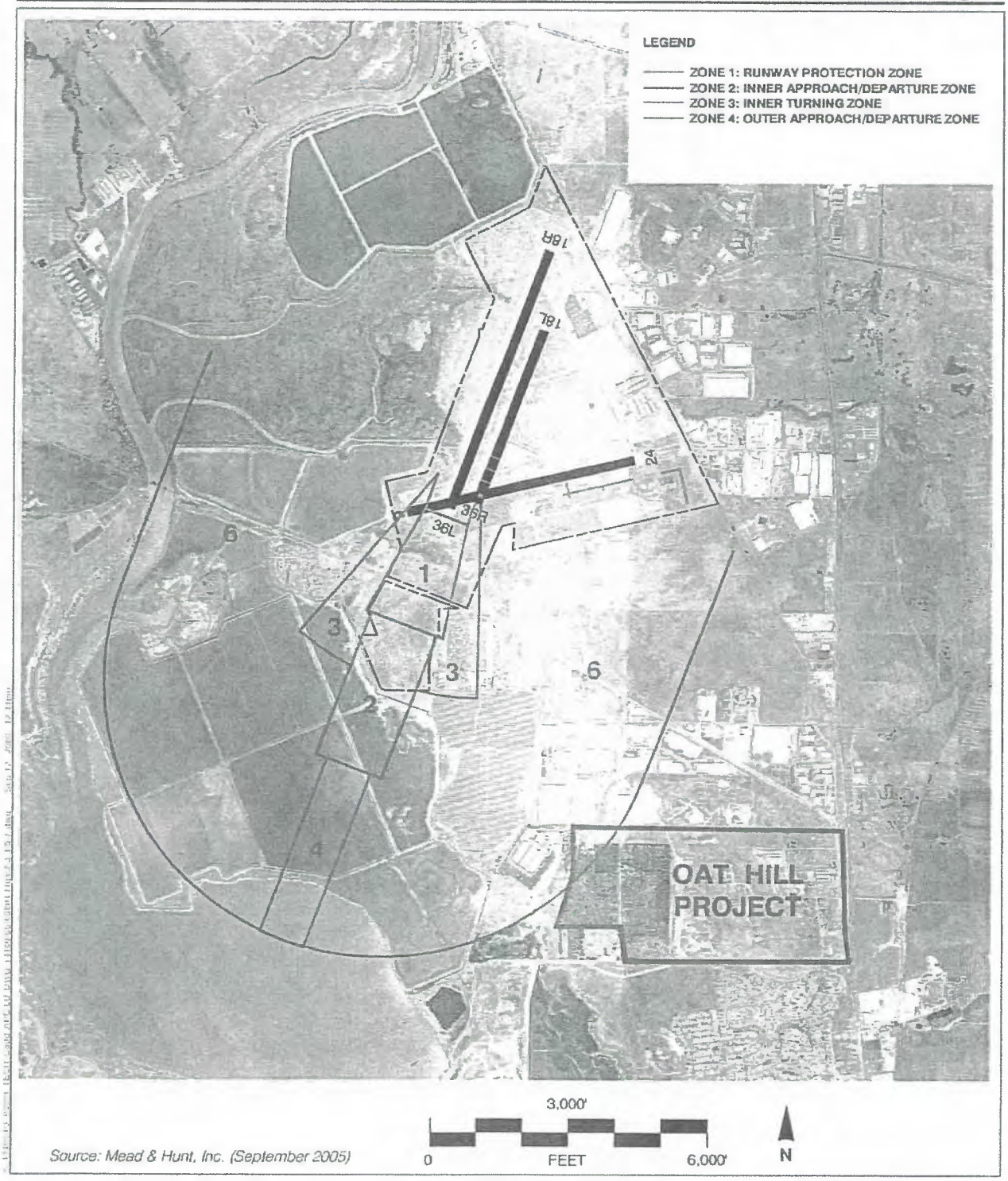

Figure 3

Caltrans Handbook Safety Zones

Napa County Airport

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For general aviation airports in rural settings, the 55 CNEL noise contour is commonly used as the threshold for allowing residential uses. In suburban settings, the 60 CNEL contour is typically used. These thresholds are recommended in both the California Airport Land Use Planning Handbook and are consistent with current aviation industry practice. The Federal Aviation Administration generally limits concerns over residential uses to within the 65 CNEL contour. However, the Federal Aviation Administration has supported policies to restrict new residential uses out to the 60 CNEL contour. The nearest edge of the Oak Hill property is over 4,000 feet from the nearest point on the current 55 CNEL contour and about 3,500 feet from the 55 CNEL contour forecast for 2022 (Figure 4).

Noise Conclusion: The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours.

Overflight

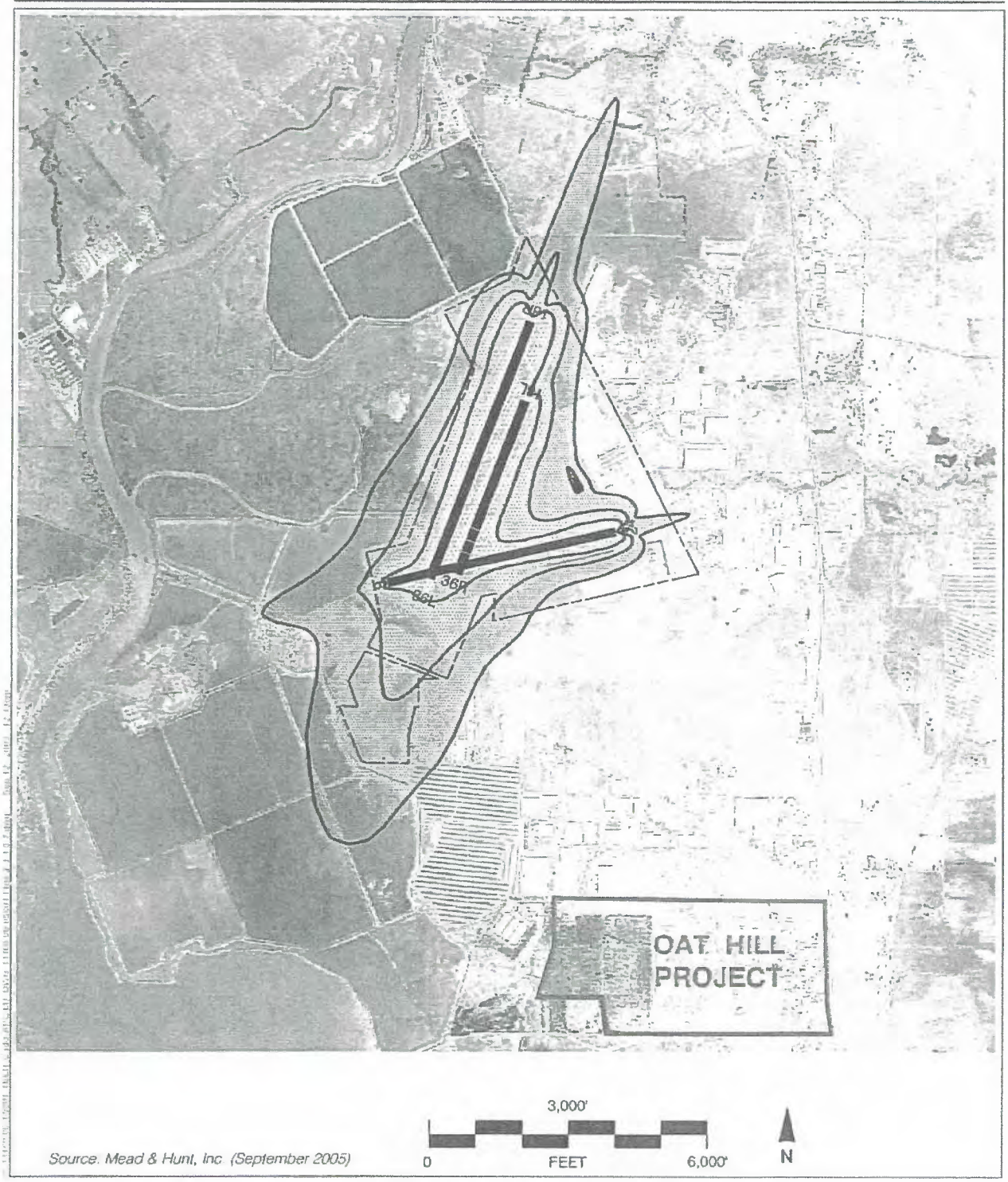
Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contour. Many people are sensitive to the frequent presence of aircraft overhead even at noise low levels. These reactions can mostly be expressed in the form of annoyance.

At many airports, complaints often come from locations beyond any of the defined noise contours. Areas that underlie common flight patterns are likely places for this to occur. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive — or, in some circumstances, even distinctly audible — above background noise levels. The limited numbers of complaints that have been received at Napa County Airport have been almost exclusively from outside the noise contours.

The *Handbook* discusses overflight impacts in terms of both single-event noise impacts (e.g., speech interference or sleep disturbance) and annoyance. The *Handbook* does not recommend specific policies for areas affected by overflights. It mentions excluding residential uses, insulation of residences and schools, and relying upon notification of potential buyers as possible strategies for addressing overflight effects.

Recent industry practice has been to select one of two strategies depending upon the current pattern of development. Where an airport's environs are largely free of sensitive uses (e.g., residences) and not already committed to this type of development, compatibility policies will favor retention of the non-sensitive uses (e.g., agriculture, industrial). Where the areas subject to overflights are already largely developed or are committed to sensitive uses, compatibility policies will favor a high-low strategy. A high-low strategy is based upon the premise that overflight annoyance is less likely to occur in residential areas with higher densities due to higher ambient noise levels. Therefore, in areas subject of overflight impacts can be either at rural densities (e.g., 40 acre parcels) or high densities (e.g., apartments or common-wall residences). The high-low strategy results in either a small pool of potentially annoyed residents (low density) or a large number of residents (high density), but lower likelihood of annoyance occurring.

Current and anticipated flight tracks were mapped using data collected though the interviews described above. Common flight tracks and the most commonly overflown areas associated with Napa County Airport operations are depicted on Figure 5.



Source: Mead & Hunt, Inc. (September 2005)

Figure 4

Noise Contours: 2022

Napa County Airport

It is important to realize the variability in the flight tracks. Everywhere within five miles of the airport will be overflown in an average year. The graphic depicts only those areas that are commonly overflown near traffic pattern altitude. Typically traffic pattern altitude for small aircraft is 1,000 feet above airport elevation, for large aircraft 1,500 feet above airport elevation. Touch-and-go flight tracks have greater predictability than arrival and departure tracks.

The Oat Hill site is currently overflown during several distinct types of operations. A significant addition in overflights will occur when the parallel runway (Runway 18R-36L) is extended. An extension of this runway is included in both the 1990 and 2004 plans. The extension is expected to be operational in 3 to 5 years. Each operation that commonly overflies the Oat Hill site is discussed below. The standard names for flight track segments used in the discussion are identified in Figure 6.

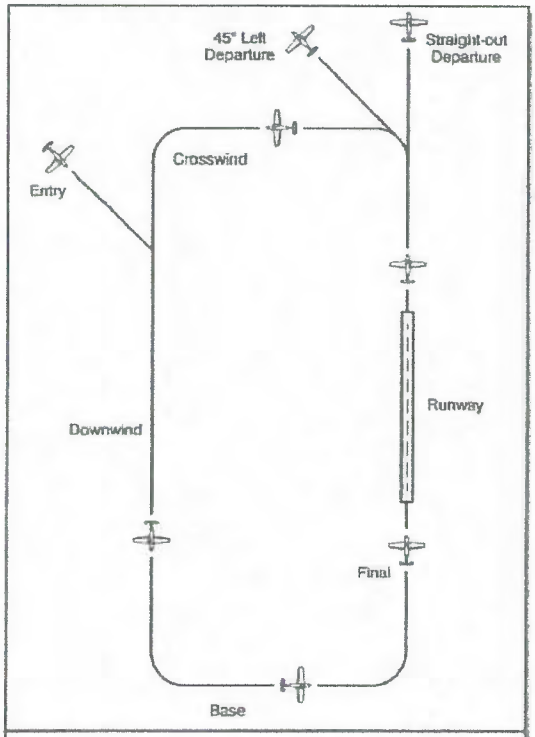


Figure 6

The highest volume of overflights occurs when winds favor the use of Runway 24 (the east-west runway). This occurs regularly during the spring and early summer. It will also occur sporadically during the fall and winter during the passage of storm fronts. When winds favor the use of Runway 24, all classes of aircraft will conduct landings on Runway 24. Tough-and-go operations will also fly a pattern with repeated landings and takeoffs on Runway 24. Most piston aircraft not associated with the JAL training program will fly their downwind leg about one-half nautical mile south of Runway 6-24. Larger turboprops and jets will fly the downwind leg from one to three miles south of the runway. Because of the requirements of its training program, JAL training flights will occur about one and a quarter nautical miles south of the runway. There will typically be several JAL training aircraft in the pattern at the same time.

When winds favor Runways 18L and 18R (the wind condition most commonly experienced), jets arriving from the southeast will overfly the area in and around the Oat Hill site. The flight track shown in Figure 1 is suggestive of the general orientation of these operations. However, the individual flight tracks will vary widely from the generic track shown.

Helicopter air taxi operations to Oakland International Airport commonly overfly the western portion of the Oat Hill site at or below traffic pattern altitude during both arrivals and departures. This track is set by destination not by wind patterns. Helicopter operations by the California Highway Patrol are regularly conducted south of Napa County Airport. However, because their tracks vary greatly, they are not shown in Figure 1.

Runway 18L-36R is planned to be extended to 4,000 feet. An extension to accommodate JAL training flights has been planned since 1990. The 2004 draft master plan changes the length,

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but not the purpose. Environmental review is currently being completed to support the extension. When this runway is extended, it is anticipated to be regularly used JAL training flights. Staff with IASCO, that provides the instructors for the JAL flights, indicated that lengthening Runway 18L-36R would make it usable for their tough-and-go operations. There are a couple important benefits. One, it would increase the ease with which larger aircraft could use the main runway (Runway 18R-36L). Second, it would reduce the complexity for air traffic control staff in sequencing aircraft operations on the main runway. As shown in Figure 1, these future JAL operations would overfly the northwestern third of the Oat Hill property.

Overflight Conclusion: The Oat Hill property is subject to regular overflight by a variety of aircraft types. JAL's single-engine piston aircraft will overfly the site during training flights from Runways 18R-16L and 18L-36R when they are flying the pattern east of the airport. JAL training aircraft will also overfly the site when the wind favors the use of Runway 6-24. The noise level of individual aircraft will comparable to a power lawnmower in a neighbor's yard. There will normally be several aircraft training at the same time. This would mean an overflight could occur about every 45 seconds. The site is overflown by helicopters traveling to or from Oakland International Airport (or other destinations south of the airport). At most these would occur a couple of times per day. Jets arriving from the southeast will sometimes overfly the Oat Hill site. Both the flight tracks and altitude will vary significantly. Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa County Airport that do not now exist.

Airspace

Relatively few aircraft accidents are caused by land use conditions which are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions which, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics which pose other potential hazards to flight by creating visual or electronic interference with air navigation.

Whether a particular object constitutes an airspace obstruction depends upon the height of the object relative to the runway elevation and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Part 77 of the Federal Aviation Regulations. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an obstruction and may affect the aeronautical use of the airspace.

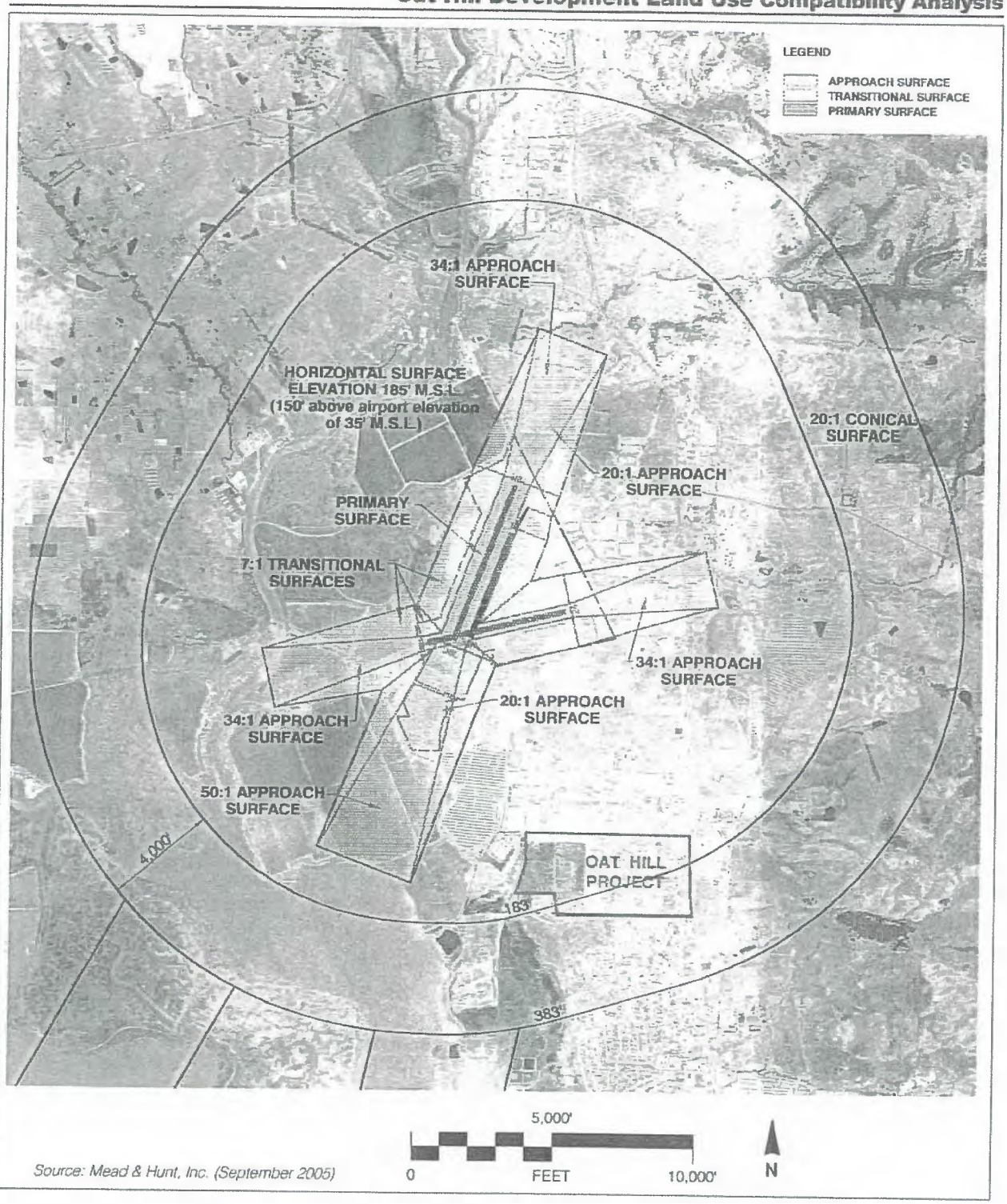


Figure 7

Airspace Plan
Napa County Airport

Implications for the Zone D Boundary

California statutes state that the purpose of airport land use compatibility plans is to "...protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses." Compatibility plans must be guided by airport plans and documentation of each airports noise and safety impacts.

The Napa County Airport has generally enjoyed a high degree of compatibility with adjacent land uses. In fact, the airport is often used as a rare example of a busy metropolitan airport that is largely free from incompatible uses. In part this was due to the luck of the airport being sited in what had been a rural area. Good planning has limited new development near the airport to compatible commercial and industrial uses. As development continues to occur in the vicinity of the Napa County Airport, the challenge will be to prevent the introduction of incompatible uses.

This analysis provides more detailed documentation of the impacts of air operations at Napa County Airport than has been previously available. This information was designed to support a determination of whether the boundaries of compatibility zone "D" should be modified near the Oat Hill property.

Based upon the earlier analysis, safety and noise do not appear to be significant concerns for the proposed uses. Airspace is of modest concern, but it has the potential to effect only structures on Oat Hill itself. On the majority of the property airspace is not a concern. Given what is known of the project's elements, neither wildlife attractants, nor visual or electronic interference are expected to be a concern. However, overflight effects are a compatibility concern today, and are expected to increase. It would be inappropriate to permit introduction of residential uses where overflight impacts are a concern. Therefore, we conclude that there are no grounds to shift Zone D.

CITY OF AMERICAN CANYON

PLANNING COMMISSION
STAFF REPORT

March 25, 2021
Public Hearing

SUBJECT

Conduct a Public Hearing to consider Resolutions to Recommend City Council approval of:

(1) The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
(2) A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(3) A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
(4) A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(5) A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
(6) A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
(7) A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
(8) A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
(9) A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

PROJECT LOCATION	Oat Hill (Assessor Parcel Numbers 058-380-008, 058-320-001)
APPLICANT/OWNER	RH Hess Development Company
ENVIRONMENTAL REVIEW	The City of American Canyon has prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for a Mitigated Negative Declaration (MND) is the finding that the proposed project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are part of the project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.
STAFF CONTACT	William He, AICP, Associate Planner

REQUESTED ACTIONS

1. Receive staff report.
2. Reopen Public Hearing.
3. Receive public testimony.
4. Close Public Hearing.
5. Commission comments and questions.
6. Adopt the following Resolutions:
   a. The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
   b. A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
   c. A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
   d. A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
   e. A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
   f. A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
   g. A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
   h. A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
   i. A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

Site Information

General Plan Designation	Parcel A is Industrial with Specialty Commercial overlay (CS) and Residential Estate (RE) Parcel B is Residential Estate (RE)
Zoning District	Parcel A is Light Industrial with Specialty Commercial overlay (LI:CS); Parcel B is Residential Estate (RE)
Site Size	20.08 acres (Parcel A is 13.6 acres and Parcel B is 7.2 acres)
Present Use	Vacant
Surrounding Zoning and Uses	North: Light Industrial; winery and a vacant parcel South: Residential Estate; vacant East: Medium Density Residential; single-family homes West: Light Industrial; vacant parcel
Access	Site access is provided from Napa Junction Road



Figure 1: View of Oat Hill from SR-29@ Railroad Bridge



Figure 2: Vicinity Map

Background and Discussion

The Oat Hill property is located between Hess Road and the western terminus of Napa Junction Road. The proposed residential uses on Oat Hill would require a General Plan Amendment and a Zone Change.

A General Plan Amendment and Zone Change is a Legislative Act. Thus the Planning Commission, in its advisory role to the City Council as City residents with appointed authority, has complete discretion to approve, modify or deny such a request.

Proposed Development:
The Project Site topography is characterized by two generally flat terraces connected by a steep hillside, with elevations ranging approximately 80 to 185 feet above mean sea level. Parcel A (the upper parcel) and Parcel B (the lower parcel) are separated by a steep landscaped hillside. An emergency vehicle access (EVA) road will connect the two parcels.

The applicant submitted a Lot Line Adjustment (LLA) to reconfigure Parcel A from 11.3 acres to 13.6 acres and Parcel B from 9.5 acres to 7.2 acres (File No PL20-0039). An LLA is an administrative (staff approval) application. On March 11, 2021, staff informed the applicant the Lot Line Adjustment is technically correct and may be recorded.

History
In August 20, 2019, the applicant requested a workshop with the City Council for the consideration of residential uses on Oat Hill project. At that time, Parcel A was proposed for single family homes and Parcel B was proposed for apartment units.

In January 21, 2020, the City Council approved a resolution declaring that residential uses are the best use of the property on Oat Hill (Resolution 2020-06). The Resolution endorsed residential uses, but not a specific residential density.

In August 14, 2020, the applicant submitted the proposed Oat Hill Multifamily residential project. On December 4, 2020, the applicant submitted the first draft of the Initial Study and Mitigated Negative Declaration (ISMND) report.

On March 3, 2021, the Open Space Advisory Committee reviewed the project for consistency with public access requirements in the Parks Master Plan. Public access issues are considered later in this report.

Project Description
The overall project consists of 291 multi-family dwelling units. The Parcel A development consists of 206 dwelling units in 13 3-story multifamily buildings and a recreation building with leasing office. The density is 15.1 dwelling units per acre. The site will be supported with 451 parking spaces and approximately 2.2-acres of landscaping. The 206 multi-family residential units consists of 52 one-bedroom units, 108 two-bedroom units, and 46 three-bedroom units. Parcel A includes 1.2-acres of common open space and 3.2-acres of hillside slope area.

The Parcel B development consists of 85 dwelling units in five 3-story multifamily buildings and a recreation building with leasing office. The density is 11.8 dwelling units per acre. The 85 multi-family units comprise, 20 one-bedroom units, 45 two-bedroom units, and 20 three-bedroom units. The site will be supported with 183 parking spaces and 1.1-acres of landscaping. Parcel B includes 0.63-acres of common space and 5.9-acres of landscaped hillside slope.

As described in the “Subject Title” of the report, Parcel A and B are subject to the following entitlements:

- Mitigated Negative Declaration
- General Plan Amendment

- Zone change to amend the Zoning Map
- Tentative Subdivision Map, and
- Design Permit.

General Plan Amendment (GPA).

The Parcel A GPA changes the land use designation from Industrial with Specialty Commercial (I:CS) and Estate Residential to High Density Residential (RH-1). Estate Density Residential allows 1 dwelling unit per acres. High Density Residential allows a maximum of 16 dwelling units per acre. The graphic below depicts the "Current" and "Proposed" General Plan designations for Parcel A.

Existing General Plan Parcel A

Proposed General Plan Parcel A

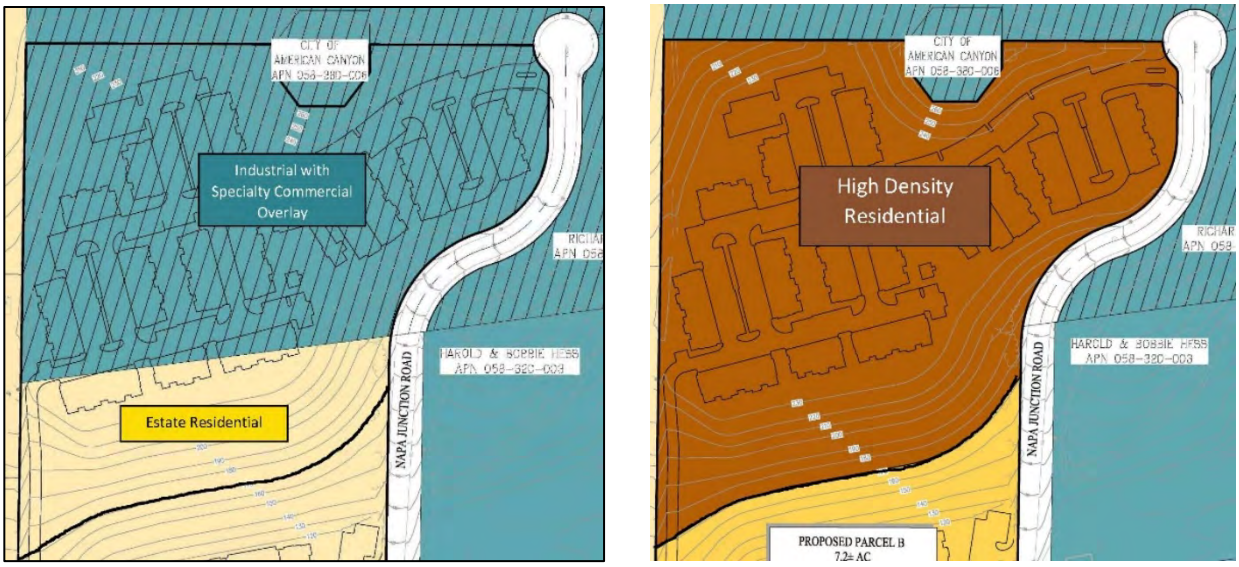


Figure 3: Existing and Proposed Parcel A General Plan Amendment

The Parcel B GPA changes the land use designation from Residential Estate (RE) to Medium Density Residential (RM). The graphic below depicts the "Current" and "Proposed" General Plan designations for Parcel B.

Existing General Plan Parcel B

Proposed General Plan Parcel B

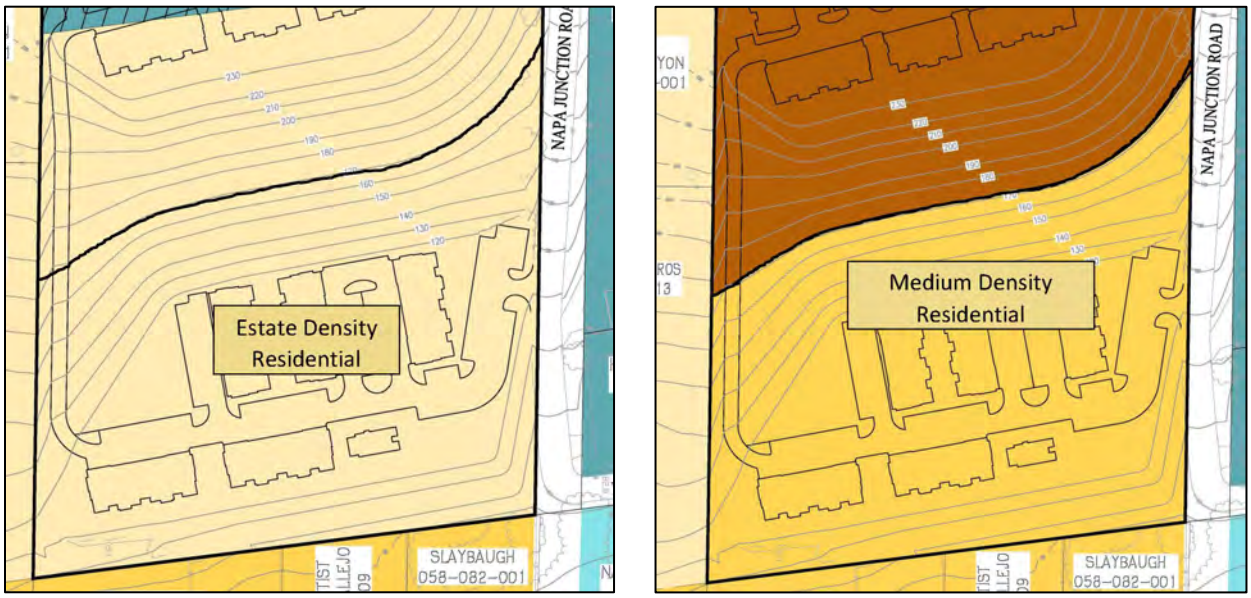


Figure 4 - Existing and Proposed Parcel B General Plan Designation

Zone Change Amendments (ZC).

Consistent with the General Plan revision, the Parcel A ZC amendments will change the zoning from Industrial with Specialty Commercial (I:CS) and Estate Residential to High Density Residential (RH-1). The graphic below depicts the "Current" and "Proposed" Zoning designations for Parcel A.

Existing Zoning Parcel A

Proposed Zoning Parcel A

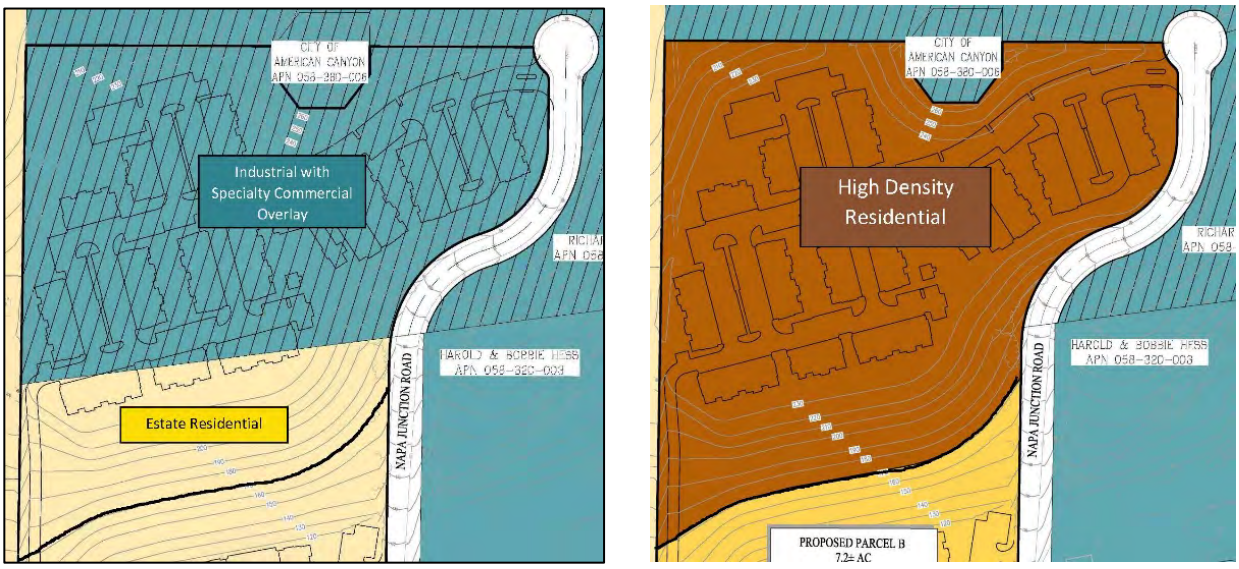
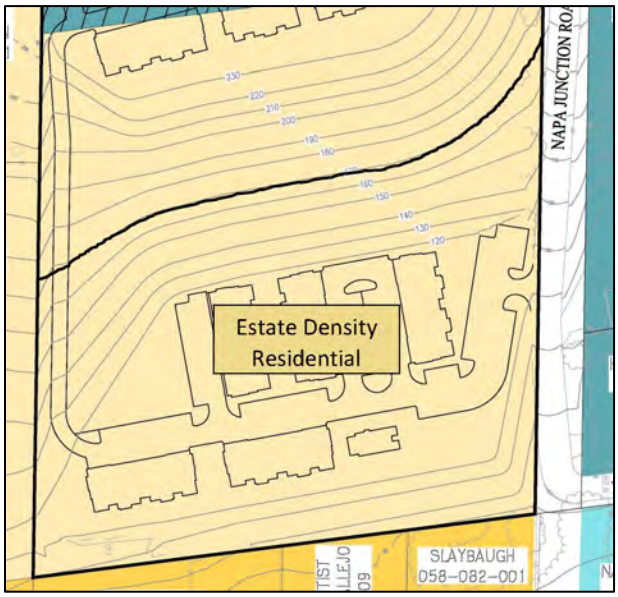


Figure 5 - Existing and Proposed Parcel A Zone Change Designations

The Parcel B ZC amendments will change the zoning from Residential Estate (RE) to Medium Density Residential (RM). The graphic below depicts the "Current" and "Proposed" Zoning designations for Parcel B.

Existing Zoning Parcel B



Proposed Zoning Parcel B

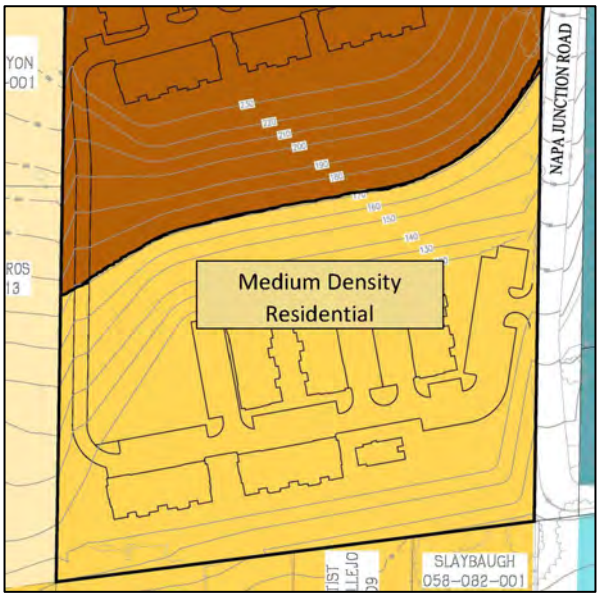


Figure 6 - Existing and Proposed Parcel B Zoning Designation

Tentative Subdivision Map

The applicant submitted a subdivision map for Parcel A and B. The subdivision maps provides flexibility to rent the dwelling units as apartments or sell them as ownership condominiums.

Parcel A Tentative Subdivision Map The Parcel A tentative subdivision map consists of 206 dwelling units in 13 3-story multifamily buildings and a recreation building with leasing office. The interior roads and recreation areas would be privately owned and maintained. The density is 15.1 dwelling units per acre which is within the 16 maximum dwelling units per acre per the High-Density zoning district.

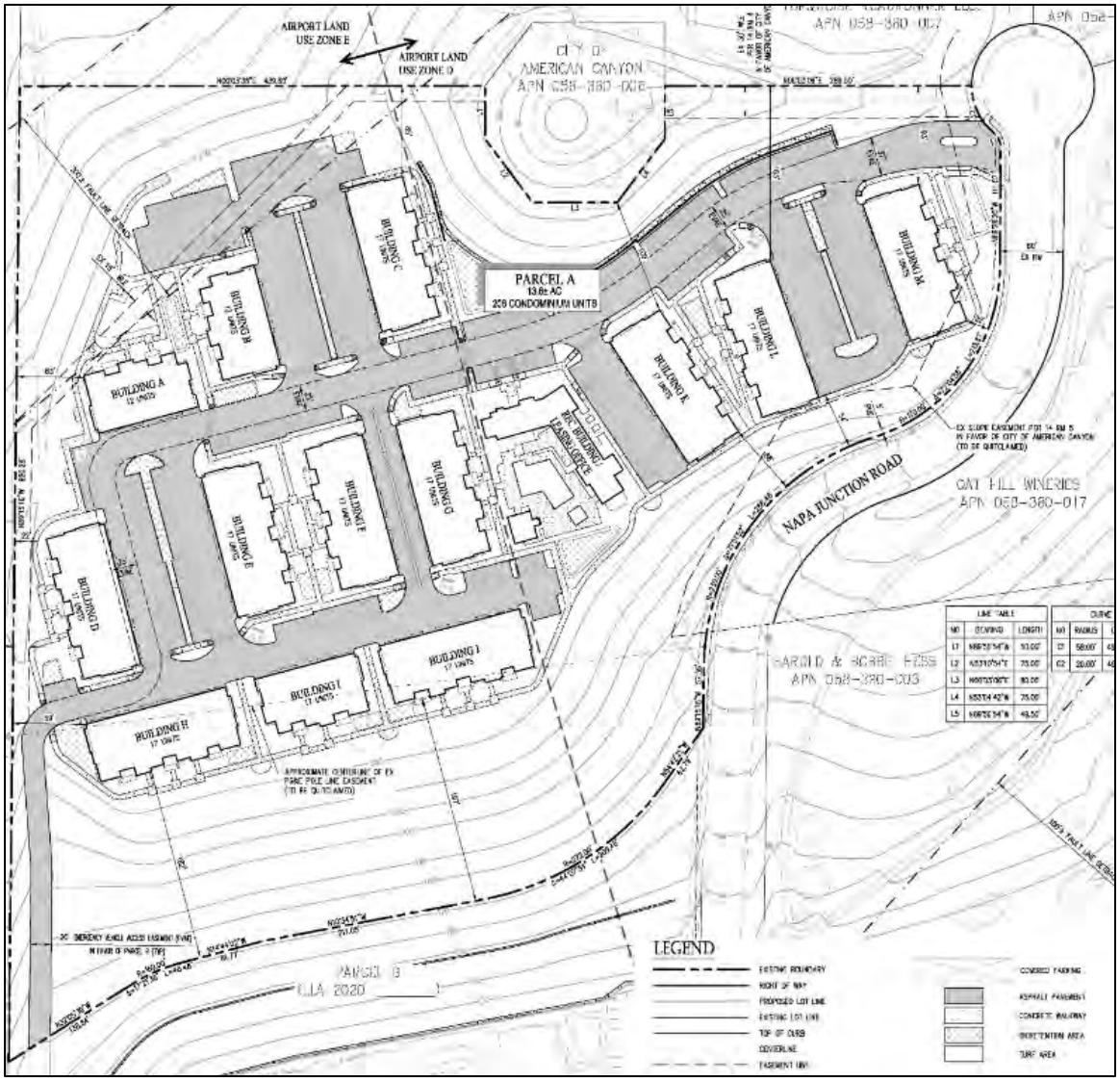


Figure 7 - Proposed Parcel A Tentative Subdivision Map

Parcel B Tentative Subdivision Map The Parcel B tentative subdivision map consists of 85 dwelling units in 5 3-story multifamily buildings and a recreation building with leasing office. The interior roads and recreation areas would be privately owned and maintained. The density is 11.8 dwelling units per acre which is within the 12 maximum dwelling units per acre per the Medium-Density zoning district.

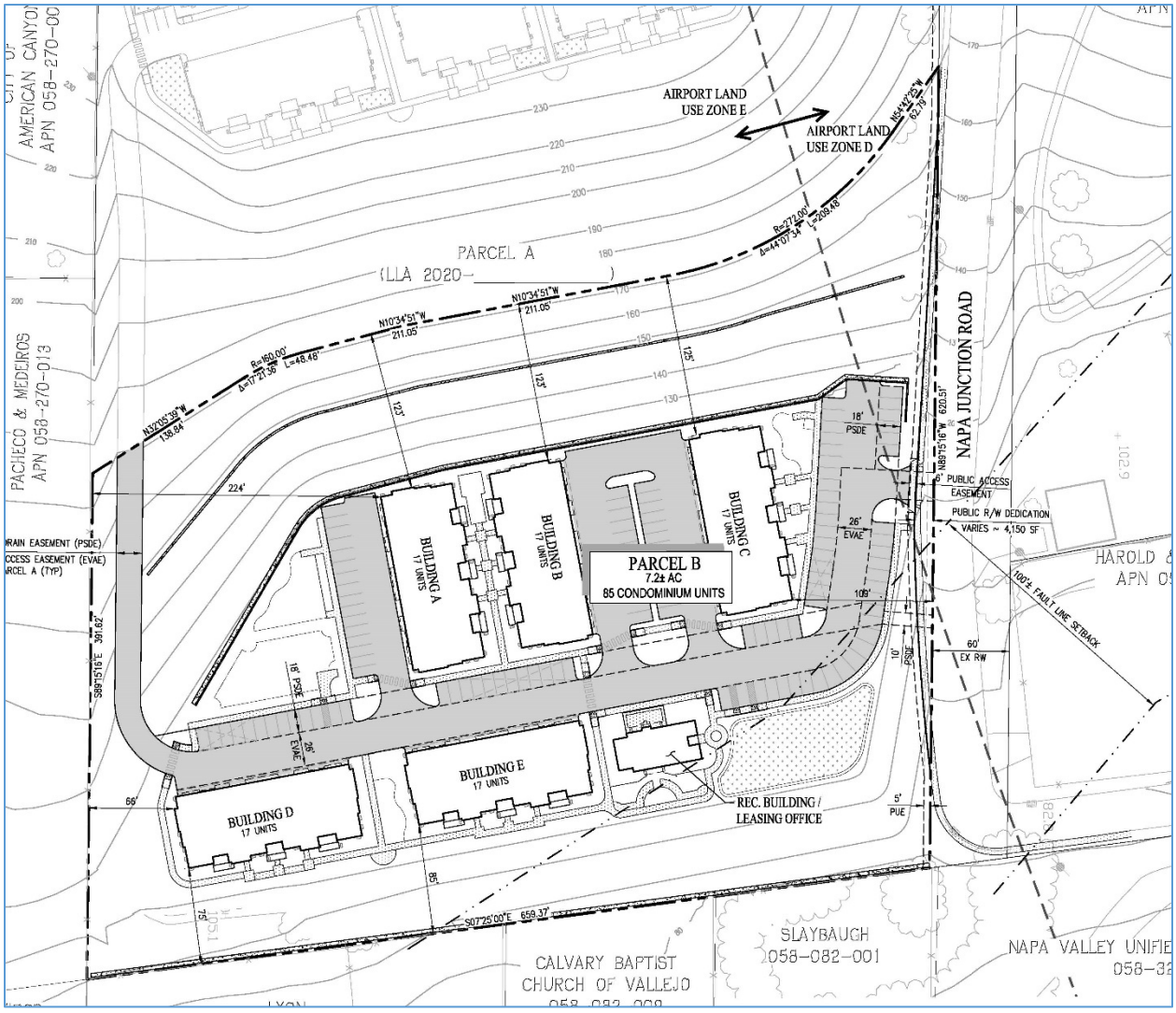


Figure 8 - Proposed Parcel A Tentative Subdivision Map

Analysis of the Proposed Project

The Conditional Use Permit application analysis includes:

1. Project Consistency with the General Plan
2. Project Consistency with the Zoning Ordinance
3. Specific Project Issues
4. Public Comments

1. Consistency with the General Plan

Approval of a General Plan Amendment for Parcel A and B supports several policies related to enhancing housing opportunities in the City. These policies are discussed below:

Because there is a critical shortage of residential housing for all levels of affordability in California, the proposed Oat Hill Multi-Family Residential general plan amendment will designate additional land to provide needed housing. Replacement of Light Industrial with a Specialty Commercial

Overlay (LI:CS) zoning with High Density Residential (RH-1) zoning is in keeping with the following General Plan Goals that promote additional housing in American Canyon:

Goal 2A: "Provide sufficient residential land with adequate infrastructure to accommodate the City's fair share of projected growth, and to facilitate mobility within the ownership and rental markets."

Goal 2B: "Provide a range of housing types within the community to accommodate a variety of incomes and lifestyles, and to enable residents to remain in American Canyon throughout their lives."

Goal 2E: "Address the housing needs of all economic segments of the existing and future community, including the City's fair share of the regional housing need." The applicant proposes to address housing affordable to lower income residents by providing in-lieu impact fees, pursuant to the Inclusionary Housing Ordinance (ACMC Chapter 19.28).

The project satisfies the following Land Use Element policies:

Goal 1E: "Ensure the development of residential neighborhoods that provide a range of housing opportunities to meet the physical, economic, and social needs of the population, are designed to exhibit a high quality and character, contain appropriate supporting services, and reflect their environmental setting." The design permit application associated with this property ensures that the development will exhibit a high quality and character. The project reflects its environmental setting by providing public access to locally-important views across the project site.

Policy 1.8 specifies that the intent of multifamily residential is to provide high quality residential at 5 to 12 dwellings per unit for the RM zone and 12 to 16 dwelling units for the RH zone.

Policy 1.8.4 call for special architectural treatment, the incorporation of arcades and other recesses, articulation and differentiation of building entrances and floors, and the use of landscaping.

Policy 1.17 specifies the zone should, "provide for development of uses that capitalize on and attract visitors due to their unique view sheds of the Napa River, San Francisco Bay, and Napa Valley, site topography, and other natural characteristics".

The Oat Hill Parcel A and B developments are consistent with these policies. The development takes advantage of the Oat Hill view by providing units with bay windows and balconies facing the south, southeast, and southwest. According to their preliminary architectural designs, the apartment buildings are of Modern Farmhouse design. They feature a hip roof, articulated entrances, functional balconies, separations in color, and recessed windows. The site also takes advantage of landscaping in the setbacks, common areas, and parking areas. The development complies with the Design Permit development standards for the RH-1 and RM zoning districts and proposes buildings of high quality that meets the General Plan Land Use goals.



Figure 9: Elevation of 17-unit apartment for Oat Hill Apartments



Figure 10: Front elevation of 12-unit apartment for Oat Hill Apartments

The development of housing on Oat Hill also would be compatible with the Broadway Specific Plan (the "Broadway Plan"). Although Parcels A and B are not within the boundaries of the Broadway Plan, that plan designates land adjacent to the parcels as "Medium Density Residential," which permits 12 units/acre and is intended to foster a high-density residential community that is compatible with the existing older single-family residences in this area. Re-designating Parcels A and B to RH-1 and RM would allow for residential densities similar to those permitted in the Medium Density Residential area of the Broadway Plan, and it would further establish a residential community that is compatible with surrounding uses.

Re-designating and rezoning Parcels A and B for medium- and high-density residential would be consistent with other development principles and strategies identified in the Broadway Plan. For example, the Broadway Plan has identified properties west of Theresa Avenue between Napa Junction and Eucalyptus Road West End as suitable for residential uses to facilitate the development of additional housing. Further, the Broadway Plan seeks to increase the number and type of housing opportunities in the Broadway area and encourages variety in the scale and design of new development. Re-designation of Parcels A and B directly furthers these goals.

Finally, the parcels are located near areas designated as "Business Park" under the Broadway Plan. The Business Park designation is designed to encourage professional office uses, as well as retail and service commercial uses that are oriented to the day-to-day needs of the local residents. Oat Hill's location west

of this area and the downtown core makes it an ideal location for new residences that are close to services and transit.

2. Consistency with Zoning Ordinance

According to the American Canyon Municipal Code (ACMC) multifamily projects within the High Density Residential (RH-1) and Medium Density Residential (RM) zoning districts are permitted uses. The project meets the required development standards as follows:

Table 1 – Parcel A Development Standards

Development Standard (RH-1 Zone)	Required	Provided
Minimum Lot Size	20,000 SF	13.6 acres
Max Density (dwelling units per acre)	16 DU/AC	15.1 DU/AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	900+ feet
Max Lot Coverage	50%	17.6%
Max Building Height	42 feet	40 feet
Required Setbacks Front Yard Side (Interior) Rear First Story Second Story	 20 feet 5 feet 10 feet 5 feet 10 feet	 30 feet 20+ feet 20+ feet 20+ feet 20+ feet
Maximum # of stories	3 stories	3 stories
Parking: Unit with 1 bedroom requires 1 covered, plus .5 uncovered spaces; Unit with 2 or more bedrooms requires 1 covered space plus 1 uncovered space; Plus 1 guest space per 4 units	438	451 (23 offsite)
Bicycle Parking	10 stalls	10 stalls*

* The applicant shall identify the location of the bicycle parking prior to the issuance of building permits.

Table 2 – Parcel B Development Standards

Development Standard (RM Zone)	Required	Provided
Minimum Lot Size	20,000 SF	7.2 acres
Max Density	12 DU/AC	11.8 DU/AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	300+ feet
Max Lot Coverage	50%	13%
Max Building Height	42 feet	40 feet
Required Setbacks Front Yard Side (Interior) Rear	 15 feet 5 feet 10 feet	 30 feet 20+ feet 20+ feet

First Story Second Story	5 feet 10 feet	20+ feet 20+ feet
Maximum # of stories	3 stories	3 stories
Parking: Unit with 1 bedroom requires 1 covered, plus .5 uncovered spaces; Unit with 2 or more bedrooms requires 1 covered space plus 1 uncovered space; Plus 1 guest space per 4 units	182	182
Bicycle Parking	7 stalls	7 stalls*

* The applicant shall identify the location of the bicycle parking prior to the issuance of building permits.

3. Specific Project Issues

a. Airport Land Use

A portion of the site lies within the Napa County Airport Land Use Compatibility Plan (ALUCP). Four buildings, K, L, M and the recreation office, are within the D-Zone, and consists of 51 units. The ALUCP defines the D-Zone as one that does not normally permit residential uses. The applicant conducted a peer-reviewed noise study, prepared by Saxelby Acoustics (Sept 10, 2020) and concluded that the Oat Hill project would not conflict with the noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D. As an added precaution and a condition of approval, the applicant will agree to record an avigation easement in favor of the Napa County Airport to indemnify them from noise complaints. The applicant also scheduled to file an application with the Napa County Airport Land Use Commission (ALUC) to request approval of their project in the D-Zone. The applicant plans to attend their May 1, 2021 meeting to present their project.

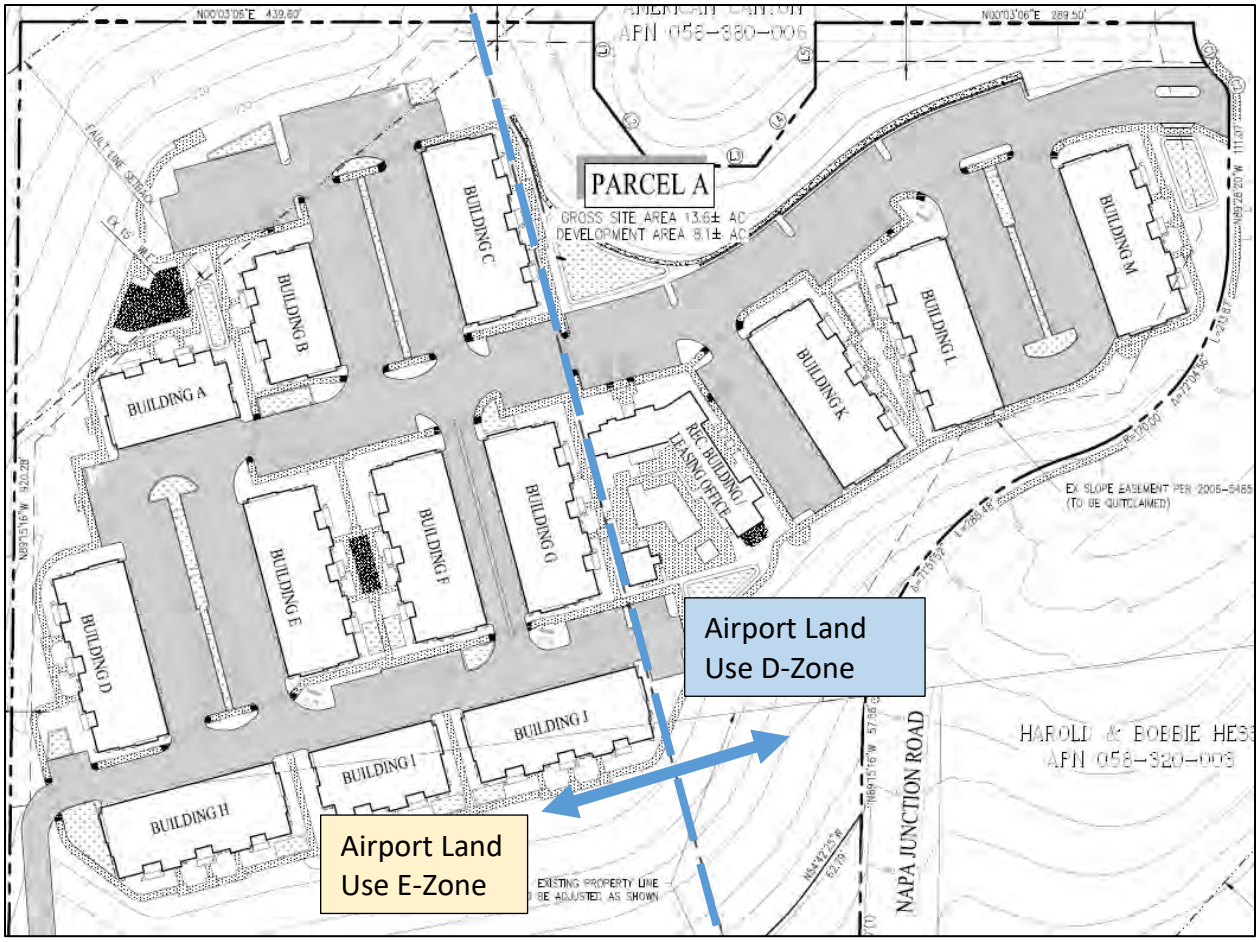


Figure 11: Buildings K, L, and M are within the D-Zone for the Airport Land Use Plan. All other units are not affected.

b. Affordable Housing

In accordance to the Municipal Code, new apartment developments that exceed five units are subject to inclusionary housing. The Code requires housing developments to provide 15% of the units, at 5% for very-low, 5% for low-income, and 5% for moderate income housing. For the 291 proposed units at the Oat Hill project, the applicant is required to provide 44 affordable units.

The applicant requested to provide an affordable housing nexus fee in-lieu of the 44 affordable units. The applicant provided a marketing study which explained that it was financially infeasible for the project to proceed without the in-lieu fee. The current affordable housing nexus fee is $3.82 per square feet, which is due prior to building permit issuance, and the marketing study is available in Attachment 1, Exhibit C.

c. Napa Junction Road

Primary access to both Parcels A and B will be from Napa Junction Road. A new sidewalk would be constructed along the frontage on Napa Junction Road. A new section of Napa Junction Road would be constructed between two disconnected segments east and west of Hess Road. The new roadway and pedestrian connections would result in a more direct route to the project site from SR 29 and other areas of the City and would require the removal of several existing trees located adjacent to Parcel B.

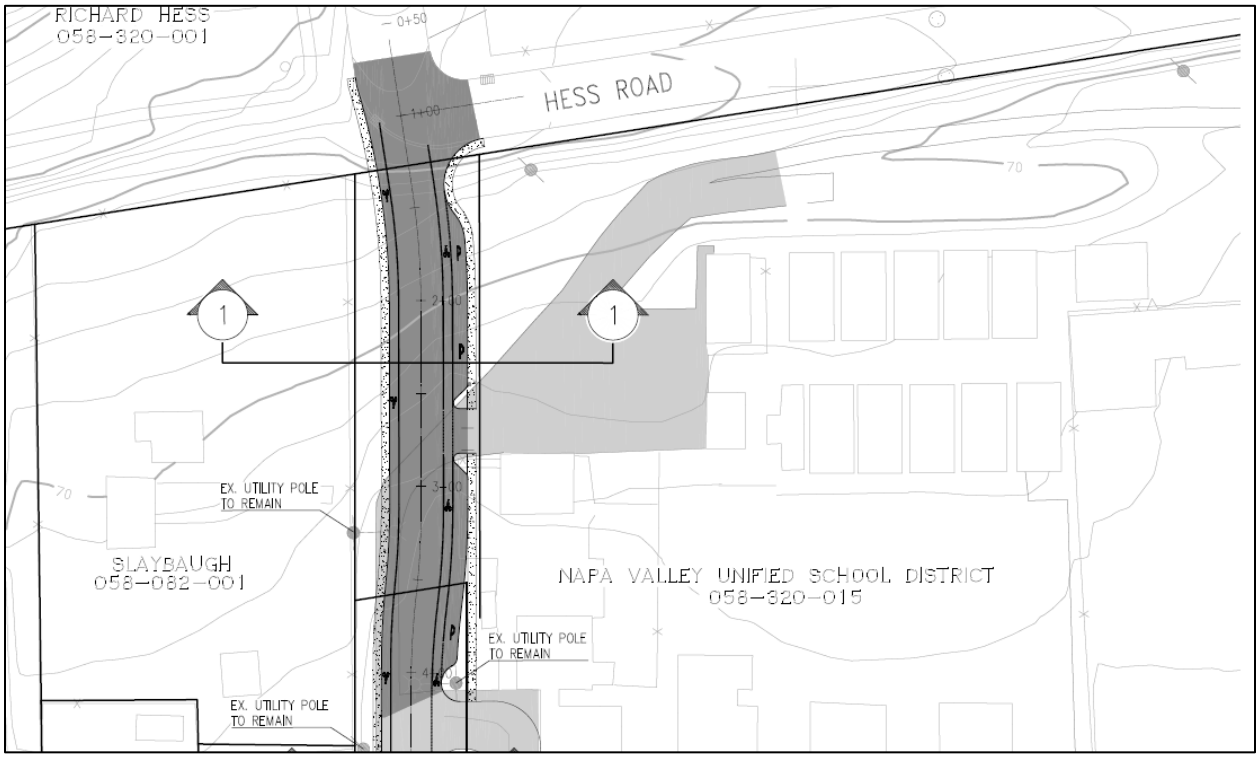


Figure 12: Napa Junction Road Extension proposed to be completed by the project will bring access and mobility to Oat Hill.

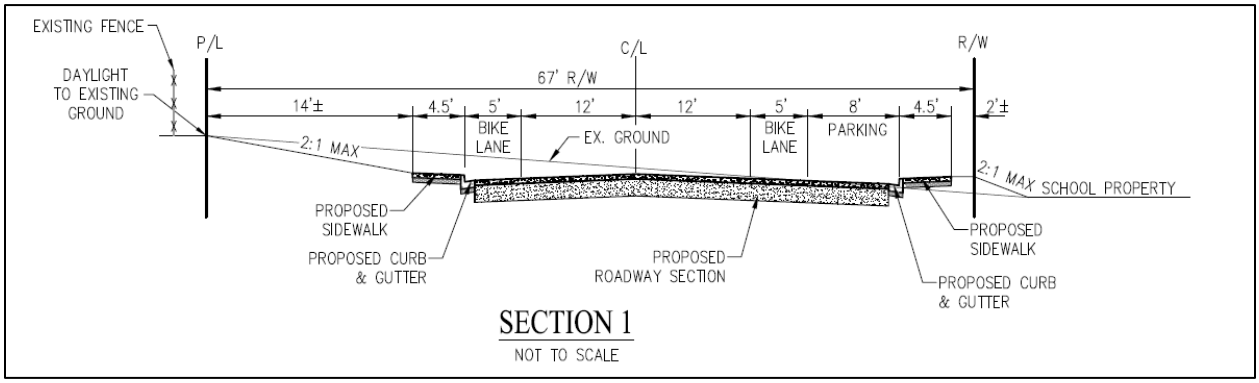


Figure 13: Preliminary cross-section drawing of the Napa Junction extension will include two travel lanes, bike lanes, sidewalks, and a single parking lane.

Part of the Napa Junction extension is owned by the Napa Valley Unified School District (NVUSD) and the applicant is required to make a good faith offer to NVUSD. This would include identification of property rights needed (permanent and temporary), appraisal of the value of the highest and best use of the property, and offer to pay this amount. The obligation is identified as a condition of approval.

d. Oat Hill Views and Public Access Trail

For many years, the City considered views from Oat Hill to be an important public resource. In 1994, the General Plan designated Oat Hill with a Specialty Commercial overlay that highlights the unique views from Oat Hill. According to the General Plan Land Use Policy 1.17.3, [The City shall] *Require that development be sited and designed to emphasize the unique character of its setting and intended functions*

(e.g., maintenance of viewsheds) and convey a high level of quality in accordance with Policies 1.18.1 to 1.18.4. Additionally, in accordance to ACMC Section 19.19.030(B)(3), *projects using the specialty commercial overlay zoning that require approval of a design permit shall incorporate into the site plan a public pedestrian easement to the site with potential connections to adjacent properties that provides access to the site's unique views.*

The Parcel B application is lower in elevation and the views are not significant. The Parcel A application being higher on Oat Hill offers the best views. Recognizing the City's Oat Hill view policy, the Parcel A site plan includes a pedestrian path that takes advantage of the views. Figures 4, 5 and 6 depict the views from the upper pad. The path, shown in yellow highlight in Figure below, generally follows the edge of the development pad with no structures in the way to block the view.

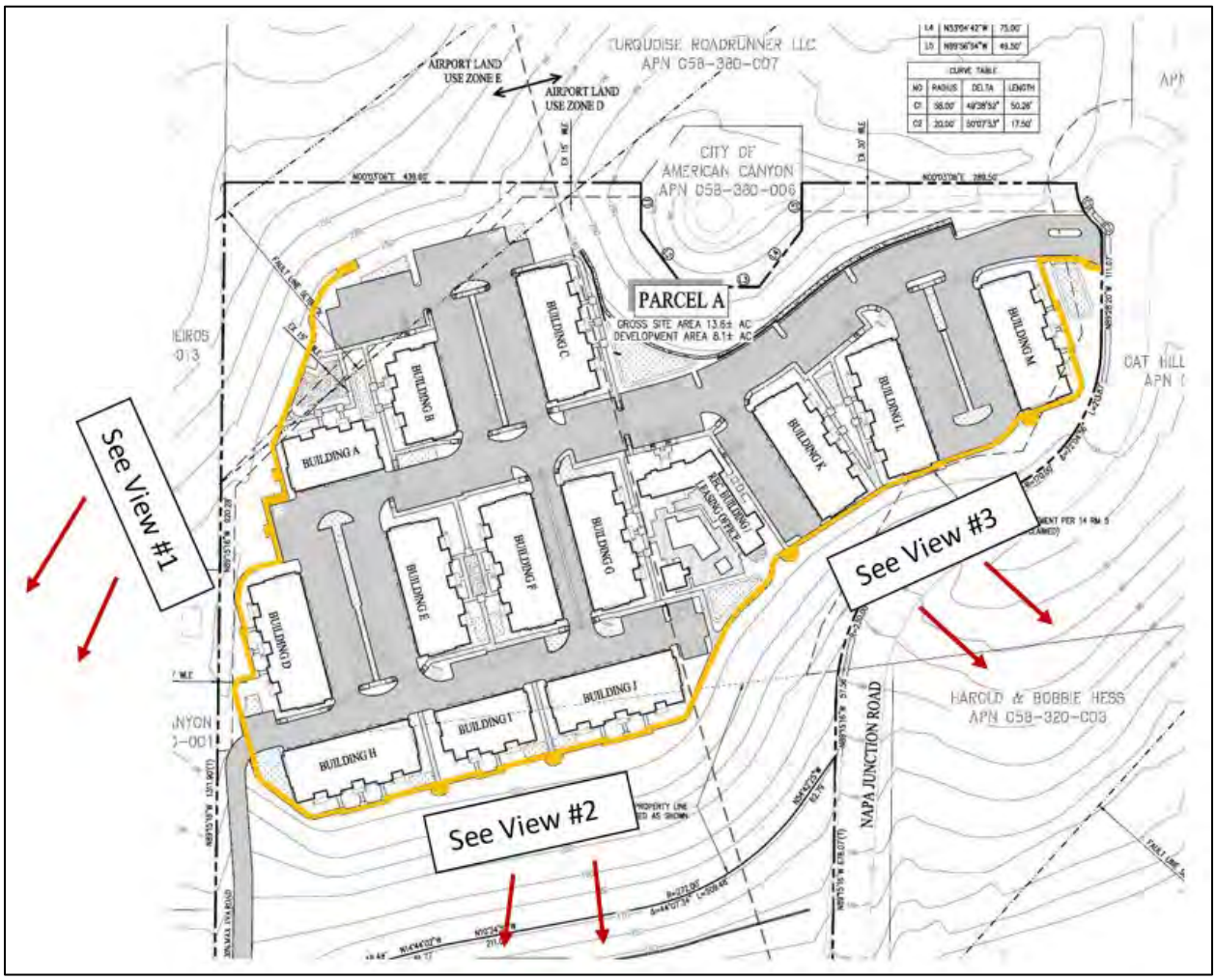


Figure 14: Proposed pedestrian view path shown in yellow.



Figure 15: View 1 – Southeast View



Figure 16: View #2 – East View



Figure 17: View #3 – Northeast View

The applicant attended an Open Space Advisory Committee (OSAC) meeting on March 3, 2021 and discussed the project with the committee. Mr. Hess explained that the pedestrian path, which he refers to as the "Community Loop Walkway", will be open to the public and maintained by the property-owner. The walkway is closest to the buildings where there are no apartment windows (i.e.: no privacy issue) and farther where it passes apartment unit front door entries. Mr. Hess explained that separating the path from the apartment buildings is constrained by the edge of Parcel A. The walkway will be at least 4 feet wide and contains look-out areas and benches to take advantage of Oat Hill views. Visitor parking will be

limited on site, but street parking along Napa Junction Road will be available as a first-come, first-serve basis.

e. Public Comments

A 30-day Notice of Intent was sent to the State Clearinghouse and published on February 5, 2021. Staff received three comments.

California Department of Fish and Wildlife. A California Department of Fish and Wildlife letter recommended revisions to the proposed Biological Resources mitigation measures. The revisions suggest expanding the size of pre-construction bird survey radiuses, and establishing tighter buffer zones. The biology consultant WRA Environmental Consultants reviewed the requests and is scheduled to updated Mitigation Measures BIO-1 to BIO-5 in the biology section.

Caltrans. A Department of Transportation letter recommended the applicant conduct annual monitoring reports, and inquired why the SR-29 / Napa Junction Road intersection was not considered in the group of analyzed areas in the traffic impact study. The letter also provided guidance on how to submit an encroachment permit application. The applicant's CEQA consultant, Raney Environmental, reviewed the requests and explained that subsequent to the publication of the IS/MND, a final traffic impact analysis (TIA) was prepared for the project. The final TIA, from February of 2021, includes the SR-29/Napa Junction Rd intersection. As noted in the final TIA, the Napa Junction Road/SR 29 intersection would operate at LOS F under Future Conditions with or without the proposed project. This operation was considered acceptable because the Napa Junction Road/SR 29 intersection is exempt from the City's LOS standard, and the California Department of Transportation (Caltrans) does not provide an operational standard. Therefore, the findings of the final TIA would not change the adequacy of the analysis, mitigation, or conclusions presented in the IS/MND. The final TIA is available in the Attachment 1, Exhibit A.

Resident. A resident of American Canyon inquired about why the IS/MND stated that there is no impact to our school system. The letter also stated that more housing would lead to increased traffic. The applicant's CEQA consultant reviewed the letter and will provide an explanation in the final IS/MND report. The applicant's CEQA consultant, Raney Environmental, reviewed the comment and responded. Raney explained that the applicant is required to pay a facilities fee to the Napa Valley Unified School District (NVUSD), which goes towards the cost of improvements and/or upgrades to school facilities. In regards to traffic, Raney explained that according to the TIA, the Oat Hill project would add traffic solely to the eastbound and westbound through movements in the Napa Junction / Lombard intersection, which do not have delays and are below average for the intersection as a whole. Project trips are expected to make use of the excess capacity, thus motorists would experience little, if any, change in conditions as a result of this project. See response to comments in Attachment 1, Exhibit A.

Property Owner. A property owner in a neighboring property provided a letter of support for the project. The comment does not address the adequacy of the IS/MND.

Public Outreach Efforts. The applicant conducted a public outreach study from September 18 to October 6 of 2020. The outreach area consisted of all property owners within 300 feet of the site and a few select neighbors beyond that proximity. The applicant met with neighbors in person, provided copies of the plans, and photo simulations. Several property owners provided letters of support as a result of these outreach efforts, see Attachment 1 Exhibit D.

CEQA Review

The City of American Canyon prepared an Initial Study Checklist and Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA). The basis for the Mitigated Negative Declaration (MND) is the finding that the proposed Project will not have a significant effect on the environment because mitigation measures that reduce the impacts to less than significant are being approved as part of project conditions. The MND includes mitigation measures for Biological Resources, Cultural Resources, Geology/Soils, Hydrology/Water Quality, Noise, Transportation/Traffic, and Utilities.

The MND was circulated to the public for 30 days starting February 5, 2021. In response to the notice, the City received one letter. The letters are included as with the final Initial Study MND in Attachment 1 Exhibit A.

Staff Recommendation

Consider Resolutions to Recommend City Council approval of:

(1) The *Oat Hill Multi-Family Residential Mitigated Negative Declaration*;
(2) A General Plan Amendment on a 13.6-acre Oat Hill Parcel A from Industrial with a Specialty Commercial (CS) overlay and Estate Residential (RE) to High Density Residential (RH-1), (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(3) A General Plan Amendment on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (portion of APN 058-320-001); (File No. PL20-0026);
(4) A Zone Change from on a 13.6-acre Oat Hill Parcel A from Light Industrial with a Specialty Commercial (LI:CS) overlay and Estate Residential (RE) to Medium Density Residential (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0024);
(5) A Zone Change on a 7.2-acre Oat Hill Parcel B from Estate Density Residential to Medium Density Residential (RM); (portion of APN 058-320-001), (File No. PL20-0026);
(6) A Tentative Subdivision Map for 206 condominium residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0025);
(7) A Tentative Subdivision Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0027);
(8) A Design Permit for condominium 206 residential units on a 13.6-acre Oat Hill Parcel A; (APN 058-380-008 and portion of 058-320-001), (File No. PL20-0022); and
(9) A Design Permit Map for 85 condominium residential units on a 7.2-acre Oat Hill Parcel B; (portion of APN 058-320-001); (File No. PL20-0023).

Attachments:

1. Resolution for the ISMND and MMRP
    a. Exhibit A – ISMND with technical studies and public comments
    b. Exhibit B – MMRP
    c. Affordable Housing Marketing Study
    d. Public Outreach Materials
2. Resolution for Parcel A General Plan Amendment (File No. PL20-0024)
3. Resolution for Parcel A Zone Change (File No. PL20-0024)
4. Resolution for Parcel A Tentative Subdivision Map (File No. PL20-0025)
    a. Exhibit A – Project Plans
5. Resolution for the Design Permit (File No. PL20-0022)
    a. Exhibit A – Project Plans
6. Resolution for Parcel B General Plan Amendment (File No. PL20-0026)

7. Resolution for Parcel B Zone Change (File No. PL20-0026)
8. Resolution for Parcel B Tentative Subdivision Map (File No. PL20-0027)
    a. Exhibit A – Project Plans
9. Resolution for Parcel B Design (File No. PL20-0023)
    a. Exhibit A – Project Plans

Copies (notification sent electronically):
Rick Hess Development Company

6803

Attachment 1, Exhibit A:
Initial Study / Mitigated
Negative Declaration

City of American Canyon
Community Development Department

Oat Hill Multi-Family Project

Initial Study/Mitigated Negative Declaration

March 2021

Prepared by

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Appendices

Appendix A – Air Quality and Greenhouse Gas Emissions – CalEEMod Results
Appendix B – Biological Resources Technical Report
Appendix C – Soil Investigation
Appendix D – Phase I Environmental Site Assessment for Parcel A
Appendix E – Phase I Environmental Site Assessment for Parcel B
Appendix F – Environmental Noise Assessment
Appendix G – Traffic Impact Study (2020)
Appendix H – Traffic Impact Study (2021)

XI. LAND USE AND PLANNING. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	✖	☐
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✖	☐

Discussion

a. **Parcel A and Parcel B**

A project risks dividing an established community if the project introduces infrastructure, alters land use conditions in the surrounding community, or isolates an existing land use. Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation and limited trees. Surrounding development in the project vicinity includes industrial businesses, such as RLM Enterprises, and a recreational vehicle (RV) park to the north, an office building to the northwest, Napa Junction Magnet Elementary School to the northeast, single-family residences, a Baptist Church, and American Canyon City Hall to the east, and undeveloped land to the south and west. The proposed residences would be compatible with the existing development in the project area. The proposed project involves construction on a vacant site. Therefore, the project would not divide an established community. In fact, the proposed Napa Junction Road extension would improve connectivity between the proposed residences and surrounding uses in the project area, which include schools, parks, and commercial uses. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. **Parcel A**

According to the City's General Plan, Parcel A is designated as I:CS and zoned LI:CS. The proposed project includes a request for a General Plan Amendment from I:CS to RH-1, as well as a rezone from LI:CS to RH-1. Upon approval of both entitlements, the proposed project would develop 206 multi-family residential units on Parcel A, and the current designations would be amended to reflect the characteristics of the proposed project. Although the City has not anticipated residential uses on the project site, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would be required to pay the City's parks and recreation impact fees or donate parkland and/or improvements to the City. In addition, in compliance with the Section 18.40.100 of the City's Municipal Code, the proposed project would be required to include replacement trees for any that are removed within Parcel A. Implementation of the mitigation measures included within this IS/MND would ensure all environmental impacts of the proposed project have been reduced to a less-than-significant level.

Parcel B

According to the City's General Plan, Parcel B is designated as RE and zoned RE. The proposed project includes a request for a General Plan Amendment from RE to RM, as well as a rezone from RE to RM. Upon approval of both entitlements, the proposed project would develop 85 multi-family residential units on Parcel B. Similar to the discussion above for Parcel A, the current designations would be amended to reflect the characteristics of the proposed project. In addition, although the City has not anticipated residential uses on the project site, the proposed project

would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would be required to pay the City's parks and recreation impact fees or donate parkland and/or improvements to the City. Tree removal associated with the extension of Napa Junction Road would similarly require compliance with Section 18.40.110 of the City's Municipal Code. Therefore, implementation of the mitigation measures included within this IS/MND would ensure all environmental impacts of the proposed project have been reduced to a less-than-significant level.

Conclusion

Implementation of the mitigation measures included within this IS/MND would ensure all potential environmental impacts associated with development within Parcel A and Parcel B have been reduced to a less-than-significant level. Based on the above, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and thus, a ***less-than-significant*** impact would occur.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	✖	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	✖	☐

Discussion

The following discussion is based primarily on an Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics (see Appendix F).[25] The Environmental Noise Assessment included consideration of development of both Parcel A and Parcel B.

a. The following sections present information regarding sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.
- Average, or equivalent, sound level (L_{eq}): The L_{eq} corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour).
- Day-Night Average Level (Ldn): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

[25] Saxelby Acoustics. *Environmental Noise Assessment, Oat Hill Apartments, City of American Canyon, California.* September 10, 2020.

In the vicinity of the project site, sensitive land uses include Napa Junction Magnet Elementary School to the northeast and single-family residences and a Baptist Church to the east.

Existing Noise Environment

The existing noise environment in the project area is primarily defined by traffic on SR 29. Other noise sources include airplane flyovers to and from the Napa County Airport, transportation noise from the Union Pacific Railroad line to the north of the project site and operational noise originating from a lumber processing facility to the southwest.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted two continuous noise level measurements in the vicinity of the project site. Noise measurement locations are shown in Figure 18, and a summary of the noise level measurement survey results is provided in Table 16.

Table 16
Summary of Existing Background Noise Measurement Data

Site	Date	L_{dn}	Average Measured Hourly Noise Levels (dBA)					
			Daytime (7 AM to 10 PM)			Nighttime (10 PM to 7 AM)		
			L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
LT-1	08/05/20 – 08/06/20	55	51	49	64	48	46	60
LT-2	08/05/20 – 08/06/20	55	49	47	66	48	46	61

Source: Saxelby Acoustics, 2020.

Standards of Significance

The City of American Canyon establishes an exterior noise level criterion of 65 dB L_{dn} or less within outdoor activity areas of residential land uses. Additionally, the City requires that cumulative noise exposure from exterior noise sources within noise-sensitive dwellings not exceed 45 dB L_{dn}.

The American Canyon Municipal Code establishes maximum noise limits for construction activities. Specifically, Section 8.12.080 limits construction noise at residential receptors to a maximum of 75 dBA between the hours of 7:00 AM and 7:00 PM and 60 dBA between 7:00 PM and 7:00 AM every day of the week.

Impact Analysis

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Construction Noise – Parcel A and Parcel B

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on proximity of construction activities to that point. Standard construction equipment, such as backhoes, dozers, and dump trucks would be used on-site.

Figure 18
Noise Measurement Locations

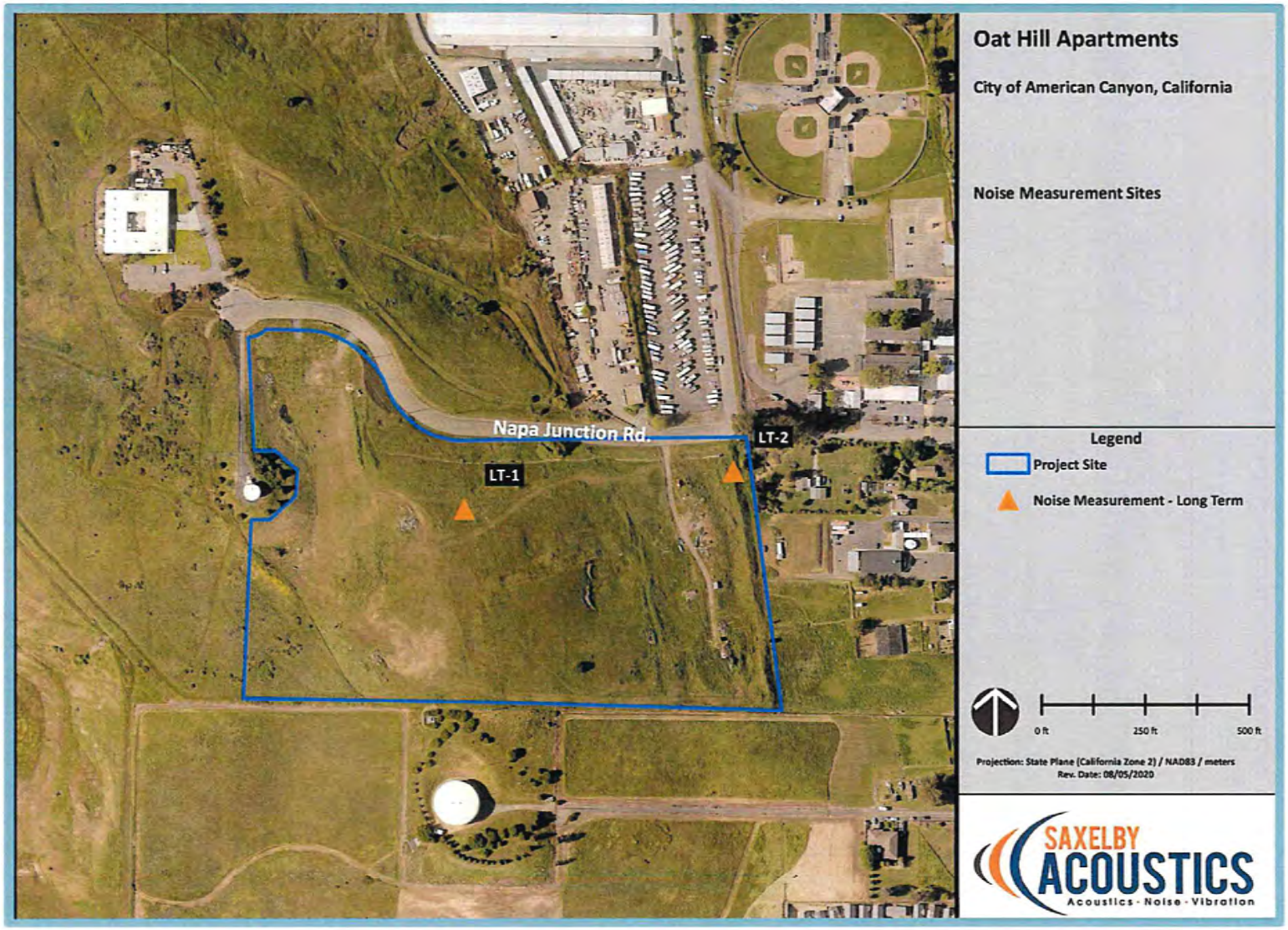


Table 17 shows predicted construction noise levels for development of the proposed project. Based on the table, typical construction activities would generate maximum noise levels up to 90 dB at a distance of 50 feet. Construction activities would be temporary and occur during normal daytime hours.

Table 17
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: ***Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.***

Noise would also be generated during the construction phase by increased truck traffic on area roadways, including truck traffic associated with heavy material and equipment transport to and from the construction site. Noise increases from truck traffic related to the material movement would be short duration, and likely occur during daytime hours.

The City of American Canyon establishes maximum noise limits for construction activities of 75 dBA between the hours of 7:00 AM and 7:00 PM and 60 dBA between 7:00 PM and 7:00 AM. The nearest residential uses are located approximately 320 feet to the east, as measured from the center of Parcel B. At 320 feet, the maximum construction noise levels would range 60 dBA to 74 dBA L_{max} in the backyards of the nearest residential uses. Construction in Parcel A is farther from the nearest sensitive receptor, and, thus, the Parcel A construction noise experienced by the nearest receptor would be less intense than the noise experienced from Parcel B development. Therefore, noise generated from on-site construction would not significantly impact noise levels in the surrounding environment.

In addition to construction activities within the on-site parcels, off-site improvements would include the Napa Junction Road extension. Construction of the Napa Junction Road extension would occur over a much shorter time and subject to the same maximum noise limits than the residential development. Although off-site improvements would take place near Napa Junction Elementary School, the school is in the process of being relocated due to concerns regarding seismicity in the project region. However, construction of the roadway extension would take place approximately 80 feet north of the nearest residential building. At 80 feet from the nearest sensitive receptor, the maximum construction noise levels associated with the roadway extension may exceed the City's 75 dBA noise limit. Therefore, mitigation would be required to ensure that roadway extension construction activities would not adversely affect noise levels in the surrounding environment.

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, on-site and off-site construction-related noise may disturb sleep at existing noise-sensitive land uses in the vicinity of the project if construction activities were to occur outside the normal daytime hours. Therefore, substantial temporary or permanent ambient noise level impacts in the vicinity of the project that exceed general plan or noise ordinance standards could be considered significant.

Project Operational Noise – Parcel A and Parcel B

The proposed project would primarily generate traffic noise on nearby roadways. Transportation related noise within the project area and at sensitive receptors is discussed in further detail below.

Traffic Noise Increases

As further discussed in Section XVII. Transportation/Traffic, of this IS/MND, the proposed project would increase vehicle trips and noise on local roadways. For the purposes of this analysis, where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a 5.0 dB L_{dn} increase in roadway noise levels would be considered significant. Table 18 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the project vicinity.

Table 18
Predicted Traffic Noise Level and Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level					
		Existing No Project	Existing Plus Project	Change	Future No Project	Future Plus Project	Change
Napa Junction Road	West of Theresa Avenue	47.3	52.2	4.9	47.8	52.4	4.6
Theresa Avenue	South of Napa Junction Road	60.2	60.5	0.3	60.7	61.0	0.3
Napa Junction Road	East of Theresa Avenue	60.6	61.1	0.5	61.1	61.6	0.4
Theresa Avenue	North of Eucalyptus Drive	62.5	62.8	0.3	63.1	63.4	0.3

Note: All noise levels are predicted at closest sensitive receptors in terms of dBA, L_{dn}.

Source: Saxelby Acoustics, 2020

As shown in Table 18, the maximum traffic noise increase would be approximately 4.9 dB along Napa Junction Road on the segment west of Theresa Avenue. Considering the proposed project would not increase traffic noise by 5.0 dB, the proposed project would not substantially increase traffic noise in the project vicinity.

Traffic Noise at New Sensitive Receptors

Recent rulings by the California Supreme Court have clarified that environmental analyses prepared under CEQA are intended to analyze a project's impact on the environment, rather than the potential impact of the environment on the project. In the case of the proposed project,

potential impacts related to future traffic noise on new sensitive receptors within the project site, such as the proposed residences, would be an example of impacts of the environment on the project. Consequently, impacts of noise on future on-site receptors would not typically be considered a required topic of analysis under CEQA. Nevertheless, the City has elected to prepare an analysis of potential noise-related impacts on future residences within the project site to ensure that the proposed project complies with all City regulations intended to protect the health and welfare of the citizens of American Canyon.

As shown in Figure 19, the proposed project would be exposed to transportation noise levels of up to 56 dB at the outdoor activity area within Parcel B and 50 dB at the outdoor activity area within Parcel A. Therefore, new sensitive receptors would not be exposed to noise levels above the City of American Canyon General Plan standard of 65 dB for outdoor activity areas.

The City of American Canyon General Plan requires that interior noise levels of new residential units be 45 dB or less. Standard residential construction practices typically reduce interior noise 25 dB below the exterior noise. The proposed residences would be exposed to noise levels up to 57 dB within Parcel B and 55 dB within Parcel A. Based on a 25 dB reduction, the interior noise level would be approximately 22 dB within Parcel B and 20 dB within Parcel A. Therefore, interior traffic noise levels would be considered less than significant.

Conclusion

Based on the above, operation of the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the Municipal Code. However, considering temporary construction noise levels in the project area exceed general plan or noise ordinance, or applicable standards of other agencies standards, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

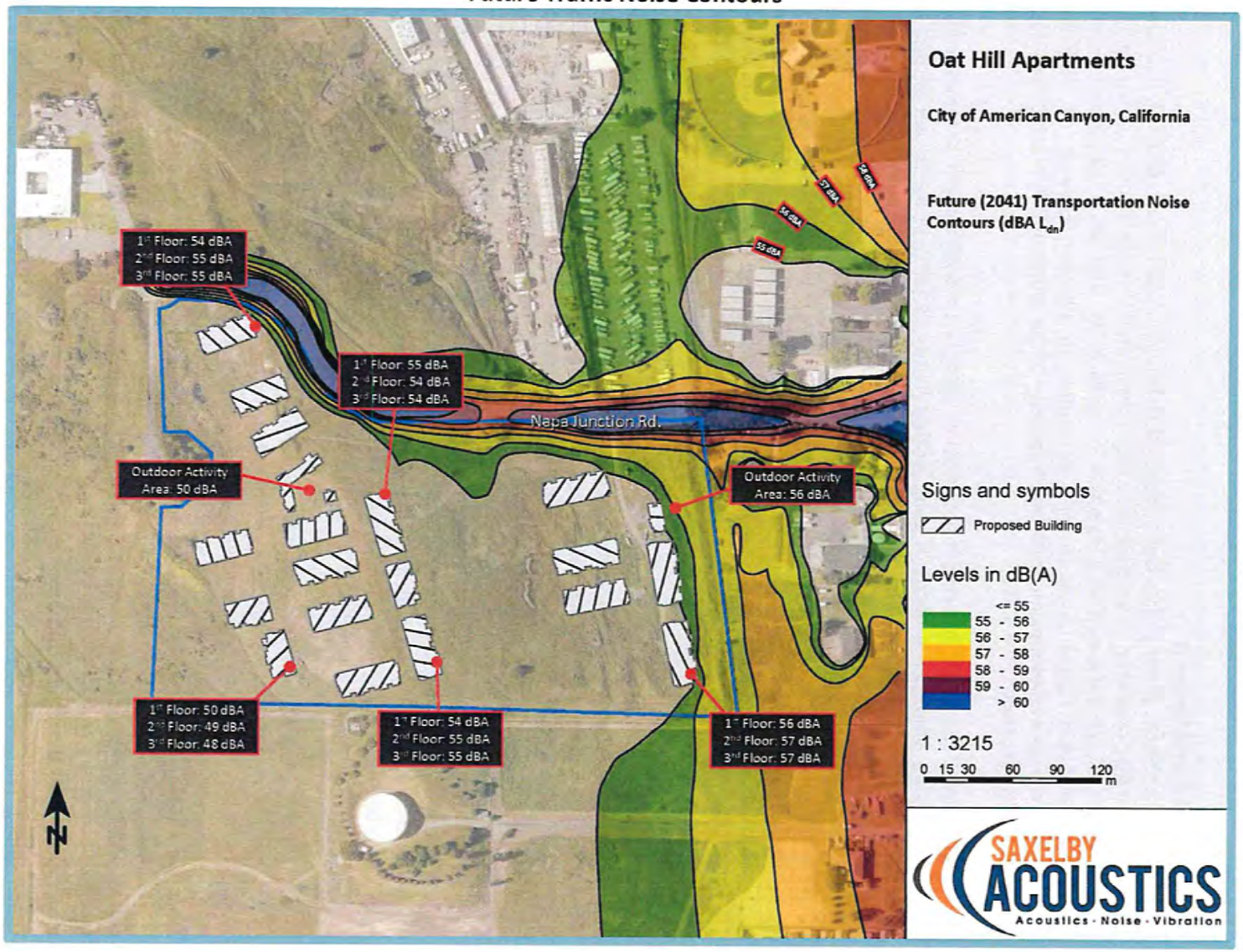
Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Parcel A and Parcel B

XIII-1. *Prior to the approval of grading permits, the City shall establish the following related to the use of construction equipment:*

- *Construction activities (excluding activities that would result in a safety concern to the public or constructions workers) shall be limited to between the daytime hours of 7:00 AM and 7:00 PM daily;*
  Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers recommendations
- *Equipment engine shrouds shall be closed during equipment operation;*
- *When not in use, motorized construction equipment shall not be left idling for more than five minutes; and*
- *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.*

Figure 19
Future Traffic Noise Contours



Construction noise BMPs shall be included in the grading plans and project improvement plans submitted by the applicant for review and approval by the Community Development Department.

b. **Parcel A and Parcel B**

Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 19, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and paving occur. Table 20 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed project. The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Vibratory compactors/rollers may be used during on-site parking areas and Napa Junction Road extension construction. However, such activity would occur more than 26 feet north and south from the nearest existing structures and the proposed roadway alignment. A 26 foot or greater separation between existing structures and the groundborne vibration source, would be less than 0.2 in/sec PPV, and, thus, would not cause physical damage to structures or annoy nearby sensitive receptors. Therefore, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and no impact would occur.

Based on the above, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels and a ***less-than-significant*** impact would occur.

Table 19
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

Table 20
Vibration Levels for Various Construction Equipment

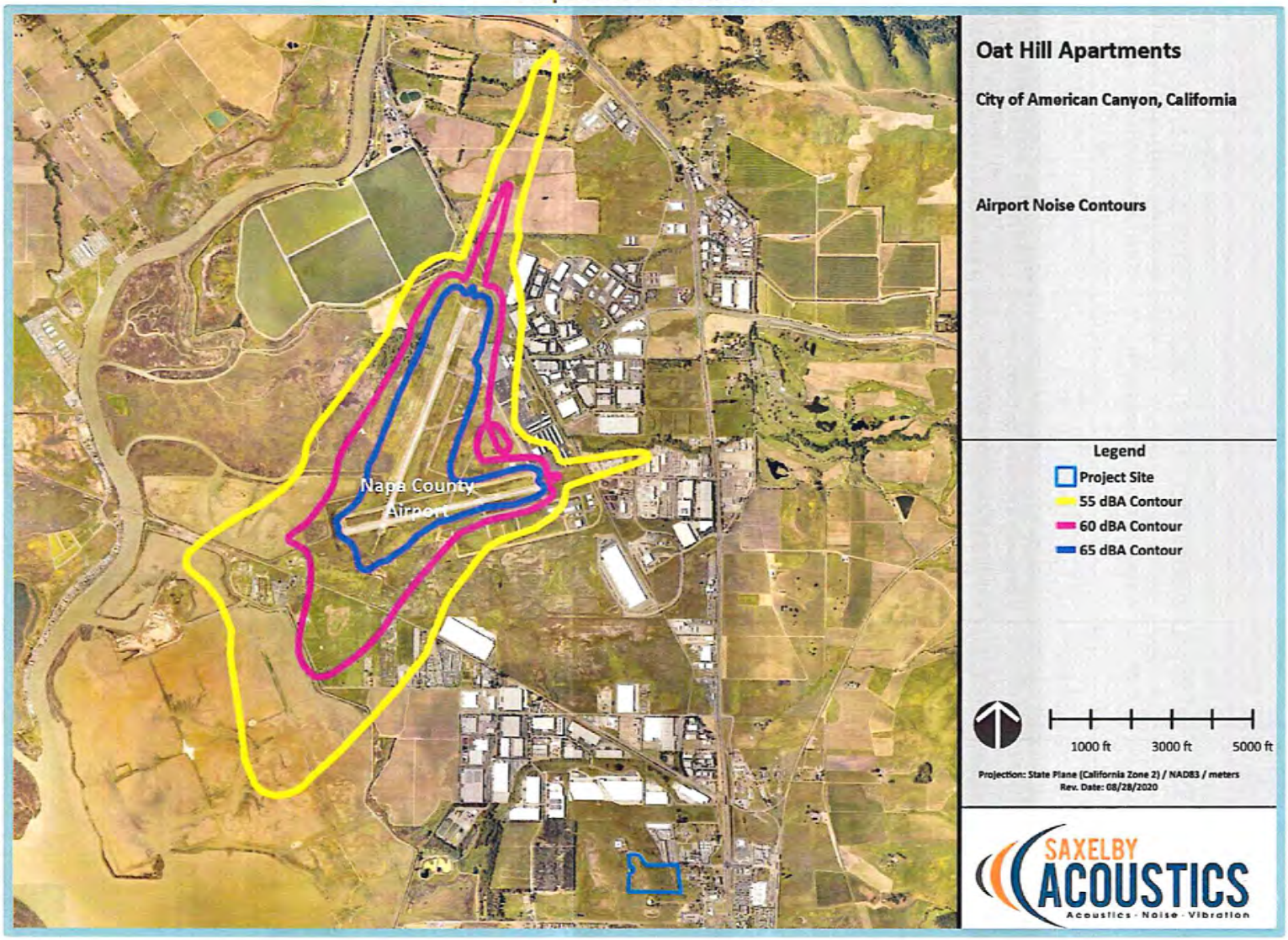
Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/Drill Rigs	0.089	0.031
Jackhammer	0.035	0.012
Vibratory Hammer	0.070	0.025
Vibratory Compactor/roller	0.210 (less than 0.20 at 26 feet)	0.074

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

c. **Parcel A and Parcel B**

The nearest airport to the site is the Napa County Airport, located approximately 1.75 miles north of the site. The site is included in the Napa County Airport Land Use Compatibility Plan. As shown in Figure 20, the project is located approximately 1.4 miles outside of the estimated 55 dB CNEL noise contour. In addition, according to Table 2-1 of the Napa County Airport Land Use Compatibility Plan, multi-family residential land uses exposed to noise levels less than 55 dB CNEL are "Clearly Acceptable." Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***less-than-significant*** impact would occur.

Figure 20
Airport Noise Contours



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Environmental Noise Assessment

Oat Hill Apartments

City of American Canyon, California

September 10, 2020

Project #200705

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APPENDIX F

ENVIRONMENTAL NOISE ASSESSMENT

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INTRODUCTION

The Oat Hill Apartments residential project is located along the south of Napa Junction Road and west of Highway 29 in the City of American Canyon, California. The project consists of the construction of 17 separate buildings on two combined parcels containing 291 residential units.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

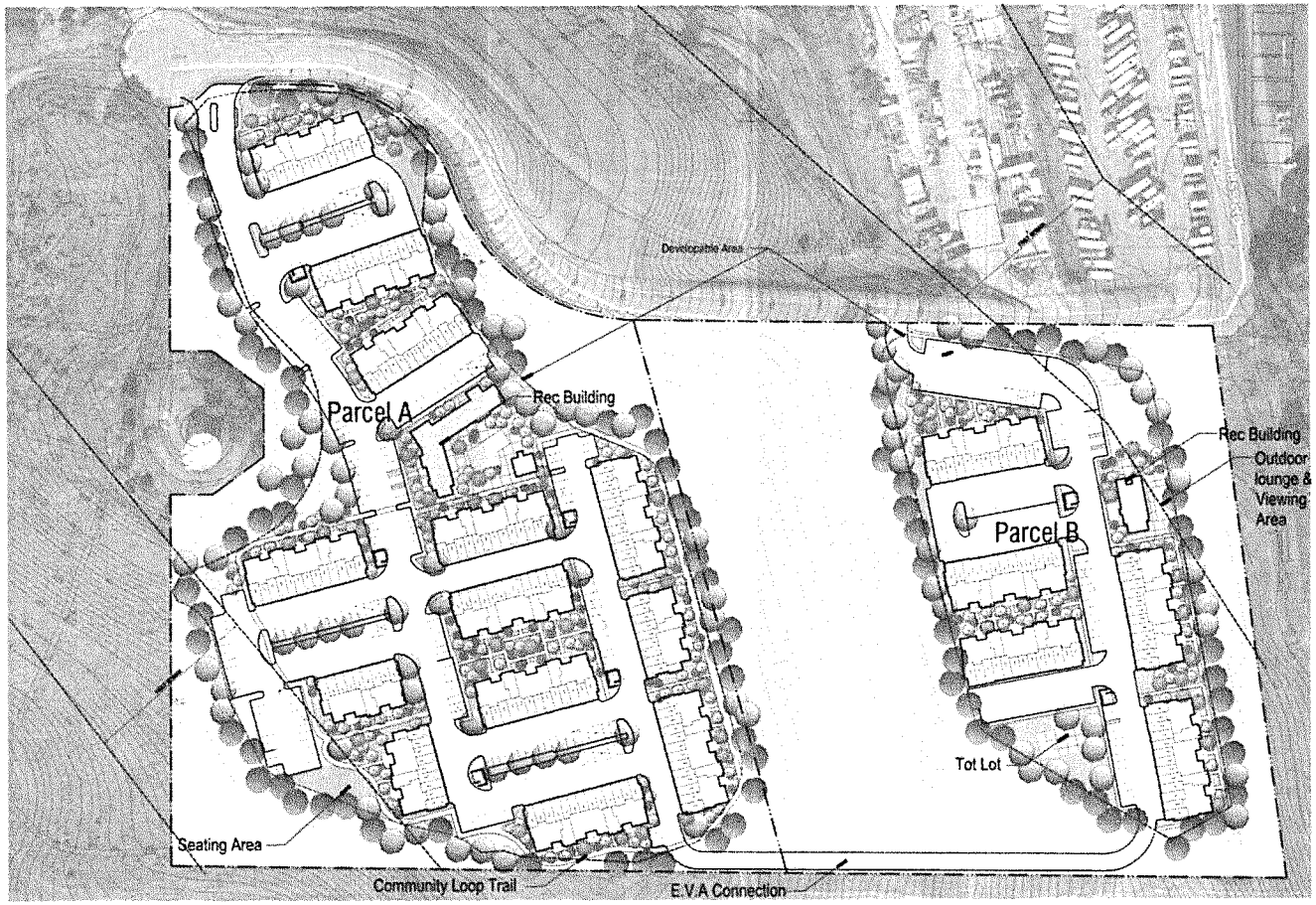
Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.



Project Summary

Parcel A

Gross Site Area: ± 11.3 Acres
Developable Area: ± 8.1 Acres
Total Units: 206 Homes
- (52) 1 Bdrm Units
- (108) 2 Bdrm Units
- (46) 3 Bdrm Units

Density: 18.2 DU per Gross Acre
25.4 DU per Developable Area

Parking:

Required: 438 Spaces
- (52) 1 Bedroom x 1.5 Spaces =78 Spaces
- (154) 2 or more Bedroom x 2 Spaces =308 Spaces
- (206) Guest x 0.25 Spaces =52 Spaces

Provided: 451 On-site & Off-site Spaces
428 On-site Spaces
- Garage: 157 Spaces
- Carports: 49 Spaces
- Head In: 222 Spaces

23 Off-site Spaces

Open Space
- Common Open Space: 53,571 SF
- Hillside Slope Area: 139,392 SF

Parcel B

Gross Site Area: ± 9.5 Acres
Developable Area: ± 3.6 Acres
Total Units: 85 Units
- (20) 1 Bdrm Units
- (45) 2 Bdrm Units
- (20) 3 Bdrm Units

Density: 8.9 DU per Gross Area
23.6 DU per Developable Area

Parking:

Required: 182 Spaces
- (20) 1 Bedroom x 1.5 Spaces =30 Spaces
- (45) 2 or more Bedroom x 2 Spaces =130 Spaces
- (85) Guest x 0.25 Spaces =22 Spaces

Provided: 183 Spaces
- Garage: 65 Spaces
- Carports: 20 Spaces
- Head In: 98 Spaces (9' x 18')

Open Space
- Common Open Space: 27,647 SF
- Hillside Slope Area: 257,004 SF

Notes:

Oat Hill Apartments
City of American Canyon, California

Figure 1
Project Site Plan

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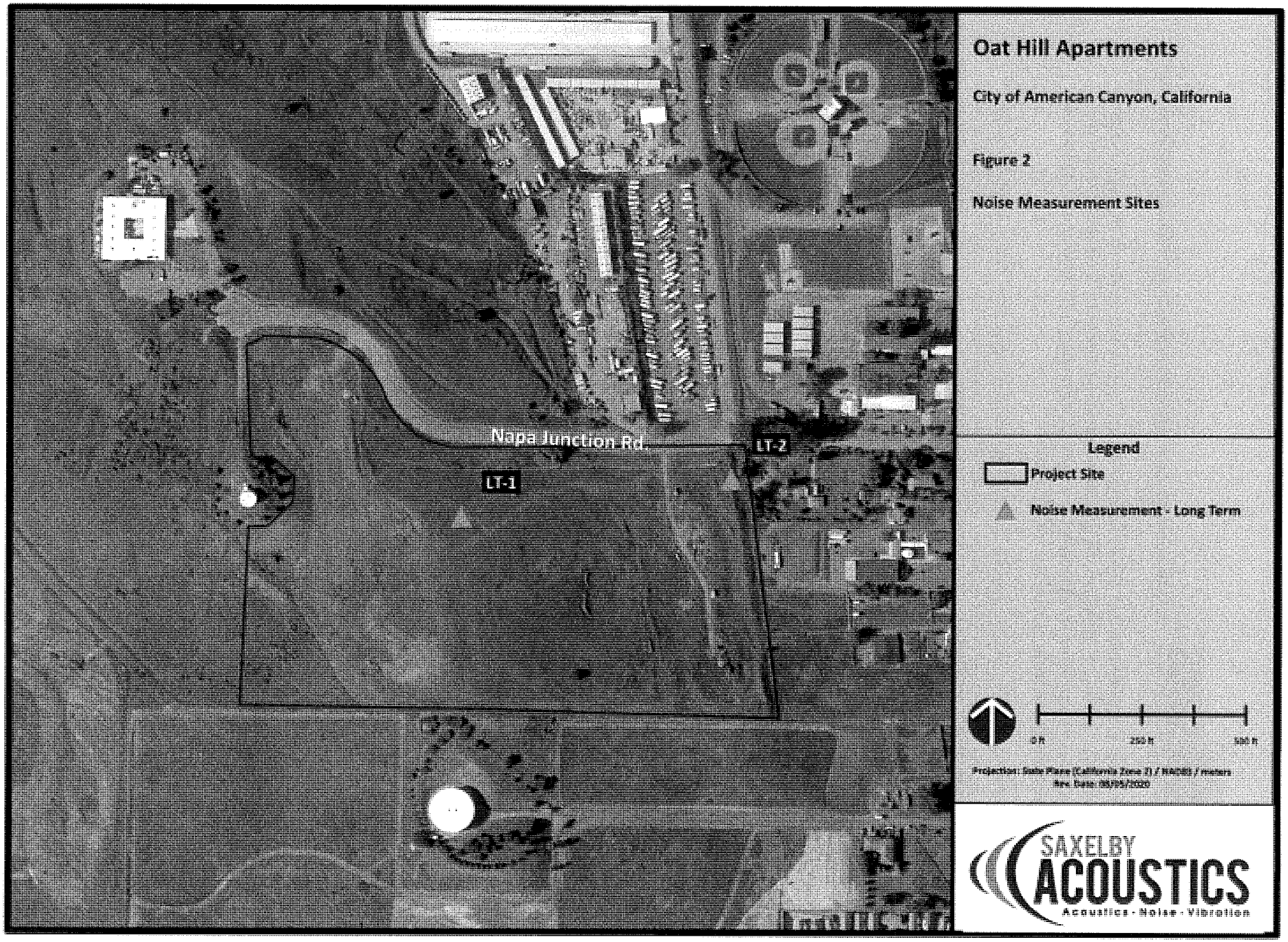
Napa Junction Rd
LT-1
LT-2
Oat Hill Apartments
City of American Canyon, California
Figure 2
Noise Measurement Sites
Legend
Project Site
Noise Measurement - Long Term
0 ft
250 ft
500 ft
Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 08/06/2020
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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses and Calvary Baptist Church located east of the project site and Napa Junction Magnet Elementary School located northeast of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

The existing noise environment in the project area is primarily defined by traffic on the Napa Vallejo Highway (Highway 29). Other noise sources include airplane flyovers to and from the Napa County Airport, transportation noise from the Union Pacific Rail Road line to the north of the project, and operational noise originating from a lumber processing facility to the southwest.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at two locations on the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 812 and 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a B&K Model 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	Northeastern Corner of Project Site	8/5/20 to 8/6/20	55	51	49	64	48	46	60
LT-2	Western Corner of Project Site	8/5/20 to 8/6/20	55	49	47	66	48	46	61

Notes:
- All values shown in dBA
- Daytime hours: 7:00 a.m. to 10:00 p.m.
- Nighttime Hours: 10:00 p.m. to 7:00 a.m.
- Source: Saxelby Acoustics 2020

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

Off-Site Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for existing and future, project and no-project conditions.

Existing and Future noise levels due to traffic are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (W-Trans), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing and Future conditions which would result from the project are provided in terms of L_{dn}.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may not receive full shielding from noise barriers, or may be located at distances which vary from the assumed calculation distance.

Table 3 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3: PREDICTED TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Existing No Project	Existing + Project	Change	Future No Project	Future + Project	Change
Napa Junction Rd.	West of Theresa Ave.	47.3	52.2	4.9	47.8	52.4	4.6
Theresa Ave.	South of Napa Junction Rd.	60.2	60.5	0.3	60.7	61.0	0.3
Napa Junction Rd.	East of Theresa Ave.	60.6	61.1	0.5	61.1	61.6	0.4
Theresa Ave.	North of Eucalyptus Dr.	62.5	62.8	0.3	63.1	63.4	0.3

Note: All noise levels are predicted at closest sensitive receptors in terms of dBA, L_{dn}.

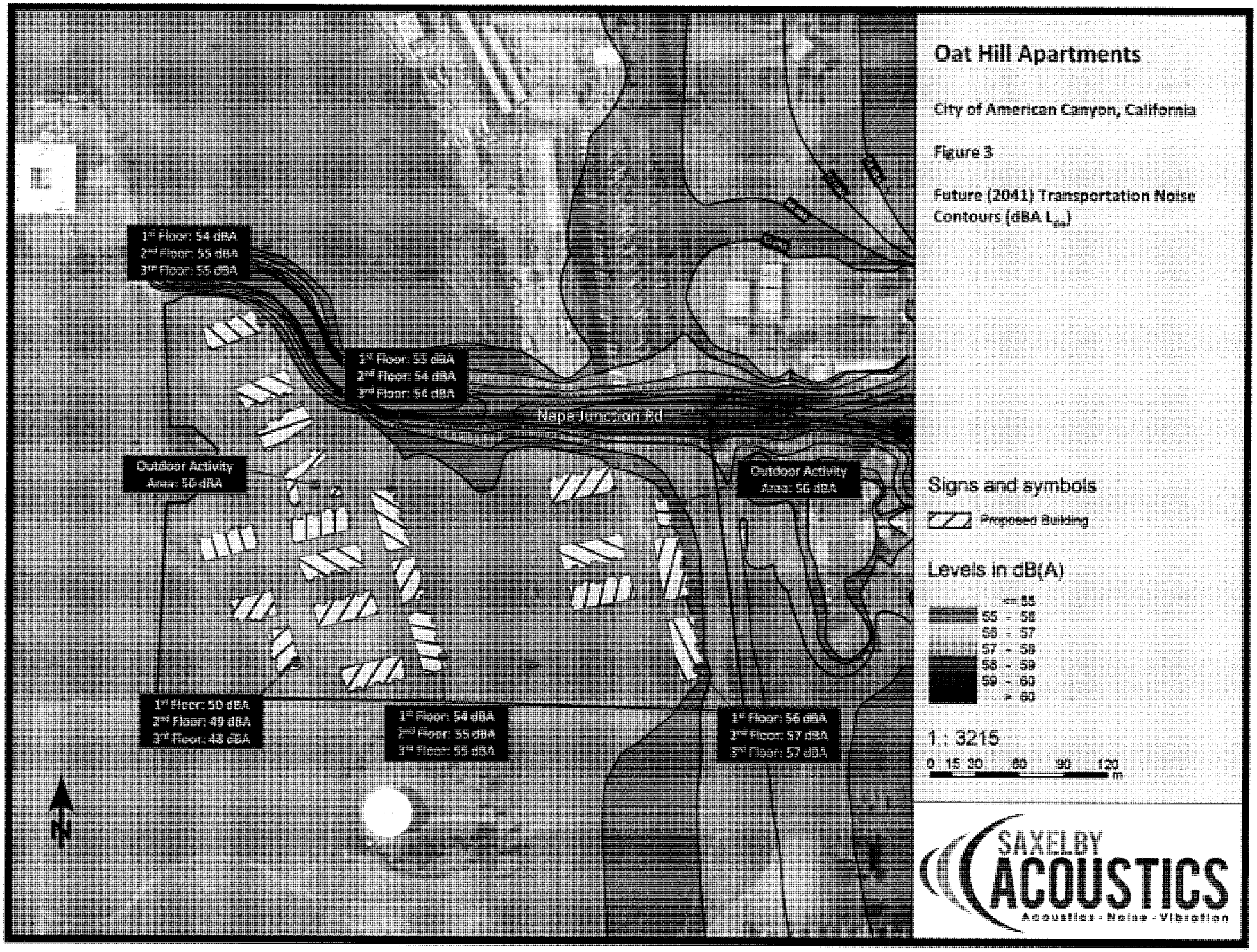
EVALUATION OF TRANSPORTATION NOISE SOURCES ON THE PROJECT SITE

On-Site Transportation Noise Prediction Methodology

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed residential uses due to traffic on Highway 29 and Napa Junction Road. The proposed project buildings and surrounding structures were input into the SoundPLAN model to determine the traffic noise exposure on the project site. Future (2041) traffic noise levels for Highway 29 were calculated by assuming a 1% per year increase in traffic volumes. Future traffic noise levels for Napa Junction Road were calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The results of this analysis are shown graphically on **Figure 3**.

NAPA COUNTY AIRPORT NOISE

The Napa County Airport is located approximately 1.8 miles west of the project site and aircraft overflights were observed during visits to the project site. **Figure 4** shows the noise contours for the airport as published in the City of American Canyon General Plan.


1st Floor: 54 dBA
2nd Floor: 55 dBA
3rd Floor: 55 dBA
1st Floor: 55 dBA
2nd Floor: 54 dBA
3rd Floor: 54 dBA
Napa Junction Rd.
Outdoor Activity Area: 50 dBA
Outdoor Activity Area: 56 dBA
1st Floor: 50 dBA
2nd Floor: 49 dBA
3rd Floor: 48 dBA
1st Floor: 54 dBA
2nd Floor: 55 dBA
3rd Floor: 55 dBA
1st Floor: 56 dBA
2nd Floor: 57 dBA
3rd Floor: 57 dBA
N
Oat Hill Apartments
City of American Canyon, California
Figure 3
Future (2041) Transportation Noise Contours (dBA L_{dn})
Signs and symbols
Proposed Building
Levels in dB(A)
<= 55
55 - 56
56 - 57
57 - 58
58 - 59
59 - 60
> 60
1 : 3215
0 15 30 60 90 120 m
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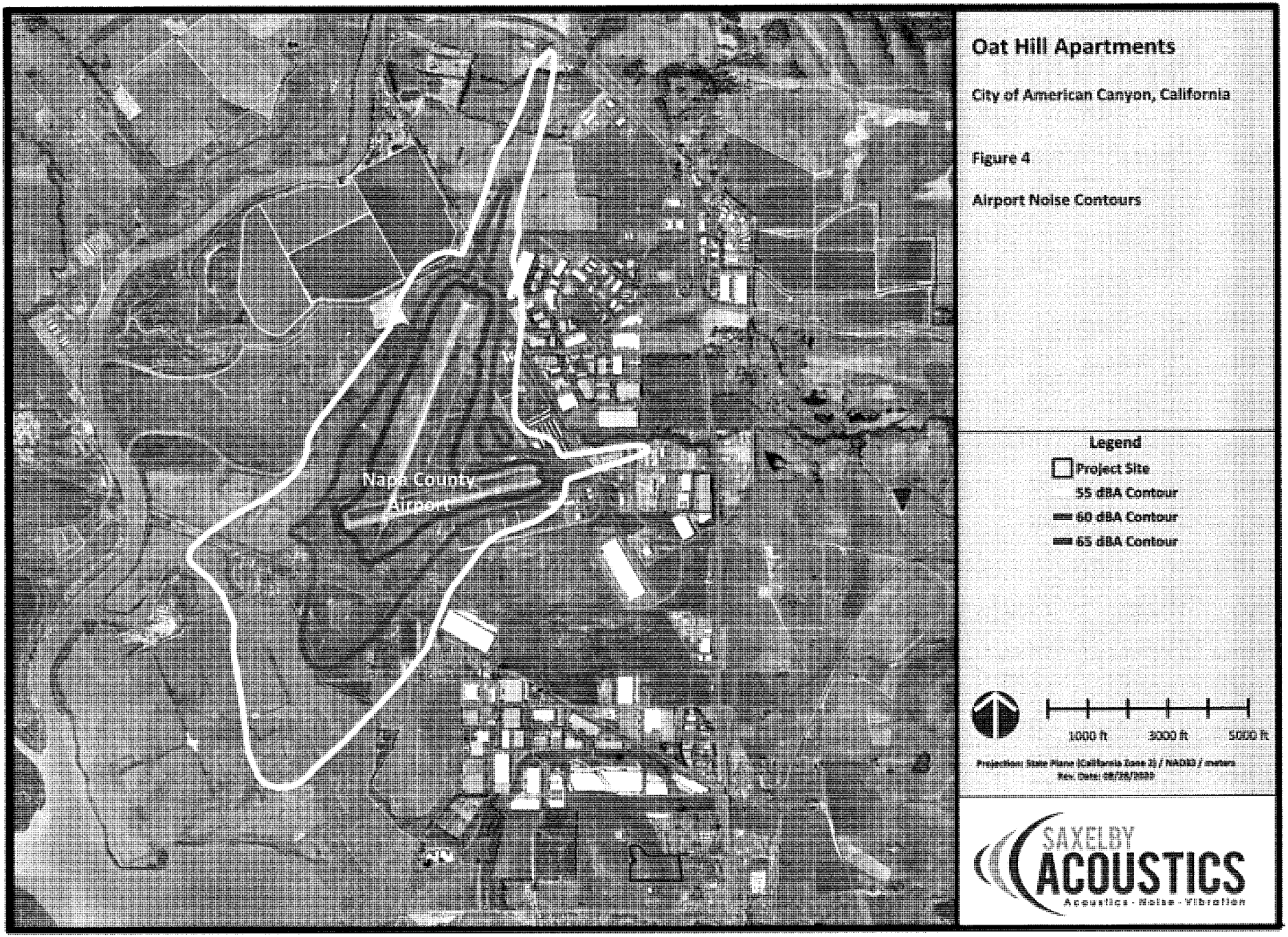

Oat Hill Apartments

City of American Canyon, California

Figure 4

Airport Noise Contours

Legend

- Project Site
- 55 dBA Contour
- 60 dBA Contour
- 65 dBA Contour

1000 ft 3000 ft 5000 ft

Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 08/28/2020

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CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 4: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **TABLE 5** shows the typical vibration levels produced by construction equipment.

TABLE 5: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

LOCAL

City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to noise that are applicable to the proposed project:

- **Goal 11:** Ensure that American Canyon's existing and future residents, employees and employers, as well as visitors to the City, are protected from the adverse human health and environmental impacts of excessive noise levels created by stationary and ambient (intrusive) noise sources and conditions. Take all necessary and appropriate action to avoid or mitigate the detrimental effects of such excessive noise on the community.
- **Objective 11.1:** Control both ambient and stationary (intrusive) noise conditions and impacts that may occur in American Canyon. Maintain base line information regarding ambient and stationary noise sources within the community.
- **Policy 11.1.1:** Promote noise-compatible land use relationships by implementing the noise standards identified in Figure 11-2 [of the General Plan], to be utilized for design purposes in new development and for establishing a program to attenuate existing noise problems.
- **Policy 11.1.2:** Monitor and update available data regarding the community's ambient and stationary noise levels.
- **Objective 11.2:** Protect residents, employees, and visitors to the community from

excessive noise exposure. If possible, mitigate the adverse impacts of existing or unavoidableexcessive noise on these same groups.

- **Policy 11.2.1:** Require that new development for locations in which the exterior or interior noise levels indicated in Figure 11-2 [of the General Plan] are likely to be exceeded, submit a noise attenuation study prepared by a qualified acoustical engineer in order to determine appropriate mitigation measures.
- **Policy 11.2.4:** Require that new industrial, commercial and related land uses, or the expansion of these existing land uses, demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65 dB(A) in areas containing housing, schools, health care facilities, or other "noise-sensitive" land uses. Additionally, require that potentially significant noise generators, including uses such as night clubs that cause sporadic noise intensities, submit noise analyses prepared by an acoustical expert that include specific recommendations for mitigation when: a) the project is located in close proximity to noise-sensitive land uses or land that is planned for noise-sensitive land uses, or b) the proposed noise source could violate the noise provisions of the General Plan or City Noise ordinance.
- **Objective 11.3:** Minimize the adverse impacts of traffic-generated noise on residential and other "noise-sensitive" uses as depicted on Figure 11-5 [of the General Plan].
- **Policy 11.3.1:** Minimize motor vehicle noise impacts from streets and highways through proper route location and sensitive roadway design by employing the following strategies:
  a. Consider the impacts of truck routes, the effects of a variety of truck traffic, and future motor vehicle volumes on noise levels adjacent to master planned roadways when improvements to the circulation system are planned.
  b. Mitigate traffic volumes and vehicle speed through residential neighborhoods.
  c. Work closely with the State of California Department of Transportation (Caltrans) in the early stages of highway improvements and design modifications to ensure that proper consideration is given to potential noise impacts on the City.
- **Policy 11.3.2:** Require that all new nonresidential development design and configure on-site ingress and egress points to divert traffic (and its resultant noise) away from "noise-sensitive" land uses to the greatest degree practicable.
- **Policy 11.4.1:** Restrict the development of uses located within the 65 CNEL contour of Napa Airport to industrial, agricultural, or other open space uses (see Figure 11-5 [of the General Plan]).
- **Policy 11.4.1:** Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Airport Land Use Compatibility Plan (ALUP).

- **Objective 11.5:** Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or "noise-sensitive" uses.
- **Objective 11.7:** Minimize the impacts of construction noise on adjacent uses.

The City of American Canyon General Plan establishes an exterior noise level criterion of 65 dB L_{dn} (or CNEL) or less within outdoor activity areas of residential land uses. Additionally, the City requires that cumulative noise exposure from exterior noise sources within noise-sensitive dwellings not exceed 45 dB L_{dn} (or CNEL).

City of American Canyon Municipal Code

Municipal Code Chapter 8.12.080 establishes maximum noise limits for construction activities. Where economically and technically feasible, construction noise at residential receptors is limited to no more than 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. and 60 dBA between 7:00 p.m. and 7:00 a.m.

County of Napa

The Airport Land Use Compatibility Plan governs land use around the Napa County Airport and sets forth noise compatibility standards for new development land use activities. Table 2-1 of the Airport Land Use Compatibility Plan identifies acceptable aviation noise levels by land use. For multifamily residential uses, aviation noise levels of 50-55 dBA Community Noise Equivalent Level (CNEL) are listed as "clearly acceptable."

Figure 5 shows the Napa County Airport Land Use Compatibility Plan Noise Compatibility Guidelines.

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FIGURE 5: NAPA COUNTY AIRPORT NOISE COMPATIBILITY GUIDELINES

Table 2-1

Noise Compatibility Guidelines

LAND USE CATEGORY	CNEL, dBA 50-55	55-60	60-65	65-70	70-75
Residential					
Single family, nursing homes, mobile homes	+	o	–	—	
multi-family, apartments, condominiums	++	+	o	–	
Public					
schools, libraries, hospitals	+	o	–	—	—
churches, auditoriums, concert halls	+	o	o	–	—
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	–	—

LAND USE AVAILABILITY		INTERPRETATION/COMMENTS
++	Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
—	Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 6** which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table 6 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 6: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: *Transportation Related Earthborne Vibrations.* Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-c]).

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Noise Level Increase Criteria for Long-Term Project-Related Noise Level Increases

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas." Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. **Table 7** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes

in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 7: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the **Table 7** data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB Ldn, or 3 dB or more where existing noise levels are between 60 to 65 dB Ldn. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB Ldn. The rationale for the **Table 7** criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 1: WOULD THE PROJECT GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

Exterior noise at New Sensitive Receptors

As shown in **Figure 3**, the proposed project is predicted to be exposed to transportation noise levels of up to 56 dBA at the eastern outdoor activity area and 50 dBA at the western outdoor activity area. This complies with the City of American Canyon existing General Plan standard of 65 dBA L_{dn} for outdoor activity areas.

The City of American Canyon General Plan requires that interior noise levels of new residential uses must be 45 dBA L_{dn} or less. Standard construction methods typically yield a 25 dBA noise reduction. The proposed project buildings are predicted to be exposed to noise levels of up to 57 dBA L_{dn}. Based upon a 25 dB reduction, the interior noise level would be 22 dBA L_{dn}. This complies with City of

American Canyon allowable transportation noise exposure limits.

This is a **less-than-significant** impact and no mitigation is required.

Traffic Noise Increases

The CEQA guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5.0 dB L_{dn} increase in roadway noise levels will be considered significant. As shown in **Table 3**, the maximum increase due to traffic noise is +4.9 dBA along Napa Junction Rd. on the segment west of Theresa Ave. The existing noise level due to traffic noise on this segment is 47.3 dBA and the future no-project noise level is predicted to be 47.8 dBA. All other increases are below +1.5 dBA.

Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant.***

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

The City of American Canyon Municipal Code establishes maximum noise limits for construction activities of 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. and 60 dBA between 7:00 p.m. and 7:00 a.m. The nearest residential uses are located approximately 320 feet to the east, as measured from the center of the eastern housing site. At this distance, maximum construction noise levels would be in the range of 60-74 dBA L_{max} in the backyards of the nearest residential uses.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would occur during daytime hours.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***.

Mitigation Measure

1(a) The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:

- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7 AM and 7 PM daily.
- Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- When not in use, motorized construction equipment shall not be left idling for more than 5 minutes.
- Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

Timing/Implementation: Implemented prior to approval of grading and/or building permits
Enforcement/Monitoring: City of American Canyon Community Development Services Department

Implementation of mitigation measure 1(a) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.

IMPACT 2: WOULD THE PROJECT GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 5** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

This is a **less-than-significant** impact and no mitigation is required.

IMPACT 3: **FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, WOULD THE PROJECT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS?**

Based upon **Figure 4**, the proposed project is located approximately 1.4 miles outside of the predicted 55 dBA CNEL noise contour. According to Table 2-1 (**Figure 5**) of the Napa County Airport Land Use Compatibility Plan, multi-family residential land uses exposed to noise levels less than 55 dBA CNEL are "Clearly Acceptable." Land use may be carried out with essentially no interference from the noise exposure.

This is a **less-than-significant** impact and no mitigation is required.

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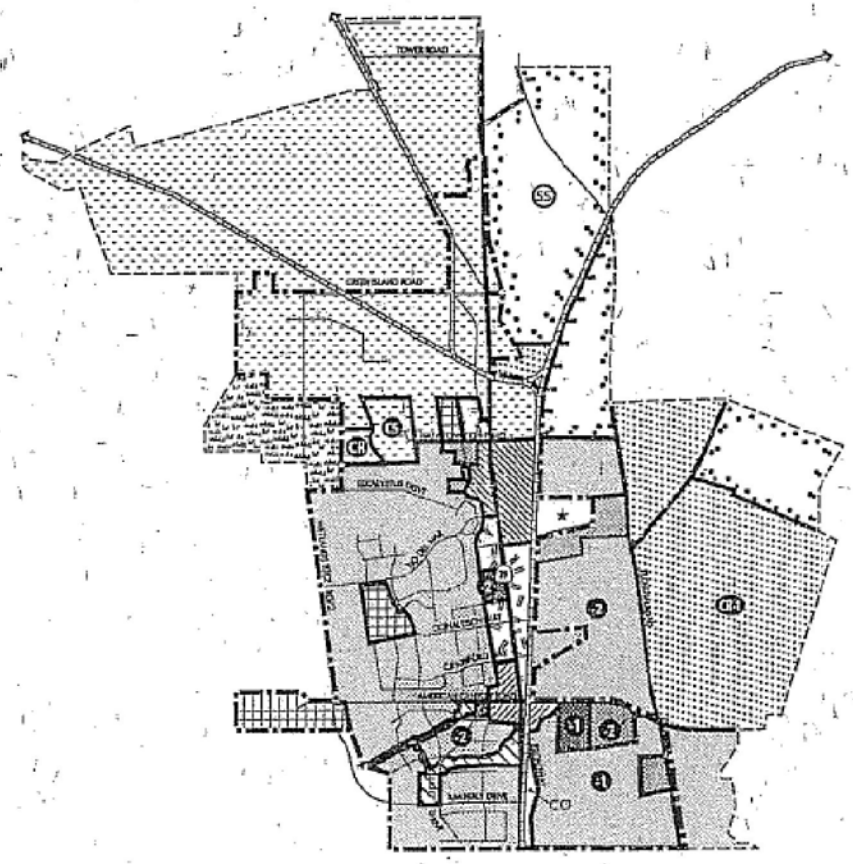
American Canyon

GENERAL PLAN

Land Use Element



Adopted November 3, 1994
As amended through October 2018

CITYWIDE LAND USE POLICY: KEY ISSUES

The following prescribes goals, objectives, and policies applicable to development in general, regardless of type, density, or location. Pertinent policies must be considered for any land use or development activity.

AIRPORT COMPATIBILITY

Goal

1N **Ensure the compatibility of development within American Canyon with the Napa County Airport.**

Objective

1.27 Ensure that lands in American Canyon are developed in a manner which protects them from the noise and operational impacts of, and does not adversely constrain, the Napa County Airport.

Policies

1.27.1 Require that development comply with the land use and development conditions stipulated in **Tables 1-1** and **1-2** for areas depicted on **Figure 1-3**. (*I 1.1, I 1.4, I 1.5, I 1.8,* and *I 1.11*)

1.27.2 Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions. (*I 1.11*)

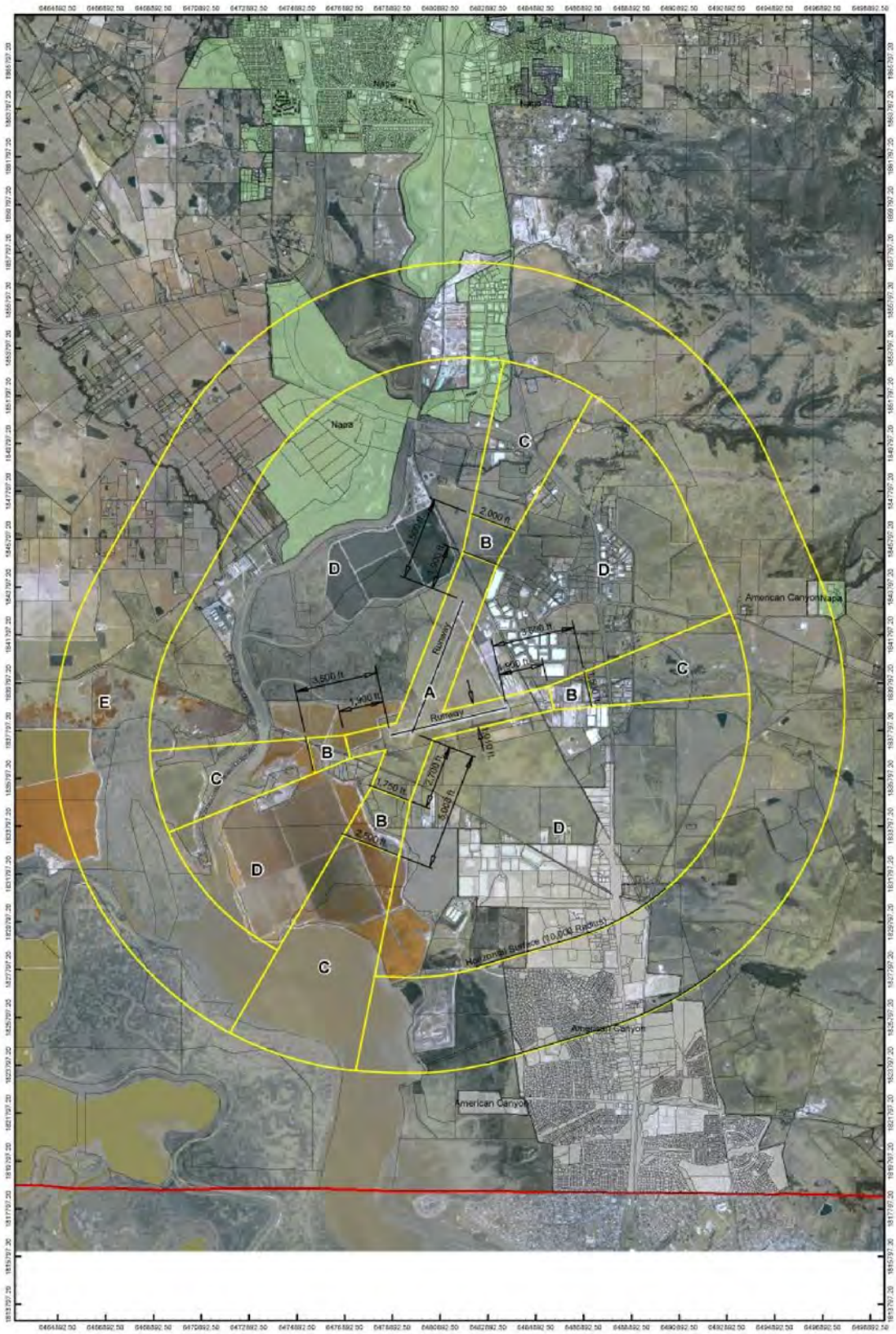
1.27.3 Work with the Napa County Airport Authority to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) the City of American Canyon. (*I 1.22*)

1.27.4 Work with the Napa County Airport Authority to ensure that airport vehicular access does not adversely impact the City of American Canyon. (*I 1.22*)

1.27.5 Work with the Napa County Airport Authority to ensure that any expanded operations of the Airport do not adversely impact existing land uses and development in the City of American Canyon. (*I 1.22*)

1.27.6 Work with the Napa County Airport Authority and other appropriate agencies to ensure that emergency preparedness plans are maintained to protect American Canyon residents and development. (*I 1.22*)

1.27.7 Recognize the importance of the Napa County Airport to City residents, including the economic, transportation and recreational benefits, and ensure that land use decisions rendered for this area do not negatively impact Airport operations (*I 1.22*).



Napa County Airport
Land Use Compatibility Zones

FIGURE 1-3

TABLE 1-1
Compatibility Zone Definitions

ZONE A	Runway Protection Zone: Dimensioned to encompass the current and future Runway Protection Zones for the runways of the Napa County Airport, as defined under FAA regulations and shown on Figure 3. The zones also include areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
ZONE B	Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway. Approach slopes are designated on the Airport Compatibility Zones map, Figure 1-3. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
ZONE C	Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for the Napa County Airport as illustrated on Figure 1-3. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

TABLE 1-2

Airport Vicinity Land Use Compatibility Criteria

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES[8]		
			Residential [1]	Other Users (people/ac)[2]	
				In Structures	Total in and out of Structures
A[9]	Runway Protection Zone and Primary Surface	• High Risk • High noise levels • Low overflights below 50' AGL	0	0	10
B	Inner Approach/ Departure Zone	• Substantial risk • High noise levels • Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	• Moderate risk • Substantial noise • Low overflights below 300' AGL	0	50	75
D	Common Traffic Pattern	• Moderate risk • Frequent noise intrusion • Routine overflights below 1000' AGL	0	100	150
E	Other Airport Environs	• Low risk • Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.

2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.

3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive uses (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.

7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable locations of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.

8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.

9. All lands in Zone A are either within the Airport's boundaries or are designated for acquisition in the Airport Master Plan.

10. Includes objects that penetrate FAR Part && surfaces, uses that would attract large numbers of birds (e.g. landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.

11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

TABLE 1-2 (cont.)

Zone	Prohibited Uses	Other Development Conditions[3]	Examples of Normally Acceptable Uses4	Examples of Uses not Normally Acceptable[5]
A	• All residential uses • Any assemblage of people • Any new structure which exceeds height limits • Noise-sensitive uses • Uses hazardous to flight[10]	• Avigation easement required	• Pasture, open space • Aircraft tiedowns • Auto parking • Most agricultural uses	• Heavy poles, signs, large trees, etc. • Ponds
B	• All residential uses • Any noise-sensitive uses •Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10]	• Avigation easement required • Structures to be as far as possible from extended runway centerline • Clustering is encouraged to maximize open land areas • Minimum NLR of 25 dBA in office buildings[6] • Building envelopes and approach surfaces required on all subdivision maps and development plans	• All uses from Zone A • Parks with low-intensity uses, golf courses • Nurseries • Mini-storage	• Retail uses • Office uses (except as accessory uses) • Hotels, motels, resorts • Theaters, assembly halls, and conference centers • Ponds
C	• All residential uses • Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10] • Landfills	• Avigation easement required • Structures to be set back as far as possible form extended centerline • Clustering is encouraged to maximize open land areas • Building envelopes and approach surfaces required on all subdivision maps • NLR measures may be required for noise-sensitive uses (offices)	• All uses from Zone B • Warehousing and low-intensity light industrial • Small retail uses • Outdoor recreation uses; marina, ballpark • Office uses	• Large retail buildings • Hotels, motels, resorts, health clubs • Restaurants, bars • Multi-story buildings • Theaters, assembly halls, and conference centers • Ponds
D	• All residential uses • Uses hazardous to flight[10]	• Overflight easement or deed notice required[11] • Building envelopes and approach surfaces required on all development plans within 100 feet of approach zones • Clustering is encouraged to maximize open land areas • NLR measures may be required for noise-sensitive uses[6]	• All uses from Zone C • Most nonresidential uses • Accessory daycare centers	• Schools, libraries, hospitals, nursing homes • Large shopping malls • Amphitheaters • Ponds
E	• Noise-sensitive outdoor uses	• Overflight easement or deed notice required[11]	• Any permitted use	• Amphitheaters • Landfills • Ponds

NOISE ELEMENT



STATUTORY REQUIREMENTS

Government Code Section 65302(f) states the following:

> *The General Plan shall include a noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:*
>
> *1) Highways and freeways*
>
> *2) Primary arterials and major local streets*
>
> *3) Passenger and freight on-line railroad operations and ground rapid transit systems*
>
> *4) Aviation and airport related operations*
>
> *5) Local industrial plants*
>
> *6) Other ground stationary noise sources contributing to community noise environment*

A local noise element should accurately reflect the noise environment, the stationary sources of noise, and the impacts of noise on local residents.

OPPORTUNITIES AND CONSTRAINTS (ISSUES)

1. Some residential, commercial, and institutional land uses in the City of American Canyon, particularly along Highway 29, are impacted by vehicular noise levels that exceed the Napa County noise standards currently used by the City.

2. Increased development within the City of American Canyon and Napa and Solano Counties will subsequently increase the number of vehicle trips along State Route 29 (SR 29). This will likely result in increased noise exposure to the properties along this major highway.

3. New development within American Canyon's Planning Area will increase traffic, and thus noise, along the existing road network.

4. Napa County Airport may be used for additional jet flight operations in the future. If residential development occurs within Airport Compatibility Zone E (see **Figure 11-1**) without noise attenuation requirements, proposed projects may be exposed to elevated noise levels.

5. Continued development in the region will likely lead to additional freight operations and possibly passenger rail service traveling through American Canyon. As a result of increased rail traffic, development along the two rail branches may be exposed to unacceptable noise levels.

Figure 11-1

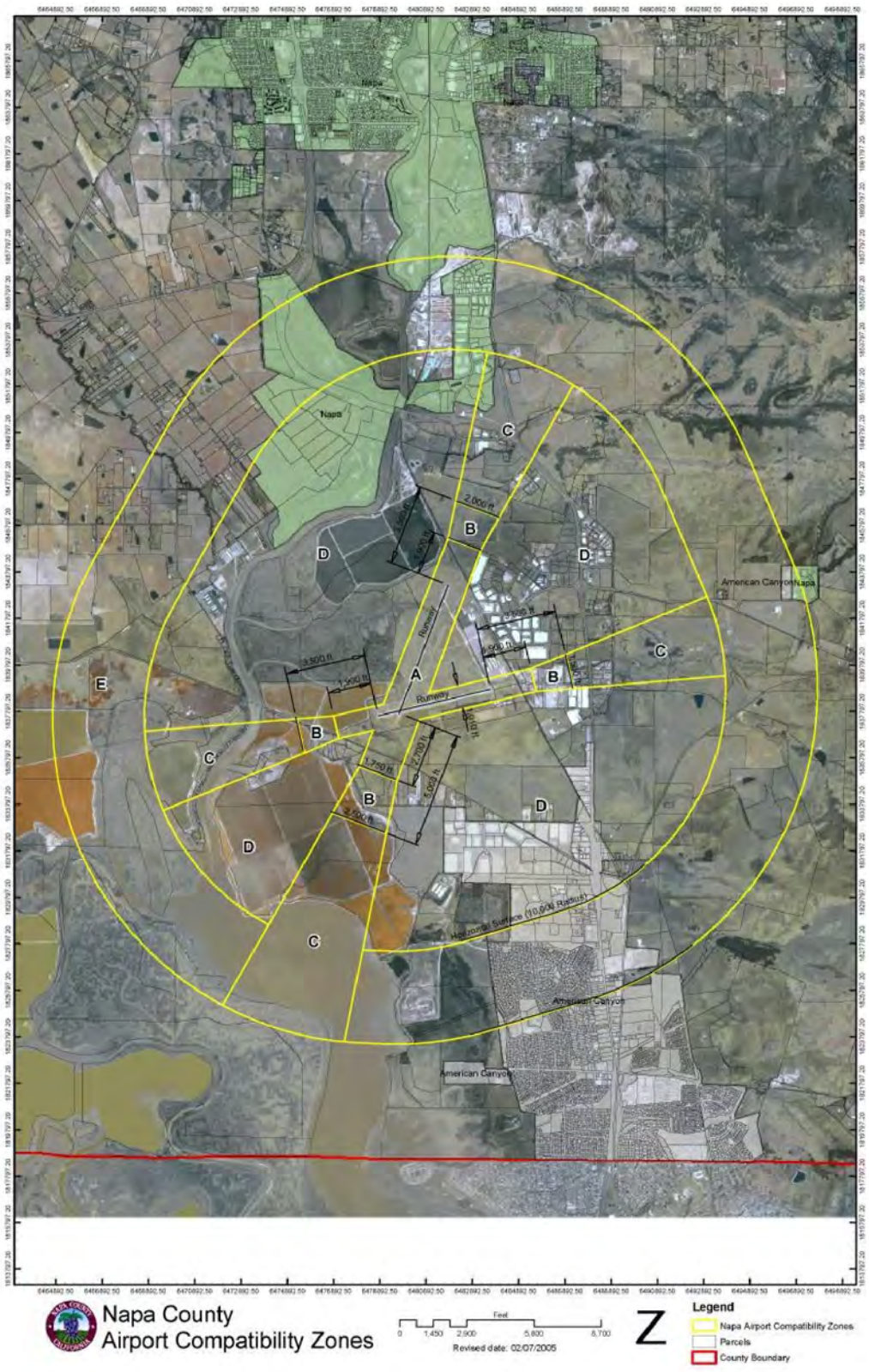

Napa County
Airport Compatibility Zones
Revised date: 02/07/2005
Legend
Napa Airport Compatibility Zones
Parcels
County Boundary
Napa
American Canyon
Runway
Horizontal Surface (10,000 Radius)

TABLE 11-1
Compatibility Zone Definitions

ZONE A	Runway Protection Zone: Dimensioned to encompass the current and future Runway Protection Zones for the runways of the Napa County Airport, as defined under FAA regulations and shown on Figure 3. The zones also include areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
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ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for the Napa County Airport as illustrated on Figure 1-3. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

OVERVIEW OF NOISE POLICIES

The policies found within this element of American Canyon's General Plan address the following topics:

1. Adopting and enforcing legally adequate noise regulations and guidelines.
2. Preventing and mitigating excessive noise exposure impacts on the community.
3. Minimizing noise impacts in mixed-use structures.
4. Minimizing construction noise on adjacent uses.
5. Ensuring that adverse noise impacts among differing uses or tenants are prevented.
6. Minimizing spillover noise impacts from entertainment and restaurant/bar establishments onto "noise-sensitive" uses.
7. Ensuring that the noise impacts of rail and air transport services on sensitive land uses are minimized.
8. Ensuring that a proper acoustical analysis of any potentially significant noise generator is conducted.

GOALS, OBJECTIVES AND POLICIES

The following section presents the goals, objectives, and policies related to both overall (ambient) and stationary (fixed-source) source noise conditions and impacts in the City of American Canyon. Implementing programs are referenced at the conclusion of each policy by an "*I*" and a number in parentheses and are described in the last subsection of the element.

Goal

11 **Ensure that American Canyon's existing and future residents, employees and employers, as well as visitors to the City, are protected from the adverse human health and environmental impacts of excessive noise levels created by stationary and ambient (intrusive) noise sources and conditions. Take all necessary and appropriate action to avoid or mitigate the detrimental affects of such excessive noise on the community.**

NOISE ORDINANCES, REGULATIONS, AND GUIDELINES

Objective

11.1 Control both ambient and stationary (intrusive) noise conditions and impacts that may occur in American Canyon. Maintain base line information regarding ambient and stationary noise sources within the community.

Policies

11.1.1 Promote noise compatible land use relationships by implementing the noise standards identified in **Figure 11-2**, to be utilized for design purposes in new development and for establishing a program to attenuate existing noise problems. (*I 11.14* and *I 11.15*)

11.1.2 Monitor and update available data regarding the community's ambient and stationary noise levels (see **Figures 11-3**, **11-4**, **11-4A** and **11-5**). (*I 11.2*)

11.1.3 Modify and update all local noise ordinances, regulations and guidelines as required by new state standards and guidelines. (*I 11.1*)

AMBIENT NOISE IMPACTS ON THE COMMUNITY

Objective

11.2 Protect residents, employees, and visitors to the community from excessive noise exposure. If possible, mitigate the adverse impacts of existing or unavoidable excessive noise on these same groups.

Figure 11-2

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES (8)		
			Residential (1)	Other Structures (people/acre) (2)	
				In Structures	Total in and out of Structures
A (9)	Runway Protection Zone and Primary Surface	•High risk •High Noise Levels •Low overflights below 50' AGL	0	0	10
B	Inner Approach / Departure Zone	•Substantial risk •High Noise Levels •Low overflights below 100' AGL	0	10	25
C	Approach / Departure Zone	•Moderate risk •Substantial Noise •Low overflights below 300' AGL	0	50	75
D	Common Traffic Pattern	•Moderatel risk •Frequent Noise Intrusion •Low overflights below 1,000' AGL	0	100	150
E	Other Airport Environs	•Low risk •Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per **net** acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.
3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.
6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive uses (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable locations of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or are designated for acquisition in the Airport Master Plan.
10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g. landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.
11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

Figure 11-2 (cont.)

Zone	Prohibited Uses	Other Development Conditions[3]	Examples of Normally Acceptable ses[4]	Examples of Uses not Normally Acceptable[5]
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B	• All residential uses • Any noise-sensitive uses •Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10]	• Avigation easement required • Structures to be as far as possible from extended runway centerline • Clustering is encouraged to maximize open land areas • Minimum NLR of 25 dBA in office buildings[6] • Building envelopes and approach surfaces required on all subdivision maps and development plans	• All uses from Zone A • Parks with low-intensity uses, golf courses • Nurseries • Mini-storage	• Retail uses • Office uses (except as accessory uses) • Hotels, motels, resorts • Theaters, assembly halls, and conference centers • Ponds
C	• All residential uses • Schools, libraries, hospitals, nursing homes, daycare centers • Uses hazardous to flight[10] • Landfills	• Avigation easement required • Structures to be set back as far as possible from extended centerline • Clustering is encouraged to maximize open land areas • Building envelopes and approach surfaces required on all subdivision maps • NLR measures may be required for noise-sensitive uses (offices)[6]	• All uses from Zone B • Warehousing and low-intensity light industrial • Small retail uses • Outdoor recreation uses; marina, ballpark • Office uses	• Large retail buildings • Hotels, motels, resorts, health clubs • Restaurants, bars • Multi-story buildings • Theaters, assembly halls, and conference centers • Ponds
D	• All residential uses • Uses hazardous to flight[10]	• Overflight easement or deed notice required[11] • Building envelopes and approach surfaces required on all development plans within 100 feet of approach zones • Clustering is encouraged to maximize open land areas • NLR measures may be required for noise-sensitive uses[6]	• All uses from Zone C • Most nonresidential uses • Accessory daycare centers	• Schools, libraries, hospitals, nursing homes • Large shopping malls • Amphitheaters • Ponds
E	• Noise-sensitive outdoor uses	• Overflight easement or deed notice required[11]	• Any permitted use	• Amphitheaters • Landfills • Ponds

Figure 11-3

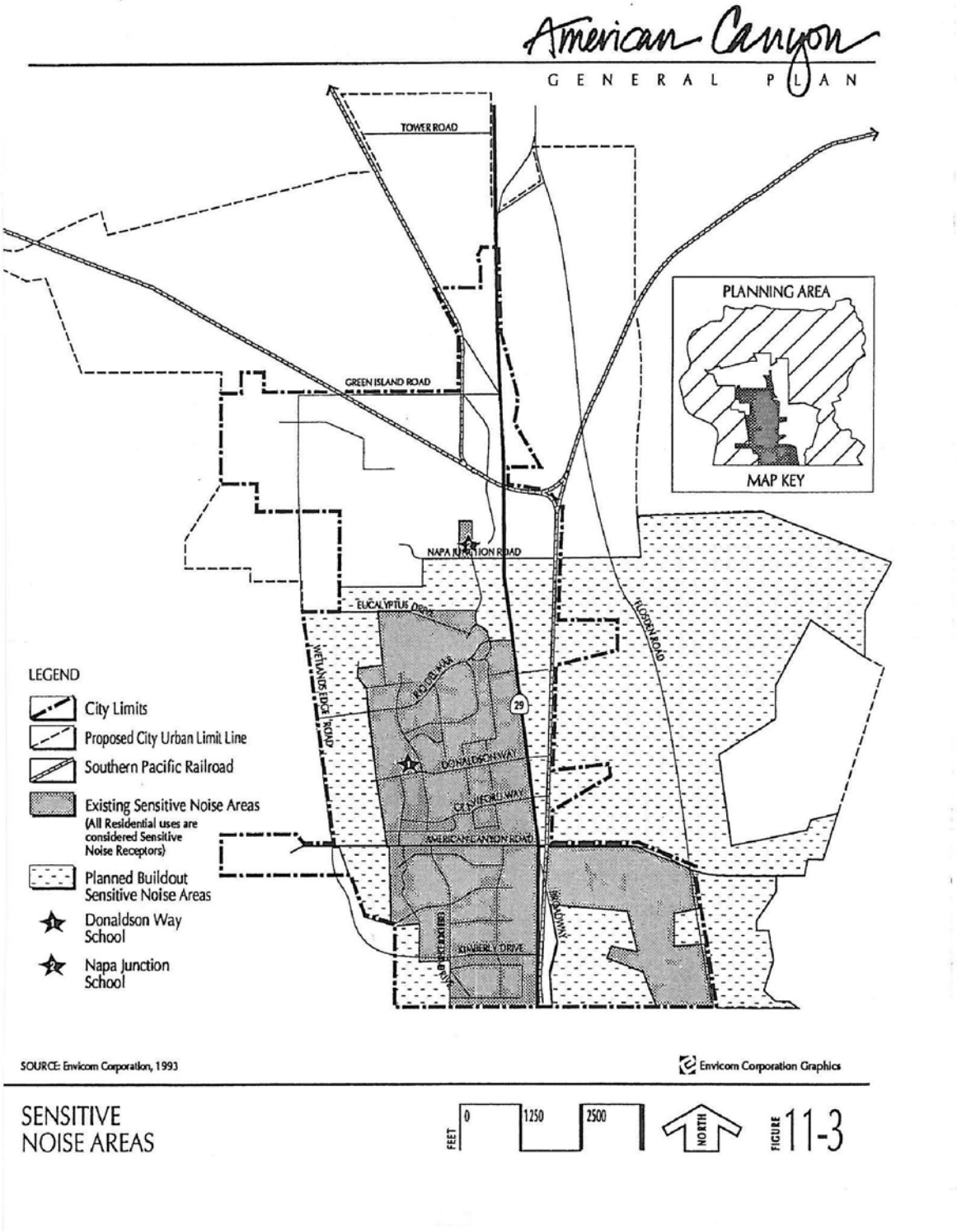

American Canyon
GENERAL PLAN
TOWER ROAD
GREEN ISLAND ROAD
PLANNING AREA
MAP KEY
NAPA JUNCTION ROAD
EUCALYPTUS DRIVE
WETLANDS EDGE ROAD
FLOSDEN ROAD
DONALDSON WAY
CELADON WAY
AMERICAN CANYON ROAD
BROADWAY
KIMBERLY DRIVE
29
LEGEND
City Limits
Proposed City Urban Limit Line
Southern Pacific Railroad
Existing Sensitive Noise Areas
(All Residential uses are considered Sensitive Noise Receptors)
Planned Buildout Sensitive Noise Areas
Donaldson Way School
Napa Junction School
SOURCE: Envicom Corporation, 1993
Envicom Corporation Graphics
SENSITIVE NOISE AREAS
FEET
0
1250
2500
NORTH
FIGURE 11-3

Figure 11-4

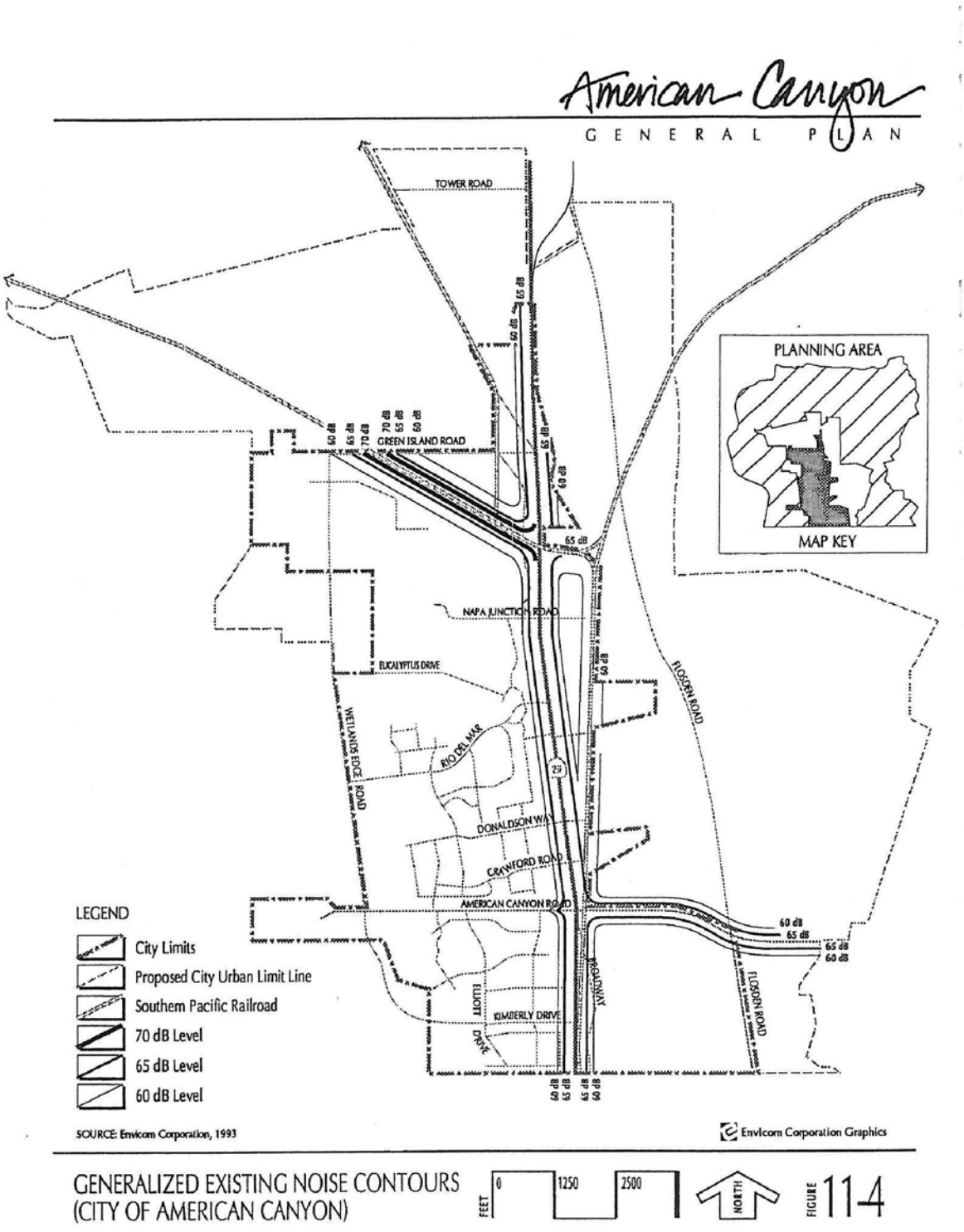

American Canyon
GENERAL PLAN
TOWER ROAD
GREEN ISLAND ROAD
NAPA JUNCTION ROAD
EUCALYPTUS DRIVE
WETLANDS EDGE ROAD
RIO DEL MAR
DONALDSON WAY
CRAWFORD ROAD
AMERICAN CANYON ROAD
FLOSDEN ROAD
BROADWAY
ELLIOTT DRIVE
KIMBERLY DRIVE
PLANNING AREA
MAP KEY
LEGEND
City Limits
Proposed City Urban Limit Line
Southern Pacific Railroad
70 dB Level
65 dB Level
60 dB Level
SOURCE: Envicom Corporation, 1993
Envicom Corporation Graphics
GENERALIZED EXISTING NOISE CONTOURS
(CITY OF AMERICAN CANYON)
FEET
0
1250
2500
NORTH
FIGURE 11-4

Figure 11-4A

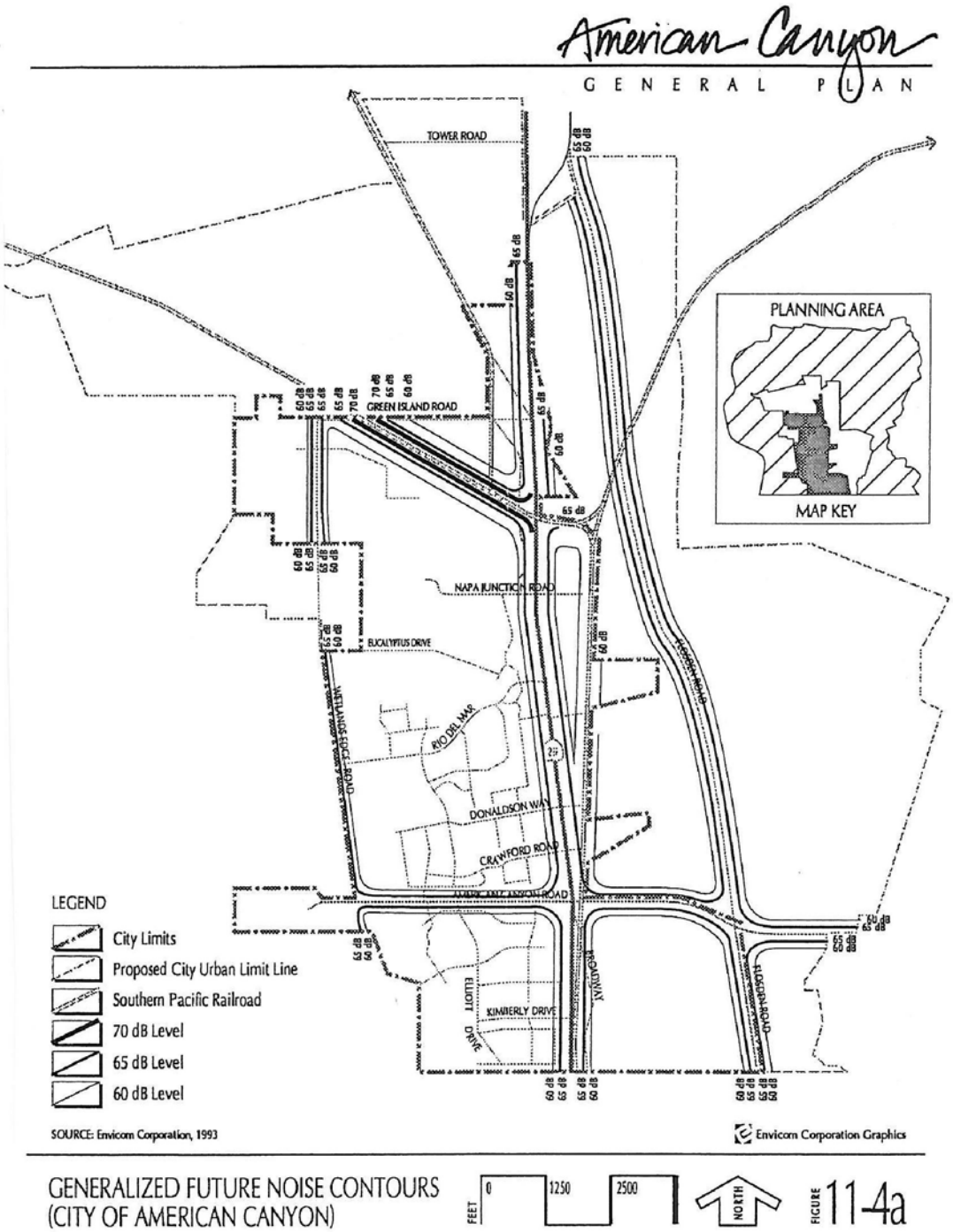
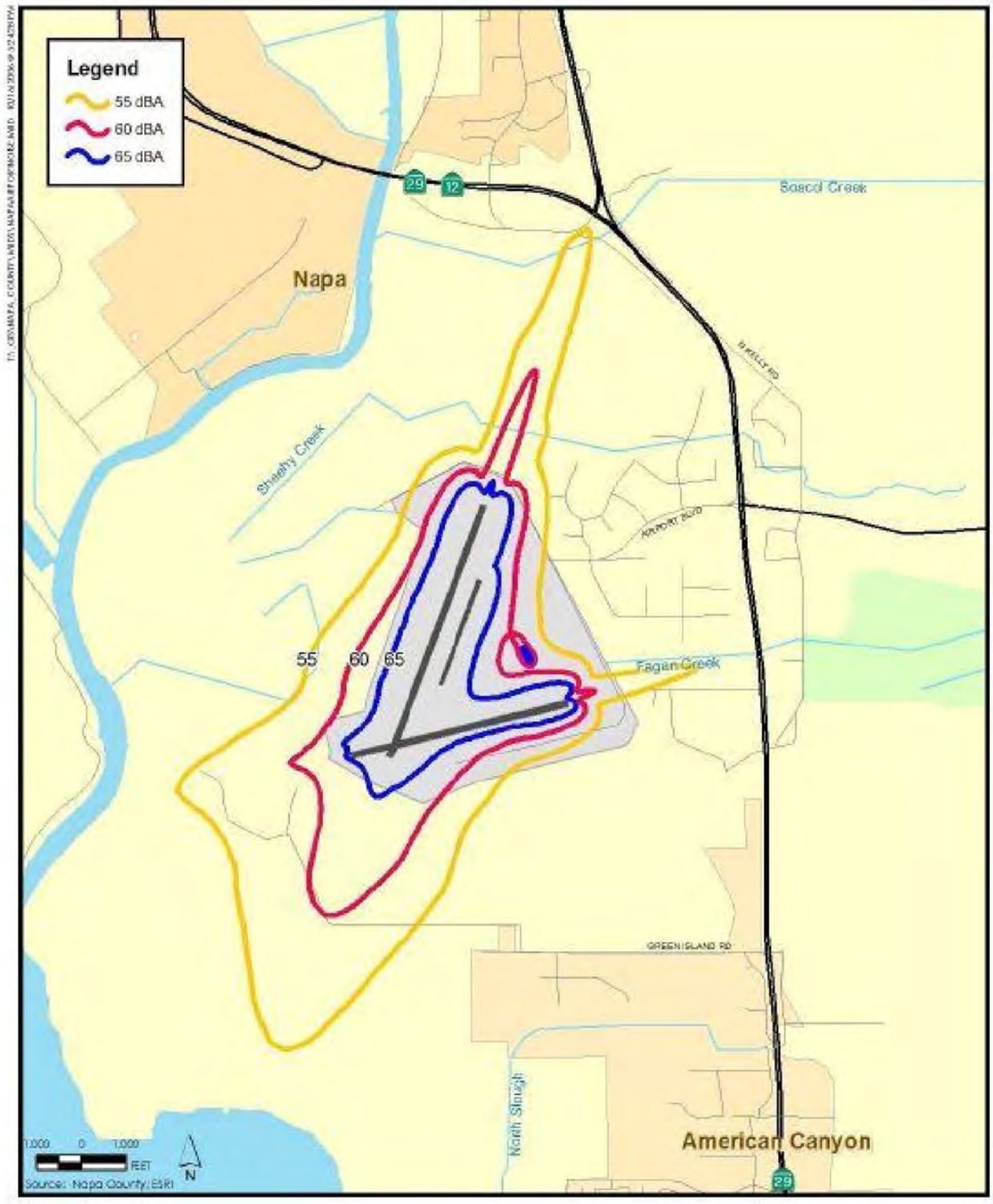

American Canyon
GENERAL PLAN
TOWER ROAD
GREEN ISLAND ROAD
NAPA JUNCTION ROAD
EUCALYPTUS DRIVE
RIO DEL MAR
DONALDSON WAY
CRAWFORD ROAD
KIMBERLY DRIVE
ELLIOTT DRIVE
BROADWAY
FLOSDEN ROAD
PLANNING AREA
MAP KEY
LEGEND
City Limits
Proposed City Urban Limit Line
Southern Pacific Railroad
70 dB Level
65 dB Level
60 dB Level
SOURCE: Envicom Corporation, 1993
Envicom Corporation Graphics
GENERALIZED FUTURE NOISE CONTOURS
(CITY OF AMERICAN CANYON)
FEET
0
1250
2500
NORTH
FIGURE 11-4a

Figure 11-5



Source: Napa County, 2004

Note: American Canyon boundaries are shown as of that date (pre-2005)

Policies

11.2.1 Require that new development for locations in which the exterior or interior noise levels indicated in **Figure 11-2** are likely to be exceeded, submit a noise attenuation study prepared by a qualified acoustical engineer in order to determine appropriate mitigation measures. (*I 11.3*, *I 11.14,* and *I 11.15*)

11.2.2 Enforce the California Noise Insulation Standards (Title 25, California Administrative Code) that apply to new multiple family, hotel, motel, dormitory, and long-term care developments with a Ldn of 60 dB(A) noise contour adjacent to roads, transit lines, and manufacturing areas to ensure that the units have been designed to limit interior noise levels in habitable rooms to a Ldn of 45 dB(A) with doors and windows closed. (*I 11.3, I 11.14,* and *I 11.15*)

11.2.3 Require that air conditioning units and pool equipment within residential areas be designed and sited in a manner that does not intrude upon the peace and quiet of adjacent noise-sensitive uses. (*I 11.14* and *I 11.15*)

11.2.4 Require that new industrial, commercial and related land uses, or the expansion of these existing land uses, demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65 dB(A) in areas containing housing, schools, health care facilities, or other "noise-sensitive" land uses. Additionally, require that potentially significant noise generators, including uses such as night clubs that cause sporadic noise intensities, submit noise analyses prepared by an acoustical expert that include specific recommendations for mitigation when: a) the project is located in close proximity to noise-sensitive land uses or land that is planned for noise-sensitive land uses, or b) the proposed noise source could violate the noise provisions of the General Plan or City Noise ordinance. (*I 11.3, I 11.4, I 11.14,* and *I 11.15*)

11.2.5 Require that new commercial structures located adjacent to existing residential areas shield their HVAC units so as to limit the units adverse noise impacts to the greatest extent possible. (*I 11.14* and *I 11.15*)

11.2.6 Require that parking lots associated with new commercial structures be designed so as to buffer adjacent residential uses from vehicular noise. (*I 11.14* and *I 11.15*)

11.2.7 Encourage "noise-sensitive" uses, including schools, libraries, health care facilities, and residential developments, to incorporate fences, walls, landscaping, and/or other noise buffers and barriers to mitigate noise impacts where appropriate and feasible. (*I 11.3* and *I 11.14*)

11.2.8 Consider alternate land uses or mitigation measures if large walls or other physical barriers are required to mitigate noise impacts that will affect or be caused by a proposed development project. (*I 11.4, I 11.14*, and *I 11.15*)

11.2.9 Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

a. Site Design

- Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
- Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
- Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
- Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas; and
- Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels.

b. Architectural Design

- Using dense building materials and tight fitting doors;
- Employing double glazed and double pane windows;
- Placing unopenable windows on the side of the structure facing a major roadway and entry doors on the side of the building facing away from the major roadway; and
- Avoiding balconies and patio areas facing major transportation routes. (*I 11.1, I 11.16,* and *I 11.17*)

TRAFFIC-RELATED NOISE IMPACTS

Objective

11.3 Minimize the adverse impacts of traffic-generated noise on residential and other "noise-sensitive" uses as depicted on **Figure 11-5**.

Policies

11.3.1 Minimize motor vehicle noise impacts from streets and highways through proper route location and sensitive roadway design by employing the following strategies:

a. Consider the impacts of truck routes, the effects of a variety of truck traffic, and future motor vehicle volumes on noise levels adjacent to master planned roadways when improvements to the circulation system are planned.

b. Mitigate traffic volumes and vehicle speed through residential neighborhoods.

c. Work closely with the State of California Department of Transportation (Caltrans) in the early stages of highway improvements and design modifications to ensure that proper consideration is given to potential noise impacts on the City. (*I 11.4*, *I 11.15* and *I 11.16*)

11.3.2 Require that all new nonresidential development design and configure onsite ingress and egress points to divert traffic (and its resultant noise) away from "noise-sensitive" land uses to the greatest degree practicable. (*I 11.16*)

11.3.3 Actively enforce existing applicable sections of the California Vehicle Code related to vehicle or equipment mufflers and modified exhaust systems. (*I 11.22*)

11.3.4 Require that any municipal vehicles or noise-generating mechanical equipment purchased or used by the City of American Canyon comply with noise performance standards consistent with the best available noise reduction technology. (*I 11.25*)

11.3.5 Encourage local and regional public transit providers to ensure that the equipment they use and operate does not create excessive noise impacts on the community. (*I 11.19*)

11.3.6 Encourage Caltrans to install and maintain mitigation and/or landscaping elements along highways under their jurisdiction that are adjacent to existing residential subdivisions or noise-sensitive uses in order to reduce their adverse noise impacts. (*I 11.18*)

11.3.7 Provide for the development of alternate transportation modes, such as bicycle paths and pedestrian walkways, to minimize the number of noise generating automobile trips. (*I 11.5*)

11.3.8 Reduce noise impacts of vehicular travel by implementing Transportation Management Policies 4.6.1 through 4.6.5. (*I 4.8, I 4.10, I 4.11,* and *I 4.13*)

AIRCRAFT-RELATED NOISE IMPACTS

Objective

11.4 Minimize the adverse impacts of aircraft generated noise on residential and other "noise-sensitive" uses.

Policies

11.4.1 Restrict the development of uses located within the 65 CNEL contour of Napa Airport to industrial, agricultural, or other open space uses (see **Figure 11-5**). (*I 11.23*)

11.4.2 Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Airport Land Use Compatibility Plan (ALUP). (*I 11.24*)

11.4.3 Work closely with the Napa County Airport to ensure that the airport's operations do not generate adverse noise conditions in the City of American Canyon. (*I 11.21*)

NOISE IMPACTS OF COMMERCIAL AND INDUSTRIAL LAND USES

Objective

11.5 Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or "noise-sensitive" uses.

Policies

11.5.1 Require that automobile and truck access to commercial or industrial land uses abutting residential parcels be located at the maximum practical distance from the residential parcels. (*I 11.4*)

11.5.2 Prohibit the siting of loading and shipping facilities for commercial and industrial land uses adjacent to residential parcels, thereby minimizing the potential noise impacts upon those parcels to the greatest degree practicable. (*I 11.4*)

11.5.3 Require that parking areas for commercial and industrial land uses be set back from adjacent residential areas to the maximum extent feasible or be buffered and shielded by walls, fences, berms, and/or adequate landscaping. (*I 11.4*)

11.5.4 Require that parking structures serving commercial or industrial land uses be designed to minimize the potential noise impacts of vehicles using these facilities both on site and on adjacent land uses or properties. The design measures may include: (a) the use of materials that mitigate sound transmission; and (b) the configuration of interior spaces to minimize sound amplification and transmission. (*I 11.4*)

11.5.5 Limit the hours of operation and/or the use of leaf blowers, parking lot sweepers, or other high noise-generating commercial/industrial equipment to reduce the potentially adverse noise impacts of such equipment upon adjacent residential areas. (*I 11.6*)

11.5.6 Require that the hours of truck deliveries to commercial or industrial land uses abutting residential uses be limited (within a reasonable period) unless there are no feasible alternatives or there are overriding transportation benefits by scheduling deliveries at other hours. (*I 11.6*)

NOISE IMPACTS OF MIXED-USE STRUCTURES

Objective

11.6 Minimize the potentially adverse noise impacts associated with the development of mixed-use structures in which residential units are located above ground floor commercial uses.

Policies

11.6.1 Require that the commercial component of a mixed-use project not generate excessive noise. (*I 11.9*)

11.6.2 Require that mixed-use structures incorporating both commercial and residential land uses minimize to the greatest degree practicable (through design and construction techniques) the transfer or transmission of noise and vibration from the commercial land use to the residential land use. (*I 11.9*)

CONSTRUCTION NOISE IMPACTS

Objective

11.7 Minimize the impacts of construction noise on adjacent uses.

Policies

11.7.1 Limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 6:30 AM and 8:00 PM. (*I 11.7*)

11.7.2 Require construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses. (*I 11.7*)

NOISE IMPACTS/ENCROACHMENT WITHIN MULTI-OCCUPANT STRUCTURES

Objective

11.8 Ensure that buildings are constructed soundly to prevent adverse noise transmission between differing uses or tenants located in the same commercial structure, and individual dwelling units in multi-family residential structures.

Policy

11.8.1 Rigorously enforce the applicable provisions of the Uniform Building Code and City of American Canyon Municipal Code, which prevent the transmission of excessive and unacceptable noise levels between individual tenants and businesses in commercial structures and between individual dwelling units in multi-family residential structures. (*I 11.10*)

NOISE IMPACTS OF ENTERTAINMENT AND RESTAURANT/BAR LAND USES

Objective

11.9 Minimize excessive noise generated by entertainment and restaurant/bar establishments and limit noise spillover from these uses into adjacent residential or other "noise-sensitive" land uses.

Policies

11.9.1 Require that entertainment and restaurant/bar uses take appropriate steps to control the activities of their patrons onsite, as well as within a reasonable and legally justified distance from the place of business, to minimize potential noise-related impacts on adjacent residential neighborhoods. (*I 11.11*)

11.9.2 Discourage the development of new nightclubs, discotheques, and other high noise-generating entertainment uses directly adjacent to any residential neighborhoods, residential dwelling units, schools, health care facilities, or other "noise-sensitive" land uses, unless it is demonstrated that adequate measures can be installed and employed by these establishments to adequately mitigate the potential impacts of onsite operations and/or offsite customer activities upon these areas. (*I 11.8*)

11.9.3 Prohibit the location of uses characterized by excessive noise, such as fast food restaurants with drive-through speakers, adjacent to residential neighborhoods. (*I 11.6*)

NOISE IMPACTS OF RAILROAD USES

Objective

11.10 Minimize the noise impacts created by railroad transit (freight and passenger) on residential uses and other "noise-sensitive" land uses.

Policy

11.10.1 Work with railroad operators using facilities that cross through the City of American Canyon to install noise mitigation features where operations impact existing adjacent residential or other "noise-sensitive" uses. (*I 11.20*)

ANALYSIS AND MITIGATION OF CITYWIDE STATIONARY (FIXED-SOURCE) NOISE IMPACTS

Objective

11.11 Ensure that the noise impacts of stationary sources are adequately mitigated.

Policies

11.11.1 Require the completion of detailed and independent acoustical analyses on any new or renovated land uses or structures determined by the City to be potential major stationary noise sources. Such studies will be completed and reviewed, with recommended mitigation measures successfully implemented and tested, prior to the issuance of a Certificate of Occupancy for said land use or structure. (*I 11.12*)

11.11.2 Encourage major stationary noise generating sources throughout the City of American Canyon to voluntarily install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable. (*I 11.13*)

11.11.3 Require the installation of noise buffering or reduction mechanisms within major stationary noise generating sources located throughout the City prior to the renewal of Conditional Use Permits or prior to the approval and/or issuance of new Conditional Use Permits for said facilities, in order to reduce their noise generation levels to the lowest extent practicable. (*I 11.13*)

IMPLEMENTATION PROGRAMS

The following programs implement the noise policies contained in the preceding subsection of the Plan. The capital "I" and number preceding each program are referenced by the policies that they implement.

NOISE ORDINANCES, REGULATIONS, AND GUIDELINES

I 11.1 Continue to enforce an appropriate and legally adequate local Noise Ordinance to comply with the State's Noise Insulation Standards. Said ordinance shall contain policies and regulations addressing both overall (ambient) and stationary source (intrusive) noise impacts.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or penalty fees collected from code violations
Schedule: As necessary or as funding permits

I 11.2 Record changes that occur in the community's noise environment by reviewing available technical and acoustical data and studies conducted for proposed projects. The existing local noise map shall be updated as new information about the community's noise environment becomes available, to ensure accuracy in land use compatibility planning and the mitigation of noise impacts.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund, development application fees, and/or available funding sources approved by the City
Schedule: Document changes in the City=s noise environment as they occur and update the noise map annually or as funding permits

I 11.3 Include provisions within the American Canyon local Noise Ordinance which require that, prior to the issuance of Certificates of Occupancy and/or Certification of Completion, habitable areas in "noise-sensitive" uses exhibiting noise levels of 60 dB(A) Ldn or greater demonstrate that interior noise levels will not exceed a Ldn of 45 dB(A). Facilities failing to meet this requirement shall be required to install mitigation measures that reduce interior noise levels to within a 45 dB(A) Ldn level, prior to the issuance of any certificates.

Responsibility: City of American Canyon Planning Department
Funding Source: Administration: City of American Canyon General Fund and/or development application fees
Technical Report: Development applicant.
Schedule: As development projects are submitted or as funding permits

I 11.4 Modify the City's industrial and commercial zoning development standards to require that proposed projects be designed in a sensitive manner to minimize potential noise impacts on adjacent residential and "noise-sensitive" uses. Zoning modifications should include:

- The requirement that vehicle access points be located and oriented away from residential and/or noise-sensitive parcels.
- The requirement that loading and shipping facilities be located and oriented away from adjacent noise-sensitive uses.
- The requirement that fences, walls, landscaping and other noise buffers and barriers be incorporated between incompatible uses.
- The requirement that structural building materials, which mitigate sound transmission, be incorporated into new commercial and industrial developments.
- The requirement that interior spaces be configured to minimize sound amplification and transmission.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: Within 18 months of the General Plan's adoption in concert with the preparation of the revised zoning ordinance, or as funding permits

I 11.5 Implement policies and programs of the General Plan's **Land Use and Circulation Elements** relating to the further development and use of alternative modes of travel, such as bicycles and walking, to reduce noise producing auto trips generated by new development projects in American Canyon.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: As development projects are submitted or as funding permits

I 11.6 Revise the City of American Canyon's Noise Ordinance so that it contains provisions that specifically address and sufficiently regulate or limit:

- the use of leaf blowers, parking lot sweepers, and other high noise generating equipment.
- the hours of truck deliveries to commercial or industrial land uses abutting residential and other "noise-sensitive" uses.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees

Schedule: Within 18 months of the General Plan's adoption in concert with the preparation of the revised zoning ordinance, or as funding permits

I 11.7 Revise the American Canyon Noise Ordinance so that it specifically addresses the following:

- the regulation and limitation of the hours of construction activities (particularly those occurring near residences).
- the requirement that construction contractors and their employees utilize operational techniques and practices that minimize the generation of adverse and/or excessive noise on adjacent land uses.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: Within 18 months of the General Plan=s adoption in concert with the preparation of the revised zoning ordinance, or as funding permits

I 11.8 Revise the American Canyon Noise Ordinance so that it contains provisions that specifically require all new and existing entertainment and restaurant/bar land uses to either go through a discretionary development approval process or a renewal of conditional use permit process. The ordinance will include measures that require said land uses to limit ambient noise levels emanating from the establishment at a distance of 50 feet, or within ten feet of any dwelling unit (whichever is more restrictive). Through these processes, locating such facilities adjacent to "noise-sensitive" land uses shall be discouraged or prohibited, unless it can be demonstrated that the potential noise-related impacts of the project can be mitigated to a level of insignificance.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: Within 18 months of the General Plan's adoption in concert with the preparation of the revised zoning ordinance, or as funding permits

DEVELOPMENT REVIEW

I 11.9 Utilize the local planning, design and environmental review process to ensure that proposed commercial land uses are located below residential uses within mixed-use structures and are not overly noise-intensive. Additionally, require that the transfer of noise and vibration from the commercial uses to residential uses are minimized to the greatest extent practicable through innovative design and construction measures.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: As development projects are submitted or as funding permits

I 11.10 Utilize the local planning, design, and environmental review process as well as the existing local building inspection process to ensure that all applicable provisions of the Uniform Building Code and the American Canyon Municipal Code, which prevent and mitigate the transmission of excessive and unacceptable noise levels between tenants and businesses in commercial structures and between individual dwelling units within multi-family residential structures, are adequately enforced.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: As development projects are submitted

I 11.11 Utilize the discretionary review process through conditions of approval and police enforcement to require that all local entertainment and restaurant/bar land uses appropriately control and limit the activities and noise of patrons in and around their facilities to reduce potential noise-related impacts on surrounding local residences.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund development application fees and/or penalty fees collected from code violators
Schedule: As development projects are submitted

I 11.12 New and expanded projects that are determined to be a potential major stationary noise source (based on the results of the local initial study and environmental checklist) shall fund and complete a specific acoustical analysis to identify, determine, and analyze potential impacts and propose appropriate mitigation measures. Said mitigation measures must be installed and tested prior to the issuance of a Certificate of Occupancy for the structure (such an analysis shall be similar to the environmental review process to assure the independence and objectivity of the findings).

Responsibility: City of American Canyon Planning Department
Funding Source: Administration: City of American Canyon General Fund and/or development application fees
Technical Report: Development applicant funds
Schedule: As development projects are submitted or as funding permits

I 11.13 Utilize the local planning, design and environmental review process and existing building inspection process to encourage major stationary noise generators to install additional noise buffering or reduction techniques that reduce noise generation levels in and around their facilities. Installation of such measures shall be required prior to the renewal or issuance of a Conditional Use Permit.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund, development application

fees, and/or available funding sources approved by the City
Schedule: Ongoing, as funding permits

I 11.14 Utilize the development and environmental review process to ensure that noise impacts are adequately addressed and sufficiently mitigated and that adverse conditions will not arise as a result of new development (in accordance with the California insulation standards of the State Building Code and the policies set forth in the Noise Element of the General Plan).

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or development application fees
Schedule: As development projects are submitted or as funding permits

I 11.15 Require a noise evaluation for all projects as part of the planning and environmental review process to determine if unacceptable noise levels will be created or experienced. Should noise abatement be necessary, a required technical report containing a detailed evaluation of existing and/or projected noise impacts and effective mitigation measures shall be submitted. This report shall also propose alternate land uses if it is determined that the mitigation measures required to address the project's excessive noise levels necessarily entail the construction of unusually large physical barriers.

Responsibility: City of American Canyon Planning Department
Funding Source: Administration: City of American Canyon General Fund and/or development application fees.
Technical Report: Development applicant
Schedule: As development projects are submitted or as funding permits

I 11.16 Utilize the development review process to ensure that nonresidential developments design and configure their street grids and access points in such a way as to avoid impacting adjacent residential or "noise-sensitive" uses.

Responsibility: City of American Canyon Planning Department
Funding Source: Administration: City of American Canyon General Fund and/or development application fees.
Technical Report: Development applicant funds
Schedule: As development projects are submitted or as funding permits

I 11.17 Utilize the development review process to ensure that new projects in American Canyon incorporate site and architectural design features that mitigate noise impacts on sensitive land uses.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund
Schedule: As necessary and as funding permits

AGENCY COORDINATION

I 11.18 Coordinate meetings with the California Department of Transportation (Caltrans) to encourage the State agency to operate in a manner consistent with community noise standards and implement measures to reduce excessive noise impacts on the community.

Responsibility: City of American Canyon Public Works Department in coordination with Caltrans
Funding Source: City of American Canyon General Fund and/or any other funding sources approved by the City
Schedule: As necessary or as funding permits

I 11.19 Meet with representatives of the Napa County Transit District, the Napa County Airport Authority, and other local and regional transportation providers to discuss their vehicles' impacts on local noise conditions as well as feasible mitigation measures, which shall be implemented to reduce such impacts.

Responsibility: City of American Canyon Planning Department
Funding Source: City of American Canyon General Fund and/or any other funding sources approved by the City
Schedule: Meetings shall occur annually or more frequently if the need arises and funding permits

I 11.20 Review local railroad procedures and operations to determine their potential noise-related impacts on the community. As necessary, staff shall meet with railroad officials to discuss and/or suggest noise mitigation measures that could reduce railroad noise-related impacts on the community.

Responsibility: City of American Canyon Public Works Department
Funding Source: City of American Canyon General Fund and/or any other funding sources approved by the City
Schedule: Ongoing, as funding permits

I 11.21 Coordinate with the Napa County Airport to ensure that the routing of aircraft do not adversely affect residential areas of the City.

Responsibility: City of American Canyon Community Development Department in cooperation with the Napa County Airport
Funding Source: City of American Canyon General Fund and/or any other funding sources approved by the City
Schedule: Ongoing, as funding permits

CODE ENFORCEMENT

I 11.22 Enforce a City Noise Ordinance that supports applicable sections of the California Vehicle Code related to vehicle or equipment mufflers and modified exhaust systems and provides for the regulation and limitation of high noise-generating vehicles, equipment and construction activities to reduce their potential impacts on local "noise-sensitive" uses.

Responsibility: City of American Canyon Community Development Department
Funding Source: City of American Canyon General Fund and/or penalty fees collected from code violations
Schedule: As necessary and as funding permits

I 11.23 Enforce the City's zoning codes that only allow industrial, agricultural, or other open space uses within the 65 CNEL contour of the Napa Airport.

Responsibility: City of American Canyon Community Development Department
Funding Source: City of American Canyon General Fund
Schedule: As necessary and as funding permits

I 11.24 Enforce the noise standards contained in the Airport Land Use Compatibility Plan (ALUP) for development located in the vicinity of Napa Airport.

Responsibility: City of American Canyon Community Development Department
Funding Source: City of American Canyon General Fund
Schedule: As necessary and as funding permits

CITY VEHICLE/EQUIPMENT NOISE PROGRAM

I 11.25 Purchase vehicles and other noise generating mechanical equipment that comply with and conform to the latest available noise standards and requirements. Existing City owned vehicles and noise generating equipment shall be upgraded/retrofitted to achieve the same goal.

Responsibility: City of American Canyon Public Works
Funding Source: City of American Canyon General Fund and/or any other funding sources approved by the City
Schedule: As budgetary and operational conditions permit

June 22, 2021

VIA E-MAIL

The Honorable Dave Whitmer, Chairperson
and Members of the Napa County
Airport Land Use Commission
Napa County
1195 Third Street, Suite 301
Napa, CA 94559

Re: June 23, 2021 Special Meeting; Napa County Airport Land Use Commission; Oat Hill Project Application [P21-00056] for the Napa County Airport Land Use Commission – Comments of City of American Canyon

Dear Chair Whitmer and Commission Members,

The City of American Canyon ("City") is in receipt of and has reviewed the report prepared by staff to the Airport Land Use Commission ("ALUC") regarding RH Hess Development's proposed residential project (the "Project") in the Oat Hill area of the City of American Canyon (ALUC Project No. P21-00056-ALUC). Though we appreciate your scheduling of a Special Meeting of the Napa County ALUC for June 23, 2021, to consider the Project's consistency with the Napa County Airport Land Use Compatibility Plan ("ALUCP"), we do not believe the staff report accurately characterized the consistency review process or the relevant substantive standards and their applicability to the Project. Moreover, the report analyzes issues outside of the ALUC's jurisdiction.

First, under Public Utilities Code section 21676(d), the ALUC had 60 days from the date the Project was referred to the ALUC to make a consistency determination. The City referred the Project to the ALUC on March 26, 2021.[1] The ALUC therefore had until May 25, 2021, to complete its consistency review, which it failed to do. The ALUC had all the necessary information for the review since at least February 2021, when the City provided notice of completion of the Initial

[1] The Project was considered by the City Planning Commission on March 25, 2021, which unanimously recommended approval to the City Council. Accordingly, the Project was referred to the ALUC consistent with ALUCP Policy 2.1.8. The Agenda Staff Report containing detailed Project Description and related analysis is available at https://cityofamericancanyon.civicweb.net/Portal/MeetingInformation.aspx?Org=Cal&Id=789.

Study/Mitigated Negative Declaration[2] prepared for the Project.[3] The City further provided supplemental information on May 6 and May 7, 2021, in response to the ALUC's April 23, 2021 letter. The City's March 26 referral and May 6 and May 7 submittals are incorporated herein by reference.[4] These submittals provided the ALUC with more than adequate information to assess the Project, yet the ALUC failed to complete its review within the required statutory timeline. Therefore, the City reserves the right to deem the Project and related entitlements as consistent with the ALUCP by law.

Second, the ALUC's consistency review need not, and should not, address the City CEQA review of the Project. The consistency review is limited to whether the Project is consistent with the State Aeronautics Act and, to the extent the ALUCP complies with state law, the ALUCP's policies on noise and safety.[5] Had the ALUC wished to comment on the Project's CEQA analysis, it could have done so during the public review period. The ALUC chose not to comment. By doing so now, the report appears improperly to conflate the role of the ALUC's consistency review and questions that are relevant only to a responsible agency, a role that is not possessed by the ALUC in this context.

Third, interpretation of the City's General Plan is well-beyond the ALUC's jurisdiction, and the consistency review should not include a purported interpretation of the City's land use planning policies as if it were relevant to questions regarding consistency with the ALUCP. As noted, the Project's consistency review is limited to whether the Project is consistent with the State Aeronautics Act. The City retains ultimate authority to interpret its General Plan and to regulate land use within its boundaries, including within the airport land use area.

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[2] Neither the ALUC, nor ALUC Staff, commented on the Project Draft Mitigated Negative Declaration under the California Environmental Quality Act (Public Resources Code § 21000, *et seq.*, "CEQA") ("Project MND"), during the public review period, and the City was entitled to assume that the ALUC Staff silence indicated it had no comment. *Cf. Cleary v. County of Stanislaus,* 118 Cal.App.3d 348, 355 (1981)*; see also, Corona-Norco Unified School Dist. v. City of Corona,* 17 Cal.App.4th 985, 997-998 (1993) (School district failing to substantially comment on proposed negative declaration during public comment period and planning commission hearing precluded from challenging project on CEQA grounds after).

[3] Consistent with the provisions of the Napa County Airport Land Use Plan Regulations, the Project Plans *as well as* the Project MND were furnished to the ALUC Staff on February 8, 2021. ALUCP Policy 2.1.7. The ALUC policies are part of the ALUCP, available at https://www.countyofnapa.org/DocumentCenter/View/1980.

[4] On June 1, 2021, the City sent an additional letter to the ALUC following the ALUC's May 19 and 21, 2021 correspondence. The City's June 1 letter reserved the right to deem the Project and related entitlements as consistent with the ALUCP by law, and further highlighted that the Project had submitted all necessary information to the FAA for its review and would be subject to an avigation easement in accordance with Caltrans guidance. The City's June 1 letter is incorporated herein by reference.

[5] Under Public Utilities Code section 21670 the purpose of the Aeronautics Act is to prevent the creation of new noise and safety problems and to protect public health, safety, and welfare by ensuring the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards. Thus, the focus on Project compatibility analysis is on noise and safety.

Finally, the County's ALUCP is out of date and does not reflect current guidance established by the California Department of Transportation ("Caltrans"). The County adopted the ALUCP in 1991 and revised the plan in 1999. Since that time, Caltrans has issued *two* substantial updates to its Airport Land Use Planning Handbook, first in 2002 and then in 2011. The ALUCP has not been revised to incorporate these updates and is inconsistent with various Caltrans guidance regarding safety, noise, and overflight. State law further requires that the County's ALUCP be based on the long-term plans for its airports and utilize noise information based upon those plans. Napa County Airport updated its master plan in 2007 and submitted its Airport Layout Plan to the FAA for approval in 2016. *Neither* of these plans *nor* their updated operations forecasts and subsequent environmental analyses, including updated noise contours, have been incorporated into the ALUCP. Thus, the staff report's consistency review applies inappropriate and outdated standards and information in recommending the ALUC find the Project inconsistent with the ALUCP.

As previously provided, the Project *would not* result in any noise or safety hazards with respect to the Napa County Airport. The Project also would not result in overflight impacts or impacts to navigable airspace.

- *Noise*: The Project is well outside the airport's 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary, as provided in the County's own documents;

- *Safety*: Zone D of the ALUCP most closely corresponds to "Zone 6: Traffic Pattern Zone" under the Caltrans Handbook; Zone 6 does *not* prohibit residential uses, and instead provides *no limit* on residential density;

- *Overflight*: Though the Project may experience some overflight, the Project would be constructed in accordance with California building regulations, which require that interior noise levels attributable to exterior sources not exceed 45 dB CNEL; these interior noise levels are "clearly acceptable" under the ALUCP. Further, the Project will be subject to an avigation easement, in accordance with Caltrans guidance;

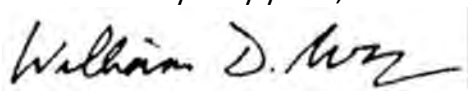
- *Airspace Protection*: Whether the Project would result in a hazard to air navigation is a determination for the FAA, not the ALUC. The Project applicant has submitted the required information to the FAA, and the City anticipates the Project will soon receive Determinations of No Hazard to Air Navigation, as the maximum height of the Project would be below the height of the existing water tank on Oat Hill.

Information provided by the City demonstrates that the Project is consistent with the State Aeronautics Act's standards on safety and noise and is consistent with the ALUCP's polices on safety, noise, airspace protection, and overflight. The ALUCP, including the boundaries of Zone D, are outdated and have not been revised to incorporate updated standards from Caltrans. We therefore request the ALUC consider the Project in accordance with state law and relevant state

administrative implementation. The City further reserves the right to consider the Project as consistent with the ALUCP pursuant to Public Utilities Code section 21676(d), and to override the ALUC's determination in accordance with state law.

Thank you for your review and consideration of the matters advanced in this communication.

Very truly yours,



William D. Ross
City Attorney

cc: Jason B. Holley, City Manager
Brent Cooper, Director of Community Development
William He, Associate Planner

Rick Hess, Project Applicant
Clark Morrison, Esq.

Jason M. Dooley, Deputy County Counsel
John McDowell, ALUC Staff
Minh C. Tran, County Executive Officer

TITLE

Declaration of a Drought Emergency Stage 2 (Mandatory Compliance—Water Alert)

RECOMMENDATION

Receive and file a report on water supply and demand in the City of American Canyon Water Service Area as of June 2021 and adopt a Resolution declaring a Drought Emergency Stage 2 (Mandatory Compliance—Water Alert) calling for a 20% reduction of water use by all customers.

CONTACT

Felix Hernandez, III, Maintenance and Utilities Director

BACKGROUND & ANALYSIS

Drought conditions persist locally because precipitation statewide was historically low this past winter.

On May 4, 2021, the City Council received an update on historical water demand (2018-2020) ranging between 2,603 AFY to 2,890 AFY. Of note, demand in 2020 (2,884 AF) was nearly identical to demand in 2015 (2,890 AF) – the last year of state-wide drought. Based on demands through June, staff estimates demand for 2021 will be approximately 2,900 AF.

The City started 2021 with a total amount of 1,552 AF of regular supplies available. Thus, the City is facing a deficit of approximately 1,348 AF this year.

The City has other water sources available, including “Emergency Vallejo Permit Water”, “Yuba Accord Water”, “Dry- Year Transfer Program Water”, and "Advanced Table A Water". Staff is also vigorously trying to reinstate approximately 557 AF of "Table A Carryover Water" erroneously reclassified by Department of Water Resources in 2020 as a result of transfers between State Water Project Contractors on the City's behalf.

The amount of additional supplies available matches the anticipate deficit, but with little margin for error and would provide no supplies to be carried over into 2022. Although prior Council action provides the Mayor and City Manager authority to carry out transactions to procure additional supplies, reducing customer demand is a key strategy for 2021. Such action is consistent with Governor Newsome's May 10, 2021 Declaration of Drought Emergency for Napa County (and

elsewhere) (Attachment 2).

On June 1, 2021, the City Council adopted Resolution 2021-36 declaring a Stage 1 Drought Emergency and calling for a voluntary 10% reduction in water use by all City customers. All customers (residential, commercial/industrial, and governmental) are subject to the same request for a 10% reduction in use. Generally, a 10% reduction can be achieved by residential customers by implementing one or more of the following best practices:

1. Reduce the number days per week for irrigating landscaping - especially turf lawns - and do so only during the late evening and early morning hours (between 6:00 p.m. to 6:00 a.m.).
2. Inspect all irrigation systems, repair leaks, and adjust spray heads to provide optimum coverage and eliminate avoidable over-spray.
3. Reduce minutes of run-time for each irrigation cycle if water begins to run-off to gutters or shutting off the irrigation system altogether completely if and when rainfall occurs.
4. Utilize water conservation incentive and rebate programs to replace plumbing fixtures and appliances with water efficient models.
5. Limit the duration of showers to 5 minutes or less, turning off the faucet when brushing teeth and flushing toilets only when necessary each day.

Unfortunately, demand since May has not achieved the desired outcome. Although residential customers have achieved a 5% reduction when compared to last year, commercial customers have increased demand by 10%. Simply put the trend is not decreasing enough and further action is needed. For the remainder of 2021, a 20% reduction in demand is needed to counteract the underwhelming response.

It is important to distinguish a hierarchy of types of water use. Categories such as "health and safety", "commercial/economic" and "decorative" are applicable.

Examples of "health and safety use" would be for drinking, cooking, and bathing - its worth noting the State has set a standard of 55 gallons per person per day for this purpose. For American Canyon (population 20,800), that would equate to approximately 1,300 AF per year. The remaining 1,500 AF is either commercial/economic or decorative.

Examples of "commercial/economic use" would be businesses - particularly those who utilize water in their production. Economic/commercial water serves a purpose by contributing employment and economic activity to the community. Examples of "decorative use" would be outdoor landscaping, fountains, swimming pools, etc. Decorative use is water that does not fit the other categories.

In general, health and safety is the priority followed by commercial/economic, and then decorative uses. At this time, a drastic reduction/elimination of decorative uses is needed.

Of note, irrigation of turf is the single largest decorative use that is being targeted for elimination. Moreover, there is a distinction between decorative use of water for commercial/industrial

properties vs. residential properties. Namely, the former contributes only a minuscule amount to the value of the business enterprise whereas the latter can play a larger in determining "curb appeal" and can bear a relationship to salability. In short, the call for action for the business community to eliminate all outdoor turf potable irrigation while the call for action for residents to reduce outdoor turf irrigation and otherwise mindfully use water.

Procedurally, the simplest way for the City to realize the 20% savings through the end of 2021 would be for the Council to declare a Drought Emergency Stage 2 (ACMC 13.14.070 Mandatory Compliance - Water Alert). However, staff recommends delaying the implementation of certain provisions of ACMC Section 13.14 – namely enforcement of mandatory 20% reductions and Drought Surcharges – until a future date. The primary reason is that staff believes it will be more effective to work cooperatively with our customers to reduce demands rather than to implement punitive measure such as fines and surcharges. Furthermore, there are practical and logistical utility billing challenges that must be overcome before the surcharges can be implemented appropriately.

Implementing these practices now will hopefully forestall punitive measure and subsequent stages mandating reductions, including Stage 3 - 30% reduction (mandatory), and Stage 4 reduction - 50% (mandatory).

Additionally, the Drought Strike Team continues to identify City facilities where consumption may be reduced. For example, Kimberly Park has been changed to recycled water for irrigation which will result in moderate water saving, and switching to water-free urinals at various City facilities conserves up to 240,000 gallons of water each year. The Team is generally focused on operations (both potable and recycled water supply), facilities (parks and buildings), enforcement and public outreach. In addition to updates to the City’s website and the City Manager’s recent email updates, ongoing outreach activities include inserts in monthly utility bills and more information will be provided during tonight's presentation.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Reducing demand will decrease revenue received from selling the treated water. In the short run, the Water Fund FY21-22 Budget has sufficient funds to withstand a short-term increase in cost to acquire additional supplies while experiencing a decrease in revenue due reduced sales. Impending purchases include Dry-Year Transfer Program ($665/AF), Yuba Accord Water ($435/AF) and Vallejo Emergency Permit Water ($1,270/AF).

Nevertheless, if the Fund endures a prolonged period of reduced revenue, it is likely the current water rates will have to be reviewed and/or adjusted to reflect the increased cost of providing this service. Staff is currently preparing a request for proposal for a Utility Rate Study, which will review water rates along with sewer and recycled water rates.

ALTERNATIVES

Although not part of the Recommended Action tonight, the Council could direct staff to bring an item to its next meeting (August 3) to declare a Stage 2 Drought Emergency and take further steps to impose *mandatory* demand reductions and impose fines and surcharges.

ENVIRONMENTAL REVIEW

Providing the Water Demand and Supply Report is not a "project" under the California Environmental Quality Act ("CEQA"). Further, the item is categorically exempt from CEQA review as an action by an agency for the protection of natural resources (pursuant to CEQA Guidelines section 15307) and for the protection of the environment (pursuant to CEQA Guidelines section 15308).

ATTACHMENTS:

1. Resolution - Declaring a Stage 2 Drought Emergency
2. Governor's Proclamation of State of Emergency

RESOLUTION 2021-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON, STATE OF CALIFORNIA, DECLARING A DROUGHT EMERGENCY STAGE 2 (MANDATORY COMPLIANCE – WATER ALERT) WATER SHORTAGE AND CALLING FOR A 20% REDUCTION OF WATER USE BY ALL CUSTOMERS

WHEREAS, the City Council of the City of American Canyon, on February 17, 2009, adopted Ordinance 2009-03 establishing a Water Conservation Plan; and

WHEREAS, on May 4, 2021, the American Canyon City Council declared a Water Conservation Stage 1 Water Shortage and called for a 10% voluntary reduction of water use by all residential and commercial customers; and

WHEREAS, on May 10, 2021, in response to historic drought conditions state-wide, Governor Gavin Newsom proclaimed a State of Emergency due to the drought and under Government Code Section 8558(b), did find that the conditions caused by the drought conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS on June 15, 2021, the State Water Resources Control Board (SWRCB) issued an indefinite Curtailment Notice to all junior appropriative water right holders of the Sacramento River, including the City of Vallejo, reducing the availability of their permit water of which under normal situations, the City of American Canyon receives up to 500 acre-feet annually; and

WHEREAS, conservation efforts by City customers to date have resulted in a reduction of approximately 8% when compared to the start of the year and assuming these efforts continue, the City expects total demand for 2021 to be approximately 2,900 acre-feet; and

WHEREAS, the City has identified water supplies totaling 2,900 acre-feet of which any unused surplus will carried over into 2022 and depending upon weather conditions, should be sufficient to meet projected demands through the end of the year; and

WHEREAS, there is no guarantee that winter precipitation will alleviate the drought conditions and even more severe impacts could occur across the state if the drought wears on; and

WHEREAS, when dry conditions prevail, the general welfare requires that the City's available water resources be put to the maximum beneficial use to every extent possible; and

WHEREAS, it is in the interest of the SWRCB and City of American Canyon to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, of water, to promote water recycling or water conservation, to require curtailment of diversions when water is not available under the diverter's priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports; and

WHEREAS, water conservation is the easiest, most efficient and most cost-effective way to quickly reduce water demand and extend supplies into the next year, providing flexibility for all California communities, including the City of American Canyon; and.

WHEREAS, water saved this summer is water available next year, giving water suppliers, including the City of American Canyon, the flexibility to manage their systems efficiently; and

WHEREAS, the more water that is conserved now, the less likely it is that the City of American Canyon will experience such dire circumstances that water rationing is required; and

WHEREAS, American Canyon Municipal Code Section 13.14.070 "Water Conservation Stages" contains various levels of mandatory conservation including subsection (B) "Stage 2 Mandatory Compliance – Water Alert" which contains similar prohibitions along requiring with other water conservation best practices such as prohibiting the use of water for the purposes of gardening, landscape irrigation, washing of vehicles or equipment between the hours of 12:00 noon and 6:00 PM and prohibiting irrigation at any time if conducted in a manner such as to result in runoff in a gutter or other drainage conveyance system.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby declares a Drought Emergency and Water Conservation Stage 2 (Mandatory Compliance – Water Alert) and calls for all water customers to reduce their consumption by 20%; and

BE IT FURTHER RESOLVED that the City Council shall postpone implementation of drought surcharges until a future date and but shall order that all of the other measures called for in Stage 2 of the City of American Canyon's Water Conservation Plan be implemented in accordance with the applicable provisions of Ordinance 2009-03.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 20th day of July, 2021, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Leon Garcia, Mayor

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS climate change is intensifying the impacts of droughts on our communities, environment, and economy, and California is in a second consecutive year of dry conditions, resulting in drought or near-drought throughout many portions of the State; and

WHEREAS recent warm temperatures and extremely dry soils have further depleted the expected runoff water from the Sierra-Cascade snowpack, resulting in a historic and unanticipated estimated reduction of 500,000 acre feet of water – or the equivalent of supplying water for up to one million households for one year – from reservoirs and stream systems, especially in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds; and

WHEREAS the extreme drought conditions through much of the State present urgent challenges, including the risk of water shortages in communities, greatly increased wildfire activity, diminished water for agricultural production, degraded habitat for many fish and wildlife species, threat of saltwater contamination of large fresh water supplies conveyed through the Sacramento-San Joaquin Delta, and additional water scarcity if drought conditions continue into next year; and

WHEREAS Californians have saved water through conservation efforts, with urban water use approximately 16% below where it was at the start of the last drought years, and I encourage all Californians to undertake actions to further eliminate wasteful water practices and conserve water; and

WHEREAS on April 21, 2021, I issued a proclamation directing state agencies to take immediate action to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems, and proclaiming a State of Emergency to exist in Mendocino and Sonoma counties due to severe drought conditions in the Russian River Watershed; and

WHEREAS additional expedited actions are now needed in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds; and

WHEREAS it is necessary to expeditiously mitigate the effects of the drought conditions within the Klamath River Watershed Counties (Del Norte, Humboldt, Modoc, Siskiyou, and Trinity counties), the Sacramento-San Joaquin Delta Watershed Counties (Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Shasta, Sierra, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Trinity, Tuolumne, Yolo, and Yuba counties), and the Tulare Lake Watershed Counties (Fresno, Kern, Kings, and Tulare counties) to ensure the protection of health, safety, and the environment; and

WHEREAS under Government Code Section 8558(b), I find that the conditions caused by the drought conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under Government Code Section 8625(c), I find that local authority is inadequate to cope with the drought conditions; and

WHEREAS to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of, the drought conditions statewide, and under Government Code Section 8571, I find that strict compliance with various statutes and regulations specified in this proclamation would prevent, hinder, or delay the mitigation of the effects of the drought conditions in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties.

NOW THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties due to drought.

IT IS HEREBY ORDERED THAT:

1. The orders and provisions contained in my April 21, 2021 Proclamation remain in full force and effect, except as modified. State agencies shall continue to implement all directions from that proclamation and accelerate implementation where feasible.

2. To ensure that equipment and services necessary for drought response can be procured quickly, the provisions of the Government Code and the Public Contract Code applicable to procurement, state contracts, and fleet assets, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended to the extent necessary to address the effects of the drought in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties. Approval of the Department of Finance is required prior to the execution of any contract entered into pursuant to this provision.

3. To support voluntary approaches where hydrology and other conditions allow, the Department of Water Resources and the State Water Resources Control Board (Water Board) shall expeditiously consider requests to move water, where appropriate, to areas of need, including requests involving voluntary water transfers, forbearance agreements, water exchanges, or other means. Specifically, the Department of Water Resources and Water Board shall prioritize transfers that retain a higher percentage of water in upstream reservoirs on the Sacramento, Feather, and American Rivers for release later in the year. If necessary, the Department of Water Resources shall request that the Water Board consider changes to water rights permits to enable such voluntary movements of water. For actions taken in the Klamath River and Sacramento-San Joaquin Delta Watershed Counties pursuant to this paragraph, the following requirements of the Water Code are suspended:

    a. Section 1726(d) requirements for written notice and newspaper publication, provided that the Water Board shall post notice on its website and provide notice through electronic subscription services where interested persons can request information about temporary changes; and

b. Section 1726(f) requirement of a 30-day comment period, provided that the Water Board shall afford a 15-day comment period.

4. To ensure adequate, minimal water supplies for purposes of health, safety, and the environment, the Water Board shall consider modifying requirements for reservoir releases or diversion limitations—including where existing requirements were established to implement a water quality control plan—to conserve water upstream later in the year in order to protect cold water pools for salmon and steelhead, improve water quality, protect carry over storage, or ensure minimum health and safety water supplies. The Water Board shall require monitoring and evaluation of any such changes to inform future actions. For actions taken in the Sacramento-San Joaquin Delta Watershed Counties pursuant to this paragraph, Water Code Section 13247 is suspended.

5. To ensure protection of water needed for health, safety, and the environment in the Klamath River and Sacramento-San Joaquin Delta Watershed Counties, the Water Board shall consider emergency regulations to curtail water diversions when water is not available at water right holders' priority of right or to protect releases of stored water. The Department of Water Resources shall provide technical assistance to the Water Board that may be needed to develop appropriate water accounting for these purposes in the Sacramento-San Joaquin Delta Watershed.

6. To ensure critical instream flows for species protection in the Klamath River and Sacramento-San Joaquin Delta Watersheds, the Water Board and Department of Fish and Wildlife shall evaluate the minimum instream flows and other actions needed to protect salmon, steelhead, and other native fishes in critical streams systems in the State and work with water users and other parties on voluntary measures to implement those actions. To the extent voluntary actions are not sufficient, the Water Board, in coordination with the Department of Fish and Wildlife, shall consider emergency regulations to establish minimum drought instream flows.

7. Operative paragraph 4 of my April 21, 2021 Proclamation is withdrawn and superseded by the following, which shall apply to the Russian River Watershed identified in my April 21, 2021 Proclamation as well as the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties:

   To prioritize drought response and preparedness resources, the Department of Water Resources, the Water Board, the Department of Fish and Wildlife, and the Department of Food and Agriculture, in consultation with the Department of Finance, shall:

   a. Accelerate funding for water supply enhancement, water conservation, or species conservation projects.
   b. Identify unspent funds that can be repurposed to enable projects to address drought impacts to people, ecosystems, and economic activities.
   c. Recommend additional financial support for groundwater substitution pumping to support Pacific flyway habitat needs in the lower Sacramento River and Feather River portions of the Central Valley in the Fall of 2021.

8. Consistent with operative paragraph 13 of my April 21, 2021 Proclamation, the Department of Water Resources shall take actions, if necessary, to implement plans that address potential Delta salinity issues. Such actions may include, among other things, the installation and removal of, Emergency Drought Salinity Barriers at locations within the Sacramento-San Joaquin Delta Estuary. These barriers shall be designed to conserve water for use later in the year to meet state and federal Endangered Species Act requirements, preserve to the extent possible water quality in the Delta, and retain water supply for human health and safety uses. The Water Board and the Department of Fish and Wildlife shall immediately consider any necessary regulatory approvals needed to install Emergency Drought Salinity Barriers. For actions taken pursuant to this paragraph, Section 13247 and the provisions of Chapter 3 (commencing with Section 85225) of Part 3 of Division 35 of the Water Code are suspended.

9. To support the movement of water from areas of relative plenty to areas of relative scarcity in the Sacramento-San Joaquin Delta and Tulare Lake Watershed Counties, the Department of Water Resources shall expedite the consideration and, where appropriate, the implementation of pump-back delivery of water through the State Water Project on behalf of local water agencies.

10. To proactively prevent situations where a community runs out of drinking water, the Water Board, the Department of Water Resources, the Office of Emergency Services, and the Office of Planning and Research shall assist local agencies in identifying acute drinking water shortages in domestic water supplies, and shall work with local agencies in implementing solutions to those water shortages.

11. For purposes of carrying out or approving any actions contemplated by the directives in operative paragraphs 3, 4, 5, 6, 8, and 9, the environmental review by state agencies required by the California Environmental Quality Act in Public Resources Code, Division 13 (commencing with Section 21000) and regulations adopted pursuant to that Division are hereby suspended to the extent necessary to address the impacts of the drought in the Klamath River, Sacramento-San Joaquin Delta and Tulare Lake Watershed Counties. For purposes of carrying out the directive in operative paragraph 10, for any (a) actions taken by the listed state agencies pursuant to that directive, (b) actions taken by a local agency where the Office of Planning and Research concurs that local action is required, and (c) permits necessary to carry out actions under (a) or (b), Public Resources Code, Division 13 (commencing with Section 21000) and regulations adopted pursuant to that Division are hereby suspended to the extent necessary to address the impacts of the drought in counties where the Governor has proclaimed a drought state of emergency. The entities implementing these directives shall maintain on their websites a list of all activities or approvals for which these provisions are suspended.

12. To ensure transparency in state agency actions, the Water Board and Department of Water Resources will maintain on their websites a list of the activities or approvals by their agencies for which provisions of the Water Code are suspended under operative paragraphs 3, 4, or 8 of this proclamation.

13. To ensure that posting and dissemination of information related to drought emergency activities is not delayed while accessible versions of that information are being created, Government Code Sections 7405 and 11546.7 are hereby suspended as they pertain to the posting of materials on state agency websites as part of responding to the drought emergency, provided that any state agencies failing to satisfy these code sections shall make and post an accessible version on their websites as soon as practicable.

This proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 10th day of May 2021.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, PH.D.
Secretary of State

City Council Committee Report

Meeting Date: July 20, 2021 Submitted By: Leon Garcia, Mayor

Committee & City Related Reports:

Napa County Flood Board: June 22, The Bord approved contracts for services related to Napa River/Napa Creek Flood Protection, Storm Water Discharge projects and stream maintenance.

American Canyon City Council: June 28, The Council discussed with city staff and telecommunication providers the technology needed to improved improve public access to city meetings. The Council also discussed and approved exploring a hybrid model of in person and telecommunication to support public participation.

Napa Vallejo Waste Management Authority: July, The Board approved the Napa-Vallejo Waste Management Quarterly Internal Audit and FY 2021 Budget Adjustment for Transfer Station and Disposal Operations Professional Services Appropriations by $115,000 and $80,000 respectively, due to continuing increases in received and transported tonnage for FY 2020-2021.

Community Events:

North Bay Urgent Care: June 23, Ground Breaking. This clinic will provide urgent care needs for local residents.

Infinity Bottling: June 23, Tour of automated production line in operation. This facility fills and packages thousands of bottles a day.

COAD Education and Outreach Committee: June 23; Emergency preparedness, Mapping Your Neighborhood training for community members to assess resources and special needs of neighbors in the event of a local emergency.

Montessori School: June25, Graduation ceremony class of 2021 was a family celebration of accomplishments and aspiration for the future.

North Bay Amateur Radio Association: June 26, Local ham radio operators compete in making most contacts with other ham radios throughout the world. Extra points given for attendance by local elected officials

Pista Sa Nyon: June 27, Vallejo celebration Filipino culture with traditional food, performance of martial arts, and cultural dances. Many of the performers live in American Canyon.

American Canyon Pride Celebration: June 27, The first Pride Celebration in American Canyon was well attended by community and neighbors gathered for music, volleyball, and fun.

4th of July: it was a great evening of celebration. The turnout reflected energy that was very upbeat in being able to get back to gather after the restrictions of COVID have begun to ease. The fireworks show capped off a celebration of Independence Day.

Meet Me In The Street: July 7, American Chamber of Commerce sponsored this first time event of venders and food trucks was a huge success. Future events will be August 4th and September 1st.

Watson Ranch round Breaking: Seventeen years in the making is launched and attended by Congressman Mike Thompson, representative of Cecilia Aguiar-Curry, American Canyon City Council and many commissioners and leaders of community organizations. First projects are 186 unit apartments and 98 homes.

CITY COUNCIL COMMITTEE REPORT

Meeting Date: **July 20,2021** Submitted By: **Mark Joseph, Council member**

Committee Name: **Governmental Affairs Committee (Chamber)**

We now meet quarterly. The two topics were the future direction of the Committee (focus on CalChamber legislative recommendations; and organize 2-3 gov't/business events each year); and an update on the City's General Plan process, including some current GP amendments.

Committee Name: **SR29 Project Initiation Document (PID) meeting**

Mayor Garcia and I met with NVTA staff, along with the City Manager, to go over the details of the proposed PID to upgrade the 29 Corridor. There should be some funds from Caltrans to enhance the safety & aesthetics of the Corridor—bike lanes, sidewalks, underground utilities, and some landscaping. Major modifications to the intersections may take place over several years, based on funding availability. We're looking at potential roundabouts at some of the major intersections, or at least some improvements to the current layout (longer turn pockets, for example). Six lanes may not be an option, but we shouldn't discount the real improvements that we will receive.

Committee Name: **NVTA Transportation Board meeting**

Two main topics were an update on Vine Transit service (mostly improvements to the Fixed Route in Napa City); and a presentation on a bike safety survey relating to Safe Routes to Schools. The bottom line: most parents would love to have their kids walk/bike to school if they felt it was safe. This suggests the need for Class 1 bike lanes and/or crossing guards. If we can reduce the number of car trips to and from school, this could help us achieve our goal of 10% of our trips by bike or walking. Currently, we're around 5%.

Committee Name: **Climate Action Committee**

We provided feedback on the Call For Proposals to update our Greenhouse Gas inventory. The big issue centered around tracking methane and "black carbon" (particulates). These items aren't part of the current methodology, but everyone acknowledges they need to be tracked, including the funding source for our grant (Bay Area Air Quality)! We ended up agreeing to stick with the current methodology but include some language to allow further discussion with the ultimate consultant (for example, we may become a test site and get additional grant funds; or we may find it isn't as difficult to monitor as we thought). We also heard a variation on the same Bike Survey noted above and finalized changes to our Bylaws: we added language regarding requesting special meetings and establishing ad hoc/standing committees. We then got stuck on a discussion about weighted voting—Napa City wants extra votes, similar to NVTA, due to their size; but we already agreed to discount their financial contributions, to avoid overcharging, due to their size, so it was hard to understand their concerns. We will hopefully approve the Bylaws at the next meeting.

CITY COUNCIL COMMITTEE REPORT

Committee Name: **City Events/Activities**

I attended the ***Middle School*** and ***Napa Junction elementary graduation*** ceremonies; met with Rich Peterson about affordable housing and community engagement processes; attended the ribbon-cutting for the ***new Story Walk amenity at Shenandoah Park***; went to the ground-breaking for the ***North Bay Urgent Care facility*** at Napa Junction 3; the ***Gay Pride picnic*** on June 27 (a busy day—also went to the ***Ham Radio Operators*** open house and Vallejo's ***Pista Sa Nayon*** event); had a conference call with ***potential affordable housing developers*** (indirectly associated with the Oat Hill apartment project); and went to the ***Tenants Eviction protection meeting*** (received an update on the Rental Eviction extension and the potential of 100% reimbursement of lost rents). And last but not least, attended the ***Fourth of July festivities*** with my son and his family! It was great—music and fireworks (missed the parade, though)

Committee Name: **Community Events/Activities**

Invited to the ***4H Club's annual BBQ***; attended the ***June & July Napa County Democratic Central Committee meetings***; attended the ***Napa Dem's presentation on the Water Drought***; worked on presenting a ***panel discussion on Climate Change for the American Canyon Democratic Club*** (AC/DC); attended the ***groundbreaking (really a ribbon-cutting) for the Watson Ranch project***—this has been over 30 years in the making, and I was happy for Terry McGrath. Despite our differences, I support this project and believe he is the right person to pull it off! As a member of ***Kiwanis***, attended the monthly Membership meeting and the board meetings, and received online training in my role as Treasurer. For the ***Arts Foundation***, attended the board meeting (in person!), helped process insurance and payments for the music at the Fourth of July, and prepared a grant to fund a Hispanic Heritage Celebration, as part of the September version of ***"Meet Me in the Street."*** And speaking of Street Fairs, I was there, and it was great!! We probably had at least 1000 people, including food providers, business & community booths; and patrons. I hope we have figured out the right combination (site, frequency and activities) to make this a success—we've been at it for about 25 years!!

City Council Committee Report

Meeting Date: June 25, 2021 Submitted By: David Oro

Committee Name: **Association Bay Area of Area Governments - General Assembly**

Topics of Discussion:

General Assembly
Discussed Regional Housing Needs Allocation - Focused on Appeals for local jurisdictions.
Heard informational talks on:

- Regional Early Action Program (REAP) and Regional Housing Technical Assistance Program
- Bay Area Housing Finance Authority (BAHFA) and Expanded Regional Housing Portfolio
- Regional Action Plan (RAP) to Address homelessnewss

Business Meeting

- Approved minutes, adopted FY 21-22 budget
- Listened to report from ABAG Executive Director Therese McMillian

Meeting Date: June 24, 2021

Committee Name: **Napa Valley Tourism Corporation - Board Meeting**

Topics of Discussion:

Finally met, without masks, in person at the Napa Valley Visitors Center on First Street in Napa. That was nice.

Reviewed and approved budgets, marketing plans and status of operations. Some key notes:

Countywide

- Weekend traffic and room rates are high. If you have not booked a room for the weekend between now and October, good luck getting one.
- Hiring remains a challenge

American Canyon

- Provided updates that mirrored Countywide sentiment - weekends are fully booked, midweek is picking up as well. Staffing continues to be a challenge.
- Provided updates on City: North Bay Medical groundbreaking, Watson Ranch groundbreaking, AC Chamber Meet on the Streets event.

Community Events and Other Activities

AC Chamber Meet on the Streets Event
Meeting Date: July 7, 2021
In a recent guest essay for the New York Times Dr. Adam Grant , an organizational psychologist at Wharton focuses on how people find motivation and meaning in daily life, penned a piece entitled "There's a Specific Kind of Joy We've Been Missing." He writes that peak happiness lies mostly in collective activity and we find our greatest bliss in moments of collective effervescence, a term to describe the sense of energy and harmony people feel when they come together in a group around a shared purpose. Collective effervescence is what the community experienced at this event. Congratulations and thanks go to Valerie Zizak-Morais at the American Canyon Chamber of Commerce and to City Staff who helped make sure it went smoothly. Let's do it again.

Watson Ranch Groundbreaking
Meeting Date: July 8, 2021
Finally! Attended the event with about 100 others. Great day for the City and what I believe will positively change the character of not only the City but of the region. The Napa Valley Register covers the story here https://bit.ly/3kdnnXv

Fourth of July Activities
Meeting Date: July 4, 2021
I'm glad we did this. Again, collective effervescence!

HAM Radio Field Day
Meeting Date: June 26, 2021
Field Day is ham radio's open house. Every June, more than 40,000 hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day has been an annual event since 1933, and remains the most popular event in ham radio.

Our event was held on Oat Hill at the Johnny on The Spot property where eight area local teams participated, including Beth Marcus and Powell and Mary Helms. I learned a lot and know that HAM radio played an important role during recent disasters. Glad to have these dedicated volunteers in the community.

LGBTQ Connection - Pop Up Event
Meeting Date: June 27, 2021
Attended with my family. Congratulations to the organizers of the LGBTQ+ Connection American Canyon for a wonderful event at the park. Glad to finally meet Jade Diwa of American Canyon who is showing leadership in the community on LGBTQ issues.

Vallejo Pista Sa Nayon
Meeting Date: June 27, 2021
Attended Pista Sa Nayon in Vallejo, the largest free Filipino event on the West Coast. This year was a hybrid, online and in person. It is a celebration of Filipino heritage timed with the country's Independence Day, an annual national holiday in the Philippines observed on June 12, commemorating the declaration of Philippine independence from Spain in 1898.
https://www.vallejopistasanayon.com/

Meet Sheriff Oscar Ortiz Event
Meeting Date: June 27, 2021
Attended the first of what I'm sure will be many Meet and Greet events for Napa County Sheriff Oscar Ortiz's campaign in downtown Napa.

American Canyon Community and Parks Foundation - Storywalk Ceremony
Meeting Date: June 18, 2021
Such a great and creative addition to the community. It was great to reconnect with everyone now that we can safely gather.

4H Club Open House
Meeting Date: June 12, 2021
Toured the facilities and met members of the American Canyon 4H Club. What a great asset to the City.

City Council Committee Report

Meeting Date: **July 5, 2021** Submitted By: **Councilmember Pierre Washington**

Committee Name: **Climate Action Committee CAC**

Topics of Discussion: **Napa Safe Routes, State Water Resource**

On 6/25/2021 at 1:00pm I attended the Climate Action Committee/CAC with Vice Mayor Mark Joseph.

Topics:

- Napa County Safe Routes to Schools: Parents Perception Research
- Staff recommends that the Climate Action Committee, (CAC) review and provide direction regarding proposal draft By-Laws.
- State Water Resource Control Board Drought Emergenct Updates separate
- Status of Trends for fish water and emergent contaminates.
- Drought Emergency Updates

The following is a brief summary from the Climate Action Committee meeting on June 26, 2021.

- Received a presentation from Patrick Band and Carlotta Sainato, Napa County Bicycle Coalition. The presentation is attached.
- Reviewed the draft Bylaws to be adopted at the next Climate Action Committee meeting. Staff will add the following options
    - Option to create an ad hoc and/or standing committee
    - Process to agendize future agenda items
        - Require 50% vote of members present
        - Other
    - Add in options on weighted voting as follows
        - Equal vote for all CAC members
        - Weighted vote for all matters
            - Weighted vote by population
            - City and County of Napa members received two votes
        - Weighted vote for budgetary items and equal vote for programmatic items by subject matter (financial votes only)
- The CAC provided direction regarding the draft scope of work for a Countywide Greenhouse Gas (GHG) Inventory. Staff will release the RFP next week and will include
    - An optional task where the consultant works with the BAAQMD and County to quantify or estimate black carbon and short lived climate pollutants
    - An optional task for the consultant to evaluate the potential for carbon sequestration

Committee Name: **Climate Action NOW**

Topics of Discussion: **Reusable Food ware and Waste Reduction Ordinance.**

On 6/23/2021 I met with a Climate Action NOW group, led Bob Figoni and supported by Naama Brenner-Abramovitch and Margaret Smetana.

SUMMARY

The goal of the ordinance is to migrate from disposables to reusable. This draft ordinance:

* requires reusable food ware in dine-in restaurants
* switches to compostable disposable take-out food ware by request only
* eliminates plastic and polystyrene disposable food ware.

The draft ordinance contains five key features including:

1. **Reusable Food ware--**
    a. Dining In--Reusable food ware (plates, bowls, cups, trays, utensils, etc.) must be used if a customer is dining in at a restaurant.
    b. Take-out--Customers can provide their own food ware for take-out beverage and food service.

2. **Disposable Food ware--**
    a. All takeout disposable food ware (plates, bowls, cups, trays, utensils, etc.) must be made of natural-fiber compostable material.
    b. Must be BPI certified. The Biodegradable Product Institute (BPI) is a third-party testing laboratory that certifies products free of harmful chemicals.
    c. Accessory food ware items shall be provided only upon request by the customer or at self-serve stations.
    d. Aluminum and glass are allowed.

3. **Charges and Discounts--**
    a. Disposable Cup Charge--A $0.25 charge for each disposable cup
        i. Maximum $1.00 charge per order for all disposables.
    b. Other Disposable Food ware Charge--A $0.25 per order charge for requested accessory food ware items.
        i. Includes natural fiber compostable items such as napkins, cup sleeves, Stirrers, straws, utensils, as well as condiments.
        ii. Maximum $1.00 charge per order for all disposables.
    c. Income--Businesses retain any income generated from these charges.
    d. Exemptions available for Cal Fresh/SNAP and WIC customers.
    e. Reusable Discount--A $0.25 discount per order for bringing your own food ware.

4. **Plastic and Polystyrene--**
    a. Plastic and polystyrene food ware are not allowed for prepared foods, even for take-out.
    b. Applies to City facilities.

5. **Plastic Bottles--**
    a. Plastic beverage bottles are prohibited for events held on City property and in City vending machines.

Committee Name: **Community Events**

June 18, 2021 **AC Summer Kick Off Celebration/Story Walk Ribbon cutting**: ACCPF, Janelle Sellick sponsored event at Shenandoah Park

June 19, 2021 **Juneteenth Celebration Event in Vallejo**: Attending to gather information and make contacts for future Juneteenth event in AC

June 21, 2021 **Juneteenth Proclamation/Dedication** in front of City Hall. Reading of letter on behalf of Congressman Mike Thompson

June 22, 2021 **Veterans of Foreign Wars, (VFW**) monthly meeting, (virtual)

June 23, 2021 **AC Lions Club** meeting occurred at ReMax Planning for the July 7th Chamber of Commerce Community event.

June 28, 2021 **Public Meeting technology Interest**: Along with Mayor Garcia we met with the newly formed committee to address City Technology Solutions.

July 7, 2021 **Chamber of Commerce**: Meet In the Streets Lions Club Tent. Excellent turnout AWESOME job Valerie!!!

July 8, 2021 **Watson Ranch Gound Breaking Ceremony**:

Committee Name: **Community 1:1's**

Ken Leary: Spoke about community involvement and traffic/speeding on major thoroughfares. We discuss future celebration ceremonies for Juneteenth.

Janelle Selleck, ACCPF Director. To discuss the Summer Kickoff Celebration & Story Walk Ribbon cutting at Shenandoah Park. Also discussed An Evening at the Ruins fundraising event for 2021.

Chris James & Tammy Wong, AC Residents Discussed the Westside Connector and the WSC Committees role and future roles.

Barry Christian: Met to discuss the Newell preserves and the "non-productive grapes." Fire protection boarding Newell and the new Canyon Estates custom home project east of Newell Rd.

Jeanette Tongson: To discuss unauthorized and unsafe parking on Silver Oaks Trail near new Apartments (The Village @ Vintage Ranch)

Lisa Chu; NVUSD Trustee; Follow-up on Donaldson Way upgrade approvals and discussed NVUSD properties and future 2X2 meetings.

Rabinder "Rob" Mangewala: Meet & Greet to discuss NVUSD and City of American Canyon's relations and future collaborative goals.

Buzz Butler: Spoke with him about supporting Brenda Knight on the 2022 Juneteenth celebration and event.

Brenda Knight: Met with Brenda to go over coordinating the Juneteenth event at Main Street Park. Brenda has already establish key note speakers, musicians, and security and food vendors.

Jim Wilson, Napa Climate Now to discuss the mission of S4CA and supporting the youth's efforts for climate Change.

Brad Wagenknecht, Napa County Supervisor; Meet & Greet spoke about Climate Action Committee, public office relationships, and roles and responsibilities of an elected official.

Steve Hazelton, AC Resident: Meet about City Ordinances and the unauthorized use of Fire Works within the city

Dick Ohlant , (Senior and Junior) , Dicks Campers: Meet & Greet with local business owner had coffee and chatted about the city's development plans, (Watson Ranch, Canyon Estates, WSC, Oat hill and NVUSD).